Appendix K

# Traffic Study

*Traffic Study*

for the

# Raising Cane's Project

## In the City of Victorville

April 2024

Kimley»Horn

# TRAFFIC STUDY
# FOR THE PROPOSED
# RAISING CANE'S PROJECT
# IN THE CITY OF VICTORVILLE

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TRAFFIC STUDY
FOR THE PROPOSED
RAISING CANE'S PROJECT
IN THE CITY OF VICTORVILLE

## EXECUTIVE SUMMARY

This traffic study has been prepared to evaluate the project-related traffic effects associated with the proposed Raising Cane's fast-food restaurant ('Project') project in the City of Victorville ('City'). This traffic study has been conducted in accordance with the City of Victorville *General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs* (January 2005) and the SANBAG *Congestion Management Plan* (CMP; June 2016).

The project has been evaluated during the weekday PM peak hour for the following conditions:

- Existing Conditions
- Opening Year 2025 Conditions
- Opening Year 2025 Conditions Plus Project
- Future Year 2035 Conditions
- Future Year 2035 Conditions Plus Project

Under Existing Conditions, the following study intersection currently operates at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

For Opening Year 2025 Conditions, a 2% annual ambient growth rate was applied to existing traffic volumes up to Opening Year 2025 to develop Opening Year 2025 Conditions.

Under Opening Year 2025 conditions, the following study intersection would operate at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

The project is estimated to generate approximately 982 net new vehicle trips on a daily basis, with 43 net new trips (22 inbound and 21 outbound) during the PM peak hour.

Project-related traffic volumes were added to Opening Year 2025 forecasts to establish the conditions for the Opening Year 2025 Plus Project scenario. With the addition of project traffic, all study intersections would operate at an acceptable LOS.

For Future Year 2035 Conditions, a 2% annual ambient growth rate was applied to existing traffic volumes up to Future Year 2035. In addition to ambient growth, Cumulative Project traffic volumes were added to develop Future Year 2035 Conditions.

Under Future Year 2035 conditions the following study intersection would operate at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

Project-related traffic volumes were added to Future Year 2035 forecasts to establish the conditions for the Future Year 2035 Plus Project scenario. With the addition of project traffic, all study intersections would operate at an acceptable LOS.

Vehicular access provisions to the project site would be provided via one existing right-in-right-out (RIRO) driveway on Roy Rogers Drive (East Driveway), one ¾ access (left-turn out restricted) driveway on Roy Rogers Drive (West Driveway), and one existing full-movement driveway on Civic Drive. All project driveways would be unsignalized.

It should be noted that the proposed ¾ access (left-turn out restricted) driveway on Roy Rogers Drive (West Project Driveway) would align with an existing full-movement access driveway to Desert Sky Plaza Shopping Center just south of Roy Rogers Drive. City staff has requested that the access at this intersection be limited to left out restricted for both driveways. For analysis purposes, the modified access at this driveway intersection is only applied under "Plus Project" conditions.

The opening to the drive-through lane would be located at the west side of the project site and wrap around the west, south and east sides of the building in a counterclockwise direction before exiting on the northeast corner of the project site. The drive-through would provide one entry lane that splits into two lanes prior to the dual order boards, which would allow Raising Cane's to take orders from two customers at the same time. After the order boards, the two lanes would merge back into a single drive-through lane prior to the pay and pick-up window.

There will be approximately 300 feet of total queuing lane capacity (approximately 150 feet per lane) from the opening of the drive-through to the two order boards and approximately 120 feet from the order boards to the pay and pick-up window. This would provide a total drive-through queue length of approximately 420 feet, for a drive-through queuing capacity of 21 vehicles, assuming 20 feet per vehicle, from the beginning of the drive-through to the pick-up window.

During peak operations, the two drive-through lanes would not merge after the order boards, providing an additional pay and pick-up lane. The second pay and pick-up lane would provide an additional 120 feet of queue lane capacity, or 6 vehicles. This would provide a total drive-through queue length of approximately 540 feet for a drive-through queuing capacity of 27 vehicles, assuming 20 feet per vehicle.

Based on the drive-through queuing data, the peak observed queue was 25 vehicles. The proposed site would have a drive-through queuing capacity of 27 vehicles; therefore, the proposed capacity would be able to accommodate the expected peak demand.

TRAFFIC STUDY
FOR THE PROPOSED
RAISING CANE'S PROJECT
IN THE CITY OF VICTORVILLE

## INTRODUCTION

This traffic study has been prepared to evaluate the project-related traffic effects associated with the proposed Raising Cane's fast-food restaurant located approximately 350 feet west of the intersection of Roy Rogers Drive and Civic Drive in the City of Victorville.

This traffic study has been conducted in accordance with the City of Victorville *General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs* (January 2005) and the SANBAG *Congestion Management Plan* (CMP; June 2016). This study includes an evaluation of project-related effects on the surrounding roadway system, a drive-through queuing analysis, and a Vehicle Miles Traveled (VMT) screening.

## PROJECT DESCRIPTION

The project site is located approximately 350 feet west of the intersection of Roy Rogers Drive and Civic Drive in the City of Victorville and is shown in its regional setting on Figure 1. The site is currently vacant land. The applicant proposes to develop an approximately 2,899 square-foot (SF) Raising Cane's restaurant building with drive-through. A copy of the project site plan is provided on Figure 2.

Vehicular access provisions to the project site would be provided via one existing right-in-right-out (RIRO) driveway on Roy Rogers Drive (East Project Driveway), one ¾ access (left-turn out restricted) driveway on Roy Rogers Drive (West Project Driveway), and one existing full-movement driveway on Civic Drive. All project driveways would be unsignalized.

It should be noted that the proposed ¾ access (left-turn out restricted) driveway on Roy Rogers Drive (West Project Driveway) would align with an existing full-movement access driveway to Desert Sky Plaza Shopping Center just south of Roy Rogers Drive. City staff has requested that the access at this intersection be limited to left out restricted for both driveways. A conceptual striping plan of this modified access is provided in *Appendix F*. For analysis purposes, the modified access at this driveway intersection is only applied under "Plus Project" conditions.

The proposed project would provide a drive-through with two order boards. The drive-through would provide two side-by-side entry lanes prior to the dual order boards, and then merge into a single drive-through lane prior to the pay and pick-up window. During peak operations, the two drive-through lanes would not merge after the order boards, providing an additional pay and pick-up lane.

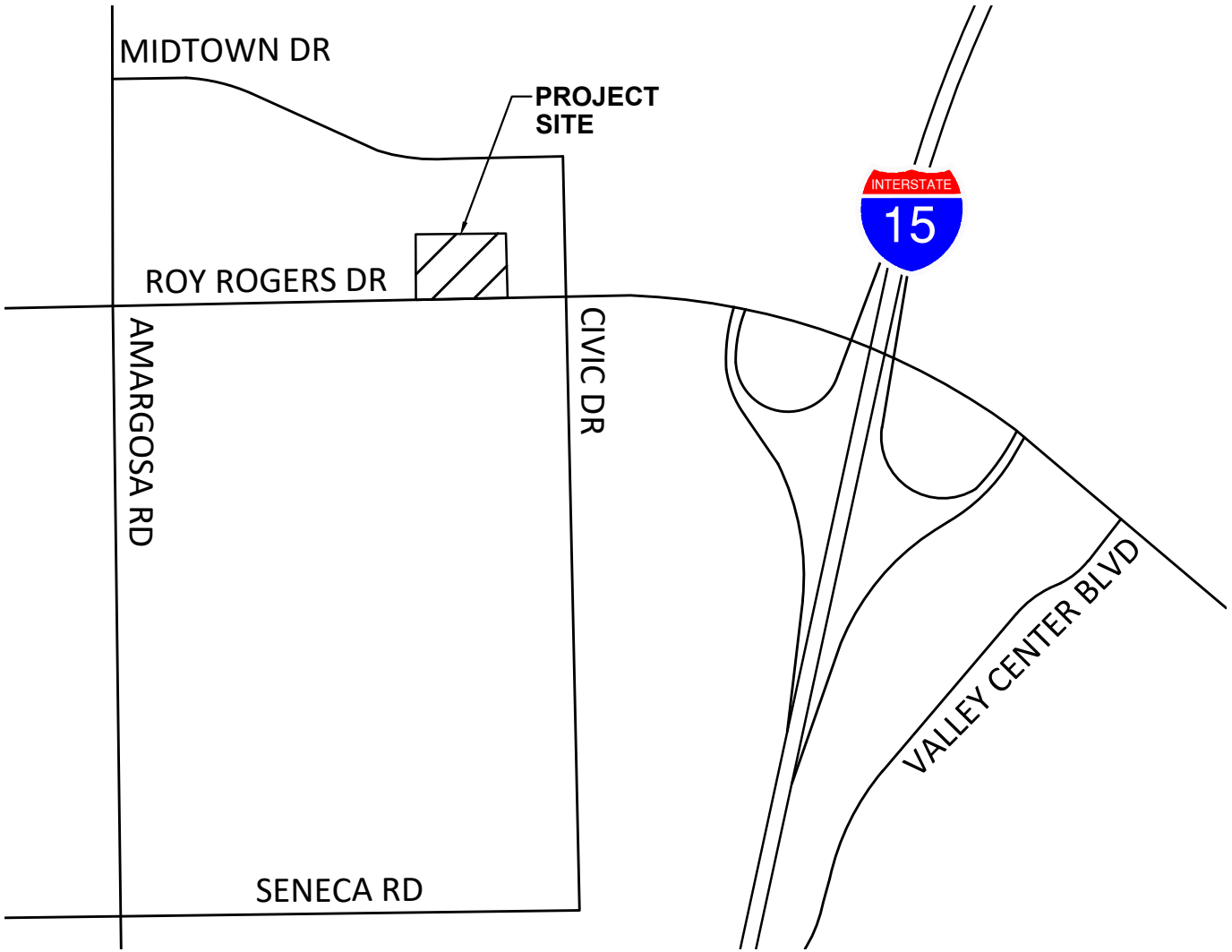



**FIGURE 1**
**VICINITY MAP**

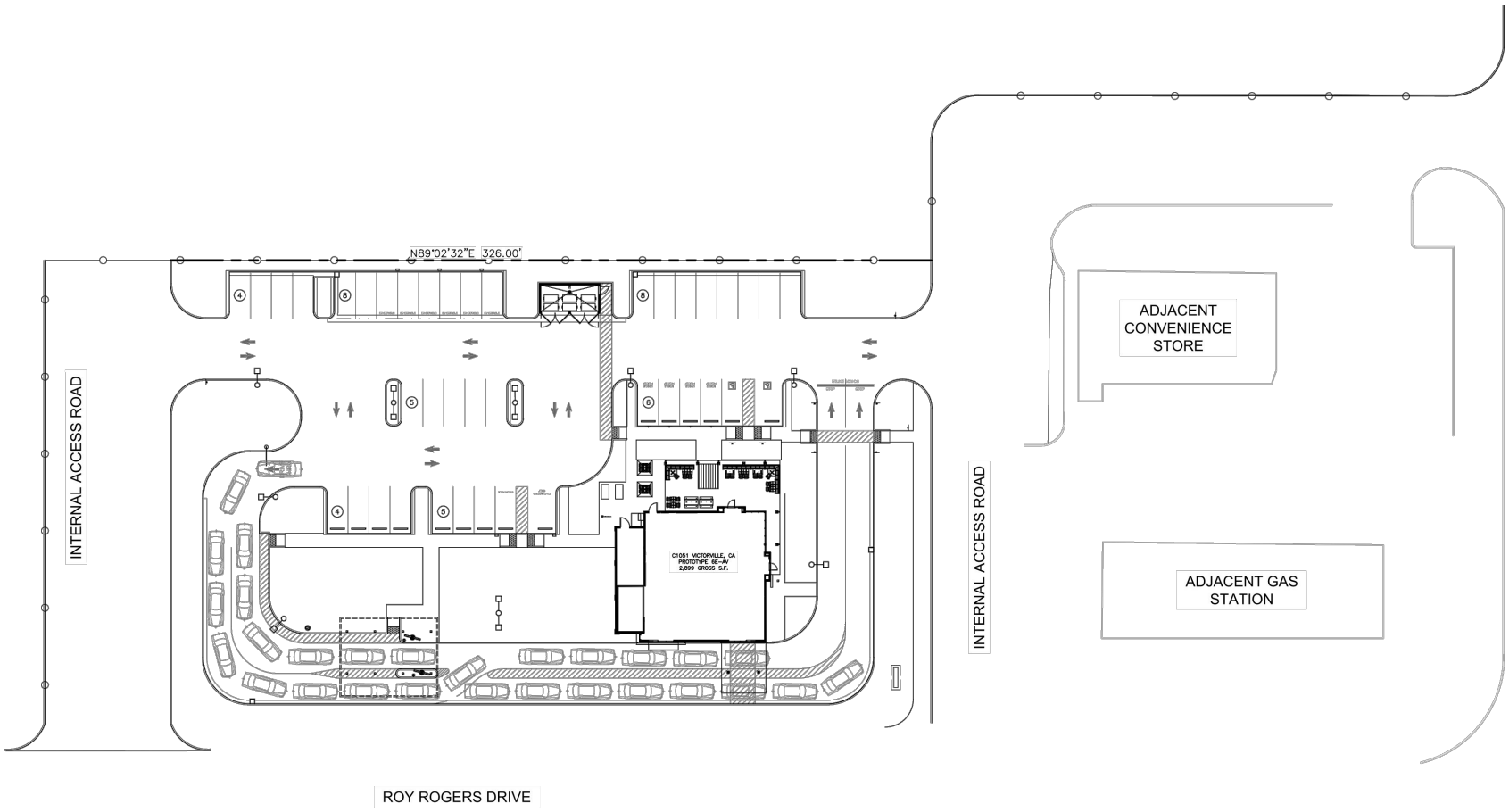



**FIGURE 2**
**PROJECT SITE PLAN**

## LEVEL OF SERVICE (LOS) ANALYSIS

This Level of Service (LOS) analysis has been prepared in coordination with the City of Victorville *General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs* (January 2005) and the SANBAG CMP (June 2016).

### Analysis Scenarios

The project will be evaluated for the following conditions:

- Existing Conditions
- Opening Year 2025 Conditions
- Opening Year 2025 Conditions Plus Project
- Future Year 2035 Conditions
- Future Year 2035 Conditions Plus Project

### Study Locations

The LOS analysis will be conducted at the following study intersections:

1. Civic Drive at Roy Rogers Drive

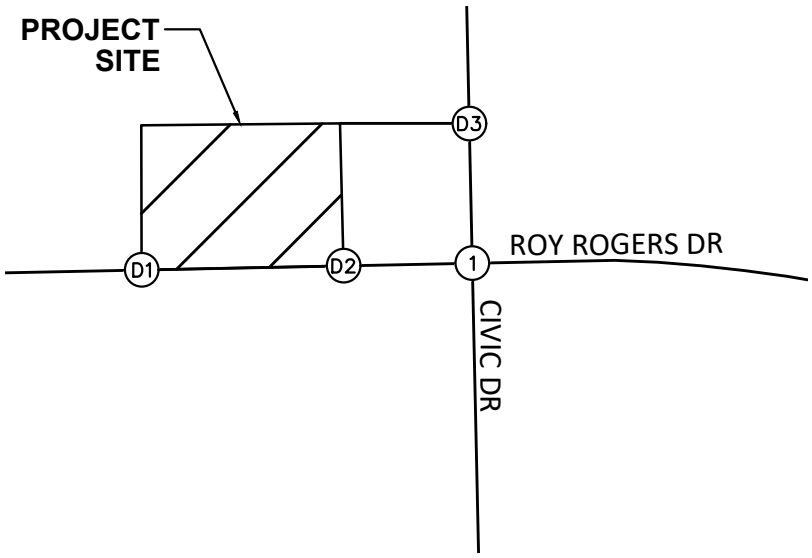
D1. Roy Rogers Drive at West Driveway
D2. Roy Rogers Drive at East Driveway
D3. Civic Drive at Project Driveway

The study locations were established in consultation with City staff through the scoping agreement process. A copy of the approved scoping agreement is provided in *Appendix A*. Existing Lane configurations and traffic control for the study intersections are shown on Figure 3. Lane configurations and traffic control used for Plus Project scenarios for the study intersections are shown on Figure 4.

### Analysis Methodology

Peak hour intersection operations at the study intersections were evaluated using the methods prescribed in the Highway Capacity Manual (HCM) 7th Edition, consistent with the requirements of the City of Victorville.

The intersection analysis for the proposed project has been accomplished using the VISTRO software program and using the specified input parameters outlined in the City's *General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs* (January 2005).

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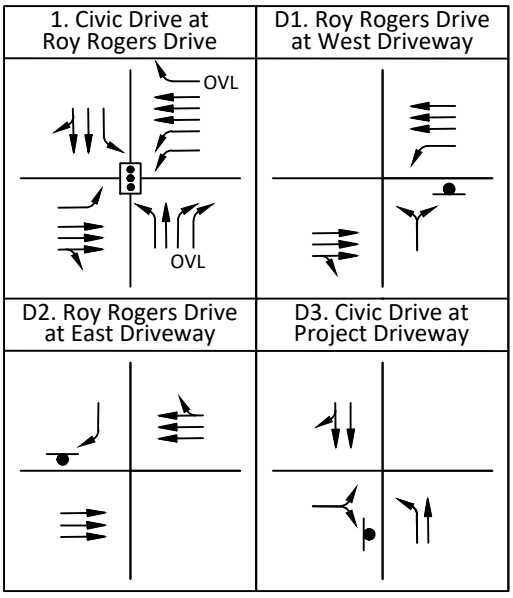


LEGEND:

- (X) = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- OVL = Right-Turn Overlap

**FIGURE 3**
**EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL**

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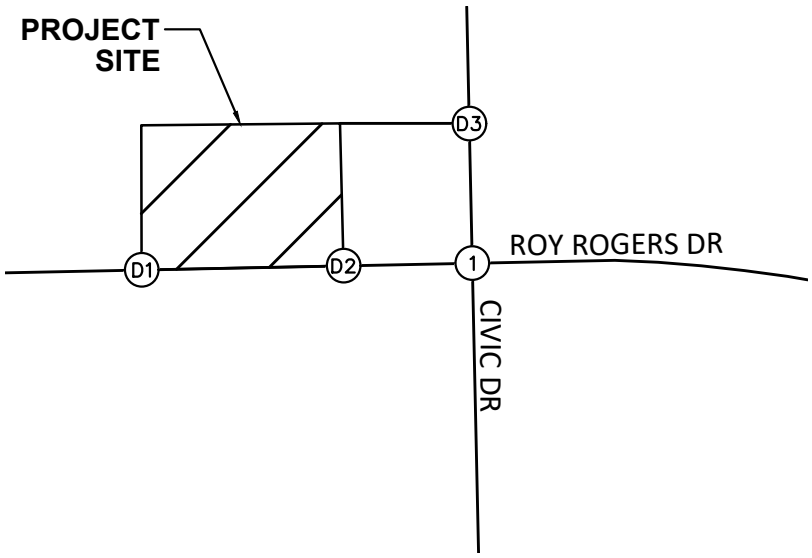
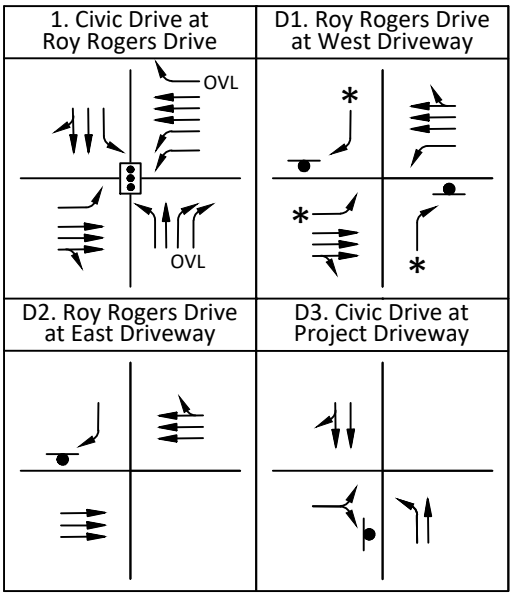



LEGEND:

- (X) = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- OVL = Right-Turn Overlap
- * = New for "Plus Project"

**FIGURE 4**
**PLUS PROJECT LANE CONFIGURATION AND TRAFFIC CONTROL**

For signalized intersections, the HCM methodology estimates the average delay (in average seconds per vehicle) for each of the movements through the intersection, considering a number of factors, including number of lanes, volume of traffic, cycle length, and signal timing and phasing.

For unsignalized intersections, the HCM methodology determines the average total delay, expressed in seconds of delay per vehicle for left turns from the major street and from the stop-controlled minor street traffic stream for a two-way stop controlled (TWSC) intersection. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable "gaps" in this stream through which conflicting traffic movements can be made. For TWSC intersections the LOS is based on the turning movement with the highest average delay.

The HCM delay forecast translates to an LOS designation, ranging from LOS A to LOS F. A summary description of each LOS and the corresponding delay is provided in the following charts:

| LEVEL OF SERVICE DEFINITIONS | |
|---|---|
| Level of Service | Description |
| A | No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation. |
| B | This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles. |
| C | This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so. |
| D | This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups. |
| E | Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand. |
| F | This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero. |

| LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS | | |
|---|---|---|
| Level of Service | Signalized Intersection (Average delay per vehicle, in seconds) [1] | Unsignalized Intersections (Average delay per vehicle, in seconds) [2] |
| A | ≤ 10 | 0 – 10 |
| B | > 10 – 20 | > 10 – 15 |
| C | > 20 – 35 | > 15 – 25 |
| D | > 35 – 55 | > 25 – 35 |
| E | > 55 – 80 | > 35 – 50 |
| F | > 80 | > 50 |

[1] Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 19-8.
[2] Source: Highway Capacity Manual (HCM 7th Edition), Exhibit 20-2.

### Performance Criteria

The City of Victorville Level of Service standard for peak hour intersection operation is Level of Service D (LOS D) and volume-to-capacity (V/C) ratio of 0.95 or less for each movement. Intersection improvements would be required if the addition of project traffic causes an intersection to fall below these thresholds.

## AREA CONDITIONS

### Existing Street System

Regional access to the site is provided by the Interstate 15 (I-15) freeway located approximately ¼ mile east of the project site. The following provides a description of the local roadways providing access to the project area.

*Roy Rogers Drive* is an east-west divided roadway that provides two to three lanes in each direction within the project vicinity. The posted speed limit is 45 miles per hour (mph) and on-street parking is prohibited on both sides of the roadway. Roy Rogers Drive is designated as an Arterial west of Amargosa Road, a Super Arterial from Amargosa Road to La Paz Drive, and an Arterial east of La Paz Drive in the City of Victorville Circulation Element.

*Civic Drive* is a north-south roadway that provides one to two lanes in each direction. The posted speed limit is 45 mph and on-street parking is prohibited on both sides of the roadway. Civic Drive is designated as an Arterial in the City of Victorville Circulation Element.

### Transit Service

Transit service to the project area is provided by the Victor Valley Transit Authority (VVTA), which serves Victorville and the surrounding area. The bus stop closest to the project site is located on the northeast corner of Roy Rogers Drive and the Desert Sky Plaza driveway, across the street from the project site. A description of the bus routes serving the project area is provided below.

Victor Valley Transit Route 31 (VVTC – Adelanto) operates between the Victorville Amtrak Station and US Route 395 along Roy Rogers Drive in the project vicinity. Transit service operates Monday through Friday from approximately 6:55 AM to 7:50 PM with approximately 1-hour headways from 6:55 to 7:55 AM and 4:50 to 7:50 PM and approximately 30-minute headways from 7:55 AM to 4:50 PM. Transit service operates on Saturday from approximately 6:40 AM to 7:15 PM with approximately 75-minute headways and on Sunday from approximately 7:50 AM to 5:50 PM with approximately 75-minute headways.

Victor Valley Transit Route 52 (VVTC – Mall of Victor Valley) operates between the Victorville Amtrak Station and the Mall of Victor Valley along Amargosa Road in the project vicinity. Transit service operates Monday through Friday from approximately 6:30 AM to 8:50 PM with approximately 1-hour headways from 6:30 to 7:30 AM and 6:30 to 8:50 PM and approximately 30-minute headways from 7:30 AM to 6:30 PM. Transit service operates on Saturday from approximately 7:15 AM to 7:45 PM with approximately 75-minute headways and on Sunday from approximately 8:30 AM to 5:15 PM with approximately 75-minute headways.

Victor Valley Transit Route 56 (VVTC – Lorene and 7th) operates between the Victorville Amtrak Station and Victor Valley Christian High School along Roy Rogers Drive and Civic Drive in the project vicinity. Transit service operates Monday through Friday from approximately 6:15 AM to 8:40 PM with approximately 1-hour headways. Transit service operates on Saturday from approximately 7:00 AM to 6:20 PM with approximately 75-minute headways and on Sunday from approximately 7:50 AM to 6:00 PM with approximately 80-minute headways.

## EXISTING OPERATING CONDITIONS

### Existing Traffic Volumes

The intersection analysis was conducted for the evening peak hour, since the proposed project is not open during the AM peak hour. Existing PM peak hour turning movement counts for the study intersections were collected on a typical weekday in December 2023, while school was in session. The resulting existing baseline traffic volumes are presented on Figure 5. Intersection traffic count worksheets are provided in *Appendix B*.

### Peak Hour Intersection Operations

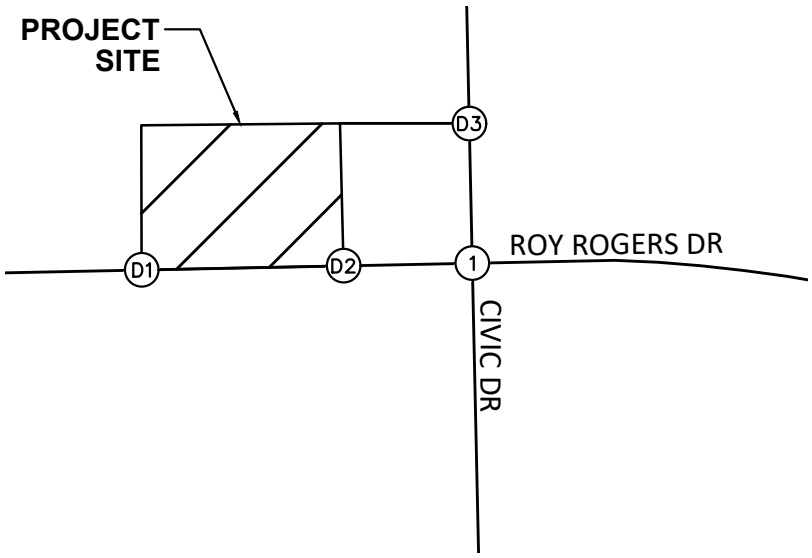
Intersection LOS analysis was conducted during the PM peak hour using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Existing Conditions are shown on Table 1. Intersection analysis worksheets are provided in *Appendix C*.

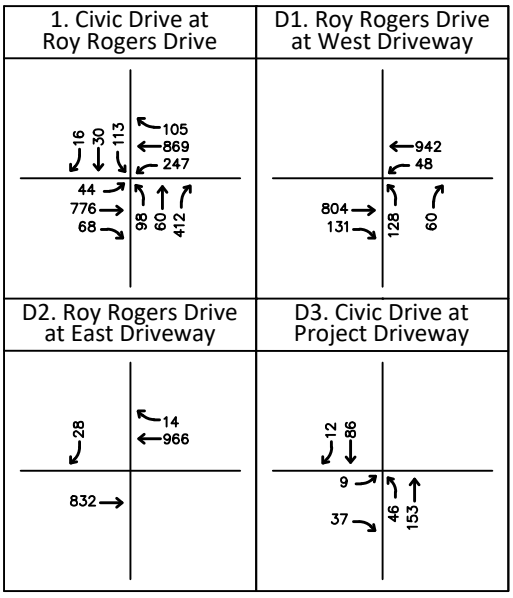
Review of this table indicates that the following study intersection currently operates at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

The Level of Service for an unsignalized intersection is reported based on the single approach movement with the highest delay, which in this case, would be the northbound left-turn movement for intersections D1. The traffic on this approach would experience delay during the evening peak hour while waiting for an acceptable gap in traffic on Roy Rogers Drive. While the side street approach operates at a deficient Level of Service based on the highest delay movement, the overall intersection delay would be acceptable. Any queuing that occurs on the side street is contained on the minor approach and would not impact the progression of traffic on the main arterial.

NOT TO SCALE




LEGEND:

(X) = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 5**
**EXISTING TRAFFIC VOLUMES**

TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

| Int. # | Intersection | Traffic Control | PM Peak Hour | | |
|---|---|---|---|---|---|
| | | | Delay | V/C | LOS |
| 1 | Civic Drive at Roy Rogers Drive | S | 21.1 | 0.490 | C |
| D1 | Roy Rogers Drive at West Driveway | U | 78.3 | 0.725 | F |
| D2 | Roy Rogers Drive at East Driveway | U | 13.9 | 0.067 | B |
| D3 | Civic Drive at Project Driveway | U | 10.7 | 0.015 | B |

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

## OPENING YEAR 2025 CONDITIONS

The project opening year is anticipated to be 2025. Lane configuration and traffic control were assumed to be the same as existing. Opening Year 2025 traffic forecasts have been developed by adding an ambient growth rate of two percent (2%) per year to existing traffic volumes. The resulting volumes are shown on Figure 6.

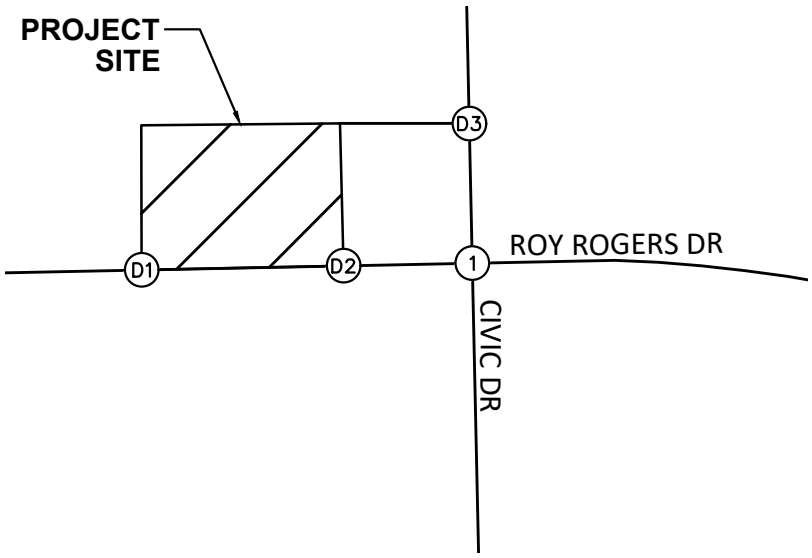
### Peak Hour Intersection Operations

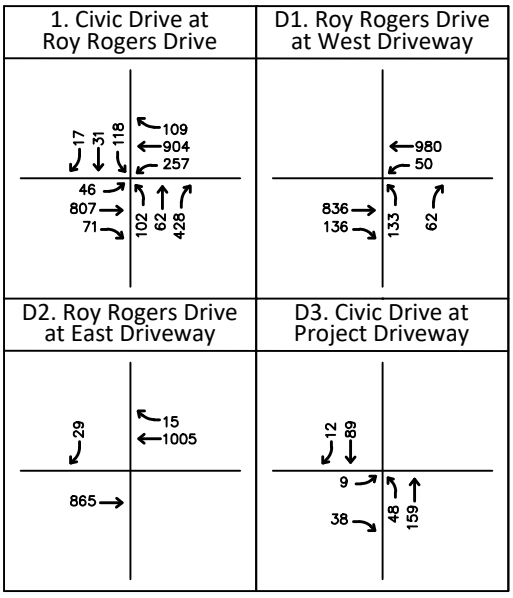
Intersection Level of Service analysis was conducted for the PM peak hour for Opening Year 2025 conditions. The scenario results of the intersection analysis are shown on Table 2. Copies of Opening Year 2025 intersection analysis worksheets are provided in *Appendix C*.

Review of this table indicates that the following study intersection would operate at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

NOT TO SCALE




LEGEND:

(X) = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 6**
**OPENING YEAR 2025**
**TRAFFIC VOLUMES**

TABLE 2
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2025

| Int. # | Intersection | Traffic Control | PM Peak Hour | | |
|---|---|---|---|---|---|
| | | | Delay | V/C | LOS |
| 1 | Civic Drive at Roy Rogers Drive | S | 21.4 | 0.509 | C |
| D1 | Roy Rogers Drive at West Driveway | U | 103.0 | 0.812 | F |
| D2 | Roy Rogers Drive at East Driveway | U | 14.2 | 0.071 | B |
| D3 | Civic Drive at Project Driveway | U | 10.9 | 0.016 | B |

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

## PROJECT TRAFFIC

### Project Trip Generation

Trip generation estimates for the existing and proposed land uses are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) average rates for Fast-food Restaurant with Drive-through (ITE Land Use 934). Pass-by reduction factors were also applied based on the ITE Trip Generation Manual (11th Edition).

The trip generation rates, and the resulting trip generation estimates for the proposed project are summarized on Table 3. The proposed project is estimated to generate 1,355 daily trips with 96 trips (50 inbound and 46 outbound) in the evening peak hour. After applying pass-by reduction factors, the proposed project would generate 982 net new trips on a daily basis with 43 trips (22 inbound and 21 outbound) in the evening peak hour.

### Trip Distribution and Assignment

Trip distribution assumptions for the project were based on proximity to regional and local roadways and existing travel patterns. Trip distribution percentages at each study intersection were applied to the project trip generation to determine the project trips through each study intersection. The project trip distribution and resulting project-related peak hour trips to be added to the study intersections are shown on Figure 7.

For "Plus Project" scenarios, the existing northbound left-turn volumes at the intersection of Roy Rogers Drive at West Driveway (D1) were re-routed to make a northbound right-turn at the noted intersection and an eastbound left-turn at the intersection of Civic Drive at Roy Rogers Drive (#1) to account for the proposed left-out restrictions.

## OPENING YEAR 2025 PLUS PROJECT CONDITIONS

Project-related traffic was added to the Opening Year 2025 traffic volumes. Opening Year 2025 Plus Project traffic volumes at the study intersections are shown on Figure 8.

### Peak Hour Intersection Operations

Intersection LOS analysis was conducted for the PM peak hour for Opening Year 2025 Plus Project conditions. The results of the intersection analysis are shown on Table 4.

Review of this table indicates that all study intersections would operate at an acceptable LOS with the addition of project traffic.

It should be noted that the intersection of Roy Rogers Drive at West Driveway now operates at an acceptable Level of Service with the proposed left-out restriction for "Plus Project" scenarios as noted earlier in the report. The left-out restriction would improve overall traffic safety by limiting the number of broadside collisions at the intersection.

TABLE 3
SUMMARY OF PROJECT TRIP GENERATION
VICTORVILLE RAISING CANE'S

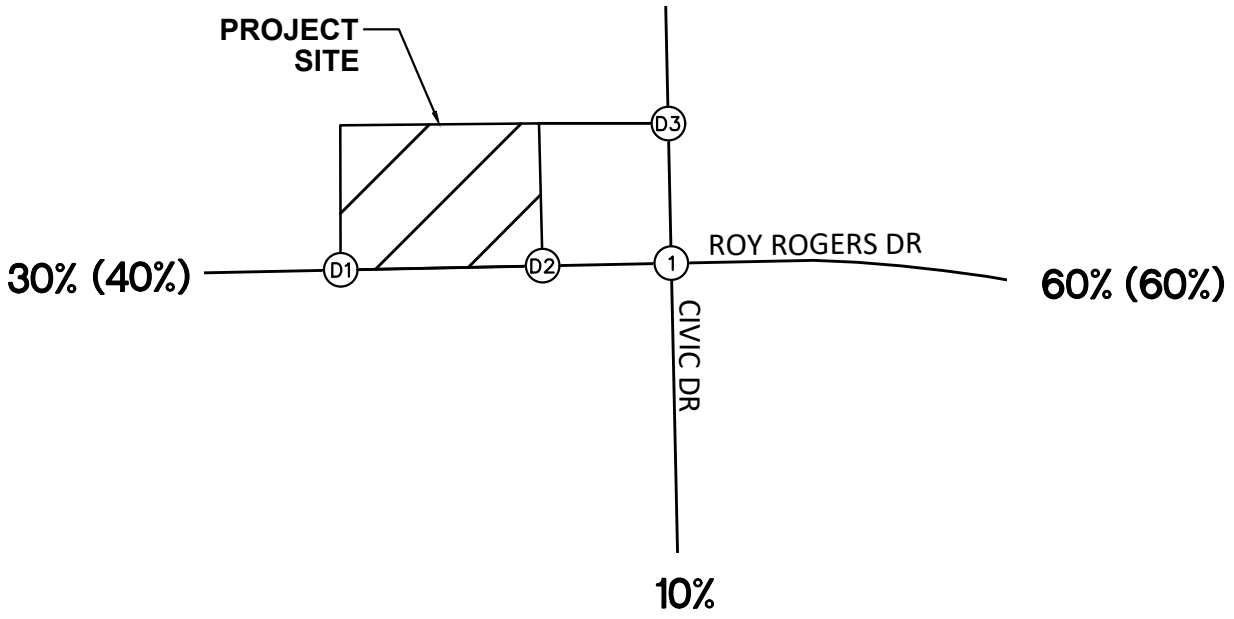
| Land Use | ITE Code | Unit | Trip Generation Rates [1] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak Hour | | | PM Peak Hour | | |
| | | | | In | Out | Total | In | Out | Total |
| Fast-Food Restaurant w/ Drive-thru | 934 | KSF | 467.480 | 22.751 | 21.859 | 44.610 | 17.176 | 15.854 | 33.030 |

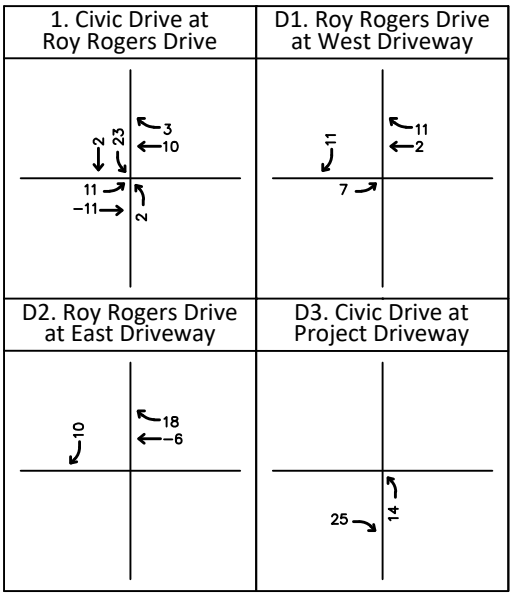
| Land Use | Quantity | Unit | Trip Generation Estimates | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak Hour [3] | | | PM Peak Hour | | |
| | | | | In | Out | Total | In | Out | Total |
| Fast-Food Restaurant w/ Drive-thru | 2.899 | KSF | 1,355 | - | - | - | 50 | 46 | 96 |
| *Pass-by Trips (27.5% Daily, 0% AM, 55% PM)* [2] | | | *-373* | - | - | - | *-28* | *-25* | *-53* |
| *Net Trips* | | | *982* | - | - | - | *22* | *21* | *43* |
| Total Project Trips | | | 982 | - | - | - | 22 | 21 | 43 |

[1] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

[2] Note: The Trip Generation Manual does not provide pass-by rates for daily trip generation. The daily pass-by percentage shown is the average between the AM and PM pass-by percentages.

[3] Raising Cane's is not open during the AM peak hour.




LEGEND:

- (X) = Study Intersection
- XX% = Trip Distribution Percentage
- (YY%) = Pass-By Distribution
- XX = PM Peak Hour Turning Movement Volumes

**FIGURE 7**
**TRIP DISTRIBUTION AND PROJECT-RELATED TRAFFIC VOLUMES**

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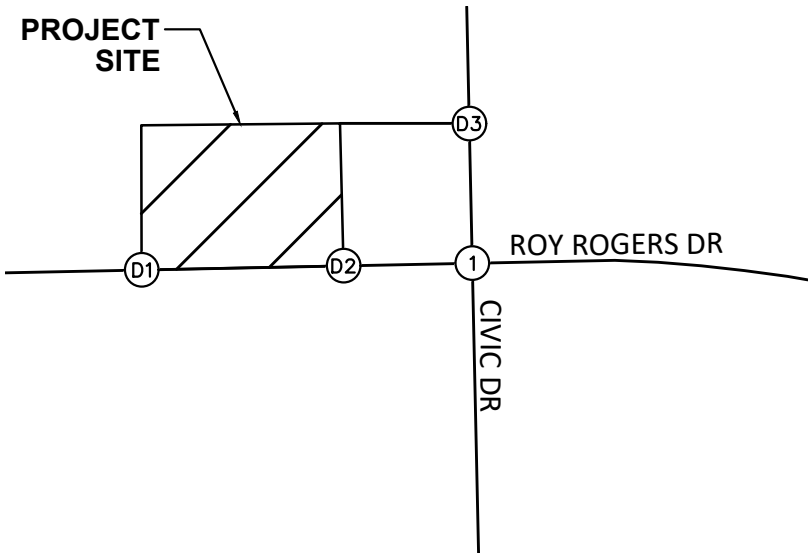
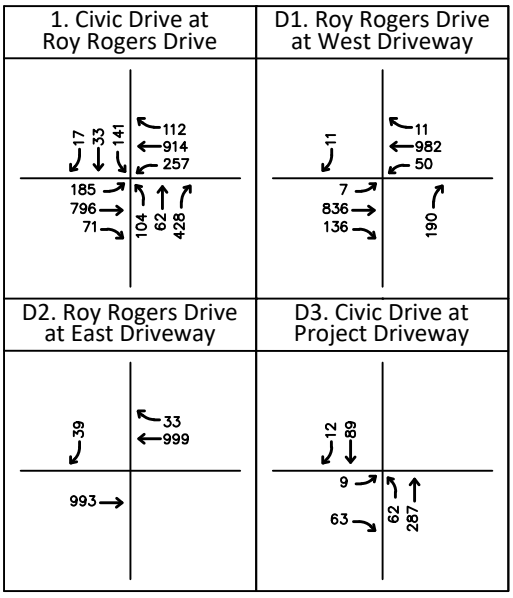



LEGEND:

(X) = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 8**
**OPENING YEAR 2025 PLUS PROJECT TRAFFIC VOLUMES**

TABLE 4
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2025 PLUS PROJECT

| Int. # | Intersection | Traffic Control | PM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Without Project | | | With Project | | | Change in Delay | Change in V/C | Project-Related Effect? |
| | | | Delay | V/C | LOS | Delay | V/C | LOS | | | |
| 1 | Civic Drive at Roy Rogers Drive | S | 21.4 | 0.509 | C | 26.9 | 0.576 | C | 5.5 | 0.067 | No |
| D1 | Roy Rogers Drive at West Driveway | U | 103.0 | 0.812 | F | 19.0 | 0.432 | C | -84.0 | -0.380 | No |
| D2 | Roy Rogers Drive at East Driveway | U | 14.2 | 0.071 | B | 14.6 | 0.098 | B | 0.4 | 0.027 | No |
| D3 | Civic Drive at Project Driveway | U | 10.9 | 0.016 | B | 12.0 | 0.018 | B | 1.1 | 0.002 | No |

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

## FUTURE YEAR 2035 CONDITIONS

Future Year 2035 traffic forecasts have been developed by adding an ambient growth rate of 2% per year to Opening Year 2025 traffic volumes.

