In accordance with City Council Resolution No. 2021-066 and the requirements of AB 361, the City Council Meeting will not be physically open to the public and City Council Members will be teleconferencing into the meeting.

## **HOW TO OBSERVE THE MEETING:**

To maximize public safety while still maintaining transparency and public access, the meeting will be live-streamed on SLO-SPAN.org, on Spectrum cable Channel 20 in Atascadero, and on KPRL Radio 1230AM and 99.3FM. The video recording of the meeting will repeat daily on Channel 20 at 1:00 am, 9:00 am, and 6:00 pm and will be available through the City's website or by visiting <a href="https://us02web.zoom.us/webinar/register/WN">https://us02web.zoom.us/webinar/register/WN</a> ZwJ7a031S3KXauEym9ehaA.

## **HOW TO SUBMIT PUBLIC COMMENT:**

Members of the public are highly encouraged to participate in live public comment through the Zoom platform using the link above or by calling **805-538-2888** to listen and provide public comment via phone.

If you wish to comment but not via a live platform, please email public comments to <a href="mailto:cityclerk@atascadero.org">cityclerk@atascadero.org</a> by 12:00 pm on the day of the meeting. Such email comments must identify the Agenda Item Number in the subject line of the email. The comments will be forwarded to the City Council and made a part of the administrative record. If a comment is received after the deadline for submission but before the close of the meeting, the comment will still be included as a part of the administrative record of the meeting but will be forwarded to the City Council the next business day. Please note, email comments will not be read into the record.

## **AMERICAN DISABILITY ACT ACCOMMODATIONS:**

Any member of the public who needs accommodations should contact the City Clerk's Office at <a href="mailto:cityclerk@atascadero.org">cityclerk@atascadero.org</a> or by calling 805-470-3400 at least 48 hours prior to the meeting or time when services are needed. The City will use their best efforts to provide reasonable accommodations to afford as much accessibility as possible while also maintaining public safety in accordance with the City procedure for resolving reasonable accommodation requests.

City Council agendas and minutes may be viewed on the City's website: <a href="https://www.atascadero.org">www.atascadero.org</a>.

Copies of the staff reports or other documentation relating to each item of business referred to on the Agenda are on file in the office of the City Clerk and are available for public inspection on our website, <a href="www.atascadero.org">www.atascadero.org</a>. Contracts, Resolutions and Ordinances will be allocated a number once they are approved by the City Council. The Minutes of this meeting will reflect these numbers. All documents submitted by the public during Council meetings that are either read into the record or referred to in their statement will be noted in the Minutes and available for review by contacting the City Clerk's office. All documents will be available for public inspection by appointment during City Hall business hours.

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# CITY OF ATASCADERO CITY COUNCIL

## **AGENDA**

Tuesday, October 26, 2021

City Hall Council Chambers, 4th floor 6500 Palma Avenue, Atascadero, California

City Council Closed Session: 5:00 P.M.

City Council Regular Session: 6:00 P.M.

COUNCIL CLOSED SESSION: 5:00 P.M.

1. ROLL CALL

2. CLOSED SESSION -- PUBLIC COMMENT

3. COUNCIL LEAVES TO BEGIN CLOSED SESSION

4. CLOSED SESSION -- CALL TO ORDER

a. Conference with Real Property Negotiators (Govt. Code 54956.8)

Real Property: 9510 Calle Milano, Atascadero, CA 93422

Agency Negotiator: Rachelle Rickard, City Manager

Negotiating Parties: Curtis J. Coleman and Julie A. Coleman

Subject of Negotiations: Price and terms of payment.

- 5. CLOSED SESSION ADJOURNMENT
- 6. COUNCIL RETURNS
- 7. CLOSED SESSION REPORT (IF ANY)

Announcement(s) of any reportable action(s) taken in Closed Session that occur(s) after the adjournment of Regular Session will be made at the beginning of the next Regular City Council meeting as Closed Session is not recorded or videotaped.

REGULAR SESSION - CALL TO ORDER: 6:00 P.M.

**PLEDGE OF ALLEGIANCE:** Mayor Pro Tem Newsom

ROLL CALL: Mayor Moreno

Mayor Pro Tem Newsom Council Member Bourbeau Council Member Dariz Council Member Funk

**APPROVAL OF AGENDA:** Roll Call

Recommendation: Council:

1. Approve this agenda; and

2. Waive the reading in full of all ordinances appearing on this agenda, and the titles of the ordinances will be read aloud by the City Clerk at the first reading, after the motion and before the City Council votes.

PRESENTATIONS: None.

A. CONSENT CALENDAR: (All items on the consent calendar are considered to be routine and non-controversial by City staff and will be approved by one motion if no member of the Council or public wishes to comment or ask questions. If comment or discussion is desired by anyone, the item will be removed from the Consent Calendar and will be considered in the listed sequence with an opportunity for any member of the public to address the Council concerning the item before action is taken.)

## 1. City Council Draft Action Minutes - October 12, 2021

 Recommendation: Council approve the October 12, 2021 Draft City Council Regular Meeting Minutes. [City Clerk]

## 2. September 2021 Accounts Payable and Payroll

- Fiscal Impact: \$4,201,762.16
- Recommendation: Council approve certified City accounts payable, payroll and payroll vendor checks for September 2021. [Administrative Services]

## 3. El Camino Real Downtown Infrastructure Enhancement Project Design Award

- <u>Fiscal Impact</u>: Award of this contract will result in the expenditure of approximately \$710,000 of Atascadero Downtown Infrastructure State Budget Allocation funds.
- Recommendations: Council:
  - 1. Award a contract to Wallace Group for \$598,811 to provide design engineering and construction document preparation for the El Camino Real Downtown Infrastructure Enhancement Project (Project No. C2017T01).
  - 2. Authorize the Director of Administrative Services to allocate \$3,000,000 in City of Atascadero Downtown Infrastructure State Budget Allocation Funds to the El Camino Real Downtown Infrastructure Enhancement Project. [Public Works]

## 4. <u>Atascadero Lake Park Improvements for Proposition 68 Parks and</u> Recreation Grant Per Capita Program Funds

- <u>Fiscal Impact</u>: The City of Atascadero is eligible to receive \$177,952 through the Per Capita Program. The Program requires a 20% local match (\$35,590) bringing the total budget amount of the project to \$213,524.
- Recommendation: Council direct staff to apply for per capita funding through the California Department of Parks and Recreation - Proposition 68 California Drought, Water, Parks, Climate, Costal Protection and Outdoor Access for All Per Capita Program for Lake Park Improvements. [Public Works]

## 5. Virtual Meetings - AB 361 Requirements

- Fiscal Impact: None.
- Recommendation: Council adopt Draft Resolution making findings consistent with the requirements of AB 361 to continue to allow for the conduct of virtual meetings. [City Manager]

**UPDATES FROM THE CITY MANAGER:** (The City Manager will give an oral report on any current issues of concern to the City Council.)

**COMMUNITY FORUM:** (This portion of the meeting is reserved for persons wanting to address the Council on any matter not on this agenda and over which the Council has jurisdiction. Speakers are limited to three minutes. Please state your name for the record before making your presentation Comments made during Community Forum will not be a subject of discussion. A maximum of 30 minutes will be allowed for Community Forum, unless changed by the Council. Any members of the public who have questions or need information may contact the City Clerk's Office, between the hours of 8:30 a.m. and 5:00 p.m. at (805) 470-3400, or <a href="mailto:cityclerk@atascadero.org">cityclerk@atascadero.org</a>.)

## B. PUBLIC HEARINGS: None.

## C. MANAGEMENT REPORTS:

## 1. Affordable Housing Impact Fee Nexus Studies Update

- <u>Fiscal Impact</u>: Project costs are covered by grant funding received through Senate Bill 2 (SB 2).
- Recommendation: Council review and comment on the nexus study provided by EPS consultants for a potential affordable housing fee program as part of an affordable housing strategy. [Community Development]

## 2. <u>Emergency Evacuation Traffic Planning Study</u>

- <u>Fiscal Impact</u>: The study has no direct costs beyond previously approved consultant costs.
- Recommendation: Council receive and file the Emergency Evacuation Traffic Planning Study. [Fire Department]

**D. COUNCIL ANNOUNCEMENTS AND COMMITTEE REPORTS:** (On their own initiative, Council Members may make a brief announcement or a brief report on their own activities. The following represent standing committees. Informative status reports will be given, as felt necessary):

## Mayor Moreno

- 1. City Selection Committee
- 2. County Mayors Round Table
- 3. Regional Economic Action Coalition (REACH)
- 4. SLO Council of Governments (SLOCOG)
- 5. SLO Regional Transit Authority (RTA)

## Mayor Pro Tem Newsom

- 1. City / Schools Committee
- 2. Design Review Committee
- 3. League of California Cities Council Liaison
- 4. Visit SLO CAL Advisory Committee

## Council Member Bourbeau

- 1. City of Atascadero Finance Committee
- 2. City / Schools Committee
- 3. Integrated Waste Management Authority (IWMA)
- 4. SLO County Water Resources Advisory Committee (WRAC)

## Council Member Dariz

- 1. Air Pollution Control District
- California Joint Powers Insurance Authority (CJPIA) Board
- 3. City of Atascadero Finance Committee

## Council Member Funk

- 1. Atascadero Basin Ground Water Sustainability Agency (GSA)
- 2. Design Review Committee
- 3. Homeless Services Oversight Council
- E. INDIVIDUAL DETERMINATION AND / OR ACTION: (Council Members may ask a question for clarification, make a referral to staff or take action to have staff place a matter of business on a future agenda. The Council may take action on items listed on the Agenda.)
  - 1. City Council
  - 2. City Clerk
  - 3. City Treasurer
  - 4. City Attorney
  - City Manager

## **ADJOURN**

Please note: Should anyone challenge any proposed development entitlement listed on this Agenda in court, that person may be limited to raising those issues addressed at the public hearing described in this notice, or in written correspondence delivered to the City Council at or prior to this public hearing. Correspondence submitted at this public hearing will be distributed to the Council and available for review in the City Clerk's office.

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ITEM NUMBER: DATE:

A-1 10/26/21



# CITY OF ATASCADERO CITY COUNCIL

## **DRAFT MINUTES**

Tuesday, October 12, 2021

City Hall Council Chambers, 4th floor 6500 Palma Avenue, Atascadero, California

City Council Closed Session: 5:30 P.M.

<u>City Council Regular Session</u>: 6:00 P.M.

COUNCIL CLOSED SESSION: 5:30 P.M.

Mayor Moreno called Closed Session to order at 5:30 p.m.

1. ROLL CALL

Present: By Teleconference - Council Members Bourbeau, Dariz and Funk,

Mayor Pro Tem Newsom, and Mayor Moreno

Absent: None

Others Present: None

Staff Present: By Teleconference – City Manager Rachelle Rickard, Administrative

Services Director Jeri Rangel, City Attorney Brian Pierik, Deputy City Manager/City Clerk Lara Christensen, and IT Manager Luke Knight

- 2. CLOSED SESSION -- PUBLIC COMMENT None
- 3. COUNCIL LEAVES TO BEGIN CLOSED SESSION

IT Manager Knight did not attend this portion of the meeting.

4. CLOSED SESSION -- CALL TO ORDER

a. Conference with Real Property Negotiators (Govt. Code 54956.8)

Real Property: 6009 Del Rio Road (APN 049141038 – City Property), 2000 Ramona Road (APN 049141039 – City Property), 2455 El Camino Real (APN 049151056 – People Self Help Housing Property), 6105 Olmeda Avenue (APN 029091001 – State of California Property), Atascadero, California, 93422

Agency Negotiator: Rachelle Rickard, City Manager

<u>Negotiating Parties</u>: People Self Help Housing and State of California <u>Subject of Negotiations</u>: Purchase price and/or terms of payment.

- 5. CLOSED SESSION ADJOURNMENT
- 6. COUNCIL RETURNS
- 7. CLOSED SESSION REPORT (IF ANY)

City Attorney Pierik reported that there was no reportable action from Closed Session

REGULAR SESSION - CALL TO ORDER: 6:00 P.M.

Mayor Moreno called the meeting to order at 6:00 p.m. and Council Member Bourbeau led the Pledge of Allegiance.

## **ROLL CALL:**

Present: By Teleconference - Council Members Bourbeau, Dariz and Funk,

Mayor Pro Tem Newsom, and Mayor Moreno

Absent: None

Others Present: None

Staff Present: By Teleconference – City Manager Rachelle Rickard, Administrative

Services Director Jeri Rangel, Community Development Director Phil Dunsmore, Fire Chief Casey Bryson, Public Works Director Nick DeBar, Police Chief Robert Masterson, City Attorney Brian Pierik, Deputy City Manager/City Clerk Lara Christensen, and IT Manager Luke Knight

## **APPROVAL OF AGENDA:**

MOTION: By Council Member Funk and seconded by Mayor Pro Tem Newsom to:

- 1. Approve this agenda; and,
- 2. Waive the reading in full of all ordinances appearing on this agenda, and the titles of the ordinances will be read aloud by the City Clerk at the first reading, after the motion and before the City Council votes.

Motion passed 5:0 by a roll-call vote.

#### PRESENTATIONS:

1. Proclamation Recognizing October 2021 as Domestic Violence ACTION Month

The City Council presented a proclamation to Jennifer Adams, CEO of Lumina Alliance.

2. Proclamation Recognizing September 15 - October 15, 2021 as National Hispanic Heritage Month

The City Council presented a proclamation to CR Lara, President of the Latino Outreach Council

3. Proclamation Recognizing October 3-9, 2021 as Fire Prevention Week

The City Council presented a proclamation to members of Atascadero Fire & Emergency Services.

#### A. CONSENT CALENDAR:

- 1. City Council Draft Action Minutes September 28, 2021
  - Recommendation: Council approve the September 28, 2021 Draft City Council Regular Meeting Minutes. [City Clerk]
- 2. <u>Lift Station No. 13 and Force Main Replacement Project Engineering Design Services Award</u>
  - Fiscal Impact: \$280,735.00
  - Recommendation: Council authorize the City Manager to execute a contract for \$280,735 with MKN & Associates to provide engineering design services for the Lift Station No. 13 and Force Main Replacement Project (Project No. C2020W02). [Public Works]
- 3. <u>Annexation of the 11885 Halcon Road Subdivision into Community Facilities</u>
  <u>District 2005-1, Annexation No. 24 (AT 18-0123)</u>
  - <u>Fiscal Impact</u>: Assessments for this annexation are estimated to be \$2,226 annually, adjusted each year for inflation.
  - Recommendation: Council adopt Draft Resolution, declaring its intention to annex territory, into Community Facilities District 2005-1 (Public Services) as Annexation No. 24 and to authorize the levy of special taxes therein (11885 Halcon Road: AT 18-0123). [Community Development]

MOTION: By Council Member Bourbeau and seconded by Council Member Funk to approve the Consent Calendar. (#A-2: Contract No. 2021-031) (#A-4: Resolution No. 2021-068)

Motion passed 5:0 by a roll-call vote.