### Cumulative Projects

In addition to ambient growth, Cumulative Project traffic volumes were added to Opening Year 2025 traffic volumes. Information regarding Cumulative Projects in the area was provided by the City of Victorville website. Cumulative Projects consist of development projects that have been approved but are not yet constructed/occupied, and projects that are in various stages of the application and approval process but have not yet been approved. A summary of Cumulative Projects in the project vicinity and the trip generation associated with each is provided on Table 5. The locations of the Cumulative Projects are shown on Figure 9.

Trip generation information for the Cumulative Projects was obtained from approved traffic studies, where available; or was developed by Kimley-Horn if approved traffic studies were not available. Likewise, trip distribution and assignment for the Cumulative Projects were either obtained from approved traffic studies, where available; or were developed by Kimley-Horn if approved traffic studies were not available. Project information and trip distribution assumptions for Cumulative Projects are provided in *Appendix D*. Traffic volumes associated with Cumulative Projects were compiled for each of the study intersections and are shown on Figure 10.

The ambient growth and the project-related traffic volumes from the Cumulative Projects were added to the Opening Year 2025 traffic volumes to develop Future Year 2035 traffic forecasts. The resulting traffic volumes are shown on Figure 11.

### Peak Hour Intersection Operations

Intersection LOS analysis was conducted for the PM peak hour for the Future Year 2035 condition. The scenario results of the intersection analysis are shown on Table 6.

Review of this table indicates that, with the addition of ambient growth and cumulative project traffic, the following study intersection would operate at an unacceptable Level of Service (LOS):

- D1 – Roy Rogers Drive at West Driveway: PM – LOS F

TABLE 5
SUMMARY OF CUMULATIVE PROJECTS TRIP GENERATION

| Project # | Location | Land Use | Quantity | Unit | Trip Generation Estimates | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Daily | AM Peak Hour | | | PM Peak Hour | | |
| | | | | | | In | Out | Total | In | Out | Total |
| 1 | 15425 Dos Palmas Rd | Automobile Parts and Service Center | 1.200 | KSF | 20 | 2 | 1 | 3 | 1 | 2 | 3 |
| 2 | 14281 7th St | Church | 6.050 | KSF | 46 | 1 | 1 | 2 | 1 | 2 | 3 |
| 3 | 13721 Park Ave | Automobile Parts and Service Center | 18.000 | KSF | 299 | 25 | 10 | 35 | 14 | 23 | 37 |
| 4 | 14195 Macart Rd | Multifamily Housing (Low-Rise) | 24 | DU | 162 | 2 | 7 | 9 | 8 | 5 | 13 |
| Total Project Trips | | | | | 527 | 30 | 19 | 49 | 24 | 32 | 56 |

KSF = Thousand Square Feet, DU = Dwelling Units

NOT TO SCALE

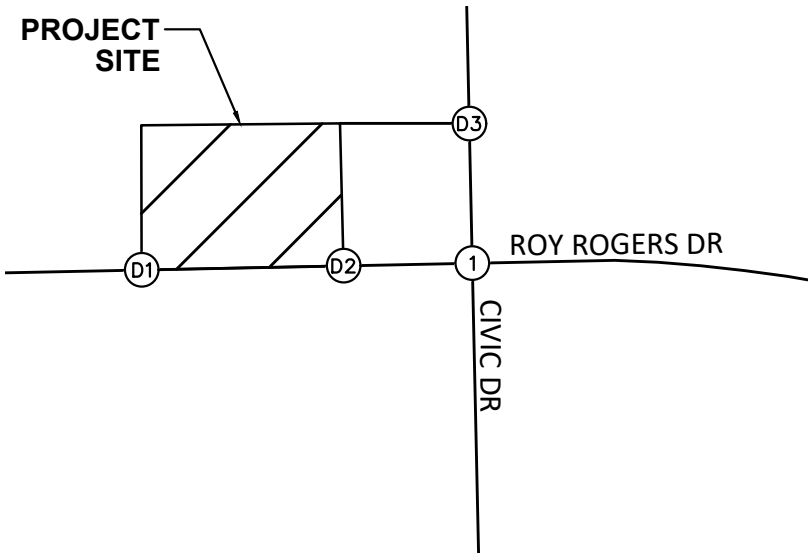

LEGEND:

(X) = Cumulative Project

**FIGURE 9**
**LOCATION OF CUMULATIVE PROJECTS**

Kimley»Horn

NOT TO SCALE




| 1. Civic Drive at Roy Rogers Drive | D1. Roy Rogers Drive at West Driveway |
|---|---|
| ←6<br>8→ | ←6<br>8→ |
| **D2. Roy Rogers Drive at East Driveway** | **D3. Civic Drive at Project Driveway** |
| ←6<br>8→ | |

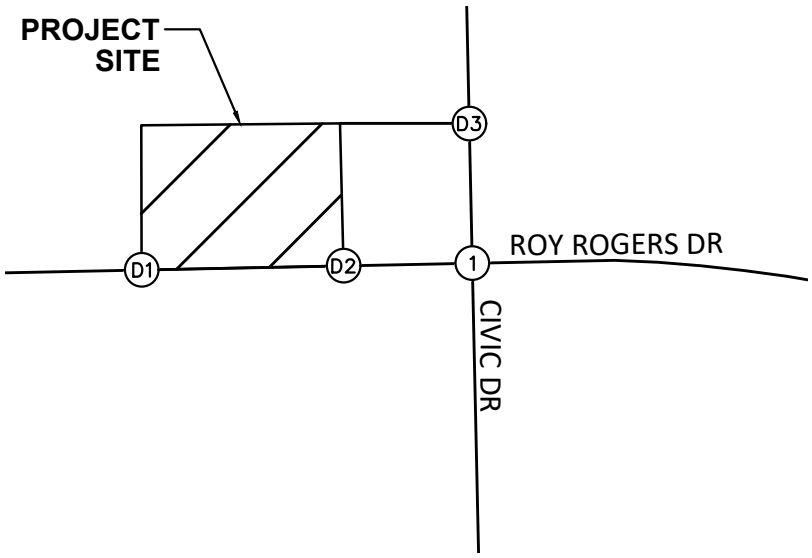
LEGEND:

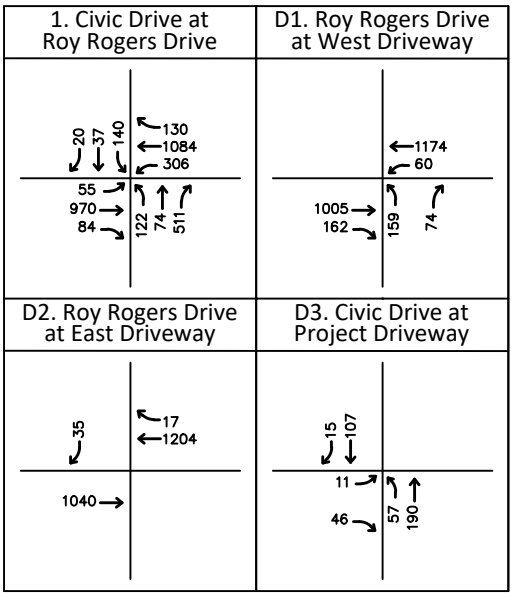
(X) = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 10**
**CUMULATIVE PROJECT TRAFFIC VOLUMES**

NOT TO SCALE




LEGEND:

(X) = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 11**
**FUTURE YEAR 2035**
**TRAFFIC VOLUMES**

TABLE 6
SUMMARY OF INTERSECTION OPERATION
FUTURE YEAR 2035

| Int. # | Intersection | Traffic Control | PM Peak Hour | | |
|---|---|---|---|---|---|
| | | | Delay | V/C | LOS |
| 1 | Civic Drive at Roy Rogers Drive | S | 23.6 | 0.595 | C |
| D1 | Roy Rogers Drive at West Driveway | U | >300.0 | 1.466 | F |
| D2 | Roy Rogers Drive at East Driveway | U | 16.2 | 0.103 | C |
| D3 | Civic Drive at Project Driveway | U | 11.5 | 0.021 | B |

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

## FUTURE YEAR 2035 PLUS PROJECT CONDITIONS

Project-related traffic was added to the Future Year 2035 traffic volumes. Future Year 2035 Plus Project traffic volumes at the study intersections are shown on Figure 12.

### Peak Hour Intersection Operations

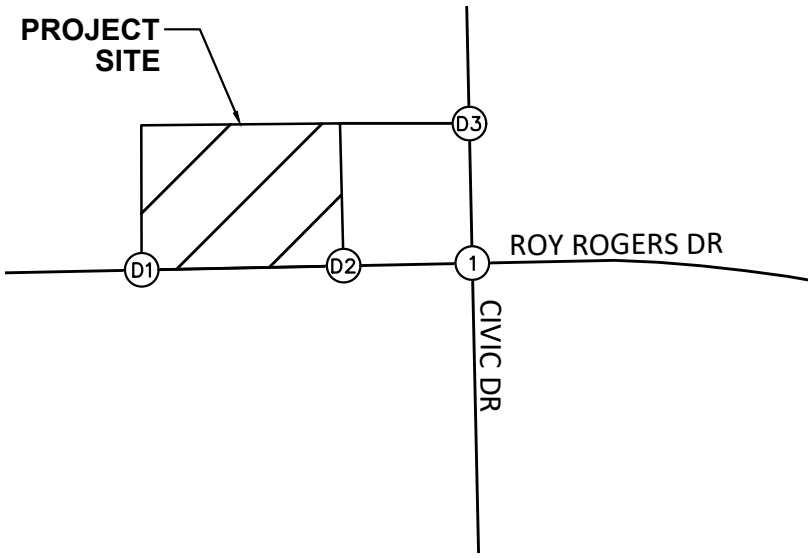
Intersection LOS analysis was conducted for during the PM peak hour for Future Year 2035 Plus Project conditions. The results of the intersection analysis are shown on Table 7.

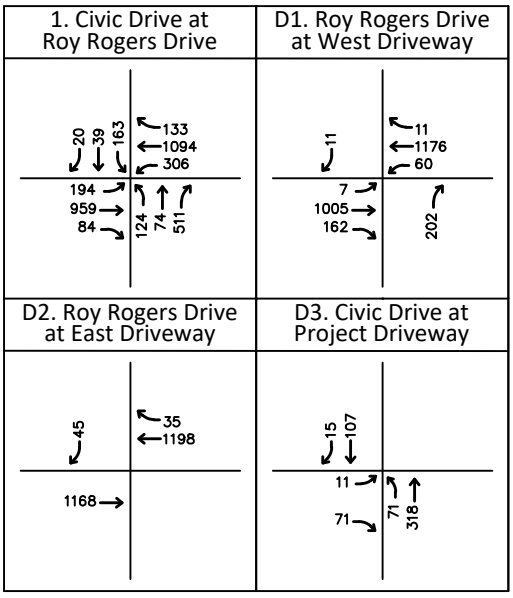
Review of this table indicates that all study intersections would operate at an acceptable LOS with the addition of project traffic.

## RECOMMENDED IMPROVEMENTS

Based on the LOS standards and requirements for improvements noted earlier in the report (see page 10), no additional improvements are required for the proposed project. As noted earlier in the report, the proposed ¾ access (left-turn out restricted) driveway on Roy Rogers Drive (West Project Driveway) would align with an existing full-movement access driveway to Desert Sky Plaza Shopping Center just south of Roy Rogers Drive. City staff has requested that the access at this intersection be limited to left out restricted for both driveways. A conceptual striping plan of this modified access is provided in *Appendix F*.

NOT TO SCALE




LEGEND:

X = Study Intersection

XX = PM Peak Hour Turning Movement Volumes

**FIGURE 12**
**FUTURE YEAR 2035 PLUS PROJECT TRAFFIC VOLUMES**

TABLE 7
SUMMARY OF INTERSECTION OPERATION
FUTURE YEAR 2035 PLUS PROJECT

| Int. # | Intersection | Traffic Control | PM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Without Project | | | With Project | | | Change in Delay | Change in V/C | Project-Related Effect? |
| | | | Delay | V/C | LOS | Delay | V/C | LOS | | | |
| 1 | Civic Drive at Roy Rogers Drive | S | 23.6 | 0.595 | C | 29.3 | 0.654 | C | 5.7 | 0.059 | No |
| D1 | Roy Rogers Drive at West Driveway | U | >300.0 | 1.466 | F | 24.4 | 0.532 | C | - >300.0 | -0.934 | No |
| D2 | Roy Rogers Drive at East Driveway | U | 16.2 | 0.103 | C | 16.6 | 0.132 | C | 0.4 | 0.029 | No |
| D3 | Civic Drive at Project Driveway | U | 11.5 | 0.021 | B | 12.7 | 0.024 | B | 1.2 | 0.003 | No |

Notes:
- Bold values indicate intersections operating at an unacceptable Level of Service.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.
- S = Signalized
- U = Unsignalized

## DRIVE-THROUGH QUEUING ANALYSIS

A drive-through queuing analysis has been conducted for the proposed project to evaluate the adequacy of the drive-through lane queuing capacity.

The opening to the drive-through lane would be located at the west side of the project site and wrap around the west, south, and east sides of the building in a counterclockwise direction before exiting on the northeast corner of the project site. The drive-through would provide one entry lane that splits into two lanes prior to the dual order boards, which would allow Raising Cane's to take orders from two customers at the same time. After the order boards, the two lanes would merge back into a single drive-through lane prior to the pay and pick-up window.

There will be approximately 300 feet of total queuing lane capacity (approximately 150 feet per lane) from the opening of the drive-through to the two order boards and approximately 120 feet from the order boards to the pay and pick-up window. This would provide a total drive-through queue length of 420 feet, for a drive-through queuing capacity of 21 vehicles, assuming 20 feet per vehicle, from the beginning of the drive-through to the pay and pick-up window.

During peak operations, the two drive-through lanes would not merge after the order boards, providing an additional pay and pick-up lane. The second pay and pick-up lane would provide an additional 120 feet of queue lane capacity, or 6 vehicles. This would provide a total drive-through queue length of approximately 540 feet for a drive-through queuing capacity of 27 vehicles, assuming 20 feet per vehicle.

### Drive-Through Queuing Data Collection

Drive-through (DT) queuing observations and counts were conducted at the following existing drive-through Raising Cane's sites:

- City of Orange: 2249 North Tustin Street (~3,823 SF; DT Lane Capacity: 13 vehicles)
- City of Huntington Beach: 10142 Adams Avenue (~3,234 SF; DT Lane Capacity: 24 vehicles)
- City of Foothill Ranch: 26782 Portola Parkway (~3,846 SF; DT Lane Capacity: 17 vehicles)

These sites were selected for queuing data collection because of the following site characteristics that are similar to the proposed project:

- A Raising Cane's restaurant with a drive-through lane
- Located in Southern California
- Located in close proximity to a freeway

The drive-through activity was observed during the following times for the Raising Cane's sites on a typical weekday and Saturday:

- 11:00 AM – 2:00 PM (lunchtime)
- 4:00 PM – 7:00 PM (commute peak hour/dinnertime)

A copy of the drive-through queuing data collection worksheets is provided in *Appendix E*. The results of the observations are summarized in Table 8 and Table 9 for a typical weekday and Saturday, respectively. The data summaries in Tables 8 and 9 present the number of vehicles in the drive-through lane, broken down into 15-minute periods, based on the observed average queue, 85th percentile queue, and the peak queue for each of the data collection periods.

### Drive-Through Queuing Observations

The queuing activity was observed to vary with an ebb and flow pattern throughout the data collection periods. The following vehicle movement and queuing observations of the drive-through operations at the study locations were made:

#### Orange Site

- The peak 15 minutes during the weekday lunch-time peak was from 12:45 PM to 1:00 PM, with an average queue of 10 vehicles and a peak queue of 12 vehicles.

- The peak 15 minutes during the weekday dinner-time peak was from 6:45 PM to 7:00 PM, with an average queue of 15 vehicles and a peak queue of 16 vehicles.

- The peak 15 minutes during the Saturday lunch-time peak was from 1:45 PM to 2:00 PM, with an average queue of 16 vehicles and a peak queue of 19 vehicles.

- The peak 15 minutes during the Saturday dinner-time peak was from 6:00 PM to 6:15 PM, with an average queue of 23 vehicles and a peak queue of 25 vehicles.

#### Huntington Beach Site

- The peak 15 minutes during the weekday lunch-time peak was from 12:15 PM to 12:45 PM, with an average queue of 9 vehicles and a peak queue of 14 vehicles.

- The peak 15 minutes during the weekday dinner-time peak was from 5:30 PM to 5:45 PM, with an average queue of 14 vehicles and a peak queue of 18 vehicles.

- The peak 15 minutes during the Saturday lunch-time peak was from 12:45 PM to 1:00 PM, with an average queue of 14 vehicles and a peak queue of 18 vehicles.

- The peak 15 minutes during the Saturday dinner-time peak was from 6:45 PM to 7:00 PM, with an average queue of 15 vehicles and a peak queue of 19 vehicles.

### Foothill Ranch Site

- The peak 15 minutes during the weekday lunch-time peak was from 1:30 PM to 1:45 PM, with an average queue of 8 vehicles and a peak queue of 11 vehicles.

- The peak 15 minutes during the weekday dinner-time peak was from 6:30 PM to 6:45 PM, with an average queue of 16 vehicles and a peak queue of 21 vehicles.

- The peak 15 minutes during the Saturday lunch-time peak was from 1:15 PM to 1:30 PM, with an average queue of 20 vehicles and a peak queue of 23 vehicles.

- The peak 15 minutes during the Saturday dinner-time peak was from 5:15 PM to 5:30 PM, with an average queue of 20 vehicles and a peak queue of 23 vehicles.

### General Observations

- At the Raising Cane's sites, spillovers outside the drive-through lane opening were observed to occur occasionally and to last briefly.

- On occasion, the spillover outside the drive-through lane was due to a delay at the order board, rather than a lack of capacity in the drive-through lane itself. A more-than-average delay at the order board (i.e., due to a large order, or indecisiveness on the part of the customer) would briefly hold up the movement of the queue, sometimes causing the remainder of the queue to extend beyond the drive-through lane opening. When the vehicle at the order board finished the ordering process and pulled forward, the remaining cars in the queue would once again move through the order and pick-up process at the normal pace, and the gap between the order board and the pick-up window would fill in.

- Some customers were observed to pull into the site; evaluate the wait time, based on the vehicle queue; and choose to park and go into the building, rather than join the existing queue.

- Based on the drive-through queuing data, the peak observed queue was 25 vehicles. The proposed site would have a drive-through queuing capacity of 27 vehicles; therefore, the proposed capacity would be able to accommodate the expected peak demand.

TABLE 8
SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - TYPICAL WEEKDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

| Time Period | Number of Drive-through Vehicles in the Queue | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Average Queue | | | 85th %-ile [1] Queue | | | Peak Queue | | |
| | Orange | Huntington Beach | Foothill Ranch | Orange | Huntington Beach | Foothill Ranch | Orange | Huntington Beach | Foothill Ranch |
| Lunch | | | | | | | | | |
| 11:00-11:15 AM | 6.4 | 1.7 | 1.1 | 8.0 | 3.0 | 2.0 | 8 | 3 | 3 |
| 11:15-11:30 AM | 6.6 | 3.8 | 2.3 | 8.0 | 5.0 | 4.0 | 9 | 6 | 5 |
| 11:30-11:45 AM | 5.0 | 3.4 | 4.0 | 5.5 | 4.2 | 4.0 | 7 | 7 | 6 |
| 11:45-12:00 PM | 2.6 | 4.4 | 6.5 | 4.0 | 6.0 | 9.0 | 4 | 7 | 10 |
| 12:00-12:15 PM | 6.4 | 5.0 | 4.3 | 7.5 | 7.0 | 6.0 | 8 | 8 | 7 |
| 12:15-12:30 PM | 6.5 | 8.5 | 7.0 | 8.0 | 12.0 | 8.0 | 9 | 14 | 9 |
| 12:30-12:45 PM | 4.8 | 4.9 | 7.3 | 8.2 | 7.2 | 9.0 | 9 | 9 | 10 |
| 12:45-1:00 PM | 10.1 | 3.4 | 5.3 | 11.0 | 5.0 | 6.0 | 12 | 6 | 7 |
| 1:00-1:15 PM | 7.0 | 7.9 | 4.2 | 9.0 | 10.0 | 10.0 | 9 | 11 | 7 |
| 1:15-1:30 PM | 2.5 | 4.1 | 6.9 | 5.0 | 6.0 | 10.0 | 5 | 6 | 11 |
| 1:30-1:45 PM | 4.4 | 5.1 | 8.3 | 6.7 | 7.0 | 10.0 | 7 | 9 | 11 |
| 1:45-2:00 PM | 4.8 | 3.6 | 2.9 | 6.0 | 5.0 | 4.0 | 8 | 6 | 4 |
| Highest Value | 10.1 | 8.5 | 8.3 | 11.0 | 12.0 | 10.0 | 12 | 14 | 11 |
| Dinner | | | | | | | | | |
| 4:00-4:15 PM | 1.5 | 4.8 | 2.5 | 2.3 | 6.0 | 3.0 | 3 | 7 | 5 |
| 4:15-4:30 PM | 6.1 | 2.2 | 1.8 | 8.0 | 3.5 | 2.0 | 8 | 5 | 3 |
| 4:30-4:45 PM | 8.0 | 2.6 | 2.5 | 9.3 | 5.0 | 4.0 | 10 | 6 | 5 |
| 4:45-5:00 PM | 7.0 | 6.7 | 2.8 | 9.3 | 8.0 | 4.0 | 10 | 10 | 5 |
| 5:00-5:15 PM | 6.0 | 4.7 | 3.5 | 7.0 | 6.2 | 5.0 | 8 | 7 | 5 |
| 5:15-5:30 PM | 10.3 | 7.9 | 5.0 | 11.1 | 11.3 | 6.9 | 12 | 14 | 8 |
| 5:30-5:45 PM | 9.4 | 14.1 | 10.7 | 11.0 | 16.2 | 14.9 | 11 | 18 | 16 |
| 5:45-6:00 PM | 2.0 | 8.9 | 15.1 | 3.3 | 11.0 | 16.9 | 4 | 12 | 17 |
| 6:00-6:15 PM | 7.8 | 8.0 | 15.8 | 10.8 | 11.0 | 17.0 | 12 | 12 | 19 |
| 6:15-6:30 PM | 9.9 | 7.8 | 15.7 | 11.4 | 10.2 | 17.0 | 15 | 13 | 17 |
| 6:30-6:45 PM | 13.2 | 10.5 | 15.5 | 14.3 | 12.0 | 18.0 | 15 | 14 | 21 |
| 6:45-7:00 PM | 14.5 | 10.9 | 6.9 | 15.3 | 13.0 | 8.9 | 16 | 14 | 11 |
| Highest Value | 14.5 | 14.1 | 15.8 | 15.3 | 16.2 | 18.0 | 16 | 18 | 21 |

Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.

TABLE 9

SUMMARY OF DRIVE-THROUGH QUEUING DATA COLLECTION
RAISING CANE'S - SATURDAY
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES

| Time Period | Number of Drive-through Vehicles in the Queue | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Average Queue | | | 85th %-ile [1] Queue | | | Peak Queue | | |
| | Orange | Huntington Beach | Foothill Ranch | Orange | Huntington Beach | Foothill Ranch | Orange | Huntington Beach | Foothill Ranch |
| Lunch | | | | | | | | | |
| 11:00-11:15 AM | 3.3 | 0.9 | 2.3 | 4.0 | 1.1 | 3.9 | 4 | 2 | 4 |
| 11:15-11:30 AM | 5.0 | 2.6 | 4.9 | 7.0 | 3.0 | 8.0 | 7 | 4 | 8 |
| 11:30-11:45 AM | 2.1 | 1.8 | 8.7 | 3.0 | 3.6 | 11.0 | 4 | 4 | 12 |
| 11:45-12:00 PM | 4.6 | 5.1 | 7.7 | 5.2 | 8.0 | 8.0 | 7 | 9 | 10 |
| 12:00-12:15 PM | 7.7 | 9.2 | 11.5 | 9.0 | 10.0 | 14.0 | 10 | 10 | 15 |
| 12:15-12:30 PM | 8.3 | 8.5 | 12.4 | 9.0 | 10.0 | 14.9 | 11 | 11 | 16 |
| 12:30-12:45 PM | 6.9 | 5.4 | 12.8 | 8.0 | 6.6 | 14.0 | 8 | 9 | 15 |
| 12:45-1:00 PM | 9.4 | 13.6 | 14.8 | 11.3 | 16.8 | 16.9 | 14 | 18 | 18 |
| 1:00-1:15 PM | 13.8 | 13.7 | 16.1 | 16.7 | 16.0 | 20.0 | 18 | 16 | 19 |
| 1:15-1:30 PM | 17.5 | 9.7 | 19.6 | 18.0 | 11.0 | 22.0 | 18 | 12 | 23 |
| 1:30-1:45 PM | 15.3 | 7.2 | 15.5 | 17.1 | 8.0 | 16.9 | 18 | 9 | 19 |
| 1:45-2:00 PM | 16.3 | 7.7 | 16.1 | 19.0 | 10.0 | 18.0 | 19 | 11 | 19 |
| Highest Value | 17.5 | 13.7 | 19.6 | 19.0 | 16.8 | 22.0 | 19 | 18 | 23 |
| Dinner | | | | | | | | | |
| 4:00-4:15 PM | 14.7 | 7.3 | 2.7 | 17.8 | 10.0 | 4.0 | 20 | 11 | 6 |
| 4:15-4:30 PM | 20.5 | 3.3 | 6.1 | 20.9 | 4.0 | 7.0 | 21 | 5 | 8 |
| 4:30-4:45 PM | 18.7 | 2.6 | 7.5 | 19.0 | 4.0 | 9.0 | 19 | 7 | 10 |
| 4:45-5:00 PM | 21.3 | 4.1 | 9.6 | 21.7 | 5.0 | 11.0 | 22 | 6 | 12 |
| 5:00-5:15 PM | 21.0 | 6.4 | 14.3 | 22.8 | 9.3 | 17.0 | 24 | 10 | 18 |
| 5:15-5:30 PM | 23.3 | 6.5 | 20.3 | 24.1 | 9.0 | 21.9 | 25 | 10 | 23 |
| 5:30-5:45 PM | 23.0 | 10.6 | 16.4 | 23.7 | 13.0 | 19.9 | 24 | 15 | 20 |
| 5:45-6:00 PM | 20.8 | 6.3 | 15.9 | 22.1 | 8.5 | 17.0 | 23 | 11 | 19 |
| 6:00-6:15 PM | 23.3 | 7.5 | 15.1 | 24.4 | 11.0 | 17.9 | 25 | 12 | 19 |
| 6:15-6:30 PM | 21.5 | 9.8 | 16.5 | 21.9 | 12.2 | 17.9 | 22 | 15 | 18 |
| 6:30-6:45 PM | 21.3 | 14.4 | 16.5 | 21.7 | 16.0 | 18.0 | 22 | 18 | 18 |
| 6:45-7:00 PM | 21.8 | 15.3 | 17.0 | 22.6 | 17.0 | 18.0 | 23 | 19 | 18 |
| Highest Value | 23.3 | 15.3 | 20.3 | 24.4 | 17.0 | 21.9 | 25 | 19 | 23 |

Notes: [1] 85th percentile = The queue will be less than the queue shown 85% of the time.

### Side-by-Side Operational Features

The proposed side-by-side configuration would begin with one entry lane that splits into two drive-through lanes at the west side of the project site. Each drive-through lane would have its own order board. After the order boards, the two lanes would merge back into one lane for the pay and pick-up window.

While regular customers who are familiar with the menu choices typically would complete the order part of the process in less than the average time, infrequent or new customers are more likely to dwell at the menu board before making their choices, slowing down the process for everyone behind them. As a result, the order board is considered to be the most significant bottleneck in the drive-through process.

The side-by-side ordering configuration will increase the number of customers processed through the order board portion of the drive-through, and "keep the line moving" even if one customer takes a longer-than-average time to make their menu selections, allowing the restaurant to continue to take and complete orders from the other order lane. The newest customer to arrive at the drive-through entrance will naturally choose the empty lane or the shorter line, so that one customer who takes a longer time to order at one order board can be by-passed, thereby not holding up the entire drive-through line.

With the added efficiency of having two order boards and the ability to by-pass customers taking a longer-than-average time to order at the other order board, the service rate would increase, compared to a single order board, as more orders can be processed. The cooks would receive the orders at a more efficient rate, which allows them to continue cooking the food, rather than waiting for the slower customer to finish ordering.

Because of added efficiency in the cooking area, the efficiency at the pick-up window would increase, compared to a single drive-through lane, because the food would be processed by the cooking area at a more efficient rate.

### Other Unique Features

Raising Cane's also implements hand-held ordering which involves an employee using a hand-held tablet to take orders and payments in the line ahead of the order window. Hand-held ordering can be executed with three to five employees during the peak time periods. Employees will "leapfrog" one another in the drive-through lane, allowing orders to come in twice as fast. Hand-held ordering ensures accuracy of orders, allows more time for the kitchen to prepare the order prior to the customer reaching the pick-up window, and removes the payment process at the window. This in turn decreases the amount of time customers spend at the payment and pick-up windows and increases the number of customers that can be processed in the drive-through line.

## SITE ACCESS AND CIRCULATION

Vehicular access provisions to the project site would be provided via one existing right-in-right-out (RIRO) driveway on Roy Rogers Drive (East Driveway), one ¾ access (left turn out restricted) driveway on Roy Rogers Drive (West Driveway), and one existing full-movement driveway on Civic Drive. All project driveways would be unsignalized. Parking is access from the internal drive aisles. Vehicles have room to maneuver in and out of parking stalls and circulate internally to the site parking.

## VEHICLE MILES TRAVELED (VMT) ANALYSIS

The City of Victorville *Vehicle Miles Traveled (VMT) Analysis Guidelines* (June 2020) provide details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed level analysis. Based on the City guidelines, a local-serving retail use less than 122,000 SF is presumed to have a less-than-significant VMT impact. As such, the City may presume the proposed project to have a less-than-significant VMT impact. Therefore, no further VMT analysis is required.

APPENDIX **A**

APPROVED SCOPING AGREEMENT

November 27, 2023

Anwar Wagdy, P.E.
Engineering Department
City of Victorville
14343 Civic Dr
Victorville, CA 92392

**RE:** ***Traffic Scoping Letter Agreement for the Proposed Raising Cane's Project in the City of Victorville***

Dear Mr. Wagdy:

Kimley-Horn and Associates, Inc. is submitting this Traffic Scoping Letter Agreement to the City of Victorville for the proposed Raising Cane's project in the City of Victorville. The proposed traffic scope for the project is presented below.

## PROJECT DESCRIPTION

The project site is located approximately 350 feet west of the intersection of Roy Rogers Drive and Civic Drive in the City of Victorville. The site is currently vacant land. The applicant proposes to develop an approximately 2,899 square-foot (SF) Raising Cane's restaurant building with drive-through. A copy of the project site plan is provided on **Attachment A**.

Vehicular access provisions to the project site would be provided via one right-in-right-out (RIRO) driveway on Roy Rogers Drive (East Project Driveway), one ¾ access (left turn out restricted) driveway on Roy Rogers Drive (West Project Driveway), and one full-movement driveway on Civic Drive. All project driveways would be unsignalized.

## JURISDICTIONAL REQUIREMENTS

The traffic analysis will follow the City of Victorville *General Guidelines for Conducting Traffic Studies and Determination of Intersection Level of Service and Improvement Needs* (January 2005) and the San Bernardino County *CMP Traffic Impact Analysis Report Guidelines* (June 2016).

## TRIP GENERATION

Trip generation estimates for the proposed use are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) average rate for Fast-food Restaurant with Drive-Through (ITE Land Use 934). Pass-by reduction factors were applied based on the ITE Trip Generation Manual (11th Edition).

The trip generation rates and the resulting trip generation estimates for the proposed Raising Cane's project are summarized on **Attachment B**. The proposed project is estimated to generate 1,355 daily trips with 96 trips (50 inbound and 46 outbound) in the evening peak hour. After applying pass-by reduction factors, the proposed project would generate 982 net new trips on a daily basis with 43 trips (22 inbound and 21 outbound) in the evening peak hour.

**TRIP DISTRIBUTION**

Project distribution assumptions were developed based on existing travel patterns, and the likely origins and destinations of site employees and patrons. The project vicinity and trip distribution assumptions are shown on **Attachment C.**

**STUDY AREA**

The following intersections will be analyzed for potential project-related effects:

1. Civic Drive at Roy Rogers Drive

D1. Roy Rogers Drive at West Project Driveway
D2. Roy Rogers Drive at East Project Driveway
D3. Civic Drive at Project Driveway

**STUDY SCENARIOS**

- Existing Conditions
- Opening Year 2025 Conditions
- Opening Year 2025 Conditions Plus Project
- Future Year 2035 Conditions
- Future Year 2035 Conditions Plus Project

For Opening Year 2025 Conditions, a 2% annual ambient growth rate will be applied to existing traffic volumes up to Opening Year 2025 to develop Opening Year 2025 Conditions.

For Future Year 2035 Conditions, a 2% annual ambient growth rate will be applied to existing traffic volumes up to Future Year 2035. In addition to ambient growth, Cumulative Project traffic volumes will also be added to develop Future Year 2035 Conditions.

**VEHICLE MILES TRAVELED (VMT) APPROACH**

The project includes a 2,899 SF fast-food restaurant with drive-through. The City of Victorville does not have VMT guidelines, so analysis methodology will be consistent with the San Bernardino County *Transportation Impact Study Guidelines* (July 2019). Based on the County guidelines, a local-serving retail use less than 50,000 SF is presumed to have a less-than-significant VMT impact. As such, the City may presume the proposed project to have a less-than-significant VMT impact, and no further VMT analysis is required.

**DRIVE-THROUGH QUEUING ANALYSIS**

A drive-through queuing analysis will be conducted for the proposed project, to evaluate the adequacy of the drive-through queuing capacity. The opening to the drive-through lane would be located at the west side of the project site and wraps around the west, south and east sides of the building in a counterclockwise direction before exiting on the northeast corner of the project site. The drive-through would provide one entry lane that splits into two lanes prior to the dual order boards, which would allow Raising Cane's to take orders from two customers at the same time. After the order boards, the two lanes would merge back into a single drive-through lane prior to the pay and pick-up window.

There will be approximately 300 feet of total queuing lane capacity (approximately 150 feet per lane) from the opening of the drive-through to the two order boards and approximately 120 feet from the order boards to the pay and pick-up window. This would provide a total drive-through queue length of approximately 420 feet, for a drive-through queuing capacity of 21 vehicles, assuming 20 feet per vehicle, from the beginning of the drive-through to the pick-up window.

During peak operations, the two drive-through lanes would not merge after the order boards, providing an additional pay and pick-up lane. The second pay and pick-up lane would provide an additional 120 feet of queue lane capacity, or 6 vehicles. This would provide a total drive-through queue length of approximately 540 feet for a drive-through queuing capacity of 27 vehicles, assuming 20 feet per vehicle.

Drive-through queuing will be compared to empirical data collected at the following Raising Cane's restaurants during the weekday and weekend lunch and dinner periods:

- City of Orange: 2249 N Tustin Street
- City of Huntington Beach: 10142 Adams Avenue
- City of Foothill Ranch: 26782 Portola Parkway

These sites were selected for queuing data collection because of the following site characteristics that are similar to the proposed project:

- A Raising Cane's restaurant with a drive-through lane
- Located in Southern California
- Located in close proximity to a freeway

Additionally, the drive-through queuing capacity of the project site will also be analyzed using queuing analysis formulas published in the Institute of Transportation Engineers (ITE) Transportation Planning Handbook, 3rd Edition.

Please contact me if you have any questions or comments.

Sincerely,

**KIMLEY-HORN AND ASSOCIATES, INC.**

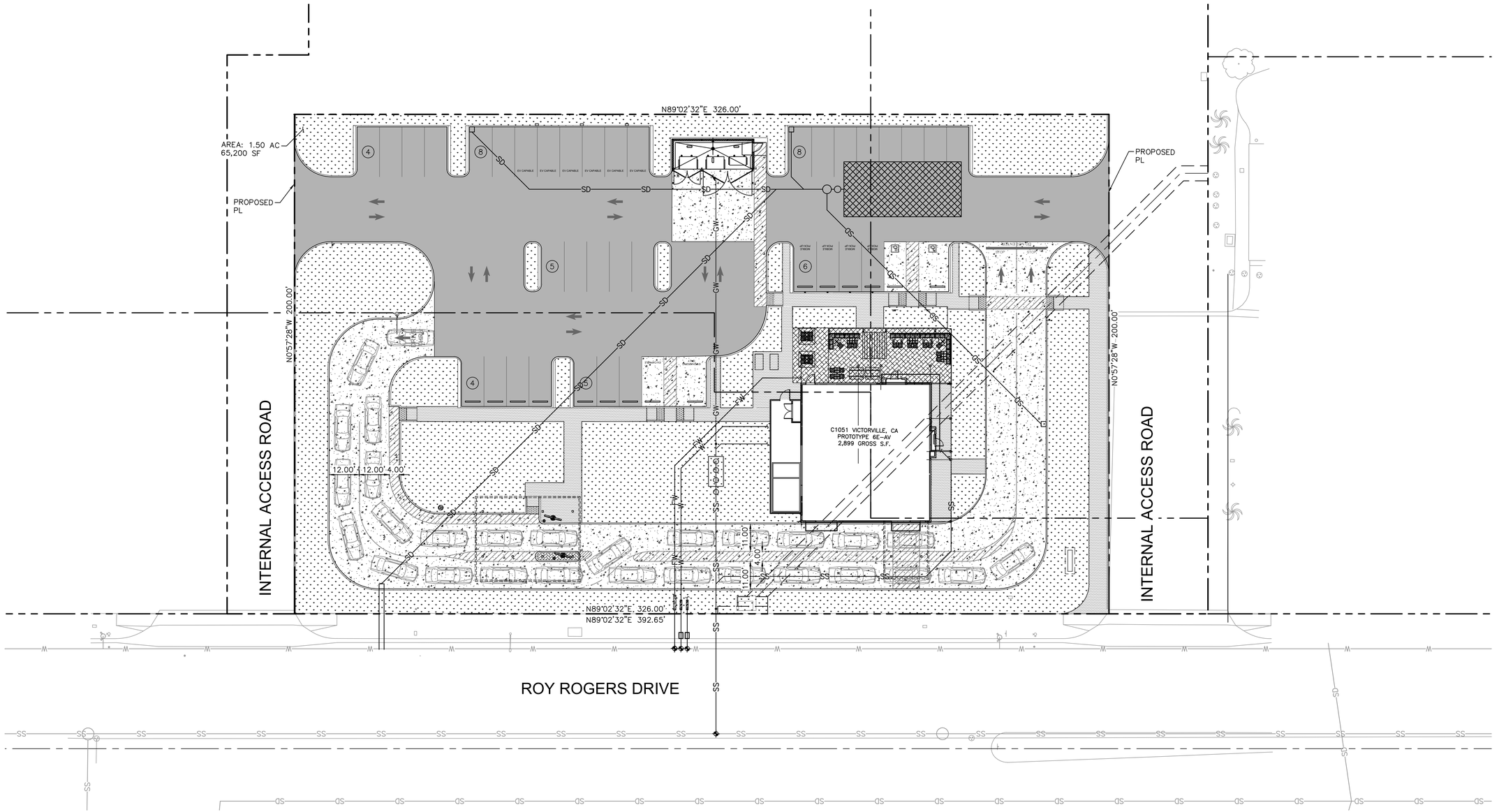
Trevor Briggs, P.E.
Project Engineer

**APPROVED:**

By:

_____.
Anwar Wagdy, P.E.
Engineering Department
City of Victorville

# ATTACHMENT A
# PROJECT SITE PLAN




K:\ORA_LDEV\Raising Cane's\094797162 - Victorville (Roy Rogers & Civic) 1051\CADD\References\xOnSite-094797162.dwg Layout1 Oct 17, 2023 3:51pm by: victoria.bucy


Kimley»Horn
3801 UNIVERSITY AVENUE, SUITE 300 | RIVERSIDE, CA 92501
PHONE: (951) 543-9868 | www.kimley-horn.com


TITLE: SITE BASE

PROJECT: RC 1051 - VICTORVILLE

LOCATION: VICTORVILLE, CA (ROY ROGERS & CIVIC)

| | |
|---|---|
| JOB NUMBER: | 094797162 |
| SCALE: | 1" = 20' |
| DATE: | 10/17/2023 |
| SHEET: | 1 OF 1 |

ATTACHMENT B
SUMMARY OF PROJECT TRIP GENERATION
VICTORVILLE RAISING CANE'S

| Land Use | ITE Code | Unit | Trip Generation Rates [1] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak Hour | | | PM Peak Hour | | |
| | | | | In | Out | Total | In | Out | Total |
| Fast-Food Restaurant w/ Drive-thru | 934 | KSF | 467.480 | 22.751 | 21.859 | 44.610 | 17.176 | 15.854 | 33.030 |

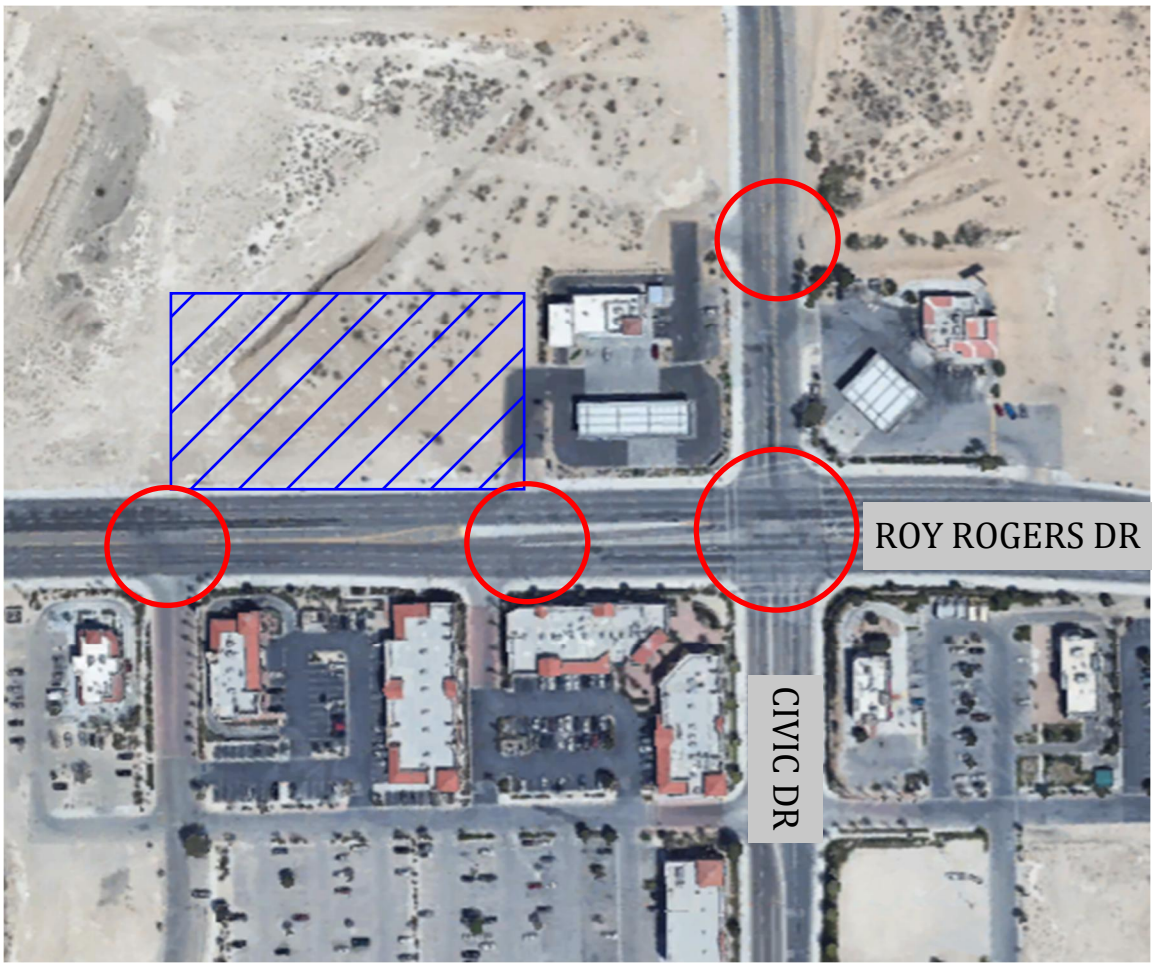
| Land Use | Quantity | Unit | Trip Generation Estimates | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Daily | AM Peak Hour [3] | | | PM Peak Hour | | |
| | | | | In | Out | Total | In | Out | Total |
| Fast-Food Restaurant w/ Drive-thru | 2.899 | KSF | 1,355 | - | - | - | 50 | 46 | 96 |
| *Pass-by Trips (27.5% Daily, 0% AM, 55% PM)* [2] | | | *-373* | - | - | - | *-28* | *-25* | *-53* |
| *Net Trips* | | | *982* | - | - | - | *22* | *21* | *43* |
| Total Project Trips | | | 982 | - | - | - | 22 | 21 | 43 |

[1] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

[2] Note: The Trip Generation Manual does not provide pass-by rates for daily trip generation. The daily pass-by percentage shown is the average between the AM and PM pass-by percentages.