## **UPDATES FROM THE CITY MANAGER:**

City Manager Rachelle Rickard gave an update on projects and issues within the City.

#### **COMMUNITY FORUM:**

The following citizens spoke by telephone or through the webinar on this item: None.

Mayor Moreno closed the COMMUNITY FORUM period.

B. PUBLIC HEARINGS: None.

#### C. MANAGEMENT REPORTS:

- 1. <u>The El Camino Plan Corridor Study Caltrans Sustainable Transportation</u>
  Planning Grant
  - <u>Fiscal Impact</u>: The study has no direct costs beyond previously approved consultant and staff costs.
  - Recommendation: Council receive and file the final Draft El Camino Plan.
     [Community Development]

Community Development Director Dunsmore gave the report and answered questions from the Council.

## **PUBLIC COMMENT:**

The following citizens spoke by telephone or through the webinar on this item: Geoff Auslen

Mayor Moreno closed the Public Comment period.

Council received and filed the final Draft El Camino Plan

## D. COUNCIL ANNOUNCEMENTS AND COMMITTEE REPORTS:

The following Council Members made brief announcements and gave brief update reports on their committees since their last Council meeting:

#### Mayor Moreno

- 1. County Mayors Round Table
- 2. SLO Council of Governments (SLOCOG)
- 3. SLO Regional Transit Authority (RTA)

## Mayor Pro Tem Newsom

1. Design Review Committee

## Council Member Bourbeau

1. Integrated Waste Management Authority (IWMA)

#### Council Member Dariz

1. California Joint Powers Insurance Authority (CJPIA) Board

Council Member Dariz noted attending the CJPIA annual Board Meeting and Risk Management Educational Forum on October 6-8 in San Diego.

## Council Member Funk

- 1. Atascadero Basin Ground Water Sustainability Agency (GSA)
- 2. Design Review Committee

## E. INDIVIDUAL DETERMINATION AND / OR ACTION:

## F. ADJOURN

Mayor Moreno recessed the Regular Meeting at 8:05 p.m.

MINUTES PREPARED BY:	
Lara K. Christensen City Clerk	

**APPROVED:** 



## Atascadero City Council

## Staff Report - Administrative Services Department

## September 2021 Accounts Payable and Payroll

## **RECOMMENDATION:**

Council approve certified City accounts payable, payroll and payroll vendor checks for September 2021.

## **DISCUSSION:**

Attached for City Council review and approval are the following:

<b>Payroll</b>			
Dated	9/2/21	Checks # 35231 - 35240	\$ 11,512.32
		Direct Deposits	337,880.52
Dated	9/16/21	Checks # 35241 - 35250	11,914.29
		Direct Deposits	340,191.77
Dated	9/30/21	Checks # 35251 - 35262	11,373.52
		Direct Deposits	308,243.51
Account	ts Payable		
Dated 9/	1/21-9/30/21	Checks # 168666 - 168938	
		& EFTs 4155 - 4182	 3,180,646.23
		TOTAL AMOUNT	\$ 4,201,762.16

## FISCAL IMPACT:

Total expenditures for all funds is

\$ 4,201,762.16

## **CERTIFICATION:**

The undersigned certifies that the attached demands have been released for payment and that funds are available for these demands.

Jeri Rangel

Director of Administrative Services

## ATTACHMENT:

September 2021 Eden Warrant Register in the amount of

\$ 3,180,646.23

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
4155	09/02/2021	ANTHEM BLUE CROSS HSA	Payroll Vendor Payment	8,721.82
168666	09/02/2021	ANTHEM BLUE CROSS HEALTH	Payroll Vendor Payment	192,568.65
168667	09/02/2021	LINCOLN NATIONAL LIFE INS CO	Payroll Vendor Payment	1,823.15
168668	09/02/2021	MEDICAL EYE SERVICES	Payroll Vendor Payment	1,706.60
168669	09/02/2021	PREFERRED BENEFITS INSURANCE	Payroll Vendor Payment	8,317.80
168670	09/02/2021	ATASCADERO MID MGRS ORG UNION	Payroll Vendor Payment	80.00
168671	09/02/2021	ATASCADERO POLICE OFFICERS	Payroll Vendor Payment	1,741.50
168672	09/02/2021	ATASCADERO PROF. FIREFIGHTERS	Payroll Vendor Payment	1,027.05
168673	09/02/2021	MASS MUTUAL WORKPLACE SOLUTION	Payroll Vendor Payment	7,504.65
168674	09/02/2021	NATIONWIDE RETIREMENT SOLUTION	Payroll Vendor Payment	1,442.49
168675	09/02/2021	NAVIA BENEFIT SOLUTIONS	Payroll Vendor Payment	2,626.87
168676	09/02/2021	SEIU LOCAL 620	Payroll Vendor Payment	819.25
168677	09/02/2021	VANTAGEPOINT TRNSFR AGT 106099	Payroll Vendor Payment	357.85
168678	09/02/2021	VANTAGEPOINT TRNSFR AGT 304633	Payroll Vendor Payment	7,362.44
168679	09/02/2021	VANTAGEPOINT TRNSFR AGT 706276	Payroll Vendor Payment	746.00
4156	09/03/2021	STATE DISBURSEMENT UNIT	Payroll Vendor Payment	467.07
4157	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	22,107.10
4158	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	29,420.86
4159	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	1,943.09
4160	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	2,697.76
4161	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	5,066.24
4162	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	9,150.09
4163	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	8,444.49
4164	09/03/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	13,270.42
4165	09/07/2021	RABOBANK, N.A.	Payroll Vendor Payment	69,713.08
4166	09/07/2021	EMPLOYMENT DEV DEPARTMENT	Payroll Vendor Payment	22,288.50
4167	09/07/2021	EMPLOYMENT DEV. DEPARTMENT	Payroll Vendor Payment	2,673.13
168680	09/10/2021	13 STARS MEDIA	Accounts Payable Check	662.90
168681	09/10/2021	29TONIGHT, INC.	Accounts Payable Check	759.17
168682	09/10/2021	AGM CALIFORNIA, INC.	Accounts Payable Check	4,663.00
168683	09/10/2021	ALTHOUSE & MEADE, INC.	Accounts Payable Check	450.00
168684	09/10/2021	KELLY AREBALO	Accounts Payable Check	1,636.26
168685	09/10/2021	AT&T	Accounts Payable Check	547.80
168686	09/10/2021	AT&T	Accounts Payable Check	770.65
168687	09/10/2021	ATASCADERO HAY & FEED	Accounts Payable Check	1,643.96
168689	09/10/2021	ATASCADERO MUTUAL WATER CO.	Accounts Payable Check	35,862.20
168690	09/10/2021	ATASCADERO PICKLEBALL CLUB,INC	Accounts Payable Check	633.30
168691	09/10/2021	A-TOWN HUMBLE PIES	Accounts Payable Check	85.00
168692	09/10/2021	AURORA WORLD, INC.	Accounts Payable Check	139.40
168693	09/10/2021	RICHARD BARTEL	Accounts Payable Check	10.00
168694	09/10/2021	BASSETT'S CRICKET RANCH,INC.	Accounts Payable Check	223.34
168695	09/10/2021	BELL'S PLUMBING REPAIR, INC.	Accounts Payable Check	180.00
168696	09/10/2021	KEITH R. BERGHER	Accounts Payable Check	290.00