[3] Raising Cane's is not open during the AM Peak Hour

# ATTACHMENT C
# TRIP DISTRIBUTION AND STUDY AREA




**LEGEND:**

PROJECT SITE

STUDY INTERSECTION

XX% TRIP DISTRIBUTION PERCENTAGE

APPENDIX **B**

TRAFFIC COUNT DATA COLLECTION SHEETS

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Civic Drive
E/W: Roy Rogers Drive
Weather: Clear

File Name : 01_VIC_Civic_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 1

Groups Printed- Total Volume

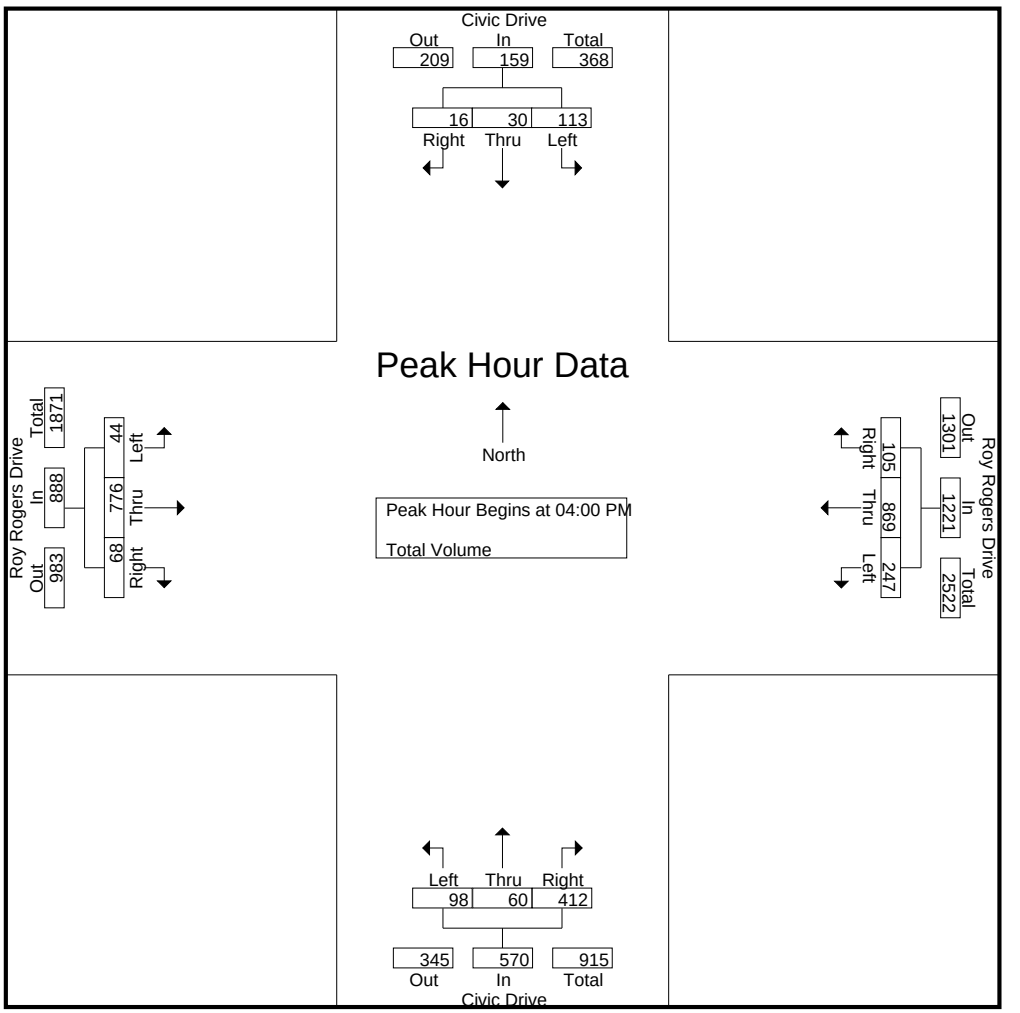
| | Civic Drive Southbound | | | | Roy Rogers Drive Westbound | | | | Civic Drive Northbound | | | | Roy Rogers Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 31 | 11 | 6 | 48 | 52 | 218 | 27 | 297 | 23 | 11 | 107 | 141 | 13 | 197 | 20 | 230 | 716 |
| 04:15 PM | 24 | 9 | 4 | 37 | 69 | 208 | 36 | 313 | 22 | 17 | 87 | 126 | 9 | 175 | 20 | 204 | 680 |
| 04:30 PM | 40 | 5 | 1 | 46 | 66 | 206 | 26 | 298 | 31 | 17 | 128 | 176 | 11 | 204 | 16 | 231 | 751 |
| 04:45 PM | 18 | 5 | 5 | 28 | 60 | 237 | 16 | 313 | 22 | 15 | 90 | 127 | 11 | 200 | 12 | 223 | 691 |
| Total | 113 | 30 | 16 | 159 | 247 | 869 | 105 | 1221 | 98 | 60 | 412 | 570 | 44 | 776 | 68 | 888 | 2838 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 29 | 4 | 6 | 39 | 62 | 206 | 32 | 300 | 26 | 22 | 132 | 180 | 10 | 151 | 15 | 176 | 695 |
| 05:15 PM | 22 | 7 | 5 | 34 | 52 | 224 | 30 | 306 | 23 | 20 | 96 | 139 | 9 | 184 | 14 | 207 | 686 |
| 05:30 PM | 26 | 4 | 3 | 33 | 52 | 189 | 21 | 262 | 24 | 13 | 97 | 134 | 12 | 146 | 15 | 173 | 602 |
| 05:45 PM | 19 | 7 | 4 | 30 | 56 | 214 | 21 | 291 | 15 | 8 | 75 | 98 | 10 | 130 | 10 | 150 | 569 |
| Total | 96 | 22 | 18 | 136 | 222 | 833 | 104 | 1159 | 88 | 63 | 400 | 551 | 41 | 611 | 54 | 706 | 2552 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 209 | 52 | 34 | 295 | 469 | 1702 | 209 | 2380 | 186 | 123 | 812 | 1121 | 85 | 1387 | 122 | 1594 | 5390 |
| Apprch % | 70.8 | 17.6 | 11.5 | | 19.7 | 71.5 | 8.8 | | 16.6 | 11 | 72.4 | | 5.3 | 87 | 7.7 | | |
| Total % | 3.9 | 1 | 0.6 | 5.5 | 8.7 | 31.6 | 3.9 | 44.2 | 3.5 | 2.3 | 15.1 | 20.8 | 1.6 | 25.7 | 2.3 | 29.6 | |

| | Civic Drive Southbound | | | | Roy Rogers Drive Westbound | | | | Civic Drive Northbound | | | | Roy Rogers Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 31 | **11** | **6** | **48** | 52 | 218 | 27 | 297 | 23 | 11 | 107 | 141 | **13** | 197 | **20** | 230 | 716 |
| 04:15 PM | 24 | 9 | 4 | 37 | **69** | 208 | **36** | **313** | 22 | **17** | 87 | 126 | 9 | 175 | 20 | 204 | 680 |
| 04:30 PM | **40** | 5 | 1 | 46 | 66 | 206 | 26 | 298 | **31** | 17 | **128** | **176** | 11 | **204** | 16 | **231** | **751** |
| 04:45 PM | 18 | 5 | 5 | 28 | 60 | **237** | 16 | 313 | 22 | 15 | 90 | 127 | 11 | 200 | 12 | 223 | 691 |
| Total Volume | 113 | 30 | 16 | 159 | 247 | 869 | 105 | 1221 | 98 | 60 | 412 | 570 | 44 | 776 | 68 | 888 | 2838 |
| % App. Total | 71.1 | 18.9 | 10.1 | | 20.2 | 71.2 | 8.6 | | 17.2 | 10.5 | 72.3 | | 5 | 87.4 | 7.7 | | |
| PHF | .706 | .682 | .667 | .828 | .895 | .917 | .729 | .975 | .790 | .882 | .805 | .810 | .846 | .951 | .850 | .961 | .945 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Civic Drive
E/W: Roy Rogers Drive
Weather: Clear

File Name : 01_VIC_Civic_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:15 PM | | | | 04:30 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 31 | **11** | **6** | **48** | **69** | 208 | **36** | **313** | **31** | 17 | 128 | 176 | **13** | 197 | **20** | 230 |
| +15 mins. | 24 | 9 | 4 | 37 | 66 | 206 | 26 | 298 | 22 | 15 | 90 | 127 | 9 | 175 | 20 | 204 |
| +30 mins. | **40** | 5 | 1 | 46 | 60 | **237** | 16 | 313 | 26 | **22** | **132** | **180** | 11 | **204** | 16 | **231** |
| +45 mins. | 18 | 5 | 5 | 28 | 62 | 206 | 32 | 300 | 23 | 20 | 96 | 139 | 11 | 200 | 12 | 223 |
| Total Volume | 113 | 30 | 16 | 159 | 257 | 857 | 110 | 1224 | 102 | 74 | 446 | 622 | 44 | 776 | 68 | 888 |
| % App. Total | 71.1 | 18.9 | 10.1 | | 21 | 70 | 9 | | 16.4 | 11.9 | 71.7 | | 5 | 87.4 | 7.7 | |
| PHF | .706 | .682 | .667 | .828 | .931 | .904 | .764 | .978 | .823 | .841 | .845 | .864 | .846 | .951 | .850 | .961 |

Counts Unlimited, Inc.
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Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Desert Sky Plaza West Driveway
E/W: Roy Rogers Drive
Weather: Clear

File Name : 04_VIC_SDP W_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 1

Groups Printed- Total Volume

| | Roy Rogers Drive Westbound | | | Desert Sky Plaza West Driveway Northbound | | | Roy Rogers Drive Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 14 | 225 | 239 | 39 | 11 | 50 | 202 | 37 | 239 | 528 |
| 04:15 PM | 10 | 238 | 248 | 26 | 15 | 41 | 198 | 29 | 227 | 516 |
| 04:30 PM | 12 | 227 | 239 | 36 | 16 | 52 | 206 | 37 | 243 | 534 |
| 04:45 PM | 12 | 252 | 264 | 27 | 18 | 45 | 198 | 28 | 226 | 535 |
| Total | 48 | 942 | 990 | 128 | 60 | 188 | 804 | 131 | 935 | 2113 |
| | | | | | | | | | | |
| 05:00 PM | 16 | 221 | 237 | 26 | 13 | 39 | 178 | 26 | 204 | 480 |
| 05:15 PM | 10 | 249 | 259 | 28 | 12 | 40 | 175 | 23 | 198 | 497 |
| 05:30 PM | 9 | 214 | 223 | 27 | 10 | 37 | 172 | 27 | 199 | 459 |
| 05:45 PM | 9 | 218 | 227 | 24 | 5 | 29 | 149 | 13 | 162 | 418 |
| Total | 44 | 902 | 946 | 105 | 40 | 145 | 674 | 89 | 763 | 1854 |
| | | | | | | | | | | |
| Grand Total | 92 | 1844 | 1936 | 233 | 100 | 333 | 1478 | 220 | 1698 | 3967 |
| Apprch % | 4.8 | 95.2 | | 70 | 30 | | 87 | 13 | | |
| Total % | 2.3 | 46.5 | 48.8 | 5.9 | 2.5 | 8.4 | 37.3 | 5.5 | 42.8 | |

| | Roy Rogers Drive Westbound | | | Desert Sky Plaza West Driveway Northbound | | | Roy Rogers Drive Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **14** | 225 | 239 | **39** | 11 | 50 | 202 | **37** | 239 | 528 |
| 04:15 PM | 10 | 238 | 248 | 26 | 15 | 41 | 198 | 29 | 227 | 516 |
| 04:30 PM | 12 | 227 | 239 | 36 | 16 | **52** | **206** | 37 | **243** | 534 |
| 04:45 PM | 12 | **252** | **264** | 27 | **18** | 45 | 198 | 28 | 226 | **535** |
| Total Volume | 48 | 942 | 990 | 128 | 60 | 188 | 804 | 131 | 935 | 2113 |
| % App. Total | 4.8 | 95.2 | | 68.1 | 31.9 | | 86 | 14 | | |
| PHF | .857 | .935 | .938 | .821 | .833 | .904 | .976 | .885 | .962 | .987 |

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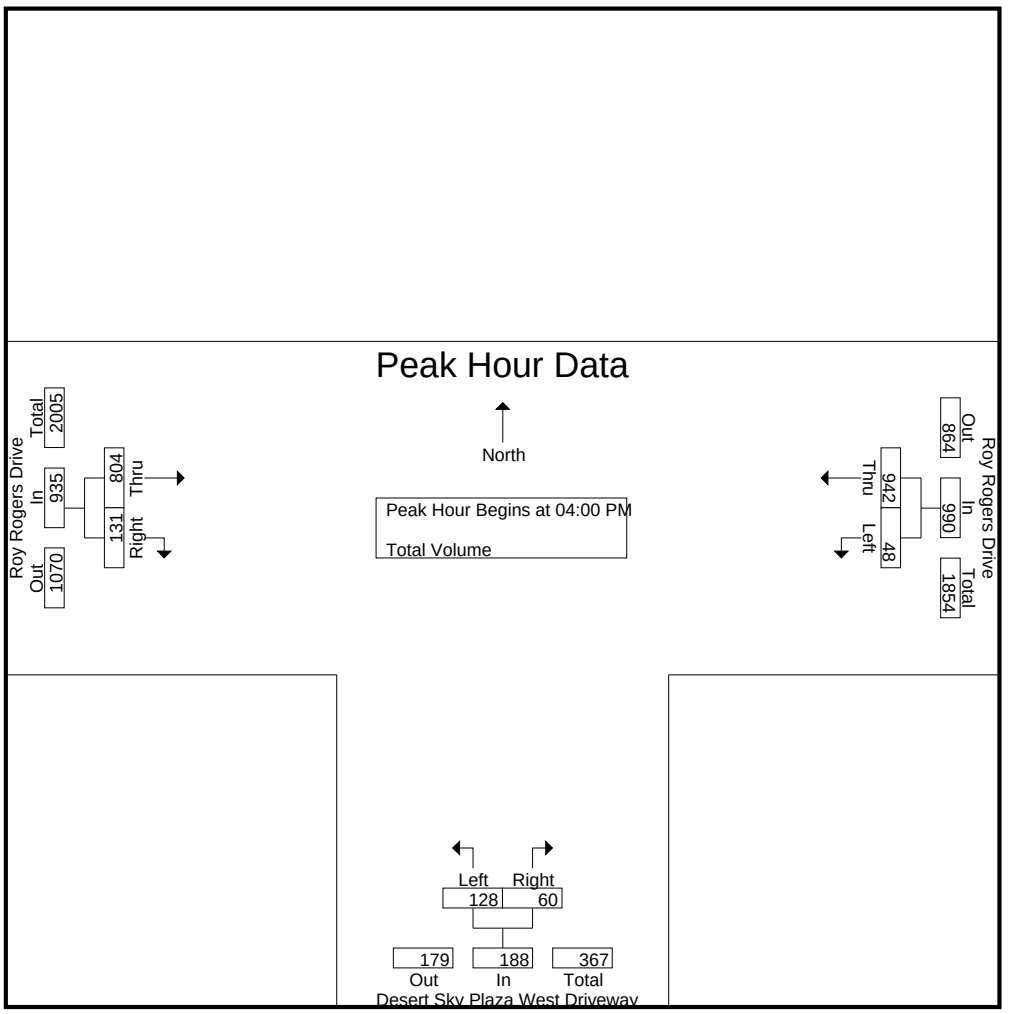
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Desert Sky Plaza West Driveway
E/W: Roy Rogers Drive
Weather: Clear

File Name : 04_VIC_SDP W_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:30 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 12 | 227 | 239 | **39** | 11 | 50 | 202 | **37** | 239 |
| +15 mins. | 12 | **252** | **264** | 26 | 15 | 41 | 198 | 29 | 227 |
| +30 mins. | **16** | 221 | 237 | 36 | 16 | **52** | **206** | 37 | **243** |
| +45 mins. | 10 | 249 | 259 | 27 | **18** | 45 | 198 | 28 | 226 |
| Total Volume | 50 | 949 | 999 | 128 | 60 | 188 | 804 | 131 | 935 |
| % App. Total | 5 | 95 | | 68.1 | 31.9 | | 86 | 14 | |
| PHF | .781 | .941 | .946 | .821 | .833 | .904 | .976 | .885 | .962 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Chevron DW/Desert Sky Plaza East DW
E/W: Roy Rogers Drive
Weather: Clear

File Name : 03_VIC_ChevDW_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 1

Groups Printed- Total Volume

| | Chevron Driveway Southbound | | | | Roy Rogers Drive Westbound | | | | Desert Sky Plaza East Driveway Northbound | | | | Roy Rogers Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 1 | 0 | 6 | 7 | 0 | 234 | 6 | 240 | 0 | 0 | 10 | 10 | 0 | 209 | 4 | 213 | 470 |
| 04:15 PM | 0 | 0 | 8 | 8 | 0 | 240 | 3 | 243 | 1 | 0 | 15 | 16 | 0 | 202 | 7 | 209 | 476 |
| 04:30 PM | 0 | 0 | 7 | 7 | 0 | 232 | 2 | 234 | 0 | 0 | 14 | 14 | 0 | 215 | 5 | 220 | 475 |
| 04:45 PM | 0 | 0 | 6 | 6 | 0 | 260 | 3 | 263 | 2 | 0 | 19 | 21 | 0 | 206 | 6 | 212 | 502 |
| Total | 1 | 0 | 27 | 28 | 0 | 966 | 14 | 980 | 3 | 0 | 58 | 61 | 0 | 832 | 22 | 854 | 1923 |
| 05:00 PM | 0 | 0 | 4 | 4 | 0 | 235 | 5 | 240 | 0 | 0 | 18 | 18 | 0 | 175 | 10 | 185 | 447 |
| 05:15 PM | 0 | 0 | 7 | 7 | 0 | 253 | 5 | 258 | 0 | 0 | 17 | 17 | 0 | 182 | 9 | 191 | 473 |
| 05:30 PM | 0 | 0 | 4 | 4 | 0 | 220 | 0 | 220 | 0 | 0 | 14 | 14 | 0 | 166 | 10 | 176 | 414 |
| 05:45 PM | 0 | 0 | 3 | 3 | 0 | 228 | 0 | 228 | 1 | 0 | 11 | 12 | 0 | 138 | 12 | 150 | 393 |
| Total | 0 | 0 | 18 | 18 | 0 | 936 | 10 | 946 | 1 | 0 | 60 | 61 | 0 | 661 | 41 | 702 | 1727 |
| Grand Total | 1 | 0 | 45 | 46 | 0 | 1902 | 24 | 1926 | 4 | 0 | 118 | 122 | 0 | 1493 | 63 | 1556 | 3650 |
| Apprch % | 2.2 | 0 | 97.8 | | 0 | 98.8 | 1.2 | | 3.3 | 0 | 96.7 | | 0 | 96 | 4 | | |
| Total % | 0 | 0 | 1.2 | 1.3 | 0 | 52.1 | 0.7 | 52.8 | 0.1 | 0 | 3.2 | 3.3 | 0 | 40.9 | 1.7 | 42.6 | |

| | Chevron Driveway Southbound | | | | Roy Rogers Drive Westbound | | | | Desert Sky Plaza East Driveway Northbound | | | | Roy Rogers Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | **1** | 0 | 6 | 7 | 0 | 234 | **6** | 240 | 0 | 0 | 10 | 10 | 0 | 209 | 4 | 213 | 470 |
| 04:15 PM | 0 | 0 | **8** | **8** | 0 | 240 | 3 | 243 | 1 | 0 | 15 | 16 | 0 | 202 | **7** | 209 | 476 |
| 04:30 PM | 0 | 0 | 7 | 7 | 0 | 232 | 2 | 234 | 0 | 0 | 14 | 14 | 0 | **215** | 5 | **220** | 475 |
| 04:45 PM | 0 | 0 | 6 | 6 | 0 | **260** | 3 | **263** | **2** | 0 | **19** | **21** | 0 | 206 | 6 | 212 | **502** |
| Total Volume | 1 | 0 | 27 | 28 | 0 | 966 | 14 | 980 | 3 | 0 | 58 | 61 | 0 | 832 | 22 | 854 | 1923 |
| % App. Total | 3.6 | 0 | 96.4 | | 0 | 98.6 | 1.4 | | 4.9 | 0 | 95.1 | | 0 | 97.4 | 2.6 | | |
| PHF | .250 | .000 | .844 | .875 | .000 | .929 | .583 | .932 | .375 | .000 | .763 | .726 | .000 | .967 | .786 | .970 | .958 |

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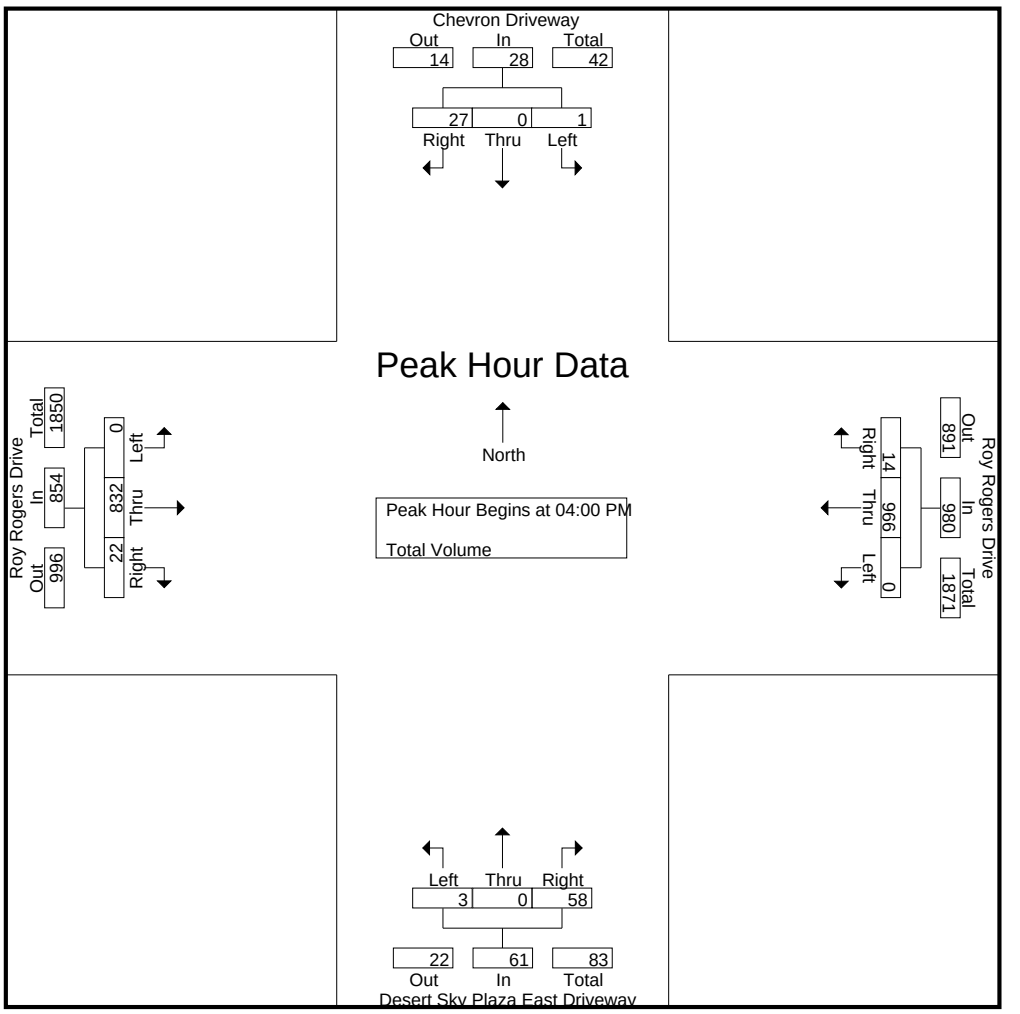
(951) 268-6268

City of Victorville
N/S: Chevron DW/Desert Sky Plaza East DW
E/W: Roy Rogers Drive
Weather: Clear

File Name : 03_VIC_ChevDW_Roy PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **1** | 0 | 6 | 7 | 0 | 232 | 2 | 234 | 0 | 0 | 14 | 14 | 0 | 209 | 4 | 213 |
| +15 mins. | 0 | 0 | **8** | **8** | 0 | **260** | 3 | **263** | **2** | 0 | **19** | **21** | 0 | 202 | **7** | 209 |
| +30 mins. | 0 | 0 | 7 | 7 | 0 | 235 | **5** | 240 | 0 | 0 | 18 | 18 | 0 | **215** | 5 | **220** |
| +45 mins. | 0 | 0 | 6 | 6 | 0 | 253 | 5 | 258 | 0 | 0 | 17 | 17 | 0 | 206 | 6 | 212 |
| Total Volume | 1 | 0 | 27 | 28 | 0 | 980 | 15 | 995 | 2 | 0 | 68 | 70 | 0 | 832 | 22 | 854 |
| % App. Total | 3.6 | 0 | 96.4 | | 0 | 98.5 | 1.5 | | 2.9 | 0 | 97.1 | | 0 | 97.4 | 2.6 | |
| PHF | .250 | .000 | .844 | .875 | .000 | .942 | .750 | .946 | .250 | .000 | .895 | .833 | .000 | .967 | .786 | .970 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Civic Drive
E/W: Chevron Driveway
Weather: Clear

File Name : 02_VIC_Civic_Chev DW PM
Site Code : 231096
Start Date : 11/15/2023
Page No : 1

Groups Printed- Total Volume

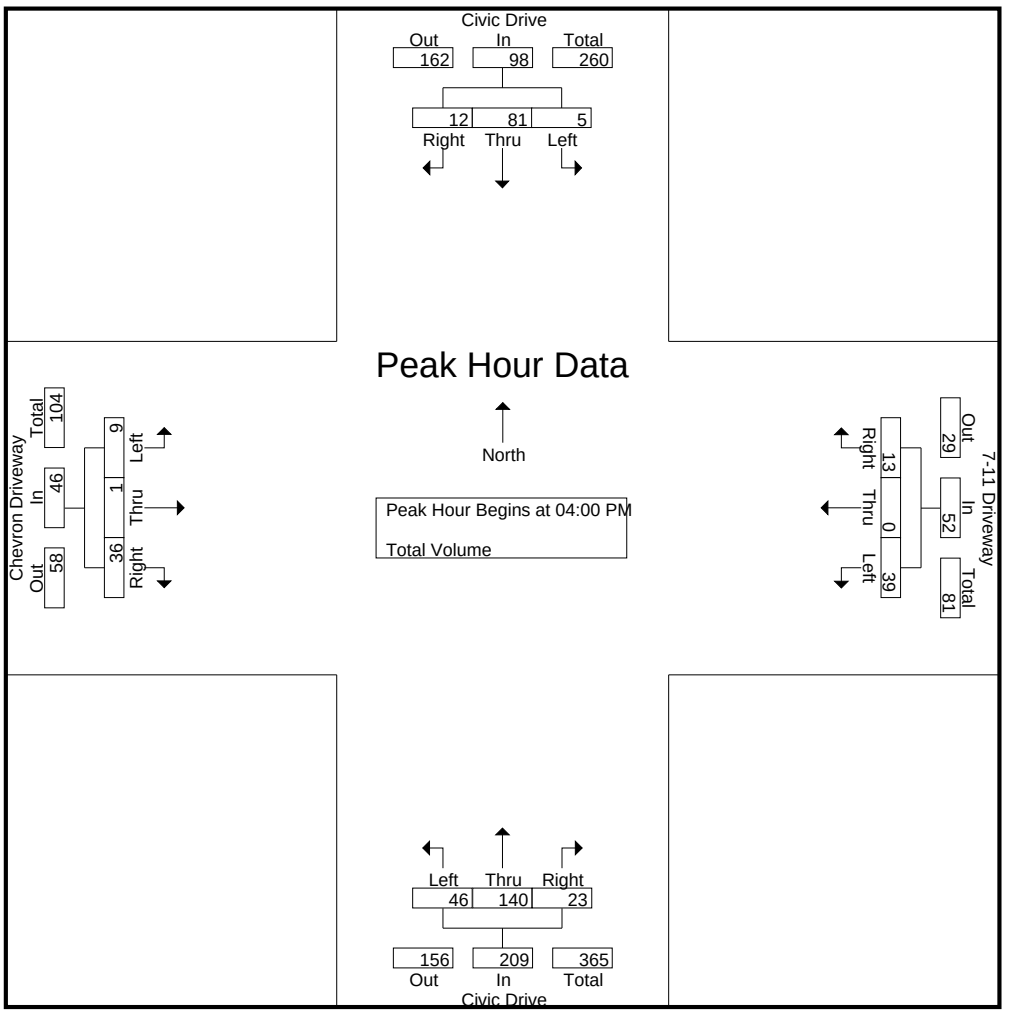
| | Civic Drive Southbound | | | | 7-11 Driveway Westbound | | | | Civic Drive Northbound | | | | Chevron Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 3 | 19 | 4 | 26 | 16 | 0 | 3 | 19 | 12 | 29 | 11 | 52 | 4 | 0 | 12 | 16 | 113 |
| 04:15 PM | 1 | 18 | 3 | 22 | 9 | 0 | 1 | 10 | 15 | 41 | 4 | 60 | 3 | 0 | 11 | 14 | 106 |
| 04:30 PM | 1 | 28 | 2 | 31 | 9 | 0 | 4 | 13 | 9 | 42 | 4 | 55 | 1 | 0 | 8 | 9 | 108 |
| 04:45 PM | 0 | 16 | 3 | 19 | 5 | 0 | 5 | 10 | 10 | 28 | 4 | 42 | 1 | 1 | 5 | 7 | 78 |
| Total | 5 | 81 | 12 | 98 | 39 | 0 | 13 | 52 | 46 | 140 | 23 | 209 | 9 | 1 | 36 | 46 | 405 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 1 | 21 | 1 | 23 | 10 | 0 | 2 | 12 | 14 | 44 | 5 | 63 | 2 | 1 | 8 | 11 | 109 |
| 05:15 PM | 1 | 17 | 3 | 21 | 5 | 0 | 4 | 9 | 11 | 41 | 8 | 60 | 0 | 0 | 13 | 13 | 103 |
| 05:30 PM | 1 | 14 | 4 | 19 | 8 | 1 | 1 | 10 | 11 | 33 | 4 | 48 | 4 | 0 | 8 | 12 | 89 |
| 05:45 PM | 1 | 15 | 4 | 20 | 7 | 1 | 2 | 10 | 14 | 19 | 5 | 38 | 2 | 1 | 9 | 12 | 80 |
| Total | 4 | 67 | 12 | 83 | 30 | 2 | 9 | 41 | 50 | 137 | 22 | 209 | 8 | 2 | 38 | 48 | 381 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 9 | 148 | 24 | 181 | 69 | 2 | 22 | 93 | 96 | 277 | 45 | 418 | 17 | 3 | 74 | 94 | 786 |
| Apprch % | 5 | 81.8 | 13.3 | | 74.2 | 2.2 | 23.7 | | 23 | 66.3 | 10.8 | | 18.1 | 3.2 | 78.7 | | |
| Total % | 1.1 | 18.8 | 3.1 | 23 | 8.8 | 0.3 | 2.8 | 11.8 | 12.2 | 35.2 | 5.7 | 53.2 | 2.2 | 0.4 | 9.4 | 12 | |

| | Civic Drive Southbound | | | | 7-11 Driveway Westbound | | | | Civic Drive Northbound | | | | Chevron Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | **3** | 19 | **4** | 26 | **16** | 0 | 3 | **19** | 12 | 29 | **11** | 52 | **4** | 0 | **12** | **16** | **113** |
| 04:15 PM | 1 | 18 | 3 | 22 | 9 | 0 | 1 | 10 | **15** | 41 | 4 | **60** | 3 | 0 | 11 | 14 | 106 |
| 04:30 PM | 1 | **28** | 2 | **31** | 9 | 0 | 4 | 13 | 9 | **42** | 4 | 55 | 1 | 0 | 8 | 9 | 108 |
| 04:45 PM | 0 | 16 | 3 | 19 | 5 | 0 | **5** | 10 | 10 | 28 | 4 | 42 | 1 | **1** | 5 | 7 | 78 |
| Total Volume | 5 | 81 | 12 | 98 | 39 | 0 | 13 | 52 | 46 | 140 | 23 | 209 | 9 | 1 | 36 | 46 | 405 |
| % App. Total | 5.1 | 82.7 | 12.2 | | 75 | 0 | 25 | | 22 | 67 | 11 | | 19.6 | 2.2 | 78.3 | | |
| PHF | .417 | .723 | .750 | .790 | .609 | .000 | .650 | .684 | .767 | .833 | .523 | .871 | .563 | .250 | .750 | .719 | .896 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Victorville
N/S: Civic Drive
E/W: Chevron Driveway
Weather: Clear

File Name : 02_VIC_Civic_Chev DW PM
Site Code : 231096
Start Date : 11/15/2023


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:00 PM | | | | 04:15 PM | | | | 05:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **3** | 19 | **4** | 26 | **16** | 0 | 3 | **19** | **15** | 41 | 4 | 60 | 2 | **1** | 8 | 11 |
| +15 mins. | 1 | 18 | 3 | 22 | 9 | 0 | 1 | 10 | 9 | 42 | 4 | 55 | 0 | 0 | **13** | **13** |
| +30 mins. | 1 | **28** | 2 | **31** | 9 | 0 | 4 | 13 | 10 | 28 | 4 | 42 | **4** | 0 | 8 | 12 |
| +45 mins. | 0 | 16 | 3 | 19 | 5 | 0 | **5** | 10 | 14 | **44** | **5** | **63** | 2 | 1 | 9 | 12 |
| Total Volume | 5 | 81 | 12 | 98 | 39 | 0 | 13 | 52 | 48 | 155 | 17 | 220 | 8 | 2 | 38 | 48 |
| % App. Total | 5.1 | 82.7 | 12.2 | | 75 | 0 | 25 | | 21.8 | 70.5 | 7.7 | | 16.7 | 4.2 | 79.2 | |
| PHF | .417 | .723 | .750 | .790 | .609 | .000 | .650 | .684 | .800 | .881 | .850 | .873 | .500 | .500 | .731 | .923 |

APPENDIX **C**

INTERSECTION ANALYSIS
WORKSHEETS

APPENDIX C-1

INTERSECTION ANALYSIS
WORKSHEETS –
EXISTING CONDITIONS

Victorville Raising Cane's

Vistro File: K:\...\RC Victorville - PM.vistro
Report File: K:\...\EX PM.pdf

Scenario 1 EX
1/15/2024

**Intersection Analysis Summary**

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | Signalized | HCM 7th Edition | EB Left | 0.490 | 21.1 | C |
| 101 | Roy Rogers Drive at West Driveway | Two-way stop | HCM 7th Edition | NB Left | 0.725 | 78.3 | F |
| 102 | Roy Rogers Drive at East Driveway | Two-way stop | HCM 7th Edition | SB Right | 0.067 | 13.9 | B |
| 103 | Civic Drive at Project Driveway | Two-way stop | HCM 7th Edition | EB Left | 0.015 | 10.7 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**
**Intersection 1: Civic Drive at Roy Rogers Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 21.1 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.490 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 200.00 | 100.00 | 195.00 | 145.00 | 100.00 | 100.00 | 230.00 | 100.00 | 100.00 | 285.00 | 100.00 | 200.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 45.00 | | | 30.00 | | | 45.00 | | | 45.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Proportion of CAVs [%] | 0.00 | | | | | | | | | | | |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Peak Hour Factor | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 26 | 16 | 109 | 30 | 8 | 4 | 12 | 205 | 18 | 65 | 230 | 28 |
| Total Analysis Volume [veh/h] | 104 | 63 | 436 | 120 | 32 | 17 | 47 | 821 | 72 | 261 | 920 | 111 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Active Pattern | Pattern 1 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Semi-actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 8.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 8 | 7 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 6 |
| Auxiliary Signal Groups | | | 1,8 | | | | | | | | | 6,7 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 5 | 10 | 10 | 5 | 10 | 0 | 5 | 10 | 0 | 5 | 10 | 10 |
| Maximum Green [s] | 14 | 29 | 29 | 14 | 29 | 0 | 5 | 26 | 0 | 5 | 26 | 26 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 14 | 29 | 29 | 18 | 33 | 0 | 14 | 30 | 0 | 13 | 29 | 29 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 5 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 24 | 0 | 0 | 21 | 0 | 0 | 14 | 14 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | No | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 10 | 23 | 8 | 11 | 11 | 3 | 47 | 47 | 9 | 53 | 65 |
| g / C, Green / Cycle | 0.07 | 0.11 | 0.26 | 0.09 | 0.12 | 0.12 | 0.04 | 0.52 | 0.52 | 0.10 | 0.59 | 0.72 |
| (v / s)_i Volume / Saturation Flow Rate | 0.06 | 0.03 | 0.15 | 0.07 | 0.01 | 0.01 | 0.03 | 0.17 | 0.17 | 0.08 | 0.18 | 0.07 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 2813 | 1781 | 1870 | 1662 | 1781 | 3560 | 1794 | 3459 | 5094 | 1589 |
| c, Capacity [veh/h] | 132 | 209 | 721 | 155 | 233 | 207 | 69 | 1864 | 939 | 346 | 2979 | 1138 |
| d1, Uniform Delay [s] | 40.96 | 36.74 | 29.46 | 40.23 | 34.97 | 35.00 | 42.71 | 12.26 | 12.27 | 39.43 | 9.46 | 3.90 |
| k, delay calibration | 0.11 | 0.11 | 0.21 | 0.11 | 0.11 | 0.11 | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.82 | 0.80 | 1.61 | 8.03 | 0.20 | 0.25 | 11.24 | 0.45 | 0.90 | 3.36 | 0.27 | 0.17 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.79 | 0.30 | 0.60 | 0.78 | 0.11 | 0.12 | 0.68 | 0.32 | 0.32 | 0.75 | 0.31 | 0.10 |
| d, Delay for Lane Group [s/veh] | 50.78 | 37.54 | 31.08 | 48.26 | 35.17 | 35.25 | 53.95 | 12.71 | 13.17 | 42.78 | 9.73 | 4.07 |
| Lane Group LOS | D | D | C | D | D | D | D | B | B | D | A | A |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 2.52 | 1.26 | 4.04 | 2.91 | 0.49 | 0.48 | 1.20 | 3.08 | 3.24 | 2.83 | 2.62 | 0.47 |
| 50th-Percentile Queue Length [ft/ln] | 63.09 | 31.56 | 101.03 | 72.79 | 12.36 | 11.94 | 30.08 | 77.01 | 81.00 | 70.85 | 65.48 | 11.84 |
| 95th-Percentile Queue Length [veh/ln] | 4.54 | 2.27 | 7.27 | 5.24 | 0.89 | 0.86 | 2.17 | 5.55 | 5.83 | 5.10 | 4.71 | 0.85 |
| 95th-Percentile Queue Length [ft/ln] | 113.55 | 56.81 | 181.85 | 131.02 | 22.24 | 21.50 | 54.15 | 138.63 | 145.80 | 127.53 | 117.87 | 21.32 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 50.78 | 37.54 | 31.08 | 48.26 | 35.19 | 35.25 | 53.95 | 12.83 | 13.17 | 42.78 | 9.73 | 4.07 |
| Movement LOS | D | D | C | D | D | D | D | B | B | D | A | A |
| d_A, Approach Delay [s/veh] | 35.15 | | | 44.47 | | | 14.91 | | | 15.92 | | |
| Approach LOS | D | | | D | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 21.07 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.490 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.45 | 36.45 | 36.45 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersectio | 2.690 | 2.228 | 3.009 | 0.000 |
| Crosswalk LOS | B | B | C | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 556 | 644 | 578 | 556 |
| d_b, Bicycle Delay [s] | 23.47 | 20.67 | 22.76 | 23.47 |
| l_b,int, Bicycle LOS Score for Intersection | 2.555 | 1.699 | 2.077 | 2.270 |
| Bicycle LOS | B | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 101: Roy Rogers Drive at West Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 78.3 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.725 |