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
168697	09/10/2021	BERRY MAN, INC.	Accounts Payable Check	926.90
168698	09/10/2021	BURT INDUSTRIAL SUPPLY	Accounts Payable Check	545.79
168699	09/10/2021	CA HIGHWAY PATROL	Accounts Payable Check	200.00
168700	09/10/2021	CCI OFFICE TECHNOLOGIES	Accounts Payable Check	243.69
168701	09/10/2021	CHARTER COMMUNICATIONS	Accounts Payable Check	4,348.97
168702	09/10/2021	CLEVER CONCEPTS, INC.	Accounts Payable Check	47.95
168703	09/10/2021	CRYSTAL CREAMERY, INC.	Accounts Payable Check	453.26
168704	09/10/2021	CRYSTAL SPRINGS WATER	Accounts Payable Check	20.00
168705	09/10/2021	NICHOLAS DEBAR	Accounts Payable Check	300.00
168706	09/10/2021	JOE DEBRUIN, PH.D.	Accounts Payable Check	360.00
168707	09/10/2021	DEPARTMENT OF JUSTICE	Accounts Payable Check	191.00
168708	09/10/2021	DESTINATION TRAVEL NETWORK	Accounts Payable Check	75.00
168709	09/10/2021	DOOMSDAY SKATE, LLC	Accounts Payable Check	210.00
168710	09/10/2021	PHILIP DUNSMORE	Accounts Payable Check	300.00
168711	09/10/2021	EARTH SYSTEMS PACIFIC	Accounts Payable Check	4,144.00
168712	09/10/2021	EIKHOF DESIGN GROUP, INC.	Accounts Payable Check	24,869.36
168713	09/10/2021	FARM SUPPLY COMPANY	Accounts Payable Check	724.99
168714	09/10/2021	FERGUSON ENTERPRISES, LLC	Accounts Payable Check	1,187.10
168715	09/10/2021	FGL ENVIRONMENTAL	Accounts Payable Check	162.00
168716	09/10/2021	FRANCHISE TAX BOARD	Accounts Payable Check	267.75
168717	09/10/2021	HARRIS STAGE LINES, LLC	Accounts Payable Check	900.00
168718	09/10/2021	HART IMPRESSIONS PRINTING	Accounts Payable Check	296.61
168719	09/10/2021	IRON MOUNTAIN RECORDS MGMNT	Accounts Payable Check	126.96
168720	09/10/2021	JK'S UNLIMITED, INC.	Accounts Payable Check	15,901.97
168721	09/10/2021	K & M INTERNATIONAL	Accounts Payable Check	2,230.42
168722	09/10/2021	KIRK CONSTRUCTION	Accounts Payable Check	150,549.35
168723	09/10/2021	KNECHT'S PLUMBING & HEATING	Accounts Payable Check	3,537.56
168724	09/10/2021	LIFE ASSIST, INC.	Accounts Payable Check	2,112.93
168725	09/10/2021	JACKSON LIGHT	Accounts Payable Check	1,600.00
168726	09/10/2021	MATTHEW LOUGHERY	Accounts Payable Check	843.92
168727	09/10/2021	MADRONE LANDSCAPES, INC.	Accounts Payable Check	387.00
168728	09/10/2021	MARBORG INDUSTRIES	Accounts Payable Check	312.28
168729	09/10/2021	MICHAEL K. NUNLEY & ASSC, INC.	Accounts Payable Check	12,029.15
168730	09/10/2021	MID-COAST GEOTECHNICAL, INC.	Accounts Payable Check	2,860.00
168731	09/10/2021	EDWARD J. MILLER, JR.	Accounts Payable Check	300.00
168732	09/10/2021	MINER'S ACE HARDWARE	Accounts Payable Check	670.29
168733	09/10/2021	MISSION UNIFORM SERVICE	Accounts Payable Check	155.18
168734	09/10/2021	MNS ENGINEERS, INC.	Accounts Payable Check	1,385.00
168735	09/10/2021	MR. B'S AUTO GLASS	Accounts Payable Check	55.00
168736	09/10/2021	MV TRANSPORTATION, INC.	Accounts Payable Check	19,633.30
168737	09/10/2021	MWI ANIMAL HEALTH	Accounts Payable Check	931.98
168738	09/10/2021	DANIELLE NUNES-HAKANSON	Accounts Payable Check	73.58
168739	09/10/2021	OFFICE DEPOT INC.	Accounts Payable Check	547.18

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
168740	09/10/2021	RON OVERACKER	Accounts Payable Check	281.00
168742	09/10/2021	PACIFIC GAS AND ELECTRIC	Accounts Payable Check	35,042.79
168743	09/10/2021	PASO ROBLES CHEVROLET	Accounts Payable Check	295.00
168744	09/10/2021	PASO ROBLES GLASS	Accounts Payable Check	6,480.00
168745	09/10/2021	PEAKWIFI, LLC	Accounts Payable Check	650.00
168746	09/10/2021	DEAN PERICIC	Accounts Payable Check	2.26
168747	09/10/2021	PFLUMS ATASCADERO MUFFLER	Accounts Payable Check	121.75
168748	09/10/2021	PHILLIPS INTERNATIONAL, INC.	Accounts Payable Check	1,074.00
168749	09/10/2021	PRAXAIR DISTRIBUTION, INC.	Accounts Payable Check	59.86
168750	09/10/2021	PROCARE JANITORIAL SUPPLY,INC.	Accounts Payable Check	450.79
168751	09/10/2021	PROSOUND BUSINESS MEDIA, INC.	Accounts Payable Check	99.00
168752	09/10/2021	QUINCY ENGINEERING, INC.	Accounts Payable Check	20,493.31
168753	09/10/2021	SHIRLEY L. RADCLIFF-BRUTON	Accounts Payable Check	1,305.60
168754	09/10/2021	RAINSCAPE, A LANDSCAPE SVC CO.	Accounts Payable Check	10,329.55
168755	09/10/2021	JERI RANGEL	Accounts Payable Check	300.00
168756	09/10/2021	READYREFRESH BY NESTLE	Accounts Payable Check	68.51
168757	09/10/2021	RHODE ISLAND NOVELTY	Accounts Payable Check	1,016.40
168758	09/10/2021	RACHELLE RICKARD	Accounts Payable Check	799.49
168759	09/10/2021	KIRK ROLES	Accounts Payable Check	90.00
168760	09/10/2021	ROLSON MUSIC & SOUND	Accounts Payable Check	2,375.00
168761	09/10/2021	CHRISTINA K. SILVA	Accounts Payable Check	567.00
168762	09/10/2021	SLO COUNTY HEALTH AGENCY	Accounts Payable Check	93,760.00
168763	09/10/2021	SOUZA CONSTRUCTION, INC.	Accounts Payable Check	624,873.75
168764	09/10/2021	SPEAKWRITE, LLC.	Accounts Payable Check	644.83
168765	09/10/2021	SPECIALIZED EQUIPMENT REPAIR	Accounts Payable Check	66.74
168766	09/10/2021	STANLEY CONVERGENT SECURITY	Accounts Payable Check	1,004.73
168767	09/10/2021	SUNLIGHT JANITORIAL, INC.	Accounts Payable Check	1,700.00
168768	09/10/2021	SWANK MOTION PICTURES, INC.	Accounts Payable Check	550.00
168769	09/10/2021	TESCO CONTROLS, INC.	Accounts Payable Check	8,500.00
168770	09/10/2021	STEVE TIROTTA	Accounts Payable Check	141.32
168771	09/10/2021	ULTREX LEASING	Accounts Payable Check	263.18
168772	09/10/2021	UNITED RENTALS (NORTH AM), INC	Accounts Payable Check	49,970.63
168773	09/10/2021	DAVID VAN SON	Accounts Payable Check	179.00
168774	09/10/2021	VERIZON WIRELESS	Accounts Payable Check	2,092.57
168775	09/10/2021	WALSH ENGINEERING	Accounts Payable Check	807.50
168776	09/10/2021	WARM FUZZY TOYS	Accounts Payable Check	282.46
168777	09/10/2021	WCJ PROPERTY SERVICES	Accounts Payable Check	803.25
168778	09/10/2021	WELL SEEN SIGN CO., LLC	Accounts Payable Check	469.69
168779	09/10/2021	WEST COAST AUTO & TOWING, INC.	Accounts Payable Check	158.78
168780	09/10/2021	WEX BANK - 76 UNIVERSL	Accounts Payable Check	13,488.48
168781	09/10/2021	WEX BANK - WEX FLEET UNIVERSAL	Accounts Payable Check	7,964.79
168782	09/10/2021	WHITLOCK & WEINBERGER TRANS.	Accounts Payable Check	5,558.25
168783	09/10/2021	WILKINS ACTION GRAPHICS	Accounts Payable Check	124.08

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
168784	09/10/2021	KAREN B. WYKE	Accounts Payable Check	699.90
168785	09/10/2021	XO PANDORA	Accounts Payable Check	150.00
168786	09/10/2021	ZOO MED LABORATORIES, INC.	Accounts Payable Check	1,002.07
168787	09/10/2021	2 MEXICANS, LLC	Accounts Payable Check	1,030.00
168788	09/10/2021	ALTHOUSE & MEADE, INC.	Accounts Payable Check	143.75
168789	09/10/2021	APPLIED TECHNOLOGY GROUP, INC.	Accounts Payable Check	23,164.91
168790	09/10/2021	ATASCADERO HAY & FEED	Accounts Payable Check	151.37
168791	09/10/2021	AVILA TRAFFIC SAFETY	Accounts Payable Check	42.68
168792	09/10/2021	CARQUEST OF ATASCADERO	Accounts Payable Check	220.40
168793	09/10/2021	K & M INTERNATIONAL	Accounts Payable Check	4,503.57
168794	09/10/2021	KID TEES	Accounts Payable Check	268.20
168795	09/10/2021	KNECHT'S PLUMBING & HEATING	Accounts Payable Check	1,476.89
168796	09/10/2021	PASO ROBLES FORD LINCOLN MERC	Accounts Payable Check	375.00
168797	09/10/2021	PAVEMENT ENGINEERING, INC.	Accounts Payable Check	30,075.00
168798	09/10/2021	PENGUIN RANDOM HOUSE, LLC	Accounts Payable Check	53.97
168799	09/10/2021	STANLEY CONVERGENT SECURITY	Accounts Payable Check	287.46
168800	09/10/2021	KURT W. STONE	Accounts Payable Check	1,200.00
168801	09/10/2021	WATER SYSTEMS CONSULTING, INC.	Accounts Payable Check	6,576.25
4168	09/14/2021	BANK OF NEW YORK MELLON	Accounts Payable Check	623,706.25
4169	09/16/2021	ANTHEM BLUE CROSS HSA	Payroll Vendor Payment	8,721.82
168802	09/16/2021	ATASCADERO MID MGRS ORG UNION	Payroll Vendor Payment	80.00
168803	09/16/2021	ATASCADERO POLICE OFFICERS	Payroll Vendor Payment	1,741.50
168804	09/16/2021	ATASCADERO PROF. FIREFIGHTERS	Payroll Vendor Payment	1,027.05
168805	09/16/2021	MASS MUTUAL WORKPLACE SOLUTION	Payroll Vendor Payment	18,355.31
168806	09/16/2021	NATIONWIDE RETIREMENT SOLUTION	Payroll Vendor Payment	1,533.66
168807	09/16/2021	NAVIA BENEFIT SOLUTIONS	Payroll Vendor Payment	2,626.87
168808	09/16/2021	SEIU LOCAL 620	Payroll Vendor Payment	821.41
168809	09/16/2021	VANTAGEPOINT TRNSFR AGT 106099	Payroll Vendor Payment	357.85
168810	09/16/2021	VANTAGEPOINT TRNSFR AGT 304633	Payroll Vendor Payment	14,188.59
168811	09/16/2021	VANTAGEPOINT TRNSFR AGT 706276	Payroll Vendor Payment	746.00
4170	09/17/2021	STATE DISBURSEMENT UNIT	Payroll Vendor Payment	467.07
4171	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	22,125.18
4172	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	29,742.64
4173	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	1,927.13
4174	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	2,698.04
4175	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	5,066.24
4176	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	8,901.50
4177	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	8,489.23
4178	09/17/2021	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	Payroll Vendor Payment	13,188.00
4179	09/21/2021	RABOBANK, N.A.	Payroll Vendor Payment	69,812.38
4180	09/21/2021	EMPLOYMENT DEV DEPARTMENT	Payroll Vendor Payment	22,229.38
4181	09/21/2021	EMPLOYMENT DEV. DEPARTMENT	Payroll Vendor Payment	2,947.26
168812	09/24/2021	KELLY AREBALO	Accounts Payable Check	85.50