**Intersection Setup**

| Name | | | | | | | |
|---|---|---|---|---|---|---|---|
| Approach | Northbound | | Eastbound | | | Westbound | |
| Lane Configuration |  | |  | | |  | |
| Turning Movement | Left | Right | U-turn | Thru | Right | Left | Thru |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 385.00 | 100.00 | 100.00 | 150.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | | 0.00 | |
| Crosswalk | Yes | | No | | | No | |

**Volumes**

| Name | | | | | | | |
|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 128 | 60 | 0 | 804 | 131 | 48 | 942 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 128 | 60 | 0 | 804 | 131 | 48 | 942 |
| Peak Hour Factor | 0.9870 | 0.9870 | 1.0000 | 0.9870 | 0.9870 | 0.9870 | 0.9870 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 32 | 15 | 0 | 204 | 33 | 12 | 239 |
| Total Analysis Volume [veh/h] | 130 | 61 | 0 | 815 | 133 | 49 | 954 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Stop | Free | Free |
| Flared Lane | No | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.72 | 0.13 | 0.00 | 0.01 | 0.00 | 0.12 | 0.01 |
| d_M, Delay for Movement [s/veh] | 78.31 | 66.08 | 10.57 | 0.00 | 0.00 | 14.84 | 0.00 |
| Movement LOS | F | F | B | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 6.71 | 6.71 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 167.81 | 167.81 | 0.00 | 0.00 | 0.00 | 9.96 | 0.00 |
| d_A, Approach Delay [s/veh] | 74.41 | | 0.00 | | | 0.73 | |
| Approach LOS | F | | A | | | A | |
| d_I, Intersection Delay [s/veh] | 6.97 | | | | | | |
| Intersection LOS | F | | | | | | |

**Intersection Level Of Service Report**
**Intersection 102: Roy Rogers Drive at East Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 13.9 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.067 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Peak Hour Factor | 1.0000 | 0.9580 | 1.0000 | 0.9580 | 0.9580 | 0.9580 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 7 | 0 | 217 | 252 | 4 |
| Total Analysis Volume [veh/h] | 0 | 29 | 0 | 868 | 1008 | 15 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.07 | 0.00 | 0.01 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 13.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| Movement LOS | | B | | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 5.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 13.88 | | 0.00 | | 0.00 | |
| Approach LOS | B | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.21 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 103: Civic Drive at Project Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.7 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.015 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Peak Hour Factor | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 13 | 43 | 24 | 3 | 3 | 10 |
| Total Analysis Volume [veh/h] | 51 | 171 | 96 | 13 | 10 | 41 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.03 | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.52 | 0.00 | 0.00 | 0.00 | 10.74 | 8.83 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.11 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 |
| 95th-Percentile Queue Length [ft/ln] | 2.68 | 0.00 | 0.00 | 0.00 | 4.46 | 4.46 |
| d_A, Approach Delay [s/veh] | 1.73 | | 0.00 | | 9.21 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.23 | | | | | |
| Intersection LOS | B | | | | | |

APPENDIX C-2

INTERSECTION ANALYSIS
WORKSHEETS –
OPENING YEAR 2025

Victorville Raising Cane's

Vistro File: K:\...\RC Victorville - PM.vistro
Report File: K:\...\OY 25 PM.pdf

Scenario 2 OY 25
1/15/2024

**Intersection Analysis Summary**

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | Signalized | HCM 7th Edition | EB Left | 0.509 | 21.4 | C |
| 101 | Roy Rogers Drive at West Driveway | Two-way stop | HCM 7th Edition | NB Left | 0.812 | 103.0 | F |
| 102 | Roy Rogers Drive at East Driveway | Two-way stop | HCM 7th Edition | SB Right | 0.071 | 14.2 | B |
| 103 | Civic Drive at Project Driveway | Two-way stop | HCM 7th Edition | EB Left | 0.016 | 10.9 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**
**Intersection 1: Civic Drive at Roy Rogers Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 21.4 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.509 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 200.00 | 100.00 | 195.00 | 145.00 | 100.00 | 100.00 | 230.00 | 100.00 | 100.00 | 285.00 | 100.00 | 200.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 45.00 | | | 30.00 | | | 45.00 | | | 45.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Proportion of CAVs [%] | 0.00 | | | | | | | | | | | |
| Growth Factor | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 102 | 62 | 428 | 118 | 31 | 17 | 46 | 807 | 71 | 257 | 904 | 109 |
| Peak Hour Factor | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 27 | 16 | 113 | 31 | 8 | 4 | 12 | 213 | 19 | 68 | 239 | 29 |
| Total Analysis Volume [veh/h] | 108 | 66 | 453 | 125 | 33 | 18 | 49 | 854 | 75 | 272 | 957 | 115 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Active Pattern | Pattern 1 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Semi-actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 8.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 8 | 7 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 6 |
| Auxiliary Signal Groups | | | 1,8 | | | | | | | | | 6,7 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 5 | 10 | 10 | 5 | 10 | 0 | 5 | 10 | 0 | 5 | 10 | 10 |
| Maximum Green [s] | 14 | 29 | 29 | 14 | 29 | 0 | 5 | 26 | 0 | 5 | 26 | 26 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 14 | 29 | 29 | 18 | 33 | 0 | 14 | 30 | 0 | 13 | 29 | 29 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 5 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 24 | 0 | 0 | 21 | 0 | 0 | 14 | 14 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | No | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 10 | 23 | 8 | 11 | 11 | 4 | 47 | 47 | 9 | 52 | 64 |
| g / C, Green / Cycle | 0.08 | 0.11 | 0.26 | 0.09 | 0.13 | 0.13 | 0.04 | 0.52 | 0.52 | 0.10 | 0.58 | 0.72 |
| (v / s)_i Volume / Saturation Flow Rate | 0.06 | 0.04 | 0.16 | 0.07 | 0.01 | 0.02 | 0.03 | 0.17 | 0.17 | 0.08 | 0.19 | 0.07 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 2813 | 1781 | 1870 | 1659 | 1781 | 3560 | 1794 | 3459 | 5094 | 1589 |
| c, Capacity [veh/h] | 137 | 210 | 723 | 161 | 235 | 209 | 71 | 1850 | 932 | 346 | 2953 | 1136 |
| d1, Uniform Delay [s] | 40.82 | 36.75 | 29.62 | 40.05 | 34.88 | 34.92 | 42.66 | 12.56 | 12.58 | 39.56 | 9.79 | 3.96 |
| k, delay calibration | 0.11 | 0.11 | 0.23 | 0.11 | 0.11 | 0.11 | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.59 | 0.84 | 1.92 | 7.84 | 0.21 | 0.25 | 11.36 | 0.49 | 0.97 | 3.98 | 0.29 | 0.18 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.79 | 0.31 | 0.63 | 0.78 | 0.11 | 0.12 | 0.69 | 0.33 | 0.33 | 0.79 | 0.32 | 0.10 |
| d, Delay for Lane Group [s/veh] | 50.41 | 37.59 | 31.54 | 47.90 | 35.09 | 35.17 | 54.02 | 13.05 | 13.55 | 43.54 | 10.08 | 4.13 |
| Lane Group LOS | D | D | C | D | D | D | D | B | B | D | B | A |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 2.61 | 1.32 | 4.25 | 3.02 | 0.51 | 0.50 | 1.25 | 3.27 | 3.44 | 2.99 | 2.80 | 0.50 |
| 50th-Percentile Queue Length [ft/ln] | 65.22 | 33.12 | 106.27 | 75.51 | 12.86 | 12.41 | 31.35 | 81.70 | 85.89 | 74.65 | 69.89 | 12.41 |
| 95th-Percentile Queue Length [veh/ln] | 4.70 | 2.38 | 7.63 | 5.44 | 0.93 | 0.89 | 2.26 | 5.88 | 6.18 | 5.37 | 5.03 | 0.89 |
| 95th-Percentile Queue Length [ft/ln] | 117.39 | 59.61 | 190.80 | 135.92 | 23.16 | 22.33 | 56.43 | 147.07 | 154.60 | 134.37 | 125.80 | 22.34 |

**Movement, Approach, & Intersection Results**

| d_M, Delay for Movement [s/veh] | 50.41 | 37.59 | 31.54 | 47.90 | 35.10 | 35.17 | 54.02 | 13.19 | 13.55 | 43.54 | 10.08 | 4.13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement LOS | D | D | C | D | D | D | D | B | B | D | B | A |
| d_A, Approach Delay [s/veh] | 35.43 | | | 44.20 | | | 15.26 | | | 16.34 | | |
| Approach LOS | D | | | D | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 21.40 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.509 | | | | | | | | | | | |

**Other Modes**

| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 | 0.0 |
|---|---|---|---|---|
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.45 | 36.45 | 36.45 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersectio | 2.700 | 2.232 | 3.026 | 0.000 |
| Crosswalk LOS | B | B | C | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 556 | 644 | 578 | 556 |
| d_b, Bicycle Delay [s] | 23.47 | 20.67 | 22.76 | 23.47 |
| l_b,int, Bicycle LOS Score for Intersection | 2.594 | 1.705 | 2.098 | 2.299 |
| Bicycle LOS | B | A | B | B |

## Sequence

| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 101: Roy Rogers Drive at West Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 103.0 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.812 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Thru | Right | Left | Thru |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 385.00 | 100.00 | 150.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 128 | 60 | 804 | 131 | 48 | 942 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 133 | 62 | 836 | 136 | 50 | 980 |
| Peak Hour Factor | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 34 | 16 | 212 | 34 | 13 | 248 |
| Total Analysis Volume [veh/h] | 135 | 63 | 847 | 138 | 51 | 993 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Stop | Free | Free |
| Flared Lane | No | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.81 | 0.14 | 0.01 | 0.00 | 0.13 | 0.01 |
| d_M, Delay for Movement [s/veh] | 102.96 | 89.36 | 0.00 | 0.00 | 15.37 | 0.00 |
| Movement LOS | F | F | A | A | C | A |
| 95th-Percentile Queue Length [veh/ln] | 8.03 | 8.03 | 0.00 | 0.00 | 0.44 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 200.73 | 200.73 | 0.00 | 0.00 | 10.91 | 0.00 |
| d_A, Approach Delay [s/veh] | 98.63 | | 0.00 | | 0.75 | |
| Approach LOS | F | | A | | A | |
| d_I, Intersection Delay [s/veh] | 9.12 | | | | | |
| Intersection LOS | F | | | | | |

**Intersection Level Of Service Report**
**Intersection 102: Roy Rogers Drive at East Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 14.2 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.071 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0400 | 1.0000 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 29 | 0 | 865 | 1005 | 15 |
| Peak Hour Factor | 1.0000 | 0.9580 | 1.0000 | 0.9580 | 0.9580 | 0.9580 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 8 | 0 | 226 | 262 | 4 |
| Total Analysis Volume [veh/h] | 0 | 30 | 0 | 903 | 1049 | 16 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.07 | 0.00 | 0.01 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 14.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| Movement LOS | | B | | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 5.73 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 14.21 | | 0.00 | | 0.00 | |
| Approach LOS | B | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.21 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 103: Civic Drive at Project Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.9 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.016 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 48 | 159 | 89 | 12 | 9 | 38 |
| Peak Hour Factor | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 13 | 44 | 25 | 3 | 3 | 11 |
| Total Analysis Volume [veh/h] | 54 | 177 | 99 | 13 | 10 | 42 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.04 | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.53 | 0.00 | 0.00 | 0.00 | 10.86 | 8.85 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.11 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 |
| 95th-Percentile Queue Length [ft/ln] | 2.85 | 0.00 | 0.00 | 0.00 | 4.58 | 4.58 |
| d_A, Approach Delay [s/veh] | 1.76 | | 0.00 | | 9.24 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.25 | | | | | |
| Intersection LOS | B | | | | | |

APPENDIX C-3

INTERSECTION ANALYSIS
WORKSHEETS –
OPENING YEAR 2025 PLUS PROJECT

Victorville Raising Cane's

Vistro File: K:\...\RC Victorville - PM.vistro
Report File: K:\...\OY 25 WP PM.pdf

Scenario 3 OY 25 WP
1/15/2024

**Intersection Analysis Summary**

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | Signalized | HCM 7th Edition | EB Left | 0.576 | 26.9 | C |
| 101 | Roy Rogers Drive at West Driveway | Two-way stop | HCM 7th Edition | NB Right | 0.432 | 19.0 | C |
| 102 | Roy Rogers Drive at East Driveway | Two-way stop | HCM 7th Edition | SB Right | 0.098 | 14.6 | B |
| 103 | Civic Drive at Project Driveway | Two-way stop | HCM 7th Edition | EB Left | 0.018 | 12.0 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**
**Intersection 1: Civic Drive at Roy Rogers Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 26.9 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.576 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 200.00 | 100.00 | 195.00 | 145.00 | 100.00 | 100.00 | 230.00 | 100.00 | 100.00 | 285.00 | 100.00 | 200.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 45.00 | | | 30.00 | | | 45.00 | | | 45.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Proportion of CAVs [%] | 0.00 | | | | | | | | | | | |
| Growth Factor | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 2 | 0 | 0 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 10 | 3 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 10 | 0 | 0 | 11 | -11 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 104 | 62 | 428 | 141 | 33 | 17 | 185 | 796 | 71 | 257 | 914 | 112 |
| Peak Hour Factor | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 28 | 16 | 113 | 37 | 9 | 4 | 49 | 211 | 19 | 68 | 242 | 30 |
| Total Analysis Volume [veh/h] | 110 | 66 | 453 | 149 | 35 | 18 | 196 | 842 | 75 | 272 | 967 | 119 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Active Pattern | Pattern 1 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Semi-actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 8.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 8 | 7 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 6 |
| Auxiliary Signal Groups | | | 1,8 | | | | | | | | | 6,7 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 5 | 10 | 10 | 5 | 10 | 0 | 5 | 10 | 0 | 5 | 10 | 10 |
| Maximum Green [s] | 14 | 29 | 29 | 14 | 29 | 0 | 5 | 26 | 0 | 5 | 26 | 26 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 14 | 29 | 29 | 18 | 33 | 0 | 14 | 30 | 0 | 13 | 29 | 29 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 5 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 24 | 0 | 0 | 21 | 0 | 0 | 14 | 14 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | No | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 10 | 23 | 9 | 12 | 12 | 10 | 46 | 46 | 9 | 45 | 58 |
| g / C, Green / Cycle | 0.08 | 0.11 | 0.26 | 0.10 | 0.14 | 0.14 | 0.11 | 0.51 | 0.51 | 0.10 | 0.49 | 0.64 |
| (v / s)_i Volume / Saturation Flow Rate | 0.06 | 0.04 | 0.16 | 0.08 | 0.01 | 0.02 | 0.11 | 0.17 | 0.17 | 0.08 | 0.19 | 0.07 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 2813 | 1781 | 1870 | 1666 | 1781 | 3560 | 1793 | 3459 | 5094 | 1589 |
| c, Capacity [veh/h] | 139 | 210 | 723 | 187 | 260 | 231 | 198 | 1798 | 906 | 346 | 2516 | 1022 |
| d1, Uniform Delay [s] | 40.75 | 36.75 | 29.62 | 39.36 | 33.86 | 33.89 | 39.95 | 13.30 | 13.31 | 39.56 | 14.22 | 6.19 |
| k, delay calibration | 0.11 | 0.11 | 0.23 | 0.11 | 0.11 | 0.11 | 0.36 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.52 | 0.84 | 1.92 | 7.63 | 0.17 | 0.21 | 52.17 | 0.51 | 1.02 | 3.98 | 0.45 | 0.23 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.79 | 0.31 | 0.63 | 0.80 | 0.10 | 0.11 | 0.99 | 0.34 | 0.34 | 0.79 | 0.38 | 0.12 |
| d, Delay for Lane Group [s/veh] | 50.27 | 37.59 | 31.54 | 46.99 | 34.03 | 34.10 | 92.12 | 13.81 | 14.32 | 43.54 | 14.67 | 6.43 |
| Lane Group LOS | D | D | C | D | C | C | F | B | B | D | B | A |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.65 | 1.32 | 4.25 | 3.57 | 0.53 | 0.50 | 6.98 | 3.36 | 3.52 | 2.99 | 3.71 | 0.75 |
| 50th-Percentile Queue Length [ft/ln] | 66.31 | 33.12 | 106.27 | 89.16 | 13.14 | 12.62 | 174.41 | 83.98 | 87.99 | 74.65 | 92.78 | 18.82 |
| 95th-Percentile Queue Length [veh/ln] | 4.77 | 2.38 | 7.63 | 6.42 | 0.95 | 0.91 | 11.31 | 6.05 | 6.34 | 5.37 | 6.68 | 1.35 |
| 95th-Percentile Queue Length [ft/ln] | 119.36 | 59.61 | 190.80 | 160.49 | 23.65 | 22.71 | 282.71 | 151.16 | 158.38 | 134.37 | 167.00 | 33.87 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 50.27 | 37.59 | 31.54 | 46.99 | 34.05 | 34.10 | 92.12 | 13.95 | 14.32 | 43.54 | 14.67 | 6.43 |
| Movement LOS | D | D | C | D | C | C | F | B | B | D | B | A |
| d_A, Approach Delay [s/veh] | 35.45 | | | 43.60 | | | 27.74 | | | 19.73 | | |
| Approach LOS | D | | | D | | | C | | | B | | |
| d_I, Intersection Delay [s/veh] | 26.89 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.576 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.45 | 36.45 | 36.45 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersectio | 2.701 | 2.275 | 3.057 | 0.000 |
| Crosswalk LOS | B | B | C | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 556 | 644 | 578 | 556 |
| d_b, Bicycle Delay [s] | 23.47 | 20.67 | 22.76 | 23.47 |
| l_b,int, Bicycle LOS Score for Intersection | 2.597 | 1.726 | 2.172 | 2.307 |
| Bicycle LOS | B | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 101: Roy Rogers Drive at West Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 19.0 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.432 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 385.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | No | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 128 | 0 | 60 | 0 | 0 | 0 | 0 | 804 | 131 | 48 | 942 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0400 | 1.0400 | 1.0000 | 1.0000 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 | 0 | 0 | 3 | 3 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | -1 | 8 |
| Existing Site Adjustment Volume [veh/h] | -128 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 0 | 190 | 0 | 0 | 11 | 7 | 836 | 136 | 50 | 982 | 11 |
| Peak Hour Factor | 0.9870 | 0.9870 | 0.9870 | 1.0000 | 1.0000 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 0 | 48 | 0 | 0 | 3 | 2 | 212 | 34 | 13 | 249 | 3 |
| Total Analysis Volume [veh/h] | 0 | 0 | 193 | 0 | 0 | 11 | 7 | 847 | 138 | 51 | 995 | 11 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| Priority Scheme | Stop | Stop | Free | Free |
|---|---|---|---|---|
| Flared Lane | No | | | |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.43 | 0.00 | 0.00 | 0.03 | 0.02 | 0.01 | 0.00 | 0.13 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 41.39 | 86.05 | 19.05 | 0.00 | 0.00 | 13.40 | 14.43 | 0.00 | 0.00 | 15.37 | 0.00 | 0.00 |
| Movement LOS | E | F | C | | | B | B | A | A | C | A | A |
| 95th-Percentile Queue Length [veh/ln] | 2.14 | 2.14 | 2.14 | 0.00 | 0.00 | 0.08 | 0.05 | 0.00 | 0.00 | 0.44 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 53.44 | 53.44 | 53.44 | 0.00 | 0.00 | 1.92 | 1.37 | 0.00 | 0.00 | 10.91 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 19.05 | | | 13.40 | | | 0.10 | | | 0.74 | | |
| Approach LOS | C | | | B | | | A | | | A | | |
| d_I, Intersection Delay [s/veh] | 2.09 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 102: Roy Rogers Drive at East Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 14.6 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.098 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0400 | 1.0000 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 0 | 0 | 3 | 9 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 7 | 0 | 0 | -9 | 9 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 128 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 39 | 0 | 993 | 999 | 33 |
| Peak Hour Factor | 1.0000 | 0.9580 | 1.0000 | 0.9580 | 0.9580 | 0.9580 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 10 | 0 | 259 | 261 | 9 |
| Total Analysis Volume [veh/h] | 0 | 41 | 0 | 1037 | 1043 | 34 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.10 | 0.00 | 0.01 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 14.57 | 0.00 | 0.00 | 0.00 | 0.00 |
| Movement LOS | | B | | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 8.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 14.57 | | 0.00 | | 0.00 | |
| Approach LOS | B | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.28 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 103: Civic Drive at Project Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 12.0 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.018 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 | 1.0400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 3 | 0 | 0 | 0 | 0 | 15 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 11 | 0 | 0 | 0 | 0 | 10 |
| Existing Site Adjustment Volume [veh/h] | 0 | 128 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 62 | 287 | 89 | 12 | 9 | 63 |
| Peak Hour Factor | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 17 | 80 | 25 | 3 | 3 | 18 |
| Total Analysis Volume [veh/h] | 69 | 320 | 99 | 13 | 10 | 70 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.05 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.56 | 0.00 | 0.00 | 0.00 | 11.95 | 8.99 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.15 | 0.00 | 0.00 | 0.00 | 0.29 | 0.29 |
| 95th-Percentile Queue Length [ft/ln] | 3.68 | 0.00 | 0.00 | 0.00 | 7.25 | 7.25 |
| d_A, Approach Delay [s/veh] | 1.34 | | 0.00 | | 9.36 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.19 | | | | | |
| Intersection LOS | B | | | | | |

APPENDIX C-4

INTERSECTION ANALYSIS
WORKSHEETS –
FUTURE YEAR 2035

Victorville Raising Cane's

Vistro File: K:\...\RC Victorville - PM.vistro
Report File: K:\...\FY 35 PM.pdf

Scenario 4 FY 35
1/15/2024

**Intersection Analysis Summary**

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | Signalized | HCM 7th Edition | EB Left | 0.595 | 23.6 | C |
| 101 | Roy Rogers Drive at West Driveway | Two-way stop | HCM 7th Edition | NB Left | 1.466 | 389.0 | F |
| 102 | Roy Rogers Drive at East Driveway | Two-way stop | HCM 7th Edition | SB Right | 0.103 | 16.2 | C |
| 103 | Civic Drive at Project Driveway | Two-way stop | HCM 7th Edition | EB Left | 0.021 | 11.5 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**
**Intersection 1: Civic Drive at Roy Rogers Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 23.6 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.595 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 200.00 | 100.00 | 195.00 | 145.00 | 100.00 | 100.00 | 230.00 | 100.00 | 100.00 | 285.00 | 100.00 | 200.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 45.00 | | | 30.00 | | | 45.00 | | | 45.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Proportion of CAVs [%] | 0.00 | | | | | | | | | | | |
| Growth Factor | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 122 | 74 | 511 | 140 | 37 | 20 | 55 | 970 | 84 | 306 | 1084 | 130 |
| Peak Hour Factor | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 32 | 20 | 135 | 37 | 10 | 5 | 15 | 257 | 22 | 81 | 287 | 34 |
| Total Analysis Volume [veh/h] | 129 | 78 | 541 | 148 | 39 | 21 | 58 | 1026 | 89 | 324 | 1147 | 138 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Active Pattern | Pattern 1 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Semi-actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 8.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 8 | 7 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 6 |
| Auxiliary Signal Groups | | | 1,8 | | | | | | | | | 6,7 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 5 | 10 | 10 | 5 | 10 | 0 | 5 | 10 | 0 | 5 | 10 | 10 |
| Maximum Green [s] | 14 | 29 | 29 | 14 | 29 | 0 | 5 | 26 | 0 | 5 | 26 | 26 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 14 | 29 | 29 | 18 | 33 | 0 | 14 | 30 | 0 | 13 | 29 | 29 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 5 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 24 | 0 | 0 | 21 | 0 | 0 | 14 | 14 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | No | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 8 | 10 | 23 | 9 | 11 | 11 | 4 | 46 | 46 | 9 | 51 | 64 |
| g / C, Green / Cycle | 0.09 | 0.11 | 0.26 | 0.10 | 0.13 | 0.13 | 0.04 | 0.51 | 0.51 | 0.10 | 0.56 | 0.71 |
| (v / s)_i Volume / Saturation Flow Rate | 0.07 | 0.04 | 0.19 | 0.08 | 0.02 | 0.02 | 0.03 | 0.21 | 0.21 | 0.09 | 0.23 | 0.09 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 2813 | 1781 | 1870 | 1660 | 1781 | 3560 | 1795 | 3459 | 5094 | 1589 |
| c, Capacity [veh/h] | 160 | 210 | 723 | 186 | 237 | 210 | 77 | 1799 | 907 | 346 | 2864 | 1130 |
| d1, Uniform Delay [s] | 40.17 | 36.99 | 30.77 | 39.36 | 34.88 | 34.93 | 42.60 | 13.90 | 13.91 | 40.22 | 11.13 | 4.11 |
| k, delay calibration | 0.11 | 0.11 | 0.33 | 0.11 | 0.11 | 0.11 | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.04 | 1.09 | 4.74 | 7.53 | 0.24 | 0.30 | 13.96 | 0.70 | 1.39 | 11.78 | 0.42 | 0.22 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.80 | 0.37 | 0.75 | 0.80 | 0.13 | 0.14 | 0.76 | 0.41 | 0.41 | 0.94 | 0.40 | 0.12 |
| d, Delay for Lane Group [s/veh] | 49.21 | 38.08 | 35.51 | 46.89 | 35.13 | 35.23 | 56.56 | 14.60 | 15.29 | 52.00 | 11.55 | 4.33 |
| Lane Group LOS | D | D | D | D | D | D | E | B | B | D | B | A |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 3.07 | 1.58 | 5.51 | 3.54 | 0.61 | 0.58 | 1.52 | 4.28 | 4.50 | 3.95 | 3.74 | 0.62 |
| 50th-Percentile Queue Length [ft/ln] | 76.77 | 39.52 | 137.73 | 88.44 | 15.20 | 14.57 | 37.96 | 107.07 | 112.47 | 98.77 | 93.46 | 15.46 |
| 95th-Percentile Queue Length [veh/ln] | 5.53 | 2.85 | 9.36 | 6.37 | 1.09 | 1.05 | 2.73 | 7.68 | 7.98 | 7.11 | 6.73 | 1.11 |
| 95th-Percentile Queue Length [ft/ln] | 138.18 | 71.13 | 233.96 | 159.20 | 27.37 | 26.23 | 68.33 | 191.92 | 199.43 | 177.78 | 168.24 | 27.83 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 49.21 | 38.08 | 35.51 | 46.89 | 35.15 | 35.23 | 56.56 | 14.79 | 15.29 | 52.00 | 11.55 | 4.33 |
| Movement LOS | D | D | D | D | D | D | E | B | B | D | B | A |
| d_A, Approach Delay [s/veh] | 38.14 | | | 43.51 | | | 16.90 | | | 19.07 | | |
| Approach LOS | D | | | D | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 23.57 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.595 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.45 | 36.45 | 36.45 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersectio | 2.747 | 2.250 | 3.111 | 0.000 |
| Crosswalk LOS | B | B | C | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 556 | 644 | 578 | 556 |
| d_b, Bicycle Delay [s] | 23.47 | 20.67 | 22.76 | 23.47 |
| l_b,int, Bicycle LOS Score for Intersection | 2.794 | 1.731 | 2.205 | 2.445 |
| Bicycle LOS | C | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 101: Roy Rogers Drive at West Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 389.0 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 1.466 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Thru | Right | Left | Thru |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 385.00 | 100.00 | 150.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 128 | 60 | 804 | 131 | 48 | 942 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 8 | 0 | 0 | 6 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 159 | 74 | 1005 | 162 | 60 | 1174 |
| Peak Hour Factor | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 40 | 19 | 255 | 41 | 15 | 297 |
| Total Analysis Volume [veh/h] | 161 | 75 | 1018 | 164 | 61 | 1189 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Stop | Free | Free |
| Flared Lane | No | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 1.47 | 0.19 | 0.01 | 0.00 | 0.19 | 0.01 |
| d_M, Delay for Movement [s/veh] | 389.00 | 365.54 | 0.00 | 0.00 | 18.91 | 0.00 |
| Movement LOS | F | F | A | A | C | A |
| 95th-Percentile Queue Length [veh/ln] | 16.96 | 16.96 | 0.00 | 0.00 | 0.69 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 423.89 | 423.89 | 0.00 | 0.00 | 17.33 | 0.00 |
| d_A, Approach Delay [s/veh] | 381.54 | | 0.00 | | 0.92 | |
| Approach LOS | F | | A | | A | |
| d_I, Intersection Delay [s/veh] | 34.18 | | | | | |
| Intersection LOS | F | | | | | |

**Intersection Level Of Service Report**
**Intersection 102: Roy Rogers Drive at East Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 16.2 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.103 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.2400 | 1.0000 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 8 | 6 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 35 | 0 | 1040 | 1204 | 17 |
| Peak Hour Factor | 1.0000 | 0.9580 | 1.0000 | 0.9580 | 0.9580 | 0.9580 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 9 | 0 | 271 | 314 | 4 |
| Total Analysis Volume [veh/h] | 0 | 37 | 0 | 1086 | 1257 | 18 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.10 | 0.00 | 0.01 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 16.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| Movement LOS | | C | | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 8.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 16.15 | | 0.00 | | 0.00 | |
| Approach LOS | C | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.25 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 103: Civic Drive at Project Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 57 | 190 | 107 | 15 | 11 | 46 |
| Peak Hour Factor | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 53 | 30 | 4 | 3 | 13 |
| Total Analysis Volume [veh/h] | 64 | 212 | 119 | 17 | 12 | 51 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.04 | 0.00 | 0.00 | 0.00 | 0.02 | 0.05 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.61 | 0.00 | 0.00 | 0.00 | 11.49 | 8.99 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.14 | 0.00 | 0.00 | 0.00 | 0.23 | 0.23 |
| 95th-Percentile Queue Length [ft/ln] | 3.47 | 0.00 | 0.00 | 0.00 | 5.85 | 5.85 |
| d_A, Approach Delay [s/veh] | 1.76 | | 0.00 | | 9.47 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.28 | | | | | |
| Intersection LOS | B | | | | | |

APPENDIX C-5

INTERSECTION ANALYSIS
WORKSHEETS –
FUTURE YEAR 2035 PLUS PROJECT

Victorville Raising Cane's

Vistro File: K:\...\RC Victorville - PM.vistro
Report File: K:\...\FY 35 WP PM.pdf

Scenario 5 FY 35 WP
1/15/2024

**Intersection Analysis Summary**

| ID | Intersection Name | Control Type | Method | Worst Mvmt | V/C | Delay (s/veh) | LOS |
|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | Signalized | HCM 7th Edition | EB Left | 0.654 | 29.3 | C |
| 101 | Roy Rogers Drive at West Driveway | Two-way stop | HCM 7th Edition | NB Right | 0.532 | 24.4 | C |
| 102 | Roy Rogers Drive at East Driveway | Two-way stop | HCM 7th Edition | SB Right | 0.132 | 16.6 | C |
| 103 | Civic Drive at Project Driveway | Two-way stop | HCM 7th Edition | EB Left | 0.024 | 12.7 | B |

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**
**Intersection 1: Civic Drive at Roy Rogers Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 29.3 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.654 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 200.00 | 100.00 | 195.00 | 145.00 | 100.00 | 100.00 | 230.00 | 100.00 | 100.00 | 285.00 | 100.00 | 200.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 45.00 | | | 30.00 | | | 45.00 | | | 45.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 98 | 60 | 412 | 113 | 30 | 16 | 44 | 776 | 68 | 247 | 869 | 105 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Proportion of CAVs [%] | 0.00 | | | | | | | | | | | |
| Growth Factor | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| Site-Generated Trips [veh/h] | 2 | 0 | 0 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 10 | 3 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 10 | 0 | 0 | 11 | -11 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 128 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 124 | 74 | 511 | 163 | 39 | 20 | 194 | 959 | 84 | 306 | 1094 | 133 |
| Peak Hour Factor | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 | 0.9450 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 33 | 20 | 135 | 43 | 10 | 5 | 51 | 254 | 22 | 81 | 289 | 35 |
| Total Analysis Volume [veh/h] | 131 | 78 | 541 | 172 | 41 | 21 | 205 | 1015 | 89 | 324 | 1158 | 141 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Active Pattern | Pattern 1 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Semi-actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 8.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 8 | 7 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 6 |
| Auxiliary Signal Groups | | | 1,8 | | | | | | | | | 6,7 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 5 | 10 | 10 | 5 | 10 | 0 | 5 | 10 | 0 | 5 | 10 | 10 |
| Maximum Green [s] | 14 | 29 | 29 | 14 | 29 | 0 | 5 | 26 | 0 | 5 | 26 | 26 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 14 | 29 | 29 | 18 | 33 | 0 | 14 | 30 | 0 | 13 | 29 | 29 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 5 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 24 | 0 | 0 | 21 | 0 | 0 | 14 | 14 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | No | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | No | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 8 | 10 | 23 | 11 | 12 | 12 | 10 | 44 | 44 | 9 | 43 | 58 |
| g / C, Green / Cycle | 0.09 | 0.11 | 0.26 | 0.12 | 0.14 | 0.14 | 0.11 | 0.49 | 0.49 | 0.10 | 0.48 | 0.64 |
| (v / s)_i Volume / Saturation Flow Rate | 0.07 | 0.04 | 0.19 | 0.10 | 0.02 | 0.02 | 0.12 | 0.21 | 0.21 | 0.09 | 0.23 | 0.09 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 2813 | 1781 | 1870 | 1666 | 1781 | 3560 | 1794 | 3459 | 5094 | 1589 |
| c, Capacity [veh/h] | 163 | 210 | 723 | 210 | 260 | 232 | 198 | 1751 | 882 | 346 | 2448 | 1022 |
| d1, Uniform Delay [s] | 40.11 | 36.99 | 30.77 | 38.74 | 33.91 | 33.95 | 40.00 | 14.65 | 14.65 | 40.22 | 15.71 | 6.29 |
| k, delay calibration | 0.11 | 0.11 | 0.33 | 0.14 | 0.11 | 0.11 | 0.39 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.01 | 1.09 | 4.74 | 9.72 | 0.21 | 0.25 | 66.38 | 0.74 | 1.47 | 11.78 | 0.66 | 0.28 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.81 | 0.37 | 0.75 | 0.82 | 0.12 | 0.13 | 1.04 | 0.42 | 0.42 | 0.94 | 0.47 | 0.14 |
| d, Delay for Lane Group [s/veh] | 49.12 | 38.08 | 35.51 | 48.46 | 34.12 | 34.20 | 106.38 | 15.39 | 16.12 | 52.00 | 16.37 | 6.57 |
| Lane Group LOS | D | D | D | D | C | C | F | B | B | D | B | A |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 3.12 | 1.58 | 5.51 | 4.22 | 0.62 | 0.59 | 7.80 | 4.40 | 4.61 | 3.95 | 4.85 | 0.91 |
| 50th-Percentile Queue Length [ft/ln] | 77.88 | 39.52 | 137.73 | 105.42 | 15.45 | 14.75 | 195.05 | 109.97 | 115.32 | 98.77 | 121.17 | 22.65 |
| 95th-Percentile Queue Length [veh/ln] | 5.61 | 2.85 | 9.36 | 7.58 | 1.11 | 1.06 | 12.56 | 7.84 | 8.13 | 7.11 | 8.46 | 1.63 |
| 95th-Percentile Queue Length [ft/ln] | 140.18 | 71.13 | 233.96 | 189.61 | 27.81 | 26.56 | 314.01 | 195.96 | 203.37 | 177.78 | 211.43 | 40.78 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 49.12 | 38.08 | 35.51 | 48.46 | 34.14 | 34.20 | 106.38 | 15.59 | 16.12 | 52.00 | 16.37 | 6.57 |
| Movement LOS | D | D | D | D | C | C | F | B | B | D | B | A |
| d_A, Approach Delay [s/veh] | 38.15 | | | 44.67 | | | 29.84 | | | 22.63 | | |
| Approach LOS | D | | | D | | | C | | | C | | |
| d_I, Intersection Delay [s/veh] | 29.33 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.654 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.45 | 36.45 | 36.45 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersectio | 2.748 | 2.293 | 3.143 | 0.000 |
| Crosswalk LOS | B | B | C | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 556 | 644 | 578 | 556 |
| d_b, Bicycle Delay [s] | 23.47 | 20.67 | 22.76 | 23.47 |
| l_b,int, Bicycle LOS Score for Intersection | 2.797 | 1.753 | 2.280 | 2.452 |
| Bicycle LOS | C | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 101: Roy Rogers Drive at West Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 24.4 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.532 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 385.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | No | | | No | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 128 | 0 | 60 | 0 | 0 | 0 | 0 | 804 | 131 | 48 | 942 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.2400 | 1.2400 | 1.0000 | 1.0000 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 | 0 | 0 | 3 | 3 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | -1 | 8 |
| Existing Site Adjustment Volume [veh/h] | -128 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 0 | 202 | 0 | 0 | 11 | 7 | 1005 | 162 | 60 | 1176 | 11 |
| Peak Hour Factor | 0.9870 | 0.9870 | 0.9870 | 1.0000 | 1.0000 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 | 0.9870 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 0 | 51 | 0 | 0 | 3 | 2 | 255 | 41 | 15 | 298 | 3 |
| Total Analysis Volume [veh/h] | 0 | 0 | 205 | 0 | 0 | 11 | 7 | 1018 | 164 | 61 | 1191 | 11 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| Priority Scheme | Stop | Stop | Free | Free |
|---|---|---|---|---|
| Flared Lane | No | | | |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 0.03 | 0.02 | 0.01 | 0.00 | 0.19 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 64.16 | 161.37 | 24.44 | 0.00 | 0.00 | 14.76 | 16.79 | 0.00 | 0.00 | 18.91 | 0.00 | 0.00 |
| Movement LOS | F | F | C | | | B | C | A | A | C | A | A |
| 95th-Percentile Queue Length [veh/ln] | 3.00 | 3.00 | 3.00 | 0.00 | 0.00 | 0.09 | 0.07 | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 75.10 | 75.10 | 75.10 | 0.00 | 0.00 | 2.23 | 1.72 | 0.00 | 0.00 | 17.33 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 24.44 | | | 14.76 | | | 0.10 | | | 0.91 | | |
| Approach LOS | C | | | B | | | A | | | A | | |
| d_I, Intersection Delay [s/veh] | 2.42 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 102: Roy Rogers Drive at East Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 16.6 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.132 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 28 | 0 | 832 | 966 | 14 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.2400 | 1.0000 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 8 | 6 | 0 |
| Site-Generated Trips [veh/h] | 0 | 3 | 0 | 0 | 3 | 9 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 7 | 0 | 0 | -9 | 9 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 128 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 0 | 45 | 0 | 1168 | 1198 | 35 |
| Peak Hour Factor | 1.0000 | 0.9580 | 1.0000 | 0.9580 | 0.9580 | 0.9580 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 12 | 0 | 305 | 313 | 9 |
| Total Analysis Volume [veh/h] | 0 | 47 | 0 | 1219 | 1251 | 37 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | | | | |
|---|---|---|---|---|---|---|
| Priority Scheme | Stop | | Free | | Free | |
| Flared Lane | | | | | | |
| Storage Area [veh] | 0 | | 0 | | 0 | |
| Two-Stage Gap Acceptance | No | | | | | |
| Number of Storage Spaces in Median | 0 | | 0 | | 0 | |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.13 | 0.00 | 0.01 | 0.01 | 0.00 |
| d_M, Delay for Movement [s/veh] | 0.00 | 16.64 | 0.00 | 0.00 | 0.00 | 0.00 |
| Movement LOS | | C | | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 11.27 | 0.00 | 0.00 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 16.64 | | 0.00 | | 0.00 | |
| Approach LOS | C | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.31 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 103: Civic Drive at Project Driveway**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 12.7 |
| Analysis Method: | HCM 7th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.024 |

**Intersection Setup**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | | | | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 46 | 153 | 86 | 12 | 9 | 37 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 | 1.2400 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 3 | 0 | 0 | 0 | 0 | 15 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 11 | 0 | 0 | 0 | 0 | 10 |
| Existing Site Adjustment Volume [veh/h] | 0 | 128 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 71 | 318 | 107 | 15 | 11 | 71 |
| Peak Hour Factor | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 | 0.8960 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 20 | 89 | 30 | 4 | 3 | 20 |
| Total Analysis Volume [veh/h] | 79 | 355 | 119 | 17 | 12 | 79 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.05 | 0.00 | 0.00 | 0.00 | 0.02 | 0.08 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.63 | 0.00 | 0.00 | 0.00 | 12.70 | 9.15 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.17 | 0.00 | 0.00 | 0.00 | 0.35 | 0.35 |
| 95th-Percentile Queue Length [ft/ln] | 4.33 | 0.00 | 0.00 | 0.00 | 8.73 | 8.73 |
| d_A, Approach Delay [s/veh] | 1.39 | | 0.00 | | 9.62 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 2.24 | | | | | |
| Intersection LOS | B | | | | | |

APPENDIX **D**

CUMULATIVE PROJECTS
INFORMATION

TOTAL CUMULATIVE PROJECTS TRAFFIC

AM Peak Hour

| | | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 7 | 0 |
| 2 | Roy Rogers Drive at West Project Driveway (D1) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 7 | 0 |
| 3 | Roy Rogers Drive at East Project Driveway (D2) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 7 | 0 |
| 4 | Civic Drive at Project Driveway (D3) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

PM Peak Hour

| | | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Civic Drive at Roy Rogers Drive | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| 2 | Roy Rogers Drive at West Project Driveway (D1) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| 3 | Roy Rogers Drive at East Project Driveway (D2) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| 4 | Civic Drive at Project Driveway (D3) | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Int. #: | 1 | Civic Drive at Roy Rogers Drive |
|---|---|---|

Mirror distribution? Y Entire Intersection

Mirror distribution?