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
168813	09/24/2021	DEPARTMENT OF TRANSPORTATION	Accounts Payable Check	4,394.59
168814	09/24/2021	COLETTE LAYTON	Accounts Payable Check	1,938.00
168815	09/24/2021	LEE WILSON ELECTRIC CO. INC	Accounts Payable Check	1,428.00
168816	09/24/2021	MEYER TREE CONSULTING	Accounts Payable Check	215.00
168817	09/24/2021	NORTH COAST ENGINEERING INC.	Accounts Payable Check	61.00
168818	09/24/2021	SLO COUNTY SHERIFF'S OFFICE	Accounts Payable Check	210.00
168819	09/24/2021	SMART AND FINAL	Accounts Payable Check	142.98
168820	09/24/2021	WHITLOCK & WEINBERGER TRANS.	Accounts Payable Check	357.50
168821	09/24/2021	13 STARS MEDIA	Accounts Payable Check	3,717.10
168822	09/24/2021	A & T ARBORISTS & VEGETATION	Accounts Payable Check	10,200.00
168823	09/24/2021	ACTIVE 911, INC.	Accounts Payable Check	494.00
168824	09/24/2021	ADAMSKI,MOROSKI,MADDEN,	Accounts Payable Check	1,451.00
168825	09/24/2021	AGP VIDEO, INC.	Accounts Payable Check	1,425.00
168826	09/24/2021	AK & COMPANY	Accounts Payable Check	1,750.00
168827	09/24/2021	ALPHA ELECTRIC SERVICE	Accounts Payable Check	300.00
168828	09/24/2021	ALTHOUSE & MEADE, INC.	Accounts Payable Check	180.00
168829	09/24/2021	AMERICAN PUBLIC WORKS ASSC	Accounts Payable Check	720.00
168830	09/24/2021	AMERICAN WEST TIRE & AUTO INC	Accounts Payable Check	3,776.49
168831	09/24/2021	AMERIGAS	Accounts Payable Check	128.33
168833	09/24/2021	AT&T	Accounts Payable Check	1,157.79
168834	09/24/2021	AT&T	Accounts Payable Check	1,205.69
168835	09/24/2021	AVILA TRAFFIC SAFETY	Accounts Payable Check	67.97
168836	09/24/2021	BELL'S PLUMBING REPAIR, INC.	Accounts Payable Check	260.00
168837	09/24/2021	JOSE R. BENITEZ	Accounts Payable Check	120.00
168838	09/24/2021	BREZDEN PEST CONTROL, INC.	Accounts Payable Check	170.00
168839	09/24/2021	CASEY BRYSON	Accounts Payable Check	118.00
168840	09/24/2021	BURKE, WILLIAMS, & SORENSON LLP	Accounts Payable Check	34,202.70
168841	09/24/2021	CA DEPT OF FISH & WILDLIFE	Accounts Payable Check	2,516.00
168842	09/24/2021	CALLYO	Accounts Payable Check	2,160.00
168843	09/24/2021	CAR EL, INC.	Accounts Payable Check	3,396.40
168844	09/24/2021	CARQUEST OF ATASCADERO	Accounts Payable Check	55.51
168846	09/24/2021	CHARTER COMMUNICATIONS	Accounts Payable Check	4,241.74
168847	09/24/2021	COASTAL REPROGRAPHIC SERVICES	Accounts Payable Check	122.61
168848	09/24/2021	COBAN TECHNOLOGIES, INC.	Accounts Payable Check	125.00
168849	09/24/2021	DEPARTMENT OF JUSTICE	Accounts Payable Check	387.00
168850	09/24/2021	DEPT. OF THE CA HIGHWAY PATROL	Accounts Payable Check	905.85
168851	09/24/2021	DOOLEY ENTERPRISES INC	Accounts Payable Check	6,560.36
168852	09/24/2021	EARTH SYSTEMS PACIFIC	Accounts Payable Check	2,505.00
168853	09/24/2021	EL CAMINO CAR WASH	Accounts Payable Check	100.00
168854	09/24/2021	EMERGENCY VEHICLE SPECIALISTS	Accounts Payable Check	10,410.57
168855	09/24/2021	ESTRELLA WARBIRDS MUSEUM, INC	Accounts Payable Check	500.00
168856	09/24/2021	JENNIFER FANNING	Accounts Payable Check	77.00
168857	09/24/2021	FENCE FACTORY ATASCADERO	Accounts Payable Check	3,044.93

For the Month of September 2021

ITEM NUMBER: DATE: ATTACHMENT:

Check Number	Check Date	Vendor	Description	Amount
168858	09/24/2021	FERGUSON ENTERPRISES, LLC	Accounts Payable Check	568.80
168859	09/24/2021	FGL ENVIRONMENTAL	Accounts Payable Check	4,371.00
168860	09/24/2021	GAS COMPANY	Accounts Payable Check	475.66
168861	09/24/2021	GIERLICH-MITCHELL, INC.	Accounts Payable Check	106,934.45
168862	09/24/2021	KELLY GLEASON	Accounts Payable Check	45.58
168863	09/24/2021	MARK D. GREENAWAY	Accounts Payable Check	30.00
168864	09/24/2021	HART IMPRESSIONS PRINTING	Accounts Payable Check	1,522.06
168865	09/24/2021	HINDERLITER, DE LLAMAS	Accounts Payable Check	1,514.97
168866	09/24/2021	HOME DEPOT CREDIT SERVICES	Accounts Payable Check	1,248.86
168867	09/24/2021	JPW COMMUNICATIONS	Accounts Payable Check	1,000.00
168868	09/24/2021	STEVEN KAHN	Accounts Payable Check	207.18
168869	09/24/2021	KPRL 1230 AM	Accounts Payable Check	820.00
168870	09/24/2021	KRITZ EXCAVATING & TRUCKNG INC	Accounts Payable Check	687.26
168871	09/24/2021	KW CONSTRUCTION	Accounts Payable Check	18,437.57
168872	09/24/2021	L.N. CURTIS & SONS	Accounts Payable Check	3,187.39
168873	09/24/2021	LEE WILSON ELECTRIC CO. INC	Accounts Payable Check	2,584.33
168874	09/24/2021	KENNETH LERNO	Accounts Payable Check	129.53
168875	09/24/2021	LIFE ASSIST, INC.	Accounts Payable Check	802.31
168876	09/24/2021	MARBORG INDUSTRIES	Accounts Payable Check	400.00
168877	09/24/2021	MARK'S TIRE SERVICE	Accounts Payable Check	1,977.10
168878	09/24/2021	MEDINA LIGHT SHOW DESIGNS	Accounts Payable Check	1,900.00
168879	09/24/2021	METRO MEDIA	Accounts Payable Check	495.00
168880	09/24/2021	MEYER TREE CONSULTING	Accounts Payable Check	1,897.50
168881	09/24/2021	MID-COAST GEOTECHNICAL, INC.	Accounts Payable Check	1,980.00
168882	09/24/2021	MINER'S ACE HARDWARE	Accounts Payable Check	275.86
168883	09/24/2021	MISSION UNIFORM SERVICE	Accounts Payable Check	536.08
168884	09/24/2021	MOSS, LEVY, & HARTZHEIM LLP	Accounts Payable Check	7,000.00
168885	09/24/2021	NORTH COAST ENGINEERING INC.	Accounts Payable Check	1,523.50
168886	09/24/2021	NOWDOCS INTERNATIONAL, INC.	Accounts Payable Check	387.15
168887	09/24/2021	OASIS EQUIPMENT RENTAL	Accounts Payable Check	428.34
168888	09/24/2021	OFFICE DEPOT INC.	Accounts Payable Check	1,134.70
168889	09/24/2021	PACIFIC GAS AND ELECTRIC	Accounts Payable Check	955.07
168890	09/24/2021	DAWN PATTERSON	Accounts Payable Check	87.36
168891	09/24/2021	PERRY'S PARCEL & GIFT	Accounts Payable Check	27.96
168892	09/24/2021	PFLUMS ATASCADERO MUFFLER	Accounts Payable Check	200.00
168893	09/24/2021	PROCARE JANITORIAL SUPPLY,INC.	Accounts Payable Check	1,882.89
168894	09/24/2021	QUADIENT, INC.	Accounts Payable Check	696.75
168895	09/24/2021	RAMINHA CONSTRUCTION, INC.	Accounts Payable Check	93,871.11
168896	09/24/2021	RANGE MASTER	Accounts Payable Check	3,429.98
168897	09/24/2021	READYREFRESH BY NESTLE	Accounts Payable Check	129.09
168898	09/24/2021	ROB REYNOLDS CONSTRUCTION, INC	Accounts Payable Check	131,731.77
168899	09/24/2021	SAM'S TREE 805, INC.	Accounts Payable Check	975.00
168900	09/24/2021	SAN LUIS POWERHOUSE, INC.	Accounts Payable Check	945.79

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ITEM NUMBER: DATE: ATTACHMENT: A-2 10/26/21 1