TOTAL CUMULATIVE PROJECTS TRAFFIC

| Pk Hr | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 0 |
| AM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 |
| AM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 7 | 0 |
| PM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 |
| PM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 |
| PM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |

| Zone # | 1 | 15425 Dos Palmas Rd / 13721 Park Ave |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | 20% | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 20% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 20% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 20% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| PM In | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| PM Out | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |

| Zone # | 2 | 14281 7th St |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | 50% | | | | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 50% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 50% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 50% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| PM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| PM Out | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| Zone # | 3 | 14195 Macart Rd |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | 30% | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 30% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 30% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 30% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| PM In | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| PM Out | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |

| Int. #: | 2 | Roy Rogers Drive at West Project Driveway (D1) |
|---|---|---|

N

TOTAL CUMULATIVE PROJECTS TRAFFIC

| Pk Hr | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 1 | 15425 Dos Palmas Rd / 13721 Park Ave |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 2 | 14281 7th St |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 3 | 14195 Macart Rd |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Int. #: | 3 | Roy Rogers Drive at East Project Driveway (D2) |
|---|---|---|

N

TOTAL CUMULATIVE PROJECTS TRAFFIC

| Pk Hr | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 1 | 15425 Dos Palmas Rd / 13721 Park Ave |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 2 | 14281 7th St |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 3 | 14195 Macart Rd |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| N | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Int. #: | 4 | Civic Drive at Project Driveway (D3) |
|---|---|---|

Y

TOTAL CUMULATIVE PROJECTS TRAFFIC

| Pk Hr | | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Tot | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 1 | 15425 Dos Palmas Rd / 13721 Park Ave |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 2 | 14281 7th St |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Zone # | 3 | 14195 Macart Rd |
|---|---|---|

| Pk Hr | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | | | | | | | | | | | | |
| Y | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| AM Out | | | | | | | | | | | | |
| PM In | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| PM Out | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Pk Hr | T Gen | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM In | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| AM Out | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM In | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM Out | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# APPENDIX E

# DRIVE-THROUGH QUEUING DATA COLLECTION

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 2249 N Tustin St
City: Orange, CA

Date: 9/29/2020
Day: Tuesday

| Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total | Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 11:00 AM | 2 | 2 | 0 | 4 | 4:00 PM | 3 | 0 | 0 | 3 |
| 11:02 AM | 3 | 1 | 0 | 4 | 4:02 PM | 2 | 0 | 0 | 2 |
| 11:04 AM | 4 | 3 | 0 | 7 | 4:05 PM | 1 | 1 | 0 | 2 |
| 11:07 AM | 4 | 4 | 0 | 8 | 4:07 PM | 1 | 0 | 0 | 1 |
| 11:10 AM | 3 | 5 | 0 | 8 | 4:09 PM | 0 | 0 | 0 | 0 |
| 11:12 AM | 4 | 4 | 0 | 8 | 4:14 PM | 1 | 0 | 0 | 1 |
| 11:13 AM | 4 | 2 | 0 | 6 | 4:18 PM | 2 | 0 | 0 | 2 |
| 11:15 AM | 2 | 3 | 0 | 5 | 4:19 PM | 2 | 3 | 0 | 5 |
| 11:17 AM | 1 | 3 | 0 | 4 | 4:20 PM | 2 | 3 | 1 | 6 |
| 11:19 AM | 3 | 1 | 0 | 4 | 4:22 PM | 3 | 3 | 2 | 8 |
| 11:21 AM | 1 | 3 | 3 | 7 | 4:24 PM | 4 | 3 | 1 | 8 |
| 11:22 AM | 1 | 3 | 4 | 8 | 4:26 PM | 3 | 4 | 0 | 7 |
| 11:24 AM | 2 | 3 | 3 | 8 | 4:28 PM | 3 | 3 | 1 | 7 |
| 11:26 AM | 3 | 3 | 2 | 8 | 4:30 PM | 4 | 3 | 1 | 8 |
| 11:28 AM | 3 | 3 | 3 | 9 | 4:34 PM | 4 | 4 | 2 | 10 |
| 11:30 AM | 3 | 3 | 1 | 7 | 4:36 PM | 4 | 4 | 1 | 9 |
| 11:33 AM | 2 | 3 | 0 | 5 | 4:38 PM | 4 | 4 | 0 | 8 |
| 11:36 AM | 2 | 2 | 0 | 4 | 4:40 PM | 4 | 3 | 0 | 7 |
| 11:38 AM | 3 | 1 | 0 | 4 | 4:43 PM | 4 | 2 | 0 | 6 |
| 11:40 AM | 4 | 1 | 0 | 5 | 4:48 PM | 3 | 1 | 0 | 4 |
| 11:43 AM | 3 | 2 | 0 | 5 | 4:50 PM | 3 | 3 | 3 | 9 |
| 11:46 AM | 2 | 2 | 0 | 4 | 4:52 PM | 3 | 3 | 4 | 10 |
| 11:48 AM | 1 | 1 | 0 | 2 | 4:54 PM | 3 | 3 | 2 | 8 |
| 11:50 AM | 0 | 2 | 0 | 2 | 4:56 PM | 3 | 3 | 0 | 6 |
| 11:51 AM | 1 | 1 | 0 | 2 | 4:58 PM | 3 | 2 | 0 | 5 |
| 11:54 AM | 0 | 2 | 0 | 2 | 5:00 PM | 3 | 3 | 1 | 7 |
| 11:55 AM | 1 | 1 | 0 | 2 | 5:02 PM | 3 | 3 | 0 | 6 |
| 11:57 AM | 1 | 2 | 0 | 3 | 5:04 PM | 4 | 1 | 0 | 5 |
| 11:58 AM | 2 | 2 | 0 | 4 | 5:06 PM | 3 | 1 | 0 | 4 |
| 12:00 PM | 3 | 3 | 1 | 7 | 5:08 PM | 3 | 3 | 0 | 6 |
| 12:02 PM | 2 | 3 | 2 | 7 | 5:10 PM | 3 | 2 | 0 | 5 |
| 12:04 PM | 2 | 3 | 1 | 6 | 5:12 PM | 3 | 3 | 1 | 7 |
| 12:05 PM | 3 | 2 | 0 | 5 | 5:14 PM | 3 | 3 | 2 | 8 |
| 12:06 PM | 2 | 3 | 0 | 5 | 5:20 PM | 3 | 3 | 4 | 10 |
| 12:08 PM | 4 | 4 | 0 | 8 | 5:22 PM | 3 | 3 | 3 | 9 |
| 12:09 PM | 4 | 3 | 0 | 7 | 5:24 PM | 3 | 3 | 4 | 10 |
| 12:11 PM | 3 | 3 | 0 | 6 | 5:28 PM | 3 | 3 | 6 | 12 |
| 12:12 PM | 3 | 3 | 2 | 8 | 5:30 PM | 3 | 3 | 5 | 11 |
| 12:13 PM | 2 | 3 | 2 | 7 | 5:32 PM | 3 | 3 | 4 | 10 |
| 12:14 PM | 1 | 3 | 0 | 4 | 5:34 PM | 4 | 3 | 4 | 11 |
| 12:15 PM | 1 | 3 | 1 | 5 | 5:36 PM | 4 | 4 | 3 | 11 |

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|---|---|---|---|---|
| 12:16 PM | 0 | 3 | 2 | 5 |
| 12:17 PM | 1 | 3 | 1 | 5 |
| 12:18 PM | 2 | 3 | 1 | 6 |
| 12:19 PM | 3 | 3 | 3 | 9 |
| 12:20 PM | 3 | 3 | 1 | 7 |
| 12:21 PM | 4 | 3 | 1 | 8 |
| 12:23 PM | 3 | 3 | 2 | 8 |
| 12:26 PM | 2 | 3 | 3 | 8 |
| 12:28 PM | 2 | 3 | 1 | 6 |
| 12:29 PM | 1 | 3 | 1 | 5 |
| 12:30 PM | 1 | 3 | 0 | 4 |
| 12:31 PM | 2 | 2 | 0 | 4 |
| 12:32 PM | 2 | 3 | 0 | 5 |
| 12:33 PM | 3 | 2 | 0 | 5 |
| 12:34 PM | 2 | 1 | 0 | 3 |
| 12:35 PM | 1 | 1 | 0 | 2 |
| 12:36 PM | 2 | 0 | 0 | 2 |
| 12:38 PM | 1 | 0 | 0 | 1 |
| 12:39 PM | 1 | 3 | 0 | 4 |
| 12:40 PM | 1 | 3 | 2 | 6 |
| 12:42 PM | 2 | 3 | 4 | 9 |
| 12:43 PM | 2 | 3 | 3 | 8 |
| 12:44 PM | 3 | 3 | 3 | 9 |
| 12:45 PM | 3 | 3 | 5 | 11 |
| 12:47 PM | 2 | 3 | 4 | 9 |
| 12:48 PM | 3 | 3 | 6 | 12 |
| 12:50 PM | 4 | 3 | 4 | 11 |
| 12:52 PM | 4 | 3 | 3 | 10 |
| 12:54 PM | 3 | 3 | 2 | 8 |
| 12:56 PM | 3 | 3 | 4 | 10 |
| 12:57 PM | 2 | 3 | 4 | 9 |
| 12:28 PM | 2 | 3 | 6 | 11 |
| 1:00 PM | 1 | 3 | 5 | 9 |
| 1:01 PM | 2 | 3 | 4 | 9 |
| 1:02 PM | 3 | 3 | 3 | 9 |
| 1:03 PM | 4 | 3 | 2 | 9 |
| 1:04 PM | 4 | 3 | 1 | 8 |
| 1:05 PM | 4 | 3 | 0 | 7 |
| 1:07 PM | 3 | 2 | 0 | 5 |
| 1:09 PM | 2 | 3 | 1 | 6 |
| 1:10 PM | 1 | 3 | 2 | 6 |
| 1:12 PM | 2 | 3 | 0 | 5 |
| 1:14 PM | 2 | 2 | 0 | 4 |
| 1:16 PM | 3 | 1 | 0 | 4 |
| 1:17 PM | 2 | 0 | 0 | 2 |
| 1:18 PM | 1 | 0 | 0 | 1 |
| 1:20 PM | 0 | 0 | 0 | 0 |
| 1:23 PM | 1 | 0 | 0 | 1 |
| 1:24 PM | 0 | 2 | 0 | 2 |
| 1:26 PM | 0 | 3 | 2 | 5 |
| 1:28 PM | 1 | 3 | 1 | 5 |
| 1:30 PM | 1 | 3 | 3 | 7 |
| 5:38 PM | 3 | 3 | 4 | 10 |
| 5:40 PM | 3 | 3 | 3 | 9 |
| 5:42 PM | 3 | 3 | 2 | 8 |
| 5:44 PM | 3 | 2 | 0 | 5 |
| 5:50 PM | 2 | 2 | 0 | 4 |
| 5:21 PM | 2 | 1 | 0 | 3 |
| 5:53 PM | 2 | 0 | 0 | 2 |
| 5:54 PM | 1 | 0 | 0 | 1 |
| 5:57 PM | 0 | 0 | 0 | 0 |
| 5:59 PM | 1 | 1 | 0 | 2 |
| 6:01 PM | 1 | 3 | 0 | 4 |
| 6:03 PM | 2 | 2 | 0 | 4 |
| 6:05 PM | 2 | 3 | 0 | 5 |
| 6:07 PM | 3 | 2 | 1 | 6 |
| 6:09 PM | 2 | 3 | 3 | 8 |
| 6:10 PM | 2 | 3 | 5 | 10 |
| 6:11 PM | 2 | 3 | 6 | 11 |
| 6:12 PM | 1 | 3 | 6 | 10 |
| 6:14 PM | 2 | 3 | 7 | 12 |
| 6:16 PM | 3 | 3 | 5 | 11 |
| 6:17 PM | 3 | 3 | 3 | 9 |
| 6:20 PM | 2 | 3 | 3 | 8 |
| 6:22 PM | 2 | 3 | 2 | 7 |
| 6:23 PM | 2 | 3 | 4 | 9 |
| 6:24 PM | 2 | 3 | 5 | 10 |
| 6:26 PM | 5 | 3 | 7 | 15 |
| 6:30 PM | 3 | 3 | 5 | 11 |
| 6:33 PM | 3 | 3 | 6 | 12 |
| 6:37 PM | 3 | 3 | 8 | 14 |
| 6:39 PM | 3 | 3 | 7 | 13 |
| 6:41 PM | 3 | 3 | 8 | 14 |
| 6:43 PM | 4 | 3 | 8 | 15 |
| 6:46 PM | 4 | 3 | 9 | 16 |
| 6:49 PM | 4 | 3 | 8 | 15 |
| 6:50 PM | 4 | 3 | 7 | 14 |
| 6:53 PM | 4 | 3 | 6 | 13 |
| 6:56 PM | 4 | 3 | 8 | 15 |
| 7:00 PM | 4 | 3 | 7 | 14 |

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|---|---|---|---|---|
| 1:31 PM | 2 | 3 | 2 | 7 |
| 1:33 PM | 1 | 3 | 2 | 6 |
| 1:34 PM | 2 | 3 | 1 | 6 |
| 1:36 PM | 2 | 2 | 0 | 4 |
| 1:38 PM | 3 | 1 | 0 | 4 |
| 1:40 PM | 4 | 0 | 0 | 4 |
| 1:41 PM | 3 | 0 | 0 | 3 |
| 1:42 PM | 2 | 0 | 0 | 2 |
| 1:43 PM | 1 | 0 | 0 | 1 |
| 1:46 PM | 1 | 3 | 0 | 4 |
| 1:47 PM | 2 | 2 | 0 | 4 |
| 1:49 PM | 3 | 1 | 0 | 4 |
| 1:50 PM | 4 | 1 | 0 | 5 |
| 1:52 PM | 4 | 0 | 0 | 4 |
| 1:53 PM | 3 | 1 | 0 | 4 |
| 1:54 PM | 2 | 2 | 0 | 4 |
| 1:55 PM | 3 | 1 | 0 | 4 |
| 1:57 PM | 2 | 3 | 0 | 5 |
| 1:58 PM | 3 | 4 | 0 | 7 |
| 2:00 PM | 4 | 4 | 0 | 8 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 10142 Adams Avenue
City: Huntington Beach, CA

Date: 9/29/2020
Day: Tuesday

| Time | Number of Cars In Zone 1 | Total | Time | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|
| 11:01 AM | 2 | 2 | 11:02 AM | 1 | 0 | 1 |
| 11:02 AM | 1 | 1 | 11:03 AM | 1 | 1 | 2 |
| 11:04 AM | 0 | 0 | 11:03 AM | 2 | 0 | 2 |
| 11:04 AM | 1 | 1 | 11:05 AM | 0 | 0 | 0 |
| 11:05 AM | 0 | 0 | 11:06 AM | 0 | 1 | 1 |
| 11:05 AM | 1 | 1 | 11:06 AM | 1 | 0 | 1 |
| 11:06 AM | 0 | 0 | 11:07 AM | 1 | 1 | 2 |
| 11:07 AM | 1 | 1 | 11:07 AM | 2 | 0 | 2 |
| 11:09 AM | 2 | 2 | 11:08 AM | 1 | 0 | 1 |
| 11:11 AM | 1 | 1 | 11:09 AM | 0 | 0 | 0 |
| 11:12 AM | 0 | 0 | 11:15 AM | 0 | 1 | 1 |
| 11:17 AM | 1 | 1 | 11:15 AM | 1 | 0 | 1 |
| 11:18 AM | 2 | 2 | 11:16 AM | 1 | 3 | 4 |
| 11:18 AM | 1 | 1 | 11:17 AM | 3 | 0 | 3 |
| 11:19 AM | 0 | 0 | 11:18 AM | 2 | 1 | 3 |
| 11:19 AM | 1 | 1 | 11:18 AM | 3 | 0 | 3 |
| 11:20 AM | 2 | 2 | 11:19 AM | 3 | 1 | 4 |
| 11:20 AM | 1 | 1 | 11:19 AM | 4 | 1 | 5 |
| 11:21 AM | 2 | 2 | 11:19 AM | 5 | 0 | 5 |
| 11:21 AM | 1 | 1 | 11:20 AM | 4 | 0 | 4 |
| 11:22 AM | 0 | 0 | 11:21 AM | 3 | 0 | 3 |
| 11:22 AM | 1 | 1 | 11:22 AM | 2 | 0 | 2 |
| 11:23 AM | 2 | 2 | 11:23 AM | 1 | 0 | 1 |
| 11:24 AM | 3 | 3 | 11:24 AM | 0 | 0 | 0 |
| 11:26 AM | 2 | 2 | 11:24 AM | 0 | 1 | 1 |
| 11:26 AM | 3 | 3 | 11:25 AM | 1 | 0 | 1 |
| 11:26 AM | 2 | 2 | 11:26 AM | 0 | 0 | 0 |
| 11:28 AM | 1 | 1 | 11:27 AM | 0 | 2 | 2 |
| 11:28 AM | 2 | 2 | 11:27 AM | 2 | 0 | 2 |
| 11:29 AM | 3 | 3 | 11:27 AM | 2 | 1 | 3 |

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|---|---|---|---|---|---|---|
| 11:30 AM | 2 | 2 | 11:28 AM | 3 | 0 | 3 |
| 11:30 AM | 1 | 1 | 11:28 AM | 2 | 0 | 2 |
| 11:30 AM | 2 | 2 | 11:29 AM | 1 | 1 | 2 |
| 11:31 AM | 1 | 1 | 11:29 AM | 2 | 0 | 2 |
| 11:32 AM | 2 | 2 | 11:31 AM | 1 | 0 | 1 |
| 11:33 AM | 3 | 3 | 11:31 AM | 1 | 1 | 2 |
| 11:34 AM | 2 | 2 | 11:31 AM | 2 | 0 | 2 |
| 11:35 AM | 3 | 3 | 11:32 AM | 1 | 0 | 1 |
| 11:35 AM | 2 | 2 | 11:33 AM | 1 | 1 | 2 |
| 11:36 AM | 3 | 3 | 11:33 AM | 1 | 0 | 1 |
| 11:36 AM | 2 | 2 | 11:34 AM | 1 | 1 | 2 |
| 11:36 AM | 1 | 1 | 11:34 AM | 2 | 0 | 2 |
| 11:37 AM | 2 | 2 | 11:35 AM | 1 | 0 | 1 |
| 11:38 AM | 1 | 1 | 11:36 AM | 0 | 0 | 0 |
| 11:39 AM | 2 | 2 | 11:36 AM | 0 | 2 | 2 |
| 11:39 AM | 1 | 1 | 11:37 AM | 2 | 0 | 2 |
| 11:41 AM | 0 | 0 | 11:37 AM | 1 | 0 | 1 |
| 11:41 AM | 1 | 1 | 11:39 AM | 0 | 0 | 0 |
| 11:41 AM | 2 | 2 | 11:40 AM | 0 | 1 | 1 |
| 11:42 AM | 1 | 1 | 11:40 AM | 1 | 0 | 1 |
| 11:42 AM | 0 | 0 | 11:41 AM | 1 | 1 | 2 |
| 11:44 AM | 1 | 1 | 11:41 AM | 2 | 0 | 2 |
| 11:45 AM | 2 | 2 | 11:41 AM | 1 | 1 | 2 |
| 11:46 AM | 3 | 3 | 11:41 AM | 2 | 0 | 2 |
| 11:47 AM | 2 | 2 | 11:42 AM | 1 | 0 | 1 |
| 11:47 AM | 1 | 1 | 11:42 AM | 1 | 1 | 2 |
| 11:47 AM | 0 | 0 | 11:43 AM | 2 | 2 | 4 |
| 11:48 AM | 1 | 1 | 11:43 AM | 4 | 2 | 6 |
| 11:48 AM | 0 | 0 | 11:43 AM | 5 | 0 | 5 |
| 11:48 AM | 1 | 1 | 11:45 AM | 4 | 0 | 4 |
| 11:49 AM | 0 | 0 | 11:46 AM | 3 | 0 | 3 |
| 11:49 AM | 1 | 1 | 11:46 AM | 3 | 1 | 4 |
| 11:50 AM | 2 | 2 | 11:46 AM | 4 | 0 | 4 |
| 11:51 AM | 3 | 3 | 11:47 AM | 3 | 0 | 3 |
| 11:52 AM | 2 | 2 | 11:48 AM | 2 | 1 | 3 |
| 11:52 AM | 3 | 3 | 11:48 AM | 3 | 0 | 3 |
| 11:53 AM | 2 | 2 | 11:49 AM | 2 | 0 | 2 |
| 11:53 AM | 1 | 1 | 11:50 AM | 1 | 1 | 2 |
| 11:53 AM | 2 | 2 | 11:50 AM | 2 | 0 | 2 |
| 11:54 AM | 1 | 1 | 11:50 AM | 2 | 1 | 3 |
| 11:54 AM | 2 | 2 | 11:50 AM | 3 | 0 | 3 |

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|---|---|---|---|---|---|---|
| 11:56 AM | 3 | 3 | 11:51 AM | 2 | 1 | 3 |
| 11:56 AM | 2 | 2 | 11:51 AM | 3 | 0 | 3 |
| 11:57 AM | 3 | 3 | 11:52 AM | 2 | 0 | 2 |
| 11:57 AM | 2 | 2 | 11:53 AM | 1 | 0 | 1 |
| 11:57 AM | 3 | 3 | 11:54 AM | 1 | 1 | 2 |
| 11:58 AM | 2 | 2 | 11:54 AM | 2 | 0 | 2 |
| 11:58 AM | 1 | 1 | 11:54 AM | 1 | 1 | 2 |
| 11:59 AM | 2 | 2 | 11:54 AM | 2 | 0 | 2 |
| 11:59 AM | 1 | 1 | 11:55 AM | 2 | 1 | 3 |
| 12:00 PM | 0 | 0 | 11:55 AM | 3 | 0 | 3 |
| 12:00 PM | 1 | 1 | 11:56 AM | 2 | 0 | 2 |
| 12:01 PM | 0 | 0 | 11:56 AM | 2 | 1 | 3 |
| 12:01 PM | 1 | 1 | 11:56 AM | 3 | 0 | 3 |
| 12:02 PM | 0 | 0 | 11:57 AM | 2 | 0 | 2 |
| 12:03 PM | 1 | 1 | 11:58 AM | 1 | 1 | 2 |
| 12:04 PM | 0 | 0 | 11:58 AM | 2 | 0 | 2 |
| 12:05 PM | 1 | 1 | 11:59 AM | 2 | 1 | 3 |
| 12:05 PM | 0 | 0 | 11:59 AM | 3 | 0 | 3 |
| 12:05 PM | 1 | 1 | 11:59 AM | 2 | 0 | 2 |
| 12:06 PM | 2 | 2 | 12:00 PM | 1 | 0 | 1 |
| 12:06 PM | 1 | 1 | 12:01 PM | 1 | 1 | 2 |
| 12:07 PM | 0 | 0 | 12:01 PM | 2 | 0 | 2 |
| 12:07 PM | 1 | 1 | 12:01 PM | 1 | 0 | 1 |
| 12:08 PM | 0 | 0 | 12:02 PM | 1 | 3 | 4 |
| 12:09 PM | 1 | 1 | 12:02 PM | 4 | 0 | 4 |
| 12:09 PM | 0 | 0 | 12:03 PM | 3 | 0 | 3 |
| 12:09 PM | 1 | 1 | 12:04 PM | 3 | 2 | 5 |
| 12:10 PM | 2 | 2 | 12:04 PM | 5 | 0 | 5 |
| 12:10 PM | 3 | 3 | 12:04 PM | 4 | 0 | 4 |
| 12:11 PM | 2 | 2 | 12:05 PM | 3 | 1 | 4 |
| 12:11 PM | 3 | 3 | 12:05 PM | 4 | 0 | 4 |
| 12:11 PM | 2 | 2 | 12:06 PM | 3 | 0 | 3 |
| 12:12 PM | 1 | 1 | 12:07 PM | 3 | 1 | 4 |
| 12:12 PM | 2 | 2 | 12:07 PM | 4 | 0 | 4 |
| 12:12 PM | 1 | 1 | 12:07 PM | 3 | 1 | 4 |
| 12:12 PM | 0 | 0 | 12:07 PM | 4 | 0 | 4 |
| 12:12 PM | 1 | 1 | 12:08 PM | 4 | 1 | 5 |
| 12:13 PM | 2 | 2 | 12:09 PM | 5 | 0 | 5 |
| 12:14 PM | 3 | 3 | 12:10 PM | 3 | 0 | 3 |
| 12:14 PM | 4 | 4 | 12:10 PM | 3 | 2 | 5 |
| 12:15 PM | 5 | 5 | 12:10 PM | 4 | 0 | 4 |

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|---|---|---|---|---|---|---|
| 12:15 PM | 6 | 6 | 12:11 PM | 3 | 0 | 3 |
| 12:16 PM | 7 | 7 | 12:11 PM | 3 | 2 | 5 |
| 12:17 PM | 6 | 6 | 12:11 PM | 5 | 0 | 5 |
| 12:17 PM | 7 | 7 | 12:12 PM | 4 | 0 | 4 |
| 12:18 PM | 6 | 6 | 12:12 PM | 4 | 1 | 5 |
| 12:18 PM | 5 | 5 | 12:12 PM | 4 | 0 | 4 |
| 12:18 PM | 6 | 6 | 12:13 PM | 3 | 0 | 3 |
| 12:19 PM | 5 | 5 | 12:13 PM | 3 | 3 | 6 |
| 12:19 PM | 6 | 6 | 12:13 PM | 6 | 0 | 6 |
| 12:19 PM | 5 | 5 | 12:14 PM | 4 | 0 | 4 |
| 12:19 PM | 6 | 6 | 12:15 PM | 4 | 1 | 5 |
| 12:20 PM | 5 | 5 | 12:15 PM | 4 | 0 | 4 |
| 12:20 PM | 6 | 6 | 12:15 PM | 3 | 0 | 3 |
| 12:20 PM | 7 | 7 | 12:17 PM | 3 | 3 | 6 |
| 12:20 PM | 6 | 6 | 12:17 PM | 6 | 0 | 6 |
| 12:21 PM | 5 | 5 | 12:17 PM | 5 | 0 | 5 |
| 12:21 PM | 6 | 6 | 12:18 PM | 5 | 3 | 8 |
| 12:21 PM | 5 | 5 | 12:18 PM | 8 | 0 | 8 |
| 12:22 PM | 4 | 4 | 12:19 PM | 6 | 0 | 6 |
| 12:22 PM | 3 | 3 | 12:19 PM | 6 | 2 | 8 |
| 12:22 PM | 2 | 2 | 12:20 PM | 7 | 0 | 7 |
| 12:22 PM | 3 | 3 | 12:20 PM | 6 | 0 | 6 |
| 12:23 PM | 2 | 2 | 12:20 PM | 4 | 0 | 4 |
| 12:23 PM | 3 | 3 | 12:21 PM | 3 | 0 | 3 |
| 12:23 PM | 2 | 2 | 12:21 PM | 2 | 0 | 2 |
| 12:23 PM | 1 | 1 | 12:21 PM | 2 | 2 | 4 |
| 12:24 PM | 0 | 0 | 12:22 PM | 4 | 2 | 6 |
| 12:24 PM | 1 | 1 | 12:22 PM | 6 | 0 | 6 |
| 12:24 PM | 2 | 2 | 12:22 PM | 5 | 0 | 5 |
| 12:25 PM | 1 | 1 | 12:23 PM | 4 | 0 | 4 |
| 12:25 PM | 2 | 2 | 12:23 PM | 4 | 2 | 6 |
| 12:25 PM | 3 | 3 | 12:23 PM | 6 | 0 | 6 |
| 12:26 PM | 4 | 4 | 12:24 PM | 4 | 0 | 4 |
| 12:26 PM | 5 | 5 | 12:25 PM | 2 | 0 | 2 |
| 12:26 PM | 4 | 4 | 12:26 PM | 0 | 3 | 3 |
| 12:26 PM | 3 | 3 | 12:26 PM | 3 | 0 | 3 |
| 12:27 PM | 4 | 4 | 12:27 PM | 2 | 2 | 4 |
| 12:27 PM | 3 | 3 | 12:27 PM | 4 | 0 | 4 |
| 12:28 PM | 4 | 4 | 12:27 PM | 3 | 0 | 3 |
| 12:28 PM | 5 | 5 | 12:28 PM | 2 | 1 | 3 |
| 12:28 PM | 4 | 4 | 12:28 PM | 3 | 0 | 3 |

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|---|---|---|---|---|---|---|
| 12:28 PM | 5 | 5 | 12:29 PM | 2 | 0 | 2 |
| 12:29 PM | 4 | 4 | 12:29 PM | 1 | 0 | 1 |
| 12:29 PM | 5 | 5 | 12:29 PM | 1 | 2 | 3 |
| 12:29 PM | 4 | 4 | 12:29 PM | 3 | 0 | 3 |
| 12:30 PM | 3 | 3 | 12:30 PM | 2 | 2 | 4 |
| 12:30 PM | 2 | 2 | 12:30 PM | 4 | 0 | 4 |
| 12:30 PM | 5 | 5 | 12:31 PM | 2 | 0 | 2 |
| 12:31 PM | 4 | 4 | 12:32 PM | 1 | 0 | 1 |
| 12:31 PM | 3 | 3 | 12:32 PM | 1 | 3 | 4 |
| 12:31 PM | 2 | 2 | 12:32 PM | 4 | 0 | 4 |
| 12:31 PM | 3 | 3 | 12:33 PM | 3 | 0 | 3 |
| 12:31 PM | 4 | 4 | 12:33 PM | 3 | 1 | 4 |
| 12:32 PM | 3 | 3 | 12:34 PM | 4 | 0 | 4 |
| 12:32 PM | 4 | 4 | 12:34 PM | 2 | 0 | 2 |
| 12:33 PM | 5 | 5 | 12:35 PM | 1 | 0 | 1 |
| 12:33 PM | 4 | 4 | 12:35 PM | 1 | 1 | 2 |
| 12:34 PM | 5 | 5 | 12:35 PM | 2 | 0 | 2 |
| 12:34 PM | 6 | 6 | 12:36 PM | 1 | 0 | 1 |
| 12:34 PM | 5 | 5 | 12:37 PM | 0 | 1 | 1 |
| 12:35 PM | 6 | 6 | 12:37 PM | 1 | 0 | 1 |
| 12:35 PM | 5 | 5 | 12:38 PM | 1 | 1 | 2 |
| 12:35 PM | 4 | 4 | 12:38 PM | 2 | 0 | 2 |
| 12:35 PM | 3 | 3 | 12:39 PM | 1 | 0 | 1 |
| 12:35 PM | 4 | 4 | 12:39 PM | 0 | 1 | 1 |
| 12:36 PM | 5 | 5 | 12:39 PM | 1 | 0 | 1 |
| 12:37 PM | 4 | 4 | 12:40 PM | 0 | 0 | 0 |
| 12:37 PM | 5 | 5 | 12:41 PM | 0 | 1 | 1 |
| 12:37 PM | 4 | 4 | 12:41 PM | 1 | 0 | 1 |
| 12:37 PM | 3 | 3 | 12:42 PM | 1 | 2 | 3 |
| 12:38 PM | 2 | 2 | 12:42 PM | 3 | 0 | 3 |
| 12:39 PM | 3 | 3 | 12:43 PM | 1 | 0 | 1 |
| 12:39 PM | 2 | 2 | 12:45 PM | 0 | 0 | 0 |
| 12:39 PM | 1 | 1 | 12:46 PM | 0 | 4 | 4 |
| 12:39 PM | 2 | 2 | 12:46 PM | 4 | 0 | 4 |
| 12:40 PM | 1 | 1 | 12:47 PM | 3 | 0 | 3 |
| 12:40 PM | 0 | 0 | 12:47 PM | 2 | 0 | 2 |
| 12:41 PM | 1 | 1 | 12:48 PM | 2 | 1 | 3 |
| 12:42 PM | 0 | 0 | 12:48 PM | 3 | 0 | 3 |
| 12:42 PM | 1 | 1 | 12:48 PM | 2 | 1 | 3 |
| 12:43 PM | 2 | 2 | 12:49 PM | 2 | 0 | 2 |
| 12:44 PM | 1 | 1 | 12:49 PM | 1 | 1 | 2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 12:45 PM | 0 | 0 | 12:50 PM | 2 | 0 | 2 |
| 12:45 PM | 1 | 1 | 12:51 PM | 1 | 1 | 2 |
| 12:45 PM | 0 | 0 | 12:51 PM | 2 | 0 | 2 |
| 12:47 PM | 1 | 1 | 12:52 PM | 0 | 1 | 1 |
| 12:47 PM | 2 | 2 | 12:52 PM | 1 | 0 | 1 |
| 12:48 PM | 1 | 1 | 12:53 PM | 1 | 1 | 2 |
| 12:48 PM | 0 | 0 | 12:53 PM | 2 | 0 | 2 |
| 12:48 PM | 1 | 1 | 12:54 PM | 2 | 1 | 3 |
| 12:49 PM | 2 | 2 | 12:54 PM | 3 | 0 | 3 |
| 12:49 PM | 1 | 1 | 12:54 PM | 2 | 0 | 2 |
| 12:49 PM | 2 | 2 | 12:55 PM | 1 | 2 | 3 |
| 12:50 PM | 1 | 1 | 12:55 PM | 3 | 0 | 3 |
| 12:51 PM | 2 | 2 | 12:56 PM | 2 | 0 | 2 |
| 12:51 PM | 1 | 1 | 12:56 PM | 1 | 2 | 3 |
| 12:52 PM | 2 | 2 | 12:57 PM | 3 | 0 | 3 |
| 12:52 PM | 3 | 3 | 12:57 PM | 2 | 0 | 2 |
| 12:52 PM | 2 | 2 | 12:58 PM | 1 | 1 | 2 |
| 12:52 PM | 1 | 1 | 12:58 PM | 2 | 0 | 2 |
| 12:53 PM | 0 | 0 | 12:59 PM | 2 | 1 | 3 |
| 12:54 PM | 1 | 1 | 12:59 PM | 3 | 0 | 3 |
| 12:55 PM | 2 | 2 | 12:59 PM | 3 | 2 | 5 |
| 12:56 PM | 3 | 3 | 12:59 PM | 5 | 0 | 5 |
| 12:56 PM | 2 | 2 | 1:00 PM | 4 | 0 | 4 |
| 12:56 PM | 1 | 1 | 1:00 PM | 3 | 0 | 3 |
| 12:56 PM | 2 | 2 | 1:01 PM | 2 | 2 | 4 |
| 12:57 PM | 3 | 3 | 1:01 PM | 4 | 0 | 4 |
| 12:57 PM | 2 | 2 | 1:01 PM | 3 | 0 | 3 |
| 12:58 PM | 1 | 1 | 1:02 PM | 3 | 1 | 4 |
| 12:58 PM | 0 | 0 | 1:02 PM | 4 | 0 | 4 |
| 12:58 PM | 1 | 1 | 1:02 PM | 3 | 0 | 3 |
| 12:59 PM | 0 | 0 | 1:03 PM | 2 | 1 | 3 |
| 1:00 PM | 1 | 1 | 1:03 PM | 3 | 1 | 4 |
| 1:00 PM | 2 | 2 | 1:03 PM | 4 | 0 | 4 |
| 1:00 PM | 1 | 1 | 1:04 PM | 3 | 1 | 4 |
| 1:01 PM | 2 | 2 | 1:04 PM | 4 | 1 | 5 |
| 1:01 PM | 3 | 3 | 1:04 PM | 5 | 0 | 5 |
| 1:02 PM | 4 | 4 | 1:05 PM | 4 | 0 | 4 |
| 1:03 PM | 5 | 5 | 1:05 PM | 2 | 1 | 3 |
| 1:04 PM | 4 | 4 | 1:06 PM | 3 | 0 | 3 |
| 1:04 PM | 5 | 5 | 1:07 PM | 3 | 2 | 5 |
| 1:04 PM | 4 | 4 | 1:07 PM | 5 | 0 | 5 |

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|---|---|---|---|---|---|---|
| 1:05 PM | 3 | 3 | 1:07 PM | 3 | 1 | 4 |
| 1:05 PM | 4 | 4 | 1:08 PM | 4 | 0 | 4 |
| 1:05 PM | 5 | 5 | 1:08 PM | 3 | 0 | 3 |
| 1:05 PM | 6 | 6 | 1:09 PM | 3 | 1 | 4 |
| 1:06 PM | 5 | 5 | 1:09 PM | 4 | 0 | 4 |
| 1:07 PM | 6 | 6 | 1:10 PM | 3 | 0 | 3 |
| 1:07 PM | 5 | 5 | 1:11 PM | 2 | 0 | 2 |
| 1:08 PM | 6 | 6 | 1:11 PM | 1 | 1 | 2 |
| 1:08 PM | 5 | 5 | 1:12 PM | 2 | 0 | 2 |
| 1:08 PM | 6 | 6 | 1:12 PM | 1 | 0 | 1 |
| 1:09 PM | 7 | 7 | 1:13 PM | 1 | 1 | 2 |
| 1:09 PM | 6 | 6 | 1:13 PM | 2 | 0 | 2 |
| 1:10 PM | 5 | 5 | 1:14 PM | 1 | 0 | 1 |
| 1:11 PM | 6 | 6 | 1:15 PM | 0 | 0 | 0 |
| 1:11 PM | 7 | 7 | 1:16 PM | 0 | 1 | 1 |
| 1:11 PM | 6 | 6 | 1:16 PM | 1 | 0 | 1 |
| 1:12 PM | 7 | 7 | 1:17 PM | 0 | 0 | 0 |
| 1:12 PM | 6 | 6 | 1:17 PM | 0 | 1 | 1 |
| 1:13 PM | 5 | 5 | 1:17 PM | 1 | 0 | 1 |
| 1:14 PM | 6 | 6 | 1:18 PM | 1 | 1 | 2 |
| 1:14 PM | 5 | 5 | 1:18 PM | 2 | 0 | 2 |
| 1:15 PM | 4 | 4 | 1:18 PM | 1 | 0 | 1 |
| 1:15 PM | 5 | 5 | 1:19 PM | 0 | 0 | 0 |
| 1:15 PM | 4 | 4 | 1:20 PM | 0 | 1 | 1 |
| 1:16 PM | 5 | 5 | 1:20 PM | 1 | 0 | 1 |
| 1:17 PM | 4 | 4 | 1:21 PM | 0 | 0 | 0 |
| 1:17 PM | 3 | 3 | 1:22 PM | 0 | 1 | 1 |
| 1:18 PM | 4 | 4 | 1:23 PM | 1 | 0 | 1 |
| 1:19 PM | 3 | 3 | 1:23 PM | 1 | 1 | 2 |
| 1:19 PM | 4 | 4 | 1:23 PM | 1 | 0 | 1 |
| 1:19 PM | 3 | 3 | 1:24 PM | 1 | 1 | 2 |
| 1:20 PM | 4 | 4 | 1:24 PM | 1 | 0 | 1 |
| 1:21 PM | 3 | 3 | 1:25 PM | 0 | 0 | 0 |
| 1:21 PM | 2 | 2 | 1:26 PM | 0 | 1 | 1 |
| 1:22 PM | 1 | 1 | 1:26 PM | 1 | 2 | 3 |
| 1:23 PM | 0 | 0 | 1:27 PM | 3 | 1 | 4 |
| 1:23 PM | 1 | 1 | 1:27 PM | 4 | 0 | 4 |
| 1:24 PM | 2 | 2 | 1:27 PM | 3 | 0 | 3 |
| 1:25 PM | 3 | 3 | 1:28 PM | 2 | 0 | 2 |
| 1:25 PM | 2 | 2 | 1:29 PM | 2 | 1 | 3 |
| 1:26 PM | 1 | 1 | 1:29 PM | 3 | 0 | 3 |

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|---|---|---|---|---|---|---|
| 1:27 PM | 0 | 0 | 1:29 PM | 2 | 1 | 3 |
| 1:27 PM | 1 | 1 | 1:29 PM | 3 | 0 | 3 |
| 1:28 PM | 2 | 2 | 1:30 PM | 2 | 0 | 2 |
| 1:29 PM | 1 | 1 | 1:31 PM | 1 | 1 | 2 |
| 1:29 PM | 2 | 2 | 1:31 PM | 2 | 0 | 2 |
| 1:30 PM | 1 | 1 | 1:33 PM | 1 | 2 | 3 |
| 1:30 PM | 2 | 2 | 1:33 PM | 1 | 2 | 3 |
| 1:30 PM | 1 | 1 | 1:34 PM | 3 | 1 | 4 |
| 1:31 PM | 0 | 0 | 1:34 PM | 3 | 0 | 3 |
| 1:31 PM | 1 | 1 | 1:35 PM | 2 | 1 | 3 |
| 1:33 PM | 0 | 0 | 1:34 PM | 3 | 0 | 3 |
| 1:33 PM | 1 | 1 | 1:35 PM | 2 | 1 | 3 |
| 1:34 PM | 2 | 2 | 1:35 PM | 3 | 0 | 3 |
| 1:35 PM | 2 | 2 | 1:36 PM | 2 | 1 | 3 |
| 1:35 PM | 1 | 1 | 1:36 PM | 3 | 0 | 3 |
| 1:36 PM | 2 | 2 | 1:36 PM | 2 | 0 | 2 |
| 1:36 PM | 1 | 1 | 1:37 PM | 1 | 2 | 3 |
| 1:36 PM | 2 | 2 | 1:37 PM | 5 | 0 | 5 |
| 1:37 PM | 1 | 1 | 1:38 PM | 3 | 1 | 4 |
| 1:37 PM | 2 | 2 | 1:38 PM | 4 | 0 | 4 |
| 1:38 PM | 1 | 1 | 1:39 PM | 4 | 1 | 5 |
| 1:38 PM | 0 | 0 | 1:40 PM | 4 | 0 | 4 |
| 1:41 PM | 1 | 1 | 1:41 PM | 3 | 2 | 5 |
| 1:42 PM | 2 | 2 | 1:42 PM | 5 | 0 | 5 |
| 1:43 PM | 3 | 3 | 1:42 PM | 4 | 0 | 4 |
| 1:43 PM | 4 | 4 | 1:43 PM | 4 | 1 | 5 |
| 1:43 PM | 3 | 3 | 1:43 PM | 5 | 0 | 5 |
| 1:44 PM | 2 | 2 | 1:43 PM | 5 | 0 | 5 |
| 1:44 PM | 3 | 3 | 1:43 PM | 3 | 0 | 3 |
| 1:44 PM | 4 | 4 | 1:44 PM | 2 | 1 | 3 |
| 1:46 PM | 5 | 5 | 1:44 PM | 3 | 0 | 3 |
| 1:46 PM | 6 | 6 | 1:44 PM | 2 | 0 | 2 |
| 1:48 PM | 5 | 5 | 1:46 PM | 0 | 0 | 0 |
| 1:49 PM | 4 | 4 | 1:48 PM | 0 | 1 | 1 |
| 1:50 PM | 3 | 3 | 1:48 PM | 1 | 0 | 1 |
| 1:50 PM | 2 | 2 | 1:50 PM | 0 | 1 | 1 |
| 1:50 PM | 3 | 3 | 1:50 PM | 1 | 0 | 1 |
| 1:50 PM | 2 | 2 | 1:51 PM | 0 | 2 | 2 |
| 1:51 PM | 1 | 1 | 1:52 PM | 2 | 0 | 2 |
| 1:51 PM | 2 | 2 | 1:53 PM | 2 | 2 | 4 |
| 1:52 PM | 1 | 1 | 1:53 PM | 4 | 0 | 4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1:53 PM | 0 | 0 | 1:53 PM | 3 | 0 | 3 |
| 1:53 PM | 1 | 1 | 1:54 PM | 3 | 1 | 4 |
| 1:54 PM | 0 | 0 | 1:54 PM | 3 | 0 | 3 |
| 1:54 PM | 1 | 1 | 1:55 PM | 1 | 0 | 1 |
| 1:55 PM | 2 | 2 | 1:56 PM | 1 | 1 | 2 |
| 1:53 PM | 3 | 3 | 1:56 PM | 2 | 0 | 2 |
| 1:55 PM | 2 | 2 | 1:56 PM | 1 | 0 | 1 |
| 1:56 PM | 3 | 3 | 1:57 PM | 0 | 1 | 1 |
| 1:57 PM | 2 | 2 | 1:57 PM | 1 | 0 | 1 |
| 1:57 PM | 3 | 3 | 1:58 PM | 0 | 0 | 0 |
| 1:57 PM | 2 | 2 | 1:58 PM | 0 | 1 | 1 |
| 1:58 PM | 1 | 1 | 1:59 PM | 1 | 0 | 1 |
| 1:58 PM | 2 | 2 | 1:59 PM | 1 | 1 | 2 |
| 1:59 PM | 1 | 1 | 1:59 PM | 2 | 0 | 2 |
| 1:59 PM | 0 | 0 | 2:00 PM | 0 | 0 | 0 |

821

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 10142 Adams Avenue
City: Huntington Beach, CA

Date: 9/29/2020
Day: Tuesday

| Time | Number of Cars In Zone 1 | Total | Time | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|
| 4:00 PM | 1 | 1 | 4:00 PM | 3 | 0 | 3 |
| 4:01 PM | 2 | 2 | 4:01 PM | 1 | 0 | 1 |
| 4:01 PM | 3 | 3 | 4:01 PM | 0 | 1 | 1 |
| 4:01 PM | 2 | 2 | 4:02 PM | 1 | 0 | 1 |
| 4:01 PM | 3 | 3 | 4:02 PM | 1 | 1 | 2 |
| 4:03 PM | 4 | 4 | 4:02 PM | 2 | 0 | 2 |
| 4:03 PM | 3 | 3 | 4:03 PM | 1 | 0 | 1 |
| 4:03 PM | 4 | 4 | 4:03 PM | 0 | 1 | 1 |
| 4:04 PM | 3 | 3 | 4:04 PM | 1 | 0 | 1 |
| 4:04 PM | 2 | 2 | 4:06 PM | 0 | 0 | 0 |
| 4:06 PM | 3 | 3 | 4:06 PM | 0 | 1 | 1 |
| 4:08 PM | 4 | 4 | 4:06 PM | 1 | 0 | 1 |
| 4:10 PM | 5 | 5 | 4:07 PM | 1 | 1 | 2 |
| 4:10 PM | 6 | 6 | 4:07 PM | 1 | 0 | 1 |
| 4:11 PM | 5 | 5 | 4:08 PM | 1 | 1 | 2 |
| 4:12 PM | 4 | 4 | 4:08 PM | 2 | 0 | 2 |
| 4:12 PM | 5 | 5 | 4:10 PM | 1 | 0 | 1 |
| 4:12 PM | 6 | 6 | 4:10 PM | 0 | 0 | 0 |
| 4:13 PM | 5 | 5 | 4:11 PM | 0 | 2 | 2 |
| 4:14 PM | 6 | 6 | 4:11 PM | 2 | 0 | 2 |
| 4:15 PM | 5 | 5 | 4:12 PM | 0 | 1 | 1 |
| 4:16 PM | 4 | 4 | 4:13 PM | 1 | 0 | 1 |
| 4:17 PM | 3 | 3 | 4:14 PM | 0 | 0 | 0 |
| 4:18 PM | 2 | 2 | 4:18 PM | 0 | 1 | 1 |
| 4:19 PM | 3 | 3 | 4:18 PM | 1 | 0 | 1 |
| 4:19 PM | 2 | 2 | 4:19 PM | 0 | 1 | 1 |
| 4:20 PM | 3 | 3 | 4:19 PM | 1 | 0 | 1 |
| 4:21 PM | 2 | 2 | 4:20 PM | 0 | 0 | 0 |
| 4:22 PM | 1 | 1 | 4:22 PM | 0 | 1 | 1 |
| 4:23 PM | 0 | 0 | 4:22 PM | 1 | 0 | 1 |

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|---|---|---|---|---|---|---|
| 4:24 PM | 1 | 1 | 4:23 PM | 0 | 0 | 0 |
| 4:24 PM | 0 | 0 | 4:24 PM | 0 | 1 | 1 |
| 4:25 PM | 1 | 1 | 4:24 PM | 1 | 0 | 1 |
| 4:26 PM | 0 | 0 | 4:25 PM | 0 | 0 | 0 |
| 4:31 PM | 1 | 1 | 4:29 PM | 0 | 1 | 1 |
| 4:32 PM | 0 | 0 | 4:29 PM | 1 | 0 | 1 |
| 4:32 PM | 1 | 1 | 4:30 PM | 1 | 1 | 2 |
| 4:33 PM | 0 | 0 | 4:30 PM | 2 | 0 | 2 |
| 4:34 PM | 1 | 1 | 4:31 PM | 1 | 0 | 1 |
| 4:35 PM | 2 | 2 | 4:32 PM | 1 | 1 | 2 |
| 4:35 PM | 1 | 1 | 4:32 PM | 1 | 0 | 1 |
| 4:37 PM | 0 | 0 | 4:34 PM | 0 | 1 | 1 |
| 4:37 PM | 1 | 1 | 4:34 PM | 1 | 0 | 1 |
| 4:38 PM | 0 | 0 | 4:35 PM | 0 | 0 | 0 |
| 4:39 PM | 1 | 1 | 4:36 PM | 0 | 1 | 1 |
| 4:42 PM | 2 | 2 | 4:36 PM | 1 | 0 | 1 |
| 4:43 PM | 3 | 3 | 4:37 PM | 1 | 1 | 2 |
| 4:44 PM | 4 | 4 | 4:37 PM | 1 | 0 | 1 |
| 4:44 PM | 5 | 5 | 4:38 PM | 0 | 0 | 0 |
| 4:46 PM | 4 | 4 | 4:41 PM | 0 | 1 | 1 |
| 4:46 PM | 3 | 3 | 4:41 PM | 1 | 0 | 1 |
| 4:48 PM | 4 | 4 | 4:41 PM | 1 | 2 | 3 |
| 4:49 PM | 5 | 5 | 4:42 PM | 3 | 0 | 3 |
| 4:49 PM | 4 | 4 | 4:42 PM | 2 | 0 | 2 |
| 4:50 PM | 5 | 5 | 4:43 PM | 2 | 1 | 3 |
| 4:50 PM | 6 | 6 | 4:43 PM | 2 | 0 | 2 |
| 4:50 PM | 5 | 5 | 4:44 PM | 0 | 0 | 0 |
| 4:51 PM | 4 | 4 | 4:45 PM | 0 | 1 | 1 |
| 4:51 PM | 5 | 5 | 4:45 PM | 1 | 0 | 1 |
| 4:51 PM | 6 | 6 | 4:46 PM | 1 | 2 | 3 |
| 4:54 PM | 5 | 5 | 4:46 PM | 3 | 0 | 3 |
| 4:54 PM | 6 | 6 | 4:47 PM | 3 | 1 | 4 |
| 4:54 PM | 5 | 5 | 4:47 PM | 4 | 0 | 4 |
| 4:55 PM | 6 | 6 | 4:48 PM | 3 | 0 | 3 |
| 4:55 PM | 5 | 5 | 4:48 PM | 3 | 2 | 5 |
| 4:55 PM | 5 | 5 | 4:49 PM | 5 | 0 | 5 |
| 4:57 PM | 4 | 4 | 4:49 PM | 3 | 0 | 3 |
| 4:57 PM | 5 | 5 | 4:50 PM | 2 | 0 | 2 |
| 4:57 PM | 6 | 6 | 4:51 PM | 1 | 0 | 1 |
| 4:58 PM | 5 | 5 | 4:51 PM | 0 | 1 | 1 |
| 5:00 PM | 5 | 5 | 4:51 PM | 1 | 0 | 1 |

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|---|---|---|---|---|---|---|
| 5:01 PM | 4 | 4 | 4:53 PM | 0 | 0 | 0 |
| 5:01 PM | 3 | 3 | 4:54 PM | 0 | 1 | 1 |
| 5:02 PM | 4 | 4 | 4:54 PM | 1 | 0 | 1 |
| 5:03 PM | 5 | 5 | 4:55 PM | 0 | 0 | 0 |
| 5:03 PM | 4 | 4 | 4:55 PM | 0 | 2 | 2 |
| 5:03 PM | 3 | 3 | 4:55 PM | 2 | 1 | 3 |
| 5:04 PM | 4 | 4 | 4:56 PM | 3 | 0 | 3 |
| 5:04 PM | 3 | 3 | 4:57 PM | 1 | 0 | 1 |
| 5:04 PM | 2 | 2 | 4:58 PM | 0 | 0 | 0 |
| 5:05 PM | 3 | 3 | 4:59 PM | 0 | 1 | 1 |
| 5:06 PM | 2 | 2 | 4:59 PM | 1 | 0 | 1 |
| 5:06 PM | 3 | 3 | 5:00 PM | 1 | 1 | 2 |
| 5:07 PM | 2 | 2 | 5:00 PM | 2 | 0 | 2 |
| 5:10 PM | 1 | 1 | 5:02 PM | 1 | 0 | 1 |
| 5:10 PM | 0 | 0 | 5:02 PM | 0 | 1 | 1 |
| 5:11 PM | 1 | 1 | 5:02 PM | 1 | 0 | 1 |
| 5:11 PM | 0 | 0 | 5:03 PM | 1 | 1 | 2 |
| 5:12 PM | 1 | 1 | 5:03 PM | 2 | 0 | 2 |
| 5:13 PM | 2 | 2 | 5:04 PM | 1 | 0 | 1 |
| 5:13 PM | 1 | 1 | 5:04 PM | 1 | 1 | 2 |
| 5:13 PM | 2 | 2 | 5:04 PM | 2 | 0 | 2 |
| 5:14 PM | 1 | 1 | 5:05 PM | 1 | 0 | 1 |
| 5:14 PM | 2 | 2 | 5:06 PM | 0 | 0 | 0 |
| 5:15 PM | 1 | 1 | 5:09 PM | 0 | 1 | 1 |
| 5:16 PM | 0 | 0 | 5:09 PM | 1 | 0 | 1 |
| 5:16 PM | 1 | 1 | 5:10 PM | 1 | 3 | 4 |
| 5:17 PM | 2 | 2 | 5:10 PM | 4 | 0 | 4 |
| 5:18 PM | 3 | 3 | 5:11 PM | 3 | 0 | 3 |
| 5:19 PM | 2 | 2 | 5:11 PM | 3 | 1 | 4 |
| 5:19 PM | 3 | 3 | 5:11 PM | 4 | 0 | 4 |
| 5:20 PM | 2 | 2 | 5:12 PM | 3 | 0 | 3 |
| 5:20 PM | 1 | 1 | 5:11 PM | 4 | 0 | 4 |
| 5:20 PM | 0 | 0 | 5:12 PM | 3 | 0 | 3 |
| 5:20 PM | 1 | 1 | 5:12 PM | 3 | 2 | 5 |
| 5:21 PM | 2 | 2 | 5:13 PM | 5 | 0 | 5 |
| 5:22 PM | 1 | 1 | 5:13 PM | 4 | 0 | 4 |
| 5:22 PM | 0 | 0 | 5:14 PM | 2 | 0 | 2 |
| 5:23 PM | 1 | 1 | 5:15 PM | 1 | 1 | 2 |
| 5:23 PM | 2 | 2 | 5:16 PM | 2 | 0 | 2 |
| 5:24 PM | 3 | 3 | 5:17 PM | 1 | 1 | 2 |
| 5:25 PM | 4 | 4 | 5:17 PM | 2 | 0 | 2 |

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|---|---|---|---|---|---|---|
| 5:26 PM | 3 | 3 | 5:18 PM | 1 | 0 | 1 |
| 5:27 PM | 4 | 4 | 5:18 PM | 1 | 2 | 3 |
| 5:28 PM | 5 | 5 | 5:18 PM | 3 | 0 | 3 |
| 5:28 PM | 6 | 6 | 5:19 PM | 3 | 1 | 4 |
| 5:28 PM | 5 | 5 | 5:19 PM | 4 | 0 | 4 |
| 5:29 PM | 6 | 6 | 5:19 PM | 3 | 3 | 6 |
| 5:29 PM | 7 | 7 | 5:20 PM | 6 | 0 | 6 |
| 5:30 PM | 6 | 6 | 5:20 PM | 5 | 0 | 5 |
| 5:30 PM | 7 | 7 | 5:21 PM | 4 | 0 | 4 |
| 5:30 PM | 6 | 6 | 5:21 PM | 4 | 1 | 5 |
| 5:31 PM | 7 | 7 | 5:22 PM | 5 | 0 | 5 |
| 5:32 PM | 6 | 6 | 5:23 PM | 4 | 1 | 5 |
| 5:32 PM | 7 | 7 | 5:23 PM | 5 | 0 | 5 |
| 5:34 PM | 6 | 6 | 5:24 PM | 4 | 1 | 5 |
| 5:35 PM | 5 | 5 | 5:24 PM | 5 | 0 | 5 |
| 5:35 PM | 6 | 6 | 5:24 PM | 4 | 2 | 6 |
| 5:35 PM | 7 | 7 | 5:25 PM | 6 | 0 | 6 |
| 5:35 PM | 6 | 6 | 5:25 PM | 5 | 1 | 6 |
| 5:36 PM | 7 | 7 | 5:25 PM | 6 | 0 | 6 |
| 5:36 PM | 8 | 8 | 5:26 PM | 5 | 0 | 5 |
| 5:36 PM | 7 | 7 | 5:26 PM | 5 | 2 | 7 |
| 5:36 PM | 6 | 6 | 5:26 PM | 7 | 0 | 7 |
| 5:37 PM | 5 | 5 | 5:27 PM | 7 | 1 | 8 |
| 5:38 PM | 6 | 6 | 5:27 PM | 8 | 0 | 8 |
| 5:39 PM | 7 | 7 | 5:27 PM | 7 | 0 | 7 |
| 5:40 PM | 6 | 6 | 5:28 PM | 5 | 1 | 6 |
| 5:40 PM | 7 | 7 | 5:28 PM | 6 | 0 | 6 |
| 5:40 PM | 6 | 6 | 5:29 PM | 4 | 1 | 5 |
| 5:40 PM | 7 | 7 | 5:29 PM | 5 | 2 | 7 |
| 5:41 PM | 6 | 6 | 5:29 PM | 7 | 0 | 7 |
| 5:41 PM | 7 | 7 | 5:30 PM | 7 | 2 | 9 |
| 5:41 PM | 6 | 6 | 5:30 PM | 9 | 0 | 9 |
| 5:42 PM | 7 | 7 | 5:31 PM | 8 | 0 | 8 |
| 5:42 PM | 6 | 6 | 5:31 PM | 7 | 3 | 10 |
| 5:42 PM | 7 | 7 | 5:31 PM | 10 | 0 | 10 |
| 5:43 PM | 6 | 6 | 5:32 PM | 9 | 0 | 9 |
| 5:43 PM | 7 | 7 | 5:33 PM | 9 | 1 | 10 |
| 5:44 PM | 6 | 6 | 5:33 PM | 10 | 0 | 10 |
| 5:44 PM | 7 | 7 | 5:33 PM | 10 | 1 | 11 |
| 5:44 PM | 6 | 6 | 5:34 PM | 11 | 0 | 11 |
| 5:45 PM | 7 | 7 | 5:35 PM | 10 | 0 | 10 |

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|---|---|---|---|---|---|---|
| 5:47 PM | 6 | 6 | 5:35 PM | 8 | 1 | 9 |
| 5:47 PM | 7 | 7 | 5:36 PM | 9 | 0 | 9 |
| 5:47 PM | 6 | 6 | 5:36 PM | 8 | 0 | 8 |
| 5:47 PM | 7 | 7 | 5:37 PM | 7 | 0 | 7 |
| 5:50 PM | 6 | 6 | 5:38 PM | 6 | 0 | 6 |
| 5:50 PM | 7 | 7 | 5:39 PM | 5 | 0 | 5 |
| 5:51 PM | 6 | 6 | 5:39 PM | 5 | 2 | 7 |
| 5:52 PM | 7 | 7 | 5:39 PM | 7 | 0 | 7 |
| 5:53 PM | 6 | 6 | 5:40 PM | 6 | 1 | 7 |
| 5:53 PM | 7 | 7 | 5:40 PM | 7 | 0 | 7 |
| 5:53 PM | 6 | 6 | 5:40 PM | 7 | 1 | 8 |
| 5:54 PM | 7 | 7 | 5:40 PM | 8 | 0 | 8 |
| 5:54 PM | 6 | 6 | 5:41 PM | 7 | 0 | 7 |
| 5:54 PM | 7 | 7 | 5:41 PM | 6 | 0 | 6 |
| 5:54 PM | 6 | 6 | 5:41 PM | 6 | 1 | 7 |
| 5:55 PM | 7 | 7 | 5:42 PM | 7 | 0 | 7 |
| 5:55 PM | 6 | 6 | 5:42 PM | 6 | 0 | 6 |
| 5:55 PM | 7 | 7 | 5:42 PM | 5 | 0 | 5 |
| 5:56 PM | 6 | 6 | 5:43 PM | 4 | 0 | 4 |
| 5:56 PM | 7 | 7 | 5:44 PM | 3 | 2 | 5 |
| 5:56 PM | 6 | 6 | 5:45 PM | 5 | 0 | 5 |
| 5:57 PM | 7 | 7 | 5:45 PM | 4 | 0 | 4 |
| 5:57 PM | 6 | 6 | 5:47 PM | 3 | 0 | 3 |
| 5:57 PM | 5 | 5 | 5:47 PM | 2 | 0 | 2 |
| 5:58 PM | 6 | 6 | 5:48 PM | 2 | 1 | 3 |
| 5:58 PM | 5 | 5 | 5:48 PM | 3 | 0 | 3 |
| 5:58 PM | 4 | 4 | 5:50 PM | 3 | 1 | 4 |
| 5:59 PM | 3 | 3 | 5:50 PM | 4 | 0 | 4 |
| 5:59 PM | 2 | 2 | 5:50 PM | 3 | 0 | 3 |
| 6:00 PM | 3 | 3 | 5:51 PM | 3 | 1 | 4 |
| 6:00 PM | 2 | 2 | 5:51 PM | 4 | 0 | 4 |
| 6:00 PM | 1 | 1 | 5:52 PM | 4 | 1 | 5 |
| 6:02 PM | 2 | 2 | 5:52 PM | 5 | 0 | 5 |
| 6:02 PM | 1 | 1 | 5:52 PM | 4 | 0 | 4 |
| 6:03 PM | 2 | 2 | 5:53 PM | 3 | 0 | 3 |
| 6:03 PM | 2 | 2 | 5:54 PM | 2 | 2 | 4 |
| 6:03 PM | 1 | 1 | 5:54 PM | 4 | 0 | 4 |
| 6:04 PM | 2 | 2 | 5:54 PM | 3 | 1 | 4 |
| 6:04 PM | 3 | 3 | 5:55 PM | 4 | 0 | 4 |
| 6:05 PM | 4 | 4 | 5:55 PM | 3 | 0 | 3 |
| 6:05 PM | 3 | 3 | 5:56 PM | 2 | 0 | 2 |

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|---|---|---|---|---|---|---|
| 6:06 PM | 4 | 4 | 5:57 PM | 1 | 1 | 2 |
| 6:06 PM | 5 | 5 | 5:57 PM | 2 | 0 | 2 |
| 6:06 PM | 6 | 6 | 5:57 PM | 0 | 1 | 1 |
| 6:10 PM | 5 | 5 | 5:58 PM | 1 | 0 | 1 |
| 6:10 PM | 6 | 6 | 5:58 PM | 0 | 1 | 1 |
| 6:10 PM | 7 | 7 | 5:58 PM | 1 | 0 | 1 |
| 6:11 PM | 6 | 6 | 6:00 PM | 0 | 1 | 1 |
| 6:11 PM | 5 | 5 | 6:00 PM | 1 | 0 | 1 |
| 6:11 PM | 6 | 6 | 6:01 PM | 1 | 3 | 4 |
| 6:12 PM | 7 | 7 | 6:01 PM | 4 | 0 | 4 |
| 6:12 PM | 6 | 6 | 6:02 PM | 3 | 1 | 4 |
| 6:13 PM | 5 | 5 | 6:02 PM | 4 | 0 | 4 |
| 6:13 PM | 6 | 6 | 6:03 PM | 3 | 0 | 3 |
| 6:13 PM | 5 | 5 | 6:04 PM | 2 | 0 | 2 |
| 6:14 PM | 6 | 6 | 6:04 PM | 1 | 1 | 2 |
| 6:15 PM | 5 | 5 | 6:04 PM | 2 | 0 | 2 |
| 6:15 PM | 6 | 6 | 6:05 PM | 1 | 1 | 2 |
| 6:16 PM | 5 | 5 | 6:05 PM | 2 | 0 | 2 |
| 6:16 PM | 6 | 6 | 6:06 PM | 1 | 3 | 4 |
| 6:16 PM | 5 | 5 | 6:06 PM | 4 | 0 | 4 |
| 6:16 PM | 6 | 6 | 6:06 PM | 4 | 1 | 5 |
| 6:16 PM | 7 | 7 | 6:07 PM | 3 | 0 | 3 |
| 6:17 PM | 6 | 6 | 6:08 PM | 3 | 1 | 4 |
| 6:18 PM | 5 | 5 | 6:08 PM | 4 | 0 | 4 |
| 6:18 PM | 6 | 6 | 6:08 PM | 4 | 1 | 5 |
| 6:18 PM | 5 | 5 | 6:08 PM | 5 | 0 | 5 |
| 6:18 PM | 6 | 6 | 6:10 PM | 4 | 1 | 5 |
| 6:18 PM | 7 | 7 | 6:11 PM | 5 | 0 | 5 |
| 6:20 PM | 6 | 6 | 6:11 PM | 5 | 1 | 6 |
| 6:21 PM | 5 | 5 | 6:11 PM | 6 | 0 | 6 |
| 6:21 PM | 6 | 6 | 6:12 PM | 5 | 0 | 5 |
| 6:21 PM | 5 | 5 | 6:13 PM | 4 | 0 | 4 |
| 6:22 PM | 4 | 4 | 6:13 PM | 3 | 0 | 3 |
| 6:22 PM | 5 | 5 | 6:14 PM | 3 | 2 | 5 |
| 6:23 PM | 4 | 4 | 6:14 PM | 5 | 0 | 5 |
| 6:24 PM | 3 | 3 | 6:15 PM | 4 | 3 | 7 |
| 6:25 PM | 4 | 4 | 6:15 PM | 7 | 0 | 7 |
| 6:25 PM | 3 | 3 | 6:16 PM | 6 | 0 | 6 |
| 6:25 PM | 4 | 4 | 6:16 PM | 5 | 0 | 5 |
| 6:26 PM | 3 | 3 | 6:17 PM | 4 | 1 | 5 |
| 6:27 PM | 4 | 4 | 6:17 PM | 5 | 0 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 6:28 PM | 5 | 5 | 6:18 PM | 4 | 0 | 4 |
| 6:28 PM | 6 | 6 | 6:18 PM | 3 | 0 | 3 |
| 6:28 PM | 5 | 5 | 6:19 PM | 2 | 0 | 2 |
| 6:28 PM | 6 | 6 | 6:20 PM | 1 | 0 | 1 |
| 6:28 PM | 5 | 5 | 6:21 PM | 1 | 1 | 2 |
| 6:29 PM | 4 | 4 | 6:21 PM | 2 | 0 | 2 |
| 6:29 PM | 5 | 5 | 6:21 PM | 1 | 0 | 1 |
| 6:29 PM | 4 | 4 | 6:22 PM | 0 | 0 | 0 |
| 6:30 PM | 5 | 5 | 6:23 PM | 0 | 2 | 2 |
| 6:30 PM | 4 | 4 | 6:23 PM | 2 | 0 | 2 |
| 6:31 PM | 3 | 3 | 6:25 PM | 1 | 1 | 2 |
| 6:32 PM | 4 | 4 | 6:25 PM | 2 | 0 | 2 |
| 6:32 PM | 5 | 5 | 6:26 PM | 1 | 0 | 1 |
| 6:33 PM | 4 | 4 | 6:27 PM | 1 | 3 | 4 |
| 6:33 PM | 5 | 5 | 6:27 PM | 4 | 0 | 4 |
| 6:34 PM | 4 | 4 | 6:27 PM | 3 | 1 | 4 |
| 6:34 PM | 5 | 5 | 6:27 PM | 4 | 0 | 4 |
| 6:34 PM | 6 | 6 | 6:28 PM | 3 | 0 | 3 |
| 6:34 PM | 5 | 5 | 6:28 PM | 2 | 0 | 2 |
| 6:35 PM | 6 | 6 | 6:28 PM | 1 | 1 | 2 |
| 6:35 PM | 5 | 5 | 6:28 PM | 2 | 0 | 2 |
| 6:35 PM | 6 | 6 | 6:29 PM | 1 | 0 | 1 |
| 6:35 PM | 5 | 5 | 6:30 PM | 0 | 0 | 0 |
| 6:36 PM | 6 | 6 | 6:31 PM | 0 | 2 | 2 |
| 6:37 PM | 5 | 5 | 6:31 PM | 2 | 0 | 2 |
| 6:37 PM | 6 | 6 | 6:31 PM | 2 | 2 | 4 |
| 6:37 PM | 7 | 7 | 6:31 PM | 4 | 0 | 4 |
| 6:38 PM | 6 | 6 | 6:32 PM | 4 | 2 | 6 |
| 6:39 PM | 5 | 5 | 6:32 PM | 6 | 0 | 6 |
| 6:39 PM | 6 | 6 | 6:32 PM | 5 | 1 | 6 |
| 6:39 PM | 7 | 7 | 6:32 PM | 6 | 0 | 6 |
| 6:39 PM | 6 | 6 | 6:33 PM | 6 | 1 | 7 |
| 6:39 PM | 7 | 7 | 6:33 PM | 7 | 0 | 7 |
| 6:39 PM | 6 | 6 | 6:33 PM | 6 | 0 | 6 |
| 6:40 PM | 7 | 7 | 6:33 PM | 5 | 1 | 6 |
| 6:40 PM | 8 | 8 | 6:34 PM | 6 | 0 | 6 |
| 6:40 PM | 7 | 7 | 6:34 PM | 4 | 2 | 6 |
| 6:41 PM | 6 | 6 | 6:34 PM | 6 | 0 | 6 |
| 6:41 PM | 7 | 7 | 6:34 PM | 6 | 1 | 7 |
| 6:41 PM | 6 | 6 | 6:34 PM | 7 | 0 | 7 |
| 6:41 PM | 7 | 7 | 6:35 PM | 6 | 0 | 6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 6:42 PM | 6 | 6 | 6:35 PM | 5 | 0 | 5 |
| 6:43 PM | 5 | 5 | 6:36 PM | 5 | 1 | 6 |
| 6:43 PM | 6 | 6 | 6:36 PM | 6 | 0 | 6 |
| 6:43 PM | 7 | 7 | 6:36 PM | 5 | 0 | 5 |
| 6:43 PM | 6 | 6 | 6:37 PM | 5 | 2 | 7 |
| 6:44 PM | 7 | 7 | 6:37 PM | 7 | 0 | 7 |
| 6:44 PM | 6 | 6 | 6:37 PM | 6 | 0 | 6 |
| 6:45 PM | 7 | 7 | 6:37 PM | 6 | 1 | 7 |
| 6:45 PM | 6 | 6 | 6:37 PM | 7 | 0 | 7 |
| 6:46 PM | 7 | 7 | 6:38 PM | 7 | 1 | 8 |
| 6:47 PM | 6 | 6 | 6:38 PM | 8 | 0 | 8 |
| 6:47 PM | 7 | 7 | 6:39 PM | 6 | 0 | 6 |
| 6:49 PM | 6 | 6 | 6:39 PM | 5 | 1 | 6 |
| 6:49 PM | 5 | 5 | 6:40 PM | 6 | 0 | 6 |
| 6:50 PM | 6 | 6 | 6:40 PM | 5 | 0 | 5 |
| 6:50 PM | 5 | 5 | 6:41 PM | 4 | 1 | 5 |
| 6:51 PM | 6 | 6 | 6:41 PM | 5 | 0 | 5 |
| 6:51 PM | 5 | 5 | 6:41 PM | 4 | 0 | 4 |
| 6:51 PM | 6 | 6 | 6:42 PM | 3 | 0 | 3 |
| 6:52 PM | 5 | 5 | 6:43 PM | 2 | 1 | 3 |
| 6:53 PM | 6 | 6 | 6:43 PM | 3 | 0 | 3 |
| 6:53 PM | 5 | 5 | 6:43 PM | 2 | 0 | 2 |
| 6:53 PM | 6 | 6 | 6:44 PM | 2 | 1 | 3 |
| 6:55 PM | 5 | 5 | 6:44 PM | 3 | 0 | 3 |
| 6:55 PM | 6 | 6 | 6:44 PM | 2 | 1 | 3 |
| 6:55 PM | 7 | 7 | 6:44 PM | 3 | 0 | 3 |
| 6:56 PM | 6 | 6 | 6:45 PM | 2 | 2 | 4 |
| 6:56 PM | 5 | 5 | 6:45 PM | 4 | 0 | 4 |
| 6:56 PM | 6 | 6 | 6:46 PM | 3 | 0 | 3 |
| 6:58 PM | 5 | 5 | 6:47 PM | 2 | 0 | 2 |
| 6:58 PM | 6 | 6 | 6:49 PM | 1 | 1 | 2 |
| 6:59 PM | 7 | 7 | 6:49 PM | 2 | 0 | 2 |
| 6:59 PM | 6 | 6 | 6:50 PM | 1 | 1 | 2 |
| 6:59 PM | 7 | 7 | 6:50 PM | 2 | 1 | 3 |
| 6:59 PM | 6 | 6 | 6:50 PM | 3 | 0 | 3 |
| 6:59 PM | 7 | 7 | 6:51 PM | 3 | 1 | 4 |
| | | | 6:51 PM | 4 | 0 | 4 |
| | | | 6:51 PM | 3 | 1 | 4 |
| | | | 6:51 PM | 4 | 0 | 4 |
| | | | 6:52 PM | 3 | 2 | 5 |
| | | | 6:52 PM | 5 | 0 | 5 |

| | | | |
|---|---|---|---|
| 6:53 PM | 5 | 2 | 7 |
| 6:53 PM | 7 | 0 | 7 |
| 6:53 PM | 6 | 0 | 6 |
| 6:53 PM | 5 | 0 | 5 |
| 6:54 PM | 5 | 2 | 7 |
| 6:54 PM | 7 | 0 | 7 |
| 6:55 PM | 6 | 2 | 8 |
| 6:56 PM | 8 | 0 | 8 |
| 6:57 PM | 7 | 0 | 7 |
| 6:57 PM | 6 | 0 | 6 |
| 6:58 PM | 5 | 0 | 5 |
| 6:59 PM | 4 | 0 | 4 |
| 6:59 PM | 4 | 2 | 6 |
| 6:59 PM | 6 | 0 | 6 |
| 7:00 PM | 5 | 0 | 5 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 26782 Portola Pkwy
City: Foothill Ranch, CA

Date: 9/29/2020
Day: Tuesday

| Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total | Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 11:00 AM | 1 | 0 | 0 | 1 | 4:00 PM | 0 | 1 | 0 | 1 |
| 11:01 AM | 1 | 0 | 0 | 1 | 4:01 PM | 1 | 1 | 0 | 2 |
| 11:02 AM | 0 | 0 | 0 | 0 | 4:02 PM | 0 | 2 | 0 | 2 |
| 11:03 AM | 0 | 0 | 0 | 0 | 4:03 PM | 2 | 0 | 0 | 2 |
| 11:04 AM | 0 | 1 | 1 | 2 | 4:04 PM | 2 | 0 | 0 | 2 |
| 11:05 AM | 1 | 0 | 0 | 1 | 4:05 PM | 2 | 0 | 0 | 2 |
| 11:06 AM | 1 | 2 | 0 | 3 | 4:06 PM | 1 | 2 | 0 | 3 |
| 11:07 AM | 2 | 0 | 0 | 2 | 4:07 PM | 1 | 1 | 0 | 2 |
| 11:08 AM | 1 | 0 | 0 | 1 | 4:08 PM | 1 | 1 | 0 | 2 |
| 11:09 AM | 0 | 0 | 0 | 0 | 4:09 PM | 1 | 1 | 0 | 2 |
| 11:10 AM | 0 | 0 | 0 | 0 | 4:10 PM | 0 | 2 | 0 | 2 |
| 11:11 AM | 0 | 0 | 0 | 0 | 4:11 PM | 2 | 2 | 0 | 4 |
| 11:12 AM | 0 | 1 | 0 | 1 | 4:12 PM | 2 | 2 | 1 | 5 |
| 11:13 AM | 1 | 0 | 1 | 2 | 4:13 PM | 2 | 1 | 0 | 3 |
| 11:14 AM | 1 | 0 | 1 | 2 | 4:14 PM | 3 | 0 | 0 | 3 |
| 11:15 AM | 0 | 1 | 0 | 1 | 4:15 PM | 2 | 0 | 0 | 2 |
| 11:16 AM | 1 | 0 | 0 | 1 | 4:16 PM | 1 | 0 | 0 | 1 |
| 11:17 AM | 1 | 0 | 0 | 1 | 4:17 PM | 0 | 2 | 0 | 2 |
| 11:18 AM | 0 | 0 | 0 | 0 | 4:18 PM | 0 | 2 | 0 | 2 |
| 11:19 AM | 0 | 0 | 0 | 0 | 4:19 PM | 2 | 1 | 0 | 3 |
| 11:20 AM | 0 | 0 | 0 | 0 | 4:20 PM | 1 | 1 | 0 | 2 |
| 11:21 AM | 0 | 1 | 0 | 1 | 4:21 PM | 2 | 0 | 0 | 2 |
| 11:22 AM | 1 | 2 | 0 | 3 | 4:22 PM | 1 | 0 | 0 | 1 |
| 11:23 AM | 1 | 3 | 0 | 4 | 4:23 PM | 0 | 0 | 0 | 0 |
| 11:24 AM | 2 | 1 | 0 | 3 | 4:24 PM | 0 | 1 | 0 | 1 |
| 11:25 AM | 2 | 1 | 0 | 3 | 4:25 PM | 0 | 2 | 0 | 2 |
| 11:26 AM | 2 | 1 | 0 | 3 | 4:26 PM | 2 | 1 | 0 | 3 |
| 11:27 AM | 3 | 1 | 0 | 4 | 4:27 PM | 1 | 1 | 0 | 2 |
| 11:28 AM | 4 | 1 | 0 | 5 | 4:28 PM | 1 | 1 | 0 | 2 |
| 11:29 AM | 4 | 1 | 0 | 5 | 4:29 PM | 2 | 0 | 0 | 2 |
| 11:30 AM | 3 | 1 | 0 | 4 | 4:30 PM | 2 | 0 | 0 | 2 |
| 11:31 AM | 3 | 1 | 0 | 4 | 4:31 PM | 1 | 0 | 0 | 1 |
| 11:32 AM | 3 | 0 | 0 | 3 | 4:32 PM | 1 | 0 | 0 | 1 |
| 11:33 AM | 2 | 1 | 0 | 3 | 4:33 PM | 2 | 0 | 0 | 2 |
| 11:34 AM | 3 | 1 | 0 | 4 | 4:34 PM | 1 | 0 | 0 | 1 |
| 11:35 AM | 3 | 1 | 0 | 4 | 4:35 PM | 1 | 1 | 0 | 2 |
| 11:36 AM | 4 | 0 | 0 | 4 | 4:36 PM | 0 | 1 | 0 | 1 |
| 11:37 AM | 4 | 0 | 0 | 4 | 4:37 PM | 1 | 1 | 0 | 2 |
| 11:38 AM | 3 | 1 | 0 | 4 | 4:38 PM | 2 | 0 | 0 | 2 |
| 11:39 AM | 3 | 1 | 0 | 4 | 4:39 PM | 1 | 1 | 0 | 2 |
| 11:40 AM | 3 | 1 | 0 | 4 | 4:40 PM | 1 | 1 | 2 | 4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 11:41 AM | 3 | 1 | 0 | 4 | 4:41 PM | 2 | 1 | 2 | 5 |
| 11:42 AM | 4 | 1 | 0 | 5 | 4:42 PM | 1 | 1 | 2 | 4 |
| 11:43 AM | 3 | 0 | 0 | 3 | 4:43 PM | 2 | 1 | 2 | 5 |
| 11:44 AM | 2 | 4 | 0 | 6 | 4:44 PM | 2 | 1 | 1 | 4 |
| 11:45 AM | 4 | 1 | 0 | 5 | 4:45 PM | 2 | 1 | 1 | 4 |
| 11:46 AM | 4 | 0 | 0 | 4 | 4:46 PM | 3 | 1 | 1 | 5 |
| 11:47 AM | 4 | 0 | 0 | 4 | 4:47 PM | 3 | 1 | 1 | 5 |
| 11:48 AM | 3 | 2 | 0 | 5 | 4:48 PM | 3 | 1 | 0 | 4 |
| 11:49 AM | 3 | 2 | 0 | 5 | 4:49 PM | 2 | 1 | 0 | 3 |
| 11:50 AM | 5 | 1 | 0 | 6 | 4:50 PM | 2 | 1 | 0 | 3 |
| 11:51 AM | 5 | 2 | 0 | 7 | 4:51 PM | 2 | 0 | 0 | 2 |
| 11:52 AM | 5 | 0 | 0 | 5 | 4:52 PM | 1 | 0 | 0 | 1 |
| 11:53 AM | 5 | 1 | 0 | 6 | 4:53 PM | 1 | 1 | 1 | 3 |
| 11:54 AM | 6 | 1 | 0 | 7 | 4:54 PM | 0 | 1 | 2 | 3 |
| 11:55 AM | 6 | 1 | 0 | 7 | 4:55 PM | 1 | 1 | 1 | 3 |
| 11:56 AM | 6 | 3 | 0 | 9 | 4:56 PM | 1 | 1 | 0 | 2 |
| 11:57 AM | 6 | 3 | 0 | 9 | 4:57 PM | 2 | 0 | 0 | 2 |
| 11:58 AM | 7 | 2 | 0 | 9 | 4:58 PM | 1 | 0 | 0 | 1 |
| 11:59 AM | 7 | 3 | 0 | 10 | 4:59 PM | 1 | 0 | 0 | 1 |
| 12:00 PM | 7 | 0 | 0 | 7 | 5:00 PM | 1 | 0 | 0 | 1 |
| 12:01 PM | 6 | 0 | 0 | 6 | 5:01 PM | 2 | 1 | 0 | 3 |
| 12:02 PM | 6 | 0 | 0 | 6 | 5:02 PM | 1 | 1 | 0 | 2 |
| 12:03 PM | 6 | 0 | 0 | 6 | 5:03 PM | 0 | 2 | 0 | 2 |
| 12:04 PM | 5 | 0 | 0 | 5 | 5:04 PM | 2 | 0 | 0 | 2 |
| 12:05 PM | 4 | 0 | 0 | 4 | 5:05 PM | 2 | 1 | 0 | 3 |
| 12:06 PM | 3 | 0 | 0 | 3 | 5:06 PM | 3 | 0 | 0 | 3 |
| 12:07 PM | 2 | 0 | 0 | 2 | 5:07 PM | 3 | 2 | 0 | 5 |
| 12:08 PM | 2 | 0 | 0 | 2 | 5:08 PM | 3 | 1 | 0 | 4 |
| 12:09 PM | 3 | 0 | 0 | 3 | 5:09 PM | 3 | 0 | 0 | 3 |
| 12:10 PM | 3 | 1 | 0 | 4 | 5:10 PM | 2 | 1 | 2 | 5 |
| 12:11 PM | 3 | 1 | 0 | 4 | 5:11 PM | 3 | 1 | 1 | 5 |
| 12:12 PM | 4 | 0 | 0 | 4 | 5:12 PM | 2 | 2 | 1 | 5 |
| 12:13 PM | 4 | 0 | 0 | 4 | 5:13 PM | 3 | 1 | 0 | 4 |
| 12:14 PM | 4 | 1 | 0 | 5 | 5:14 PM | 3 | 1 | 1 | 5 |
| 12:15 PM | 4 | 1 | 0 | 5 | 5:15 PM | 2 | 1 | 0 | 3 |
| 12:16 PM | 5 | 0 | 0 | 5 | 5:16 PM | 3 | 0 | 0 | 3 |
| 12:17 PM | 5 | 2 | 0 | 7 | 5:17 PM | 2 | 1 | 0 | 3 |
| 12:18 PM | 5 | 2 | 0 | 7 | 5:18 PM | 1 | 2 | 0 | 3 |
| 12:19 PM | 6 | 2 | 0 | 8 | 5:19 PM | 3 | 1 | 0 | 4 |
| 12:20 PM | 6 | 1 | 0 | 7 | 5:20 PM | 4 | 0 | 0 | 4 |
| 12:21 PM | 6 | 1 | 0 | 7 | 5:21 PM | 3 | 1 | 1 | 5 |
| 12:22 PM | 5 | 1 | 0 | 6 | 5:22 PM | 3 | 2 | 1 | 6 |
| 12:23 PM | 6 | 0 | 0 | 6 | 5:23 PM | 3 | 2 | 0 | 5 |
| 12:24 PM | 6 | 0 | 0 | 6 | 5:24 PM | 4 | 0 | 0 | 4 |
| 12:25 PM | 6 | 2 | 0 | 8 | 5:25 PM | 4 | 2 | 0 | 6 |
| 12:26 PM | 6 | 2 | 0 | 8 | 5:26 PM | 6 | 0 | 0 | 6 |
| 12:27 PM | 7 | 1 | 0 | 8 | 5:27 PM | 6 | 1 | 1 | 8 |
| 12:28 PM | 7 | 2 | 0 | 9 | 5:28 PM | 5 | 2 | 0 | 7 |
| 12:29 PM | 6 | 2 | 0 | 8 | 5:29 PM | 6 | 2 | 0 | 8 |
| 12:30 PM | 6 | 1 | 0 | 7 | 5:30 PM | 7 | 1 | 0 | 8 |
| 12:31 PM | 6 | 1 | 0 | 7 | 5:31 PM | 5 | 1 | 0 | 6 |
| 12:32 PM | 6 | 3 | 0 | 9 | 5:32 PM | 5 | 2 | 0 | 7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12:33 PM | 6 | 3 | 0 | 9 | 5:33 PM | 7 | 2 | 0 | 9 |
| 12:34 PM | 7 | 2 | 0 | 9 | 5:34 PM | 7 | 1 | 0 | 8 |
| 12:35 PM | 7 | 3 | 0 | 10 | 5:35 PM | 6 | 2 | 0 | 8 |
| 12:36 PM | 7 | 1 | 0 | 8 | 5:36 PM | 7 | 3 | 0 | 10 |
| 12:37 PM | 7 | 1 | 0 | 8 | 5:37 PM | 7 | 3 | 0 | 10 |
| 12:38 PM | 7 | 0 | 0 | 7 | 5:38 PM | 7 | 5 | 0 | 12 |
| 12:39 PM | 6 | 0 | 0 | 6 | 5:39 PM | 7 | 4 | 0 | 11 |
| 12:40 PM | 6 | 0 | 0 | 6 | 5:40 PM | 7 | 4 | 0 | 11 |
| 12:41 PM | 6 | 0 | 0 | 6 | 5:41 PM | 7 | 6 | 2 | 15 |
| 12:42 PM | 6 | 0 | 0 | 6 | 5:42 PM | 7 | 6 | 1 | 14 |
| 12:43 PM | 5 | 0 | 0 | 5 | 5:43 PM | 7 | 7 | 1 | 15 |
| 12:44 PM | 6 | 1 | 0 | 7 | 5:44 PM | 7 | 8 | 1 | 16 |
| 12:45 PM | 5 | 0 | 0 | 5 | 5:45 PM | 7 | 7 | 0 | 14 |
| 12:46 PM | 4 | 0 | 0 | 4 | 5:46 PM | 7 | 6 | 2 | 15 |
| 12:47 PM | 3 | 0 | 0 | 3 | 5:47 PM | 7 | 5 | 2 | 14 |
| 12:48 PM | 3 | 3 | 0 | 6 | 5:48 PM | 7 | 6 | 2 | 15 |
| 12:49 PM | 3 | 2 | 0 | 5 | 5:49 PM | 7 | 5 | 2 | 14 |
| 12:50 PM | 3 | 2 | 0 | 5 | 5:50 PM | 7 | 6 | 2 | 15 |
| 12:51 PM | 2 | 3 | 0 | 5 | 5:51 PM | 7 | 7 | 0 | 14 |
| 12:52 PM | 2 | 2 | 0 | 4 | 5:52 PM | 7 | 6 | 1 | 14 |
| 12:53 PM | 3 | 3 | 0 | 6 | 5:53 PM | 7 | 6 | 1 | 14 |
| 12:54 PM | 3 | 2 | 0 | 5 | 5:54 PM | 7 | 7 | 2 | 16 |
| 12:55 PM | 6 | 0 | 0 | 6 | 5:55 PM | 7 | 7 | 3 | 17 |
| 12:56 PM | 6 | 0 | 0 | 6 | 5:56 PM | 7 | 8 | 0 | 15 |
| 12:57 PM | 6 | 1 | 0 | 7 | 5:57 PM | 7 | 9 | 1 | 17 |
| 12:58 PM | 7 | 0 | 0 | 7 | 5:58 PM | 7 | 7 | 1 | 15 |
| 12:59 PM | 6 | 0 | 0 | 6 | 5:59 PM | 7 | 7 | 3 | 17 |
| 1:00 PM | 4 | 0 | 0 | 4 | 6:00 PM | 7 | 7 | 2 | 16 |
| 1:01 PM | 3 | 0 | 0 | 3 | 6:01 PM | 7 | 5 | 3 | 15 |
| 1:02 PM | 4 | 1 | 0 | 5 | 6:02 PM | 7 | 5 | 2 | 14 |
| 1:03 PM | 4 | 0 | 0 | 4 | 6:03 PM | 7 | 4 | 3 | 14 |
| 1:04 PM | 4 | 1 | 0 | 5 | 6:04 PM | 7 | 5 | 2 | 14 |
| 1:05 PM | 4 | 2 | 1 | 7 | 6:05 PM | 7 | 5 | 2 | 14 |
| 1:06 PM | 4 | 2 | 0 | 6 | 6:06 PM | 7 | 7 | 2 | 16 |
| 1:07 PM | 3 | 2 | 0 | 5 | 6:07 PM | 7 | 8 | 3 | 18 |
| 1:08 PM | 4 | 0 | 0 | 4 | 6:08 PM | 7 | 8 | 2 | 17 |
| 1:09 PM | 3 | 0 | 0 | 3 | 6:09 PM | 7 | 10 | 2 | 19 |
| 1:10 PM | 1 | 2 | 0 | 3 | 6:10 PM | 7 | 8 | 2 | 17 |
| 1:11 PM | 0 | 2 | 0 | 2 | 6:11 PM | 7 | 6 | 3 | 16 |
| 1:12 PM | 2 | 2 | 0 | 4 | 6:12 PM | 7 | 6 | 4 | 17 |
| 1:13 PM | 2 | 1 | 0 | 3 | 6:13 PM | 7 | 5 | 4 | 16 |
| 1:14 PM | 1 | 2 | 2 | 5 | 6:14 PM | 7 | 3 | 4 | 14 |
| 1:15 PM | 2 | 3 | 0 | 5 | 6:15 PM | 7 | 5 | 3 | 15 |
| 1:16 PM | 5 | 0 | 0 | 5 | 6:16 PM | 7 | 5 | 3 | 15 |
| 1:17 PM | 5 | 0 | 0 | 5 | 6:17 PM | 7 | 5 | 3 | 15 |
| 1:18 PM | 4 | 0 | 0 | 4 | 6:18 PM | 7 | 6 | 3 | 16 |
| 1:19 PM | 3 | 0 | 0 | 3 | 6:19 PM | 7 | 6 | 4 | 17 |
| 1:20 PM | 2 | 1 | 0 | 3 | 6:20 PM | 7 | 7 | 3 | 17 |
| 1:21 PM | 1 | 3 | 0 | 4 | 6:21 PM | 7 | 7 | 3 | 17 |
| 1:22 PM | 2 | 4 | 0 | 6 | 6:22 PM | 7 | 8 | 2 | 17 |
| 1:23 PM | 5 | 3 | 0 | 8 | 6:23 PM | 7 | 7 | 1 | 15 |
| 1:24 PM | 7 | 2 | 0 | 9 | 6:24 PM | 7 | 8 | 0 | 15 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1:25 PM | 7 | 4 | 0 | 11 | 6:25 PM | 6 | 8 | 0 | 14 |
| 1:26 PM | 7 | 4 | 0 | 11 | 6:26 PM | 6 | 8 | 0 | 14 |
| 1:27 PM | 7 | 3 | 0 | 10 | 6:27 PM | 7 | 6 | 1 | 14 |
| 1:28 PM | 7 | 3 | 0 | 10 | 6:28 PM | 7 | 6 | 4 | 17 |
| 1:29 PM | 7 | 2 | 0 | 9 | 6:29 PM | 7 | 5 | 5 | 17 |
| 1:30 PM | 7 | 2 | 0 | 9 | 6:30 PM | 7 | 6 | 3 | 16 |
| 1:31 PM | 7 | 2 | 0 | 9 | 6:31 PM | 7 | 6 | 3 | 16 |
| 1:32 PM | 7 | 2 | 1 | 10 | 6:32 PM | 7 | 8 | 2 | 17 |
| 1:33 PM | 7 | 2 | 0 | 9 | 6:33 PM | 7 | 8 | 3 | 18 |
| 1:34 PM | 7 | 4 | 0 | 11 | 6:34 PM | 7 | 8 | 2 | 17 |
| 1:35 PM | 7 | 3 | 0 | 10 | 6:35 PM | 7 | 10 | 4 | 21 |
| 1:36 PM | 7 | 3 | 0 | 10 | 6:36 PM | 7 | 9 | 4 | 20 |
| 1:37 PM | 7 | 2 | 0 | 9 | 6:37 PM | 7 | 9 | 2 | 18 |
| 1:38 PM | 7 | 0 | 0 | 7 | 6:38 PM | 7 | 9 | 0 | 16 |
| 1:39 PM | 5 | 3 | 0 | 8 | 6:39 PM | 7 | 8 | 0 | 15 |
| 1:40 PM | 6 | 3 | 0 | 9 | 6:40 PM | 7 | 7 | 0 | 14 |
| 1:41 PM | 5 | 2 | 0 | 7 | 6:41 PM | 7 | 5 | 0 | 12 |
| 1:42 PM | 6 | 0 | 0 | 6 | 6:42 PM | 7 | 3 | 0 | 10 |
| 1:43 PM | 5 | 1 | 0 | 6 | 6:43 PM | 7 | 5 | 0 | 12 |
| 1:44 PM | 4 | 0 | 0 | 4 | 6:44 PM | 7 | 4 | 0 | 11 |
| 1:45 PM | 4 | 0 | 0 | 4 | 6:45 PM | 7 | 4 | 0 | 11 |
| 1:46 PM | 3 | 0 | 0 | 3 | 6:46 PM | 7 | 3 | 0 | 10 |
| 1:47 PM | 2 | 1 | 0 | 3 | 6:47 PM | 7 | 1 | 0 | 8 |
| 1:48 PM | 2 | 0 | 0 | 2 | 6:48 PM | 7 | 0 | 0 | 7 |
| 1:49 PM | 2 | 0 | 0 | 2 | 6:49 PM | 5 | 0 | 0 | 5 |
| 1:50 PM | 1 | 1 | 0 | 2 | 6:50 PM | 3 | 2 | 0 | 5 |
| 1:51 PM | 2 | 0 | 0 | 2 | 6:51 PM | 4 | 1 | 0 | 5 |
| 1:52 PM | 2 | 1 | 0 | 3 | 6:52 PM | 3 | 1 | 2 | 6 |
| 1:53 PM | 2 | 2 | 0 | 4 | 6:53 PM | 3 | 1 | 1 | 5 |
| 1:54 PM | 3 | 1 | 0 | 4 | 6:54 PM | 2 | 1 | 3 | 6 |
| 1:55 PM | 4 | 0 | 0 | 4 | 6:55 PM | 3 | 1 | 3 | 7 |
| 1:56 PM | 2 | 2 | 0 | 4 | 6:56 PM | 2 | 1 | 3 | 6 |
| 1:57 PM | 1 | 1 | 0 | 2 | 6:57 PM | 2 | 1 | 3 | 6 |
| 1:58 PM | 1 | 1 | 0 | 2 | 6:58 PM | 3 | 1 | 5 | 9 |
| 1:59 PM | 2 | 0 | 0 | 2 | 6:59 PM | 2 | 1 | 5 | 8 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 2249 N Tustin St
City: Orange, CA