3,180,646.23

Check Number	Check Date	Vendor	Description	Amount
168901	09/24/2021	SANCON TECHNOLOGIES, INC.	Accounts Payable Check	12,000.00
168902	09/24/2021	SIGTRONICS CORP.	Accounts Payable Check	947.77
168903	09/24/2021	SLO COUNTY SHERIFF'S OFFICE	Accounts Payable Check	597.00
168904	09/24/2021	RYAN SMITH	Accounts Payable Check	250.00
168905	09/24/2021	SOUTH COAST EMERGENCY VEH SVC	Accounts Payable Check	609.79
168906	09/24/2021	BRUCE ST. JOHN	Accounts Payable Check	222.92
168907	09/24/2021	STANLEY CONVERGENT SECURITY	Accounts Payable Check	367.20
168908	09/24/2021	STAPLES CREDIT PLAN	Accounts Payable Check	232.96
168909	09/24/2021	SWANK MOTION PICTURES, INC.	Accounts Payable Check	550.00
168910	09/24/2021	MADALYN TARR	Accounts Payable Check	40.25
168911	09/24/2021	TEMPLETON UNIFORMS, LLC	Accounts Payable Check	500.53
168912	09/24/2021	THOMSON REUTERS - WEST	Accounts Payable Check	175.10
168917	09/24/2021	U.S. BANK	Accounts Payable Check	33,335.16
168918	09/24/2021	ULTREX BUSINESS PRODUCTS	Accounts Payable Check	30.40
168919	09/24/2021	ULTREX LEASING	Accounts Payable Check	263.18
168920	09/24/2021	UNITED RENTALS (NORTH AM), INC	Accounts Payable Check	4,357.59
168921	09/24/2021	USA BLUE BOOK	Accounts Payable Check	459.64
168922	09/24/2021	DAVID VAN SON	Accounts Payable Check	118.00
168923	09/24/2021	VERDIN	Accounts Payable Check	12,754.60
168924	09/24/2021	VERIZON WIRELESS	Accounts Payable Check	327.46
168925	09/24/2021	VINO VICE, INC.	Accounts Payable Check	528.00
168926	09/24/2021	VITAL RECORDS CONTROL	Accounts Payable Check	826.40
168927	09/24/2021	WALLACE GROUP	Accounts Payable Check	10,525.86
168928	09/24/2021	WELL SEEN SIGN CO., LLC	Accounts Payable Check	3,700.72
168929	09/24/2021	WEST COAST AUTO & TOWING, INC.	Accounts Payable Check	130.00
168930	09/24/2021	WHITLOCK & WEINBERGER TRANS.	Accounts Payable Check	570.00
168931	09/24/2021	WOODS HUMANE SOCIETY	Accounts Payable Check	4,750.00
4182	09/30/2021	ANTHEM BLUE CROSS HSA	Payroll Vendor Payment	8,721.82
168932	09/30/2021	ATASCADERO PROF. FIREFIGHTERS	Payroll Vendor Payment	1,027.05
168933	09/30/2021	MASS MUTUAL WORKPLACE SOLUTION	Payroll Vendor Payment	7,730.49
168934	09/30/2021	NATIONWIDE RETIREMENT SOLUTION	Payroll Vendor Payment	1,080.20
168935	09/30/2021	SEIU LOCAL 620	Payroll Vendor Payment	792.85
168936	09/30/2021	VANTAGEPOINT TRNSFR AGT 106099	Payroll Vendor Payment	357.85
168937	09/30/2021	VANTAGEPOINT TRNSFR AGT 304633	Payroll Vendor Payment	6,310.41
168938	09/30/2021	VANTAGEPOINT TRNSFR AGT 706276	Payroll Vendor Payment —	746.00

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## Atascadero City Council

## Staff Report – Public Works Department

# El Camino Real Downtown Infrastructure Enhancement Project Design Award

## **RECOMMENDATIONS:**

#### Council:

- 1. Award a contract to Wallace Group for \$598,811 to provide design engineering and construction document preparation for the El Camino Real Downtown Infrastructure Enhancement Project (Project No. C2017T01).
- 2. Authorize the Director of Administrative Services to allocate \$3,000,000 in City of Atascadero Downtown Infrastructure State Budget Allocation Funds to the El Camino Real Downtown Infrastructure Enhancement Project.

## **REPORT IN BRIEF:**

The El Camino Real Downtown Infrastructure Enhancement Plan (the Project) has been developed and refined since the Project was formally initiated in August 2017. Over the following three years, multiple options were considered, with preferred design alternatives refined through a process of public input, City department review, Council direction, and technical analysis of traffic modeling and safety considerations. The selected alternative was approved by Council in August 2020. The City is now in a position to initiate final engineering design services to provide detailed plans, specifications and estimates to make the Project "shovel ready".

## **DISCUSSION:**

## Background

The approved El Camino Real Downtown Infrastructure Enhancement Plan is a planning level document that outlines recommendations for road improvements incorporating enhanced pedestrian and bicycle access along with increased parking opportunities and safer crosswalks. The primary goal is public safety for all roadway users: pedestrians, bicyclists, and motorists. A second goal is to enhance economic development in the downtown by creating a zone that slows traffic speeds, enhances appearance and safety, and increases parking. The Plan extents include the El Camino Corridor from the intersection of Highway 41 to the intersection of Rosario Avenue.

The overall objective for the reconstruction of this segment of roadway has been consistent since inception in 2017 - to develop a holistic corridor plan within the Downtown El Camino Real Corridor that considers the needs and goals of all multimodal users, residents, businesses, and City leaders. The Project was formally initiated in 2017, with KTUA of San Diego hired in November 2017 to assist the City in the analysis and development of a corridor plan. Central Coast Transportation Consulting (CCTC) of Morro Bay worked as a sub consultant to KTUA to provide traffic engineering and operations analysis.

Project objectives, identified early in the process, have driven the conceptual design. These objectives include the following:

- Provide public safety for all roadway users by incorporating complete streets and "road diet" concepts and principles
- Enhance economic development by supporting existing and future merchants with additional parking
- Support Downtown business synergy through a partnership in crafting a downtown traffic calming plan
- Enhance the streetscape of El Camino Real by creating a sense of place and arrival into the Downtown
- Create safe pedestrian connections and crossings while enhancing the walkability of Downtown
- Slow vehicular speeds to increase safety and visibility, including an analysis of impacts to level of service (LOS).
- Enhance the ability to host more special events in the Downtown area
- Accommodate multi-modal transportation, where feasible

After evaluation of multiple options, a traffic analysis was conducted in early 2018, and a series of public outreach/feedback workshops were in initiated in August 2018. Twelve workshop events took place, both in person and virtually, that included a presentation and small breakout sessions with City staff. Participants included residents, business owners, and other interested persons who completed feedback survey forms that contained questions to assist the City in determining appropriateness of the draft concept plans. The draft concept plans were revised based upon feedback and presented, along with a summary of public feedback, to the Council at their August 11, 2020 meeting. Council approved the concept plans for the Project at that meeting.

As part of the FY 2021-2023 Budget, funds were authorized to provide design engineering services to take the Plan from concept drawings to a Plans, Specifications and Estimates (PS&E) package ready for bidding and construction.

## Analysis

Staff prepared a Request for Proposal (RFP) and solicited proposals in July 2021 from qualified consultants to provide design services and prepare construction plans and specifications for the Project. Most engineering projects are largely the responsibility of the Public Works Department and involve a clearly defined design objective requiring preparation of plans, specification and estimates for bidding. In contrast, the El Camino Real Downtown Infrastructure Enhancement Project will incorporate multiple departments within the City, most notably Community Development and Public Works. While the

concept plan has been developed and approved by Council, the upcoming design process is extensive and will include refining design concepts, defining cohesive design elements and materials types, identification of engineering constraints and opportunities, and preparation of a complete bid package for construction. It is anticipated that this process will include opportunities for public and Council review and input, and significant interdepartmental coordination with the selected consultant design team to ensure the Project meets current and future needs.