Date: 9/26/2020
Day: Saturday

| Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total | Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 11:00 AM | 2 | 0 | 0 | 2 | 4:00 PM | 4 | 4 | 4 | 12 |
| 11:05 AM | 3 | 0 | 0 | 3 | 4:02 PM | 4 | 4 | 3 | 11 |
| 11:09 AM | 3 | 1 | 0 | 4 | 4:04 PM | 4 | 5 | 4 | 13 |
| 11:12 AM | 2 | 2 | 0 | 4 | 4:06 PM | 4 | 5 | 6 | 15 |
| 11:18 AM | 3 | 1 | 0 | 4 | 4:09 PM | 4 | 5 | 8 | 17 |
| 11:20 AM | 3 | 0 | 0 | 3 | 4:11 PM | 4 | 5 | 11 | 20 |
| 11:22 AM | 2 | 2 | 0 | 4 | 4:16 PM | 4 | 5 | 12 | 21 |
| 11:24 AM | 2 | 3 | 0 | 5 | 4:24 PM | 4 | 5 | 11 | 20 |
| 11:26 AM | 3 | 4 | 0 | 7 | 4:36 PM | 4 | 5 | 10 | 19 |
| 11:27 AM | 4 | 3 | 0 | 7 | 4:40 PM | 4 | 5 | 9 | 18 |
| 11:29 AM | 4 | 1 | 0 | 5 | 4:46 PM | 4 | 5 | 10 | 19 |
| 11:30 AM | 3 | 0 | 0 | 3 | 4:50 PM | 4 | 5 | 12 | 21 |
| 11:31 AM | 2 | 0 | 0 | 2 | 4:55 PM | 4 | 5 | 13 | 22 |
| 11:32 AM | 1 | 0 | 0 | 1 | 4:58 PM | 4 | 5 | 12 | 21 |
| 11:33 AM | 0 | 0 | 0 | 0 | 5:03 PM | 3 | 5 | 12 | 20 |
| 11:35 AM | 1 | 0 | 0 | 1 | 5:06 PM | 2 | 5 | 12 | 19 |
| 11:39 AM | 2 | 0 | 0 | 2 | 5:09 PM | 3 | 5 | 12 | 20 |
| 11:40 AM | 3 | 0 | 0 | 3 | 5:11 PM | 3 | 5 | 14 | 22 |
| 11:41 AM | 2 | 1 | 0 | 3 | 5:13 PM | 3 | 5 | 16 | 24 |
| 11:44 AM | 2 | 2 | 0 | 4 | 5:15 PM | 3 | 5 | 15 | 23 |
| 11:46 AM | 2 | 1 | 0 | 3 | 5:16 PM | 3 | 5 | 17 | 25 |
| 11:49 AM | 2 | 2 | 0 | 4 | 5:20 PM | 4 | 5 | 13 | 22 |
| 11:51 AM | 2 | 1 | 0 | 3 | 5:29 PM | 4 | 5 | 14 | 23 |
| 11:53 AM | 2 | 3 | 0 | 5 | 5:37 PM | 4 | 5 | 15 | 24 |
| 11:55 AM | 3 | 2 | 0 | 5 | 5:40 PM | 4 | 5 | 13 | 22 |
| 11:56 AM | 4 | 1 | 0 | 5 | 5:45 PM | 4 | 5 | 11 | 20 |
| 11:58 AM | 4 | 3 | 0 | 7 | 5:50 PM | 4 | 5 | 10 | 19 |
| 12:00 PM | 2 | 3 | 0 | 5 | 5:55 PM | 4 | 5 | 12 | 21 |
| 12:01 PM | 1 | 4 | 0 | 5 | 5:58 PM | 4 | 5 | 14 | 23 |
| 12:02 PM | 2 | 4 | 1 | 7 | 6:03 PM | 4 | 5 | 16 | 25 |
| 12:04 PM | 2 | 4 | 2 | 8 | 6:10 PM | 4 | 5 | 14 | 23 |
| 12:05 PM | 2 | 4 | 3 | 9 | 6:13 PM | 4 | 5 | 13 | 22 |
| 12:06 PM | 2 | 4 | 4 | 10 | 6:20 PM | 4 | 5 | 12 | 21 |
| 12:08 PM | 2 | 3 | 3 | 8 | 6:24 PM | 4 | 5 | 13 | 22 |
| 12:10 PM | 3 | 3 | 3 | 9 | 6:30 PM | 4 | 5 | 12 | 21 |
| 12:12 PM | 3 | 3 | 2 | 8 | 6:33 PM | 4 | 5 | 13 | 22 |
| 12:14 PM | 2 | 3 | 3 | 8 | 6:40 PM | 4 | 5 | 12 | 21 |
| 12:16 PM | 3 | 3 | 3 | 9 | 6:45 PM | 4 | 5 | 11 | 20 |
| 12:18 PM | 4 | 3 | 4 | 11 | 6:50 PM | 4 | 5 | 13 | 22 |
| 12:19 PM | 2 | 3 | 4 | 9 | 6:55 PM | 4 | 5 | 14 | 23 |
| 12:21 PM | 3 | 3 | 2 | 8 | 7:00 PM | 4 | 5 | 13 | 22 |

| | | | | |
|---|---|---|---|---|
| 12:22 PM | 4 | 3 | 1 | 8 |
| 12:23 PM | 2 | 3 | 2 | 7 |
| 12:24 PM | 1 | 3 | 4 | 8 |
| 12:25 PM | 2 | 3 | 4 | 9 |
| 12:27 PM | 1 | 3 | 3 | 7 |
| 12:29 PM | 2 | 3 | 2 | 7 |
| 12:30 PM | 3 | 2 | 1 | 6 |
| 12:32 PM | 4 | 3 | 0 | 7 |
| 12:34 PM | 4 | 4 | 0 | 8 |
| 12:36 PM | 4 | 3 | 1 | 8 |
| 12:38 PM | 4 | 3 | 1 | 8 |
| 12:40 PM | 3 | 3 | 0 | 6 |
| 12:42 PM | 3 | 2 | 0 | 5 |
| 12:43 PM | 3 | 4 | 0 | 7 |
| 12:45 PM | 3 | 4 | 1 | 8 |
| 12:46 PM | 1 | 3 | 3 | 7 |
| 12:47 PM | 2 | 3 | 2 | 7 |
| 12:49 PM | 2 | 3 | 3 | 8 |
| 12:51 PM | 2 | 3 | 4 | 9 |
| 12:53 PM | 2 | 3 | 5 | 10 |
| 12:55 PM | 1 | 3 | 5 | 9 |
| 12:57 PM | 0 | 3 | 7 | 10 |
| 12:58 PM | 1 | 3 | 8 | 12 |
| 12:59 PM | 2 | 3 | 9 | 14 |
| 1:00 PM | 2 | 3 | 8 | 13 |
| 1:02 PM | 3 | 3 | 6 | 12 |
| 1:04 PM | 2 | 3 | 5 | 10 |
| 1:05 PM | 3 | 3 | 4 | 10 |
| 1:06 PM | 4 | 3 | 5 | 12 |
| 1:07 PM | 4 | 3 | 7 | 14 |
| 1:08 PM | 4 | 3 | 9 | 16 |
| 1:09 PM | 4 | 3 | 11 | 18 |
| 1:10 PM | 3 | 3 | 11 | 17 |
| 1:12 PM | 3 | 3 | 10 | 16 |
| 1:15 PM | 3 | 3 | 12 | 18 |
| 1:18 PM | 2 | 3 | 12 | 17 |
| 1:20 PM | 3 | 3 | 12 | 18 |
| 1:29 PM | 3 | 3 | 11 | 17 |
| 1:30 PM | 4 | 3 | 11 | 18 |
| 1:33 PM | 3 | 3 | 11 | 17 |
| 1:38 PM | 2 | 3 | 11 | 16 |
| 1:40 PM | 3 | 3 | 9 | 15 |
| 1:41 PM | 4 | 3 | 9 | 16 |
| 1:42 PM | 3 | 3 | 7 | 13 |
| 1:44 PM | 2 | 3 | 7 | 12 |
| 1:47 PM | 2 | 3 | 8 | 13 |
| 1:50 PM | 2 | 3 | 9 | 14 |
| 1:52 PM | 2 | 3 | 10 | 15 |
| 1:54 PM | 2 | 3 | 11 | 16 |
| 1:56 PM | 3 | 3 | 13 | 19 |
| 1:58 PM | 3 | 3 | 13 | 19 |
| 2:00 PM | 2 | 3 | 13 | 18 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 10142 Adams Avenue
City: Huntington Beach, CA

Date: 9/26/2020
Day: Saturday

| Time | Number of Cars In Zone 1 | Total | Time | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|
| 11:03 AM | 1 | 1 | 11:01 AM | 1 | 0 | 1 |
| 11:05 AM | 0 | 0 | 11:03 AM | 0 | 0 | 0 |
| 11:09 AM | 1 | 1 | 11:07 AM | 1 | 0 | 1 |
| 11:10 AM | 0 | 0 | 11:09 AM | 0 | 0 | 0 |
| 11:15 AM | 2 | 2 | 11:13 AM | 1 | 1 | 2 |
| 11:16 AM | 1 | 1 | 11:15 AM | 0 | 1 | 1 |
| 11:17 AM | 2 | 2 | 11:16 AM | 1 | 0 | 1 |
| 11:18 AM | 1 | 1 | 11:17 AM | 0 | 1 | 1 |
| 11:19 AM | 2 | 2 | 11:19 AM | 0 | 0 | 0 |
| 11:22 AM | 1 | 1 | 11:20 AM | 0 | 1 | 1 |
| 11:24 AM | 2 | 2 | 11:21 AM | 1 | 0 | 1 |
| 11:26 AM | 1 | 1 | 11:23 AM | 1 | 1 | 2 |
| 11:27 AM | 2 | 2 | 11:24 AM | 1 | 0 | 1 |
| 11:27 AM | 1 | 1 | 11:25 AM | 2 | 0 | 2 |
| 11:28 AM | 2 | 2 | 11:27 AM | 1 | 0 | 1 |
| 11:29 AM | 1 | 1 | 11:28 AM | 0 | 0 | 0 |
| 11:34 AM | 0 | 0 | 11:34 AM | 0 | 1 | 1 |
| 11:37 AM | 1 | 1 | 11:36 AM | 1 | 0 | 1 |
| 11:39 AM | 0 | 0 | 11:37 AM | 0 | 0 | 0 |
| 11:40 AM | 1 | 1 | 11:40 AM | 2 | 1 | 3 |
| 11:42 AM | 2 | 2 | 11:42 AM | 2 | 0 | 2 |
| 11:42 AM | 1 | 1 | 11:42 AM | 1 | 0 | 1 |
| 11:43 AM | 2 | 2 | 11:43 AM | 0 | 0 | 0 |
| 11:44 AM | 1 | 1 | 11:45 AM | 1 | 1 | 2 |
| 11:45 AM | 0 | 0 | 11:46 AM | 2 | 1 | 3 |
| 11:50 AM | 1 | 1 | 11:47 AM | 3 | 0 | 3 |
| 11:51 AM | 0 | 0 | 11:48 AM | 3 | 1 | 4 |
| 11:54 AM | 1 | 1 | 11:49 AM | 4 | 0 | 4 |
| 11:56 AM | 2 | 2 | 11:50 AM | 3 | 1 | 4 |
| 11:57 AM | 3 | 3 | 11:51 AM | 5 | 0 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11:58 AM | 4 | 4 | 11:54 AM | 4 | 0 | 4 |
| 12:00 PM | 3 | 3 | 11:56 AM | 3 | 0 | 3 |
| 12:01 PM | 2 | 2 | 11:57 AM | 2 | 3 | 5 |
| 12:02 PM | 4 | 4 | 11:58 AM | 2 | 2 | 4 |
| 12:03 PM | 5 | 5 | 11:59 AM | 4 | 1 | 5 |
| 12:04 PM | 3 | 3 | 12:00 PM | 5 | 1 | 6 |
| 12:06 PM | 4 | 4 | 12:01 PM | 6 | 1 | 7 |
| 12:07 PM | 5 | 5 | 12:02 PM | 5 | 0 | 5 |
| 12:08 PM | 3 | 3 | 12:03 PM | 4 | 1 | 5 |
| 12:09 PM | 4 | 4 | 12:04 PM | 5 | 0 | 5 |
| 12:10 PM | 3 | 3 | 12:06 PM | 4 | 0 | 4 |
| 12:12 PM | 4 | 4 | 12:07 PM | 3 | 1 | 4 |
| 12:15 PM | 6 | 6 | 12:08 PM | 3 | 2 | 5 |
| 12:16 PM | 5 | 5 | 12:09 PM | 5 | 1 | 6 |
| 12:18 PM | 6 | 6 | 12:10 PM | 6 | 1 | 7 |
| 12:19 PM | 7 | 7 | 12:13 PM | 6 | 0 | 6 |
| 12:20 PM | 5 | 5 | 12:15 PM | 4 | 1 | 5 |
| 12:21 PM | 6 | 6 | 12:16 PM | 5 | 0 | 5 |
| 12:21 PM | 7 | 7 | 12:18 PM | 4 | 0 | 4 |
| 12:22 PM | 6 | 6 | 12:19 PM | 3 | 0 | 3 |
| 12:23 PM | 5 | 5 | 12:21 PM | 2 | 0 | 2 |
| 12:24 PM | 6 | 6 | 12:21 PM | 1 | 0 | 1 |
| 12:25 PM | 7 | 7 | 12:22 PM | 1 | 1 | 2 |
| 12:26 PM | 5 | 5 | 12:23 PM | 3 | 0 | 3 |
| 12:27 PM | 4 | 4 | 12:24 PM | 2 | 1 | 3 |
| 12:27 PM | 3 | 3 | 12:25 PM | 1 | 1 | 2 |
| 12:28 PM | 5 | 5 | 12:26 PM | 1 | 3 | 4 |
| 12:29 PM | 4 | 4 | 12:27 PM | 4 | 0 | 4 |
| 12:30 PM | 3 | 3 | 12:28 PM | 2 | 0 | 2 |
| 12:31 PM | 5 | 5 | 12:30 PM | 2 | 1 | 3 |
| 12:32 PM | 6 | 6 | 12:31 PM | 1 | 0 | 1 |
| 12:34 PM | 4 | 4 | 12:32 PM | 0 | 1 | 1 |
| 12:35 PM | 3 | 3 | 12:34 PM | 0 | 2 | 2 |
| 12:35 PM | 2 | 2 | 12:35 PM | 2 | 0 | 2 |
| 12:36 PM | 1 | 1 | 12:35 PM | 2 | 1 | 3 |
| 12:37 PM | 2 | 2 | 12:36 PM | 3 | 0 | 3 |
| 12:38 PM | 3 | 3 | 12:37 PM | 2 | 1 | 3 |
| 12:38 PM | 2 | 2 | 12:38 PM | 2 | 0 | 2 |
| 12:39 PM | 4 | 4 | 12:38 PM | 3 | 0 | 3 |
| 12:40 PM | 2 | 2 | 12:39 PM | 1 | 0 | 1 |
| 12:41 PM | 0 | 0 | 12:40 PM | 2 | 1 | 3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 12:41 PM | 1 | 1 | 12:41 PM | 3 | 0 | 3 |
| 12:42 PM | 0 | 0 | 12:41 PM | 2 | 1 | 3 |
| 12:46 PM | 2 | 2 | 12:42 PM | 3 | 1 | 4 |
| 12:47 PM | 1 | 1 | 12:43 PM | 4 | 3 | 7 |
| 12:49 PM | 0 | 0 | 12:44 PM | 5 | 4 | 9 |
| 12:50 PM | 1 | 1 | 12:45 PM | 9 | 0 | 9 |
| 12:52 PM | 0 | 0 | 12:46 PM | 7 | 1 | 8 |
| 12:53 PM | 1 | 1 | 12:47 PM | 8 | 1 | 9 |
| 12:53 PM | 3 | 3 | 12:48 PM | 9 | 0 | 9 |
| 12:54 PM | 4 | 4 | 12:49 PM | 10 | 1 | 11 |
| 12:55 PM | 5 | 5 | 12:50 PM | 10 | 0 | 10 |
| 12:57 PM | 4 | 4 | 12:51 PM | 10 | 1 | 11 |
| 12:58 PM | 3 | 3 | 12:52 PM | 11 | 3 | 14 |
| 12:59 PM | 5 | 5 | 12:53 PM | 13 | 2 | 15 |
| 1:00 PM | 4 | 4 | 12:53 PM | 13 | 0 | 13 |
| 1:01 PM | 5 | 5 | 12:54 PM | 12 | 0 | 12 |
| 1:02 PM | 4 | 4 | 12:55 PM | 11 | 2 | 13 |
| 1:03 PM | 5 | 5 | 12:56 PM | 12 | 1 | 13 |
| 1:04 PM | 6 | 6 | 12:58 PM | 12 | 0 | 12 |
| 1:05 PM | 7 | 7 | 12:59 PM | 10 | 0 | 10 |
| 1:06 PM | 4 | 4 | 1:00 PM | 10 | 1 | 11 |
| 1:07 PM | 5 | 5 | 1:01 PM | 10 | 0 | 10 |
| 1:08 PM | 6 | 6 | 1:02 PM | 10 | 2 | 12 |
| 1:09 PM | 7 | 7 | 1:02 PM | 12 | 0 | 12 |
| 1:10 PM | 5 | 5 | 1:03 PM | 11 | 0 | 11 |
| 1:11 PM | 3 | 3 | 1:04 PM | 10 | 0 | 10 |
| 1:12 PM | 4 | 4 | 1:05 PM | 9 | 0 | 9 |
| 1:13 PM | 5 | 5 | 1:06 PM | 10 | 0 | 10 |
| 1:14 PM | 6 | 6 | 1:07 PM | 9 | 0 | 9 |
| 1:14 PM | 4 | 4 | 1:08 PM | 8 | 0 | 8 |
| 1:15 PM | 6 | 6 | 1:09 PM | 7 | 0 | 7 |
| 1:16 PM | 5 | 5 | 1:10 PM | 7 | 1 | 8 |
| 1:17 PM | 3 | 3 | 1:11 PM | 8 | 0 | 8 |
| 1:18 PM | 4 | 4 | 1:12 PM | 7 | 0 | 7 |
| 1:18 PM | 5 | 5 | 1:13 PM | 6 | 0 | 6 |
| 1:19 PM | 6 | 6 | 1:14 PM | 5 | 0 | 5 |
| 1:20 PM | 7 | 7 | 1:14 PM | 5 | 1 | 6 |
| 1:20 PM | 5 | 5 | 1:15 PM | 4 | 0 | 4 |
| 1:21 PM | 6 | 6 | 1:16 PM | 5 | 1 | 6 |
| 1:22 PM | 7 | 7 | 1:17 PM | 6 | 0 | 6 |
| 1:22 PM | 5 | 5 | 1:18 PM | 5 | 0 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1:23 PM | 6 | 6 | 1:18 PM | 4 | 0 | 4 |
| 1:23 PM | 5 | 5 | 1:19 PM | 3 | 1 | 4 |
| 1:24 PM | 6 | 6 | 1:20 PM | 4 | 1 | 5 |
| 1:25 PM | 7 | 7 | 1:21 PM | 4 | 0 | 4 |
| 1:26 PM | 6 | 6 | 1:22 PM | 3 | 0 | 3 |
| 1:26 PM | 4 | 4 | 1:23 PM | 3 | 2 | 5 |
| 1:27 PM | 5 | 5 | 1:24 PM | 4 | 0 | 4 |
| 1:28 PM | 4 | 4 | 1:25 PM | 3 | 0 | 3 |
| 1:28 PM | 3 | 3 | 1:26 PM | 3 | 2 | 5 |
| 1:29 PM | 4 | 4 | 1:26 PM | 5 | 0 | 5 |
| 1:30 PM | 5 | 5 | 1:27 PM | 4 | 0 | 4 |
| 1:31 PM | 6 | 6 | 1:28 PM | 4 | 1 | 5 |
| 1:32 PM | 7 | 7 | 1:28 PM | 5 | 0 | 5 |
| 1:33 PM | 6 | 6 | 1:29 PM | 4 | 0 | 4 |
| 1:33 PM | 5 | 5 | 1:30 PM | 3 | 0 | 3 |
| 1:34 PM | 6 | 6 | 1:31 PM | 2 | 0 | 2 |
| 1:35 PM | 4 | 4 | 1:32 PM | 1 | 0 | 1 |
| 1:36 PM | 5 | 5 | 1:33 PM | 1 | 1 | 2 |
| 1:37 PM | 4 | 4 | 1:33 PM | 2 | 0 | 2 |
| 1:37 PM | 3 | 3 | 1:34 PM | 1 | 2 | 3 |
| 1:38 PM | 4 | 4 | 1:35 PM | 3 | 0 | 3 |
| 1:39 PM | 2 | 2 | 1:36 PM | 2 | 0 | 2 |
| 1:40 PM | 4 | 4 | 1:37 PM | 1 | 2 | 3 |
| 1:41 PM | 3 | 3 | 1:37 PM | 3 | 0 | 3 |
| 1:42 PM | 4 | 4 | 1:38 PM | 2 | 2 | 4 |
| 1:43 PM | 5 | 5 | 1:39 PM | 4 | 0 | 4 |
| 1:44 PM | 4 | 4 | 1:40 PM | 2 | 1 | 3 |
| 1:44 PM | 3 | 3 | 1:41 PM | 3 | 0 | 3 |
| 1:45 PM | 4 | 4 | 1:42 PM | 2 | 0 | 2 |
| 1:46 PM | 6 | 6 | 1:43 PM | 1 | 0 | 1 |
| 1:46 PM | 4 | 4 | 1:44 PM | 1 | 3 | 4 |
| 1:47 PM | 3 | 3 | 1:44 PM | 4 | 0 | 4 |
| 1:48 PM | 4 | 4 | 1:45 PM | 3 | 0 | 3 |
| 1:49 PM | 3 | 3 | 1:46 PM | 1 | 2 | 3 |
| 1:49 PM | 2 | 2 | 1:46 PM | 3 | 0 | 3 |
| 1:50 PM | 1 | 1 | 1:48 PM | 2 | 0 | 2 |
| 1:51 PM | 2 | 2 | 1:49 PM | 2 | 1 | 3 |
| 1:53 PM | 1 | 1 | 1:49 PM | 3 | 1 | 4 |
| 1:54 PM | 0 | 0 | 1:50 PM | 4 | 0 | 4 |
| 1:55 PM | 1 | 1 | 1:51 PM | 3 | 0 | 3 |
| 1:56 PM | 2 | 2 | 1:53 PM | 3 | 3 | 6 |

| | | |
|---|---|---|
| 1:56 PM | 3 | 3 |
| 1:57 PM | 4 | 4 |
| 1:58 PM | 3 | 3 |
| 1:58 PM | 4 | 4 |
| 1:59 PM | 5 | 5 |
| 2:00 PM | 4 | 4 |

| | | | |
|---|---|---|---|
| 1:54 PM | 6 | 0 | 6 |
| 1:55 PM | 5 | 0 | 5 |
| 1:56 PM | 5 | 2 | 7 |
| 1:56 PM | 7 | 0 | 7 |
| 1:57 PM | 6 | 0 | 6 |
| 1:58 PM | 6 | 1 | 7 |
| 1:58 PM | 6 | 0 | 6 |
| 1:59 PM | 5 | 1 | 6 |
| 2:00 PM | 6 | 0 | 6 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 10142 Adams Avenue
City: Huntington Beach, CA

Date: 9/26/2020
Day: Saturday

| Time | Number of Cars In Zone 1 | Total | Time | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|
| 4:00 PM | 1 | 1 | 4:00 PM | 2 | 0 | 2 |
| 4:01 PM | 0 | 0 | 4:01 PM | 3 | 1 | 4 |
| 4:04 PM | 1 | 1 | 4:02 PM | 5 | 1 | 6 |
| 4:05 PM | 3 | 3 | 4:03 PM | 6 | 0 | 6 |
| 4:07 PM | 4 | 4 | 4:04 PM | 5 | 0 | 5 |
| 4:07 PM | 3 | 3 | 4:05 PM | 5 | 1 | 6 |
| 4:07 PM | 2 | 2 | 4:05 PM | 5 | 2 | 7 |
| 4:08 PM | 4 | 4 | 4:06 PM | 7 | 0 | 7 |
| 4:08 PM | 3 | 3 | 4:07 PM | 6 | 0 | 6 |
| 4:09 PM | 2 | 2 | 4:07 PM | 5 | 0 | 5 |
| 4:09 PM | 1 | 1 | 4:08 PM | 5 | 2 | 7 |
| 4:09 PM | 2 | 2 | 4:08 PM | 7 | 0 | 7 |
| 4:09 PM | 4 | 4 | 4:08 PM | 6 | 0 | 6 |
| 4:10 PM | 5 | 5 | 4:09 PM | 4 | 0 | 4 |
| 4:10 PM | 6 | 6 | 4:10 PM | 3 | 0 | 3 |
| 4:10 PM | 4 | 4 | 4:11 PM | 2 | 0 | 2 |
| 4:11 PM | 5 | 5 | 4:12 PM | 1 | 1 | 2 |
| 4:12 PM | 6 | 6 | 4:13 PM | 2 | 1 | 3 |
| 4:12 PM | 5 | 5 | 4:14 PM | 3 | 0 | 3 |
| 4:13 PM | 4 | 4 | 4:14 PM | 2 | 0 | 2 |
| 4:13 PM | 3 | 3 | 4:15 PM | 2 | 1 | 3 |
| 4:14 PM | 4 | 4 | 4:15 PM | 3 | 0 | 3 |
| 4:15 PM | 1 | 1 | 4:16 PM | 1 | 0 | 1 |
| 4:15 PM | 0 | 0 | 4:17 PM | 1 | 1 | 2 |
| 4:16 PM | 2 | 2 | 4:17 PM | 2 | 0 | 2 |
| 4:16 PM | 1 | 1 | 4:18 PM | 0 | 0 | 0 |
| 4:17 PM | 2 | 2 | 4:19 PM | 0 | 3 | 3 |
| 4:18 PM | 4 | 4 | 4:19 PM | 3 | 0 | 3 |
| 4:19 PM | 2 | 2 | 4:20 PM | 2 | 0 | 2 |
| 4:19 PM | 1 | 1 | 4:21 PM | 1 | 0 | 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4:20 PM | 0 | 0 | 4:22 PM | 1 | 1 | 2 |
| 4:20 PM | 1 | 1 | 4:22 PM | 2 | 0 | 2 |
| 4:21 PM | 2 | 2 | 4:22 PM | 1 | 0 | 1 |
| 4:21 PM | 2 | 2 | 4:23 PM | 0 | 1 | 1 |
| 4:22 PM | 0 | 0 | 4:23 PM | 1 | 0 | 1 |
| 4:22 PM | 1 | 1 | 4:25 PM | 1 | 1 | 2 |
| 4:23 PM | 2 | 2 | 4:25 PM | 1 | 0 | 1 |
| 4:23 PM | 1 | 1 | 4:26 PM | 1 | 1 | 2 |
| 4:24 PM | 0 | 0 | 4:26 PM | 2 | 0 | 2 |
| 4:25 PM | 1 | 1 | 4:27 PM | 1 | 0 | 1 |
| 4:27 PM | 2 | 2 | 4:28 PM | 0 | 2 | 2 |
| 4:28 PM | 3 | 3 | 4:28 PM | 2 | 0 | 2 |
| 4:29 PM | 4 | 4 | 4:29 PM | 1 | 0 | 1 |
| 4:29 PM | 2 | 2 | 4:30 PM | 0 | 0 | 0 |
| 4:30 PM | 1 | 1 | 4:32 PM | 0 | 1 | 1 |
| 4:31 PM | 0 | 0 | 4:32 PM | 1 | 0 | 1 |
| 4:34 PM | 1 | 1 | 4:34 PM | 1 | 1 | 2 |
| 4:35 PM | 0 | 0 | 4:34 PM | 1 | 0 | 1 |
| 4:35 PM | 1 | 1 | 4:35 PM | 1 | 1 | 2 |
| 4:36 PM | 1 | 1 | 4:35 PM | 2 | 0 | 2 |
| 4:36 PM | 0 | 0 | 4:35 PM | 1 | 0 | 1 |
| 4:40 PM | 2 | 2 | 4:37 PM | 0 | 0 | 0 |
| 4:40 PM | 1 | 1 | 4:37 PM | 0 | 1 | 1 |
| 4:42 PM | 0 | 0 | 4:37 PM | 1 | 0 | 1 |
| 4:43 PM | 1 | 1 | 4:38 PM | 1 | 1 | 2 |
| 4:44 PM | 3 | 3 | 4:39 PM | 2 | 0 | 2 |
| 4:45 PM | 2 | 2 | 4:40 PM | 0 | 0 | 0 |
| 4:45 PM | 3 | 3 | 4:42 PM | 0 | 2 | 2 |
| 4:45 PM | 2 | 2 | 4:42 PM | 2 | 0 | 2 |
| 4:45 PM | 3 | 3 | 4:43 PM | 2 | 1 | 3 |
| 4:46 PM | 2 | 2 | 4:43 PM | 3 | 0 | 3 |
| 4:47 PM | 0 | 0 | 4:43 PM | 3 | 1 | 4 |
| 4:49 PM | 1 | 1 | 4:44 PM | 4 | 0 | 4 |
| 4:50 PM | 2 | 2 | 4:44 PM | 2 | 0 | 2 |
| 4:50 PM | 1 | 1 | 4:45 PM | 1 | 0 | 1 |
| 4:52 PM | 3 | 3 | 4:46 PM | 0 | 0 | 0 |
| 4:53 PM | 4 | 4 | 4:47 PM | 0 | 2 | 2 |
| 4:54 PM | 3 | 3 | 4:48 PM | 2 | 1 | 3 |
| 4:54 PM | 2 | 2 | 4:48 PM | 3 | 0 | 3 |
| 4:55 PM | 3 | 3 | 4:49 PM | 2 | 0 | 2 |
| 4:57 PM | 4 | 4 | 4:50 PM | 1 | 0 | 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4:58 PM | 3 | 3 | 4:50 PM | 1 | 3 | 4 |
| 4:58 PM | 4 | 4 | 4:51 PM | 4 | 0 | 4 |
| 4:59 PM | 3 | 3 | 4:52 PM | 2 | 0 | 2 |
| 5:00 PM | 4 | 4 | 4:53 PM | 1 | 1 | 2 |
| 5:00 PM | 3 | 3 | 4:53 PM | 2 | 0 | 2 |
| 5:02 PM | 2 | 2 | 4:53 PM | 1 | 0 | 1 |
| 5:02 PM | 1 | 1 | 4:54 PM | 1 | 1 | 2 |
| 5:03 PM | 2 | 2 | 4:54 PM | 2 | 0 | 2 |
| 5:03 PM | 1 | 1 | 4:54 PM | 2 | 1 | 3 |
| 5:04 PM | 2 | 2 | 4:54 PM | 3 | 0 | 3 |
| 5:06 PM | 1 | 1 | 4:55 PM | 1 | 0 | 1 |
| 5:07 PM | 0 | 0 | 4:56 PM | 1 | 1 | 2 |
| 5:08 PM | 1 | 1 | 4:57 PM | 0 | 1 | 1 |
| 5:09 PM | 3 | 3 | 4:57 PM | 1 | 0 | 1 |
| 5:10 PM | 4 | 4 | 4:58 PM | 0 | 1 | 1 |
| 5:10 PM | 5 | 5 | 4:58 PM | 1 | 0 | 1 |
| 5:11 PM | 7 | 7 | 5:00 PM | 0 | 0 | 0 |
| 5:12 PM | 5 | 5 | 5:02 PM | 0 | 2 | 2 |
| 5:12 PM | 3 | 3 | 5:02 PM | 2 | 0 | 2 |
| 5:13 PM | 4 | 4 | 5:03 PM | 1 | 1 | 2 |
| 5:13 PM | 3 | 3 | 5:03 PM | 2 | 0 | 2 |
| 5:14 PM | 4 | 4 | 5:04 PM | 1 | 0 | 1 |
| 5:15 PM | 5 | 5 | 5:06 PM | 0 | 3 | 3 |
| 5:16 PM | 6 | 6 | 5:06 PM | 3 | 0 | 3 |
| 5:17 PM | 7 | 7 | 5:06 PM | 3 | 1 | 4 |
| 5:18 PM | 4 | 4 | 5:06 PM | 4 | 0 | 4 |
| 5:19 PM | 2 | 2 | 5:08 PM | 3 | 3 | 6 |
| 5:19 PM | 1 | 1 | 5:08 PM | 6 | 0 | 6 |
| 5:20 PM | 2 | 2 | 5:09 PM | 4 | 2 | 6 |
| 5:21 PM | 3 | 3 | 5:09 PM | 6 | 0 | 6 |
| 5:22 PM | 4 | 4 | 5:10 PM | 5 | 0 | 5 |
| 5:23 PM | 5 | 5 | 5:10 PM | 4 | 0 | 4 |
| 5:24 PM | 4 | 4 | 5:10 PM | 4 | 1 | 5 |
| 5:24 PM | 3 | 3 | 5:10 PM | 5 | 0 | 5 |
| 5:25 PM | 4 | 4 | 5:11 PM | 3 | 0 | 3 |
| 5:25 PM | 2 | 2 | 5:12 PM | 3 | 2 | 5 |
| 5:26 PM | 3 | 3 | 5:12 PM | 5 | 0 | 5 |
| 5:26 PM | 4 | 4 | 5:13 PM | 4 | 0 | 4 |
| 5:26 PM | 2 | 2 | 5:14 PM | 3 | 0 | 3 |
| 5:27 PM | 3 | 3 | 5:15 PM | 2 | 0 | 2 |
| 5:28 PM | 2 | 2 | 5:16 PM | 1 | 0 | 1 |

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|---|---|---|---|---|---|---|
| 5:28 PM | 1 | 1 | 5:17 PM | 0 | 0 | 0 |
| 5:28 PM | 2 | 2 | 5:19 PM | 0 | 1 | 1 |
| 5:31 PM | 3 | 3 | 5:19 PM | 1 | 1 | 2 |
| 5:32 PM | 5 | 5 | 5:19 PM | 2 | 0 | 2 |
| 5:34 PM | 6 | 6 | 5:20 PM | 1 | 1 | 2 |
| 5:35 PM | 7 | 7 | 5:20 PM | 3 | 1 | 4 |
| 5:36 PM | 6 | 6 | 5:21 PM | 2 | 1 | 3 |
| 5:37 PM | 4 | 4 | 5:21 PM | 3 | 0 | 3 |
| 5:38 PM | 6 | 6 | 5:21 PM | 3 | 2 | 5 |
| 5:39 PM | 5 | 5 | 5:22 PM | 4 | 0 | 4 |
| 5:40 PM | 6 | 6 | 5:22 PM | 4 | 1 | 5 |
| 5:41 PM | 5 | 5 | 5:22 PM | 5 | 0 | 5 |
| 5:42 PM | 4 | 4 | 5:23 PM | 4 | 0 | 4 |
| 5:42 PM | 5 | 5 | 5:23 PM | 4 | 1 | 5 |
| 5:43 PM | 7 | 7 | 5:23 PM | 5 | 0 | 5 |
| 5:43 PM | 5 | 5 | 5:24 PM | 4 | 0 | 4 |
| 5:44 PM | 6 | 6 | 5:24 PM | 4 | 1 | 5 |
| 5:44 PM | 5 | 5 | 5:24 PM | 5 | 0 | 5 |
| 5:44 PM | 3 | 3 | 5:25 PM | 4 | 1 | 5 |
| 5:45 PM | 5 | 5 | 5:25 PM | 5 | 0 | 5 |
| 5:46 PM | 6 | 6 | 5:26 PM | 4 | 0 | 4 |
| 5:47 PM | 7 | 7 | 5:27 PM | 3 | 0 | 3 |
| 5:47 PM | 5 | 5 | 5:28 PM | 2 | 1 | 3 |
| 5:48 PM | 4 | 4 | 5:28 PM | 3 | 0 | 3 |
| 5:48 PM | 6 | 6 | 5:29 PM | 3 | 0 | 3 |
| 5:48 PM | 4 | 4 | 5:31 PM | 2 | 0 | 2 |
| 5:48 PM | 3 | 3 | 5:32 PM | 0 | 0 | 0 |
| 5:49 PM | 4 | 4 | 5:33 PM | 0 | 1 | 1 |
| 5:49 PM | 2 | 2 | 5:33 PM | 1 | 0 | 1 |
| 5:49 PM | 1 | 1 | 5:33 PM | 1 | 1 | 2 |
| 5:50 PM | 3 | 3 | 5:34 PM | 2 | 0 | 2 |
| 5:50 PM | 4 | 4 | 5:34 PM | 1 | 2 | 3 |
| 5:50 PM | 2 | 2 | 5:34 PM | 3 | 0 | 3 |
| 5:51 PM | 3 | 3 | 5:34 PM | 3 | 2 | 5 |
| 5:51 PM | 2 | 2 | 5:35 PM | 5 | 0 | 5 |
| 5:51 PM | 1 | 1 | 5:35 PM | 4 | 0 | 4 |
| 5:52 PM | 2 | 2 | 5:36 PM | 4 | 1 | 5 |
| 5:53 PM | 4 | 4 | 5:36 PM | 5 | 0 | 5 |
| 5:53 PM | 3 | 3 | 5:36 PM | 4 | 0 | 4 |
| 5:54 PM | 4 | 4 | 5:38 PM | 3 | 0 | 3 |
| 5:55 PM | 3 | 3 | 5:38 PM | 2 | 2 | 4 |

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|---|---|---|---|---|---|---|
| 5:56 PM | 2 | 2 | 5:38 PM | 4 | 0 | 4 |
| 5:56 PM | 1 | 1 | 5:39 PM | 4 | 1 | 5 |
| 5:56 PM | 0 | 0 | 5:39 PM | 5 | 2 | 7 |
| 5:57 PM | 2 | 2 | 5:40 PM | 6 | 0 | 6 |
| 5:58 PM | 3 | 3 | 5:40 PM | 6 | 3 | 9 |
| 5:58 PM | 2 | 2 | 5:41 PM | 9 | 1 | 10 |
| 5:59 PM | 3 | 3 | 5:41 PM | 10 | 0 | 10 |
| 5:59 PM | 2 | 2 | 5:42 PM | 9 | 0 | 9 |
| 6:00 PM | 4 | 4 | 5:43 PM | 8 | 0 | 8 |
| 6:00 PM | 2 | 2 | 5:43 PM | 7 | 0 | 7 |
| 6:02 PM | 3 | 3 | 5:44 PM | 6 | 0 | 6 |
| 6:03 PM | 4 | 4 | 5:45 PM | 5 | 1 | 6 |
| 6:04 PM | 5 | 5 | 5:45 PM | 5 | 0 | 5 |
| 6:04 PM | 4 | 4 | 5:45 PM | 4 | 0 | 4 |
| 6:04 PM | 2 | 2 | 5:46 PM | 3 | 1 | 4 |
| 6:06 PM | 4 | 4 | 5:47 PM | 3 | 0 | 3 |
| 6:07 PM | 5 | 5 | 5:48 PM | 2 | 0 | 2 |
| 6:08 PM | 6 | 6 | 5:48 PM | 2 | 1 | 3 |
| 6:08 PM | 5 | 5 | 5:48 PM | 3 | 0 | 3 |
| 6:09 PM | 6 | 6 | 5:49 PM | 2 | 0 | 2 |
| 6:10 PM | 7 | 7 | 5:49 PM | 2 | 2 | 4 |
| 6:10 PM | 6 | 6 | 5:50 PM | 3 | 0 | 3 |
| 6:11 PM | 7 | 7 | 5:50 PM | 2 | 1 | 3 |
| 6:11 PM | 6 | 6 | 5:50 PM | 3 | 0 | 3 |
| 6:11 PM | 5 | 5 | 5:50 PM | 2 | 1 | 3 |
| 6:12 PM | 7 | 7 | 5:51 PM | 3 | 0 | 3 |
| 6:12 PM | 5 | 5 | 5:51 PM | 3 | 1 | 4 |
| 6:13 PM | 6 | 6 | 5:51 PM | 4 | 0 | 4 |
| 6:13 PM | 4 | 4 | 5:51 PM | 3 | 0 | 3 |
| 6:14 PM | 2 | 2 | 5:52 PM | 2 | 2 | 4 |
| 6:14 PM | 3 | 3 | 5:53 PM | 4 | 0 | 4 |
| 6:14 PM | 2 | 2 | 5:53 PM | 2 | 1 | 3 |
| 6:15 PM | 1 | 1 | 5:53 PM | 3 | 0 | 3 |
| 6:16 PM | 0 | 0 | 5:54 PM | 2 | 0 | 2 |
| 6:17 PM | 1 | 1 | 5:56 PM | 2 | 1 | 3 |
| 6:18 PM | 2 | 2 | 5:56 PM | 3 | 0 | 3 |
| 6:19 PM | 1 | 1 | 5:57 PM | 2 | 0 | 2 |
| 6:20 PM | 2 | 2 | 5:57 PM | 1 | 1 | 2 |
| 6:20 PM | 1 | 1 | 5:57 PM | 2 | 0 | 2 |
| 6:21 PM | 2 | 2 | 5:58 PM | 2 | 1 | 3 |
| 6:22 PM | 4 | 4 | 5:59 PM | 3 | 0 | 3 |

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|---|---|---|---|---|---|---|
| 6:23 PM | 5 | 5 | 5:59 PM | 2 | 1 | 3 |
| 6:23 PM | 4 | 4 | 5:59 PM | 3 | 0 | 3 |
| 6:24 PM | 3 | 3 | 6:00 PM | 2 | 0 | 2 |
| 6:25 PM | 5 | 5 | 6:00 PM | 1 | 0 | 1 |
| 6:25 PM | 6 | 6 | 6:01 PM | 1 | 1 | 2 |
| 6:25 PM | 5 | 5 | 6:02 PM | 1 | 0 | 1 |
| 6:25 PM | 4 | 4 | 6:03 PM | 0 | 0 | 0 |
| 6:26 PM | 5 | 5 | 6:03 PM | 0 | 1 | 1 |
| 6:26 PM | 4 | 4 | 6:04 PM | 1 | 0 | 1 |
| 6:27 PM | 5 | 5 | 6:04 PM | 0 | 0 | 0 |
| 6:28 PM | 6 | 6 | 6:05 PM | 0 | 4 | 4 |
| 6:28 PM | 5 | 5 | 6:05 PM | 4 | 0 | 4 |
| 6:29 PM | 6 | 6 | 6:06 PM | 2 | 0 | 2 |
| 6:29 PM | 5 | 5 | 6:06 PM | 2 | 1 | 3 |
| 6:30 PM | 4 | 4 | 6:07 PM | 3 | 0 | 3 |
| 6:30 PM | 3 | 3 | 6:07 PM | 3 | 1 | 4 |
| 6:31 PM | 4 | 4 | 6:08 PM | 4 | 0 | 4 |
| 6:32 PM | 5 | 5 | 6:08 PM | 3 | 1 | 4 |
| 6:33 PM | 7 | 7 | 6:08 PM | 4 | 0 | 4 |
| 6:34 PM | 6 | 6 | 6:09 PM | 3 | 1 | 4 |
| 6:34 PM | 5 | 5 | 6:10 PM | 4 | 1 | 5 |
| 6:34 PM | 4 | 4 | 6:10 PM | 5 | 0 | 5 |
| 6:35 PM | 3 | 3 | 6:10 PM | 4 | 0 | 4 |
| 6:36 PM | 4 | 4 | 6:11 PM | 3 | 2 | 5 |
| 6:37 PM | 5 | 5 | 6:11 PM | 5 | 0 | 5 |
| 6:40 PM | 6 | 6 | 6:12 PM | 4 | 0 | 4 |
| 6:40 PM | 5 | 5 | 6:13 PM | 3 | 0 | 3 |
| 6:41 PM | 6 | 6 | 6:14 PM | 3 | 1 | 4 |
| 6:41 PM | 5 | 5 | 6:14 PM | 4 | 0 | 4 |
| 6:42 PM | 4 | 4 | 6:14 PM | 3 | 0 | 3 |
| 6:43 PM | 5 | 5 | 6:15 PM | 3 | 2 | 5 |
| 6:43 PM | 6 | 6 | 6:15 PM | 5 | 0 | 5 |
| 6:44 PM | 5 | 5 | 6:17 PM | 4 | 0 | 4 |
| 6:45 PM | 6 | 6 | 6:18 PM | 3 | 0 | 3 |
| 6:46 PM | 7 | 7 | 6:19 PM | 4 | 0 | 4 |
| 6:46 PM | 5 | 5 | 6:19 PM | 4 | 1 | 5 |
| 6:46 PM | 6 | 6 | 6:19 PM | 5 | 0 | 5 |
| 6:47 PM | 7 | 7 | 6:20 PM | 4 | 2 | 6 |
| 6:48 PM | 6 | 6 | 6:20 PM | 6 | 0 | 6 |
| 6:49 PM | 7 | 7 | 6:21 PM | 5 | 1 | 6 |
| 6:49 PM | 5 | 5 | 6:21 PM | 6 | 0 | 6 |

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|---|---|---|---|---|---|---|
| 6:50 PM | 6 | 6 | 6:22 PM | 4 | 2 | 6 |
| 6:51 PM | 7 | 7 | 6:22 PM | 5 | 2 | 7 |
| 6:51 PM | 6 | 6 | 6:23 PM | 6 | 1 | 7 |
| 6:52 PM | 5 | 5 | 6:23 PM | 5 | 1 | 6 |
| 6:52 PM | 7 | 7 | 6:23 PM | 6 | 0 | 6 |
| 6:52 PM | 5 | 5 | 6:24 PM | 6 | 1 | 7 |
| 6:52 PM | 4 | 4 | 6:24 PM | 7 | 1 | 8 |
| 6:53 PM | 5 | 5 | 6:24 PM | 8 | 1 | 9 |
| 6:54 PM | 5 | 5 | 6:24 PM | 9 | 0 | 9 |
| 6:54 PM | 6 | 6 | 6:25 PM | 8 | 1 | 9 |
| 6:55 PM | 5 | 5 | 6:25 PM | 9 | 0 | 9 |
| 6:55 PM | 4 | 4 | 6:26 PM | 8 | 0 | 8 |
| 6:56 PM | 3 | 3 | 6:27 PM | 7 | 0 | 7 |
| 6:56 PM | 2 | 2 | 6:28 PM | 6 | 0 | 6 |
| 6:57 PM | 3 | 3 | 6:29 PM | 5 | 0 | 5 |
| 6:58 PM | 5 | 5 | 6:29 PM | 5 | 2 | 7 |
| 6:58 PM | 4 | 4 | 6:29 PM | 6 | 0 | 6 |
| 6:59 PM | 6 | 6 | 6:30 PM | 6 | 1 | 7 |
| 7:00 PM | 5 | 5 | 6:30 PM | 7 | 0 | 7 |
| 7:00 PM | 6 | 6 | 6:31 PM | 7 | 1 | 8 |
| | | | 6:31 PM | 8 | 0 | 8 |
| | | | 6:32 PM | 7 | 1 | 8 |
| | | | 6:33 PM | 7 | 0 | 7 |
| | | | 6:33 PM | 6 | 0 | 6 |
| | | | 6:34 PM | 6 | 2 | 8 |
| | | | 6:34 PM | 8 | 0 | 8 |
| | | | 6:35 PM | 8 | 1 | 9 |
| | | | 6:35 PM | 9 | 0 | 9 |
| | | | 6:36 PM | 9 | 1 | 10 |
| | | | 6:36 PM | 10 | 0 | 10 |
| | | | 6:37 PM | 9 | 0 | 9 |
| | | | 6:37 PM | 9 | 1 | 10 |
| | | | 6:38 PM | 10 | 0 | 10 |
| | | | 6:38 PM | 10 | 1 | 11 |
| | | | 6:39 PM | 11 | 0 | 11 |
| | | | 6:40 PM | 10 | 0 | 10 |
| | | | 6:41 PM | 9 | 1 | 10 |
| | | | 6:41 PM | 10 | 0 | 10 |
| | | | 6:42 PM | 10 | 2 | 12 |
| | | | 6:42 PM | 12 | 0 | 12 |
| | | | 6:43 PM | 12 | 1 | 13 |

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|---|---|---|---|
| 6:43 PM | 12 | 0 | 12 |
| 6:44 PM | 12 | 1 | 13 |
| 6:44 PM | 13 | 0 | 13 |
| 6:45 PM | 12 | 1 | 13 |
| 6:45 PM | 12 | 0 | 12 |
| 6:46 PM | 11 | 0 | 11 |
| 6:46 PM | 10 | 0 | 10 |
| 6:47 PM | 9 | 0 | 9 |
| 6:48 PM | 9 | 1 | 10 |
| 6:48 PM | 10 | 0 | 10 |
| 6:49 PM | 9 | 0 | 9 |
| 6:49 PM | 8 | 0 | 8 |
| 6:50 PM | 8 | 2 | 10 |
| 6:50 PM | 10 | 0 | 10 |
| 6:50 PM | 9 | 0 | 9 |
| 6:51 PM | 8 | 1 | 9 |
| 6:51 PM | 9 | 1 | 10 |
| 6:52 PM | 10 | 0 | 10 |
| 6:52 PM | 9 | 0 | 9 |
| 6:53 PM | 8 | 0 | 8 |
| 6:54 PM | 8 | 1 | 9 |
| 6:54 PM | 8 | 0 | 8 |
| 6:55 PM | 8 | 2 | 10 |
| 6:55 PM | 10 | 0 | 10 |
| 6:56 PM | 9 | 0 | 9 |
| 6:56 PM | 9 | 2 | 11 |
| 6:56 PM | 11 | 0 | 11 |
| 6:57 PM | 10 | 1 | 11 |
| 6:57 PM | 11 | 0 | 11 |
| 6:58 PM | 10 | 0 | 10 |
| 6:58 PM | 9 | 3 | 12 |
| 6:59 PM | 12 | 0 | 12 |
| 6:59 PM | 11 | 1 | 12 |
| 7:00 PM | 12 | 0 | 12 |

Prepared by National Data & Surveying Services

# Drive-thru Queue Study

Location: Raising Canes - 26782 Portola Pkwy
City: Foothill Ranch, CA

Date: 9/26/2020
Day: Saturday

| Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total | Time | Number of Cars In Zone 1 | Number of Cars In Zone 2 | Number of Cars In Zone 3 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 11:00 AM | 2 | 0 | 0 | 2 | 4:00 PM | 0 | 2 | 0 | 2 |
| 11:01 AM | 2 | 0 | 0 | 2 | 4:01 PM | 1 | 1 | 0 | 2 |
| 11:02 AM | 2 | 0 | 0 | 2 | 4:02 PM | 1 | 0 | 0 | 1 |
| 11:03 AM | 1 | 1 | 0 | 2 | 4:03 PM | 2 | 0 | 0 | 2 |
| 11:04 AM | 3 | 1 | 0 | 4 | 4:04 PM | 2 | 1 | 0 | 3 |
| 11:05 AM | 3 | 1 | 0 | 4 | 4:05 PM | 2 | 0 | 0 | 2 |
| 11:06 AM | 2 | 1 | 1 | 4 | 4:06 PM | 2 | 0 | 0 | 2 |
| 11:07 AM | 3 | 0 | 0 | 3 | 4:07 PM | 1 | 0 | 0 | 1 |
| 11:08 AM | 3 | 0 | 0 | 3 | 4:08 PM | 1 | 1 | 0 | 2 |
| 11:09 AM | 2 | 1 | 0 | 3 | 4:09 PM | 1 | 1 | 0 | 2 |
| 11:10 AM | 2 | 0 | 0 | 2 | 4:10 PM | 2 | 1 | 0 | 3 |
| 11:11 AM | 1 | 0 | 0 | 1 | 4:11 PM | 2 | 2 | 0 | 4 |
| 11:12 AM | 0 | 0 | 0 | 0 | 4:12 PM | 3 | 1 | 0 | 4 |
| 11:13 AM | 1 | 0 | 0 | 1 | 4:13 PM | 3 | 1 | 1 | 5 |
| 11:14 AM | 2 | 0 | 0 | 2 | 4:14 PM | 4 | 2 | 0 | 6 |
| 11:15 AM | 1 | 0 | 0 | 1 | 4:15 PM | 4 | 1 | 0 | 5 |
| 11:16 AM | 1 | 0 | 0 | 1 | 4:16 PM | 4 | 1 | 0 | 5 |
| 11:17 AM | 2 | 0 | 0 | 2 | 4:17 PM | 4 | 0 | 0 | 4 |
| 11:18 AM | 2 | 1 | 0 | 3 | 4:18 PM | 4 | 2 | 0 | 6 |
| 11:19 AM | 3 | 0 | 0 | 3 | 4:19 PM | 5 | 1 | 0 | 6 |
| 11:20 AM | 3 | 1 | 0 | 4 | 4:20 PM | 5 | 1 | 0 | 6 |
| 11:21 AM | 3 | 1 | 0 | 4 | 4:21 PM | 5 | 1 | 0 | 6 |
| 11:22 AM | 4 | 1 | 1 | 6 | 4:22 PM | 5 | 2 | 0 | 7 |
| 11:23 AM | 5 | 1 | 0 | 6 | 4:23 PM | 4 | 2 | 0 | 6 |
| 11:24 AM | 5 | 1 | 0 | 6 | 4:24 PM | 4 | 1 | 0 | 5 |
| 11:25 AM | 6 | 0 | 0 | 6 | 4:25 PM | 5 | 1 | 0 | 6 |
| 11:26 AM | 6 | 1 | 1 | 8 | 4:26 PM | 6 | 0 | 1 | 7 |
| 11:27 AM | 6 | 2 | 0 | 8 | 4:27 PM | 7 | 0 | 0 | 7 |
| 11:28 AM | 6 | 1 | 1 | 8 | 4:28 PM | 7 | 0 | 0 | 7 |
| 11:29 AM | 6 | 1 | 1 | 8 | 4:29 PM | 7 | 1 | 0 | 8 |
| 11:30 AM | 6 | 1 | 0 | 7 | 4:30 PM | 7 | 0 | 1 | 8 |
| 11:31 AM | 7 | 1 | 0 | 8 | 4:31 PM | 7 | 1 | 0 | 8 |
| 11:32 AM | 6 | 1 | 1 | 8 | 4:32 PM | 6 | 0 | 0 | 6 |
| 11:33 AM | 7 | 2 | 2 | 11 | 4:33 PM | 5 | 0 | 0 | 5 |
| 11:34 AM | 7 | 2 | 1 | 10 | 4:34 PM | 6 | 0 | 0 | 6 |
| 11:35 AM | 7 | 2 | 0 | 9 | 4:35 PM | 6 | 0 | 0 | 6 |
| 11:36 AM | 7 | 0 | 0 | 7 | 4:36 PM | 5 | 0 | 0 | 5 |
| 11:37 AM | 6 | 1 | 0 | 7 | 4:37 PM | 6 | 1 | 0 | 7 |
| 11:38 AM | 5 | 1 | 0 | 6 | 4:38 PM | 7 | 0 | 0 | 7 |
| 11:39 AM | 6 | 0 | 0 | 6 | 4:39 PM | 7 | 2 | 0 | 9 |
| 11:40 AM | 5 | 2 | 0 | 7 | 4:40 PM | 7 | 1 | 0 | 8 |

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|---|---|---|---|---|---|---|---|---|---|
| 11:41 AM | 7 | 2 | 3 | 12 | 4:41 PM | 7 | 2 | 0 | 9 |
| 11:42 AM | 7 | 3 | 2 | 12 | 4:42 PM | 7 | 2 | 0 | 9 |
| 11:43 AM | 7 | 2 | 2 | 11 | 4:43 PM | 7 | 1 | 1 | 9 |
| 11:44 AM | 7 | 3 | 0 | 10 | 4:44 PM | 7 | 2 | 1 | 10 |
| 11:45 AM | 7 | 3 | 0 | 10 | 4:45 PM | 7 | 1 | 1 | 9 |
| 11:46 AM | 6 | 2 | 0 | 8 | 4:46 PM | 7 | 1 | 1 | 9 |
| 11:47 AM | 6 | 2 | 0 | 8 | 4:47 PM | 7 | 1 | 0 | 8 |
| 11:48 AM | 6 | 0 | 0 | 6 | 4:48 PM | 6 | 1 | 0 | 7 |
| 11:49 AM | 6 | 1 | 0 | 7 | 4:49 PM | 7 | 1 | 1 | 9 |
| 11:50 AM | 5 | 1 | 0 | 6 | 4:50 PM | 7 | 2 | 1 | 10 |
| 11:51 AM | 5 | 2 | 1 | 8 | 4:51 PM | 7 | 1 | 0 | 8 |
| 11:52 AM | 6 | 2 | 0 | 8 | 4:52 PM | 7 | 2 | 0 | 9 |
| 11:53 AM | 6 | 1 | 0 | 7 | 4:53 PM | 7 | 2 | 2 | 11 |
| 11:54 AM | 7 | 1 | 0 | 8 | 4:54 PM | 7 | 3 | 2 | 12 |
| 11:55 AM | 7 | 1 | 1 | 9 | 4:55 PM | 7 | 3 | 1 | 11 |
| 11:56 AM | 7 | 1 | 0 | 8 | 4:56 PM | 7 | 3 | 0 | 10 |
| 11:57 AM | 7 | 1 | 0 | 8 | 4:57 PM | 7 | 3 | 0 | 10 |
| 11:58 AM | 7 | 0 | 0 | 7 | 4:58 PM | 7 | 4 | 0 | 11 |
| 11:59 AM | 7 | 0 | 0 | 7 | 4:59 PM | 7 | 3 | 0 | 10 |
| 12:00 PM | 7 | 1 | 1 | 9 | 5:00 PM | 7 | 5 | 0 | 12 |
| 12:01 PM | 7 | 1 | 0 | 8 | 5:01 PM | 7 | 6 | 0 | 13 |
| 12:02 PM | 7 | 1 | 0 | 8 | 5:02 PM | 7 | 7 | 0 | 14 |
| 12:03 PM | 7 | 1 | 0 | 8 | 5:03 PM | 7 | 5 | 0 | 12 |
| 12:04 PM | 7 | 2 | 1 | 10 | 5:04 PM | 7 | 5 | 0 | 12 |
| 12:05 PM | 7 | 3 | 1 | 11 | 5:05 PM | 7 | 5 | 2 | 14 |
| 12:06 PM | 7 | 3 | 4 | 14 | 5:06 PM | 7 | 6 | 1 | 14 |
| 12:07 PM | 7 | 4 | 3 | 14 | 5:07 PM | 7 | 6 | 0 | 13 |
| 12:08 PM | 7 | 4 | 2 | 13 | 5:08 PM | 7 | 5 | 0 | 12 |
| 12:09 PM | 7 | 4 | 4 | 15 | 5:09 PM | 7 | 5 | 1 | 13 |
| 12:10 PM | 7 | 3 | 4 | 14 | 5:10 PM | 7 | 5 | 3 | 15 |
| 12:11 PM | 7 | 4 | 2 | 13 | 5:11 PM | 7 | 6 | 4 | 17 |
| 12:12 PM | 7 | 4 | 1 | 12 | 5:12 PM | 7 | 7 | 3 | 17 |
| 12:13 PM | 7 | 4 | 1 | 12 | 5:13 PM | 7 | 7 | 4 | 18 |
| 12:14 PM | 7 | 4 | 0 | 11 | 5:14 PM | 7 | 8 | 3 | 18 |
| 12:15 PM | 7 | 3 | 1 | 11 | 5:15 PM | 7 | 7 | 3 | 17 |
| 12:16 PM | 7 | 3 | 0 | 10 | 5:16 PM | 7 | 8 | 3 | 18 |
| 12:17 PM | 7 | 2 | 0 | 9 | 5:17 PM | 7 | 9 | 3 | 19 |
| 12:18 PM | 7 | 2 | 0 | 9 | 5:18 PM | 7 | 9 | 3 | 19 |
| 12:19 PM | 7 | 1 | 1 | 9 | 5:19 PM | 7 | 9 | 3 | 19 |
| 12:20 PM | 7 | 2 | 0 | 9 | 5:20 PM | 7 | 9 | 4 | 20 |
| 12:21 PM | 7 | 2 | 5 | 14 | 5:21 PM | 7 | 10 | 4 | 21 |
| 12:22 PM | 7 | 3 | 3 | 13 | 5:22 PM | 7 | 9 | 5 | 21 |
| 12:23 PM | 7 | 4 | 3 | 14 | 5:23 PM | 6 | 9 | 5 | 20 |
| 12:24 PM | 7 | 4 | 4 | 15 | 5:24 PM | 7 | 8 | 6 | 21 |
| 12:25 PM | 7 | 4 | 5 | 16 | 5:25 PM | 7 | 8 | 6 | 21 |
| 12:26 PM | 7 | 4 | 4 | 15 | 5:26 PM | 7 | 9 | 7 | 23 |
| 12:27 PM | 7 | 5 | 2 | 14 | 5:27 PM | 7 | 8 | 8 | 23 |
| 12:28 PM | 7 | 5 | 2 | 14 | 5:28 PM | 7 | 7 | 8 | 22 |
| 12:29 PM | 7 | 6 | 1 | 14 | 5:29 PM | 7 | 8 | 6 | 21 |
| 12:30 PM | 7 | 6 | 2 | 15 | 5:30 PM | 7 | 7 | 6 | 20 |
| 12:31 PM | 7 | 6 | 1 | 14 | 5:31 PM | 7 | 7 | 5 | 19 |
| 12:32 PM | 7 | 6 | 0 | 13 | 5:32 PM | 7 | 8 | 5 | 20 |

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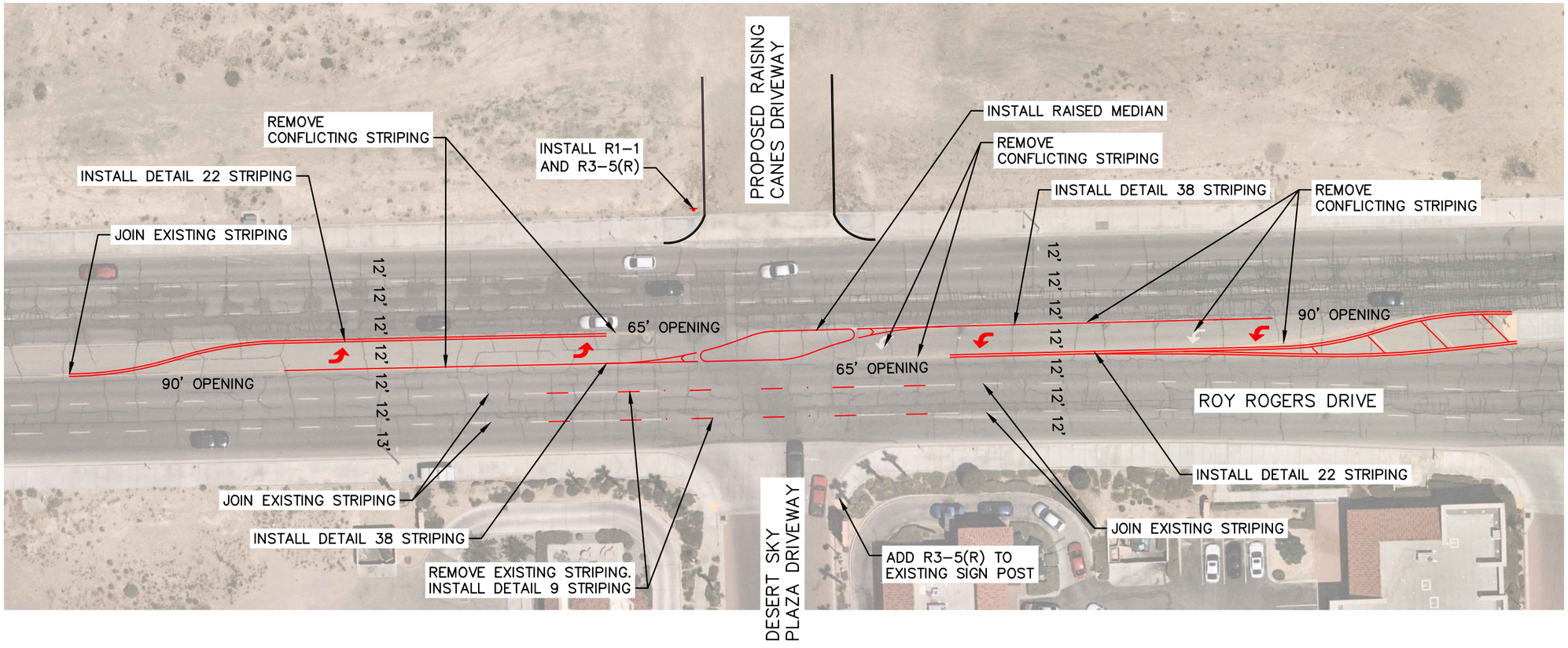
|---|---|---|---|---|---|---|---|---|---|
| 12:33 PM | 7 | 5 | 0 | 12 | 5:33 PM | 7 | 9 | 4 | 20 |
| 12:34 PM | 7 | 3 | 0 | 10 | 5:34 PM | 7 | 8 | 2 | 17 |
| 12:35 PM | 7 | 3 | 0 | 10 | 5:35 PM | 7 | 7 | 1 | 15 |
| 12:36 PM | 7 | 5 | 0 | 12 | 5:36 PM | 7 | 7 | 1 | 15 |
| 12:37 PM | 7 | 5 | 0 | 12 | 5:37 PM | 6 | 7 | 1 | 14 |
| 12:38 PM | 7 | 6 | 1 | 14 | 5:38 PM | 6 | 6 | 3 | 15 |
| 12:39 PM | 7 | 7 | 0 | 14 | 5:39 PM | 7 | 6 | 2 | 15 |
| 12:40 PM | 7 | 5 | 0 | 12 | 5:40 PM | 7 | 6 | 3 | 16 |
| 12:41 PM | 7 | 7 | 0 | 14 | 5:41 PM | 7 | 7 | 3 | 17 |
| 12:42 PM | 7 | 7 | 0 | 14 | 5:42 PM | 7 | 7 | 1 | 15 |
| 12:43 PM | 7 | 6 | 0 | 13 | 5:43 PM | 7 | 7 | 0 | 14 |
| 12:44 PM | 7 | 6 | 0 | 13 | 5:44 PM | 7 | 7 | 0 | 14 |
| 12:45 PM | 7 | 5 | 0 | 12 | 5:45 PM | 7 | 7 | 1 | 15 |
| 12:46 PM | 7 | 4 | 0 | 11 | 5:46 PM | 7 | 6 | 1 | 14 |
| 12:47 PM | 7 | 4 | 0 | 11 | 5:47 PM | 6 | 7 | 0 | 13 |
| 12:48 PM | 7 | 5 | 0 | 12 | 5:48 PM | 7 | 7 | 0 | 14 |
| 12:49 PM | 7 | 5 | 2 | 14 | 5:49 PM | 7 | 7 | 2 | 16 |
| 12:50 PM | 7 | 6 | 3 | 16 | 5:50 PM | 7 | 8 | 0 | 15 |
| 12:51 PM | 7 | 7 | 2 | 16 | 5:51 PM | 7 | 8 | 0 | 15 |
| 12:52 PM | 7 | 7 | 1 | 15 | 5:52 PM | 7 | 8 | 2 | 17 |
| 12:53 PM | 7 | 8 | 2 | 17 | 5:53 PM | 7 | 9 | 3 | 19 |
| 12:54 PM | 7 | 8 | 3 | 18 | 5:54 PM | 7 | 9 | 1 | 17 |
| 12:55 PM | 7 | 7 | 2 | 16 | 5:55 PM | 7 | 9 | 2 | 18 |
| 12:56 PM | 7 | 7 | 2 | 16 | 5:56 PM | 7 | 9 | 1 | 17 |
| 12:57 PM | 7 | 7 | 1 | 15 | 5:57 PM | 7 | 9 | 0 | 16 |
| 12:58 PM | 7 | 7 | 1 | 15 | 5:58 PM | 7 | 9 | 1 | 17 |
| 12:59 PM | 7 | 8 | 3 | 18 | 5:59 PM | 7 | 8 | 0 | 15 |
| 1:00 PM | 7 | 8 | 3 | 18 | 6:00 PM | 7 | 8 | 0 | 15 |
| 1:01 PM | 7 | 8 | 4 | 19 | 6:01 PM | 6 | 7 | 0 | 13 |
| 1:02 PM | 7 | 8 | 2 | 17 | 6:02 PM | 7 | 7 | 0 | 14 |
| 1:03 PM | 7 | 9 | 1 | 17 | 6:03 PM | 7 | 5 | 0 | 12 |
| 1:04 PM | 7 | 9 | 0 | 16 | 6:04 PM | 7 | 5 | 0 | 12 |
| 1:05 PM | 7 | 8 | 0 | 15 | 6:05 PM | 7 | 4 | 1 | 12 |
| 1:06 PM | 7 | 7 | 0 | 14 | 6:06 PM | 7 | 4 | 1 | 12 |
| 1:07 PM | 7 | 7 | 0 | 14 | 6:07 PM | 7 | 5 | 1 | 13 |
| 1:08 PM | 7 | 7 | 1 | 15 | 6:08 PM | 7 | 6 | 4 | 17 |
| 1:09 PM | 7 | 8 | 0 | 15 | 6:09 PM | 7 | 6 | 4 | 17 |
| 1:10 PM | 7 | 8 | 1 | 16 | 6:10 PM | 6 | 6 | 5 | 17 |
| 1:11 PM | 7 | 9 | 1 | 17 | 6:11 PM | 7 | 6 | 6 | 19 |
| 1:12 PM | 7 | 8 | 2 | 17 | 6:12 PM | 7 | 6 | 5 | 18 |
| 1:13 PM | 7 | 9 | 0 | 16 | 6:13 PM | 7 | 8 | 3 | 18 |
| 1:14 PM | 7 | 8 | 0 | 15 | 6:14 PM | 7 | 7 | 3 | 17 |
| 1:15 PM | 7 | 9 | 0 | 16 | 6:15 PM | 7 | 7 | 3 | 17 |
| 1:16 PM | 7 | 9 | 4 | 20 | 6:16 PM | 7 | 8 | 3 | 18 |
| 1:17 PM | 7 | 9 | 4 | 20 | 6:17 PM | 7 | 8 | 3 | 18 |
| 1:18 PM | 7 | 9 | 6 | 22 | 6:18 PM | 7 | 8 | 3 | 18 |
| 1:19 PM | 7 | 9 | 7 | 23 | 6:19 PM | 7 | 9 | 1 | 17 |
| 1:20 PM | 7 | 9 | 7 | 23 | 6:20 PM | 7 | 8 | 1 | 16 |
| 1:21 PM | 7 | 9 | 6 | 22 | 6:21 PM | 7 | 7 | 3 | 17 |
| 1:22 PM | 7 | 9 | 4 | 20 | 6:22 PM | 7 | 10 | 0 | 17 |
| 1:23 PM | 7 | 8 | 3 | 18 | 6:23 PM | 7 | 9 | 0 | 16 |
| 1:24 PM | 7 | 8 | 5 | 20 | 6:24 PM | 7 | 9 | 0 | 16 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1:25 PM | 7 | 7 | 4 | 18 | 6:25 PM | 7 | 9 | 0 | 16 |
| 1:26 PM | 7 | 8 | 4 | 19 | 6:26 PM | 7 | 8 | 1 | 16 |
| 1:27 PM | 7 | 7 | 3 | 17 | 6:27 PM | 7 | 8 | 1 | 16 |
| 1:28 PM | 7 | 7 | 3 | 17 | 6:28 PM | 7 | 7 | 0 | 14 |
| 1:29 PM | 7 | 8 | 4 | 19 | 6:29 PM | 7 | 8 | 0 | 15 |
| 1:30 PM | 7 | 8 | 2 | 17 | 6:30 PM | 7 | 7 | 0 | 14 |
| 1:31 PM | 7 | 8 | 4 | 19 | 6:31 PM | 7 | 7 | 1 | 15 |
| 1:32 PM | 7 | 8 | 2 | 17 | 6:32 PM | 7 | 8 | 1 | 16 |
| 1:33 PM | 7 | 7 | 1 | 15 | 6:33 PM | 7 | 9 | 0 | 16 |
| 1:34 PM | 7 | 7 | 0 | 14 | 6:34 PM | 6 | 9 | 0 | 15 |
| 1:35 PM | 7 | 7 | 0 | 14 | 6:35 PM | 7 | 8 | 2 | 17 |
| 1:36 PM | 7 | 7 | 1 | 15 | 6:36 PM | 7 | 9 | 0 | 16 |
| 1:37 PM | 7 | 8 | 0 | 15 | 6:37 PM | 7 | 10 | 0 | 17 |
| 1:38 PM | 7 | 7 | 0 | 14 | 6:38 PM | 7 | 9 | 0 | 16 |
| 1:39 PM | 7 | 7 | 0 | 14 | 6:39 PM | 7 | 9 | 1 | 17 |
| 1:40 PM | 7 | 7 | 2 | 16 | 6:40 PM | 7 | 9 | 2 | 18 |
| 1:41 PM | 7 | 7 | 2 | 16 | 6:41 PM | 7 | 9 | 2 | 18 |
| 1:42 PM | 7 | 7 | 1 | 15 | 6:42 PM | 7 | 9 | 2 | 18 |
| 1:43 PM | 7 | 8 | 1 | 16 | 6:43 PM | 7 | 9 | 1 | 17 |
| 1:44 PM | 7 | 7 | 1 | 15 | 6:44 PM | 7 | 9 | 2 | 18 |
| 1:45 PM | 7 | 8 | 3 | 18 | 6:45 PM | 7 | 9 | 2 | 18 |
| 1:46 PM | 7 | 8 | 2 | 17 | 6:46 PM | 7 | 10 | 0 | 17 |
| 1:47 PM | 7 | 7 | 1 | 15 | 6:47 PM | 7 | 9 | 1 | 17 |
| 1:48 PM | 7 | 8 | 3 | 18 | 6:48 PM | 7 | 9 | 1 | 17 |
| 1:49 PM | 7 | 9 | 3 | 19 | 6:49 PM | 7 | 8 | 0 | 15 |
| 1:50 PM | 7 | 9 | 2 | 18 | 6:50 PM | 7 | 7 | 0 | 14 |
| 1:51 PM | 7 | 8 | 3 | 18 | 6:51 PM | 7 | 8 | 1 | 16 |
| 1:52 PM | 7 | 9 | 1 | 17 | 6:52 PM | 7 | 9 | 2 | 18 |
| 1:53 PM | 7 | 9 | 0 | 16 | 6:53 PM | 6 | 9 | 2 | 17 |
| 1:54 PM | 7 | 7 | 0 | 14 | 6:54 PM | 7 | 9 | 2 | 18 |
| 1:55 PM | 7 | 6 | 0 | 13 | 6:55 PM | 7 | 8 | 1 | 16 |
| 1:56 PM | 7 | 7 | 0 | 14 | 6:56 PM | 7 | 9 | 2 | 18 |
| 1:57 PM | 7 | 7 | 0 | 14 | 6:57 PM | 7 | 8 | 3 | 18 |
| 1:58 PM | 7 | 8 | 0 | 15 | 6:58 PM | 7 | 8 | 3 | 18 |
| 1:59 PM | 7 | 8 | 1 | 16 | 6:59 PM | 7 | 9 | 2 | 18 |

APPENDIX **F**

ROY ROGERS DRIVE STRIPING CONCEPT




NORTH

NOT TO SCALE

APPENDIX F
ROY ROGERS DRIVE STRIPING CONCEPT