Major components of this design effort are as follows:

- Topographic Survey, Geotechnical Investigation and Utility Research and Coordination
- Preliminary Engineering and Cost Estimating
  - Concept Refinement
  - Conceptual Streetscaping and Landscaping Plan
  - Stormwater Facilities and Downtown Watershed Plan Implementation
  - Preliminary Cost Estimating
- Preparation of Design Plans, Specifications and Estimates
  - Civil Improvements
  - Landscaping and Irrigation
  - Electrical and Lighting
  - Traffic Signal Modifications

Staff received five proposals from highly qualified consultants including Wallace Group, Quincy Engineering, Rick Engineering, GHD and BKF Engineers. Proposals were individually reviewed and scored by a selection committee comprised of Public Works and Community Development staff based upon experience with similar projects, responsiveness to City needs, experience of key personnel, and other factors. Staff invited the top three rated consultant teams for in person interviews, held on September 23-2021. After completion of interviews, staff determined that the design team led by Wallace Group was best qualified to provide engineering services for this project. The consultant team includes KTUA, CCTC, Earth Systems Pacific, and Kittleson & Associates. Amongst other qualifications, this team provides continuity, as the core members were involved throughout the conceptual design process.

Wallace Group provided a detailed fee estimate worksheet with their proposal that included labor hours/costs, reimbursable expenses, and subconsultant fees for the work scope identified in the City's request for proposals. Staff reviewed Wallace Group's work scope and fee and have determined that it is reasonable. Staff is recommending awarding a contract with Wallace Group on a labor plus reimbursable basis for an estimated maximum fee of \$598,811 for design engineering services for the Project. Design work is anticipated to take approximately ten months to complete.

Staff anticipates having a PS&E package ready for bidding in the fall of 2022. At this time, full construction funding sources are not finalized, but efforts to fully fund the project will be undertaken by staff concurrent with engineering design efforts.

The adopted budget (FY21/22) includes \$650,000 in Local Transportation Funds for the Project. In addition to the available Local Transportation Funds, State Senator Laird was Page 21 of 217

successful in securing a \$3,000,000 State budget allocation for the City to be used for downtown infrastructure. While the exact grant requirements have not yet been received by the City, it is anticipated that the State will require that the funds be spent quickly. Staff is recommending that the City use the State Downtown Infrastructure funds on the Project, before using any other available funds including the budgeted Local Transportation Funds. This will help ensure that the funds are spent in a timely manner.

As the design is developed and community input received, it is anticipated additional design services may be necessary. Staff is estimating a total cost of about \$710,000 for this phase of the Project. This estimated cost would include the base contract cost of \$598,811 for Wallace Group, anticipated supplemental design services, and staff time

A preliminary construction cost estimate of about \$7,600,000 was prepared by staff for the concept plan that includes construction contingencies, administrative support, inspection, testing, and other construction related costs. This estimate is very preliminary since design elements are not yet known. The final design phase will allow a much more accurate cost estimate by identifying actual design elements and actual work scope and quantities. The final design process will provide the City an opportunity to evaluate various options and associated costs to include in the final construction plans and specifications.

## **FISCAL IMPACT:**

Award of this contract will result in the expenditure of approximately \$710,000 of Atascadero Downtown Infrastructure State Budget Allocation funds.

ESTIMATED EXPENDITURES						
Conceptual Design Phase			\$	131,160		
Final Design						
Design Engineering Contract (Wallace group)	\$	598,811				
Design Engineering Contingency (10%)		59,880				
Design Support		50,000	_			
				708,691		
Construction costs				5,000,000		
Testing, inspection and support (15%)				750,000		
Construction Contingency (20%)				1,000,000		
Total Estimated Expenditures after						
conceptual design phase			\$	7,589,851		

ESTIMATED REVENUES	8	
Circulation System Funds		\$ 131,160
Local Transportation Funds		650,000
California State Budget Allocation		3,000,000
Total Available Revenue after conceptual		
design phase	_	\$ 3,781,160
	_	

Net Funding (Shortfall) after conceptual			
design phase	_ 9	(3,80	8,691)

## **ATTACHMENT:**

El Camino Real Downtown Infrastructure Enhancement Concept Plan





# Atascadero City Council

## Staff Report - Public Works Department

# Atascadero Lake Park Improvements for Proposition 68 Parks and Recreation Grant Per Capita Program Funds

## **RECOMMENDATION:**

Council direct staff to apply for per capita funding through the California Department of Parks and Recreation - Proposition 68 California Drought, Water, Parks, Climate, Costal Protection and Outdoor Access for All Per Capita Program for Lake Park Improvements.

## **DISCUSSION:**

## **Background**

On October 22, 2019, the City Council approved Resolution No. 2019-080, authorizing an application for the Per Capita Grant Program with the State Department of Parks and Recreation. The Per Capita Program is part of the California voter approved Proposition 68, the Parks and Water Bond Act of 2018 (Senate Bill 5). Proposition 68 bond proceeds have created grant programs for drought, water, parks, climate, coastal protection, and outdoor access. Specifically, the Per Capita Program provides \$177,952 to the City for local park rehabilitation, creation and improvements. Under this program, grant recipients are encouraged to utilize awards to rehabilitate existing infrastructure and to address deficiencies in neighborhoods lacking access to the outdoors.

The process to obtain these grant funds was initiated by the City Council's adoption of the Resolution on October 22, 2019 and subsequent submission to the Office of Grants and Local Services (OGALS) in November 2019. As part of that Council agenda item, staff provided preliminary considerations of needs for park and recreation improvements at Paloma Creek Park, Colony Park Community Center, Atascadero Lake Park and the Zoo with the intent to come back before the Council with a final recommendation for the allocation of the grant funding. Since that time, staff continued to review and prioritize the needs of the City's parks and recreation features, focusing on replacement and enhancement to maximize community safety and access.

## Analysis

As part of the Measure D-20 outreach and prioritization, the City identified repairs and replacements to various infrastructure and amenities at Atascadero Lake Park to be a Measure D-20 Tier 1 priority. Staff is recommending that the Council allocate anticipated Prop. 68 grant funding toward sidewalk improvements to meet ADA accessibility requirements, along with replacement of the lake pier, at Atascadero Lake Park. These improvements are located along the shoreline in and around the paddleboat rental and lake

pier (behind the band shell). Given the condition of these aging facilities, coupled with the increased popularity of fishing and new energy with a new paddleboat vendor, staff considered these improvements to be an excellent beneficiary of Proposition 68 funding.

The Atascadero Lake Park pier, portions of which were likely built over 70 years ago, received its last significant rebuild in 1996. The pier is utilized by community members to enjoy the views of Atascadero Lake and recreational fishing. Atascadero Lake Park is one of the community's major attractions and is a popular public space throughout the year for residents and visitors alike while offering a number of amenities, including the Charles Paddock Zoo. The pier is constructed primarily of wood, with wood pilings and a concrete foundation that rests on the lake bed.



The pier is currently in a state of disrepair and has been closed since the summer due to rotten structural wood members and railing. Funding from the grant would be used for the design and construction of a replacement pier that would meet ADA requirements.

The sidewalk betweeen the pier and the paddleboat concessionaire (behind the band shell), and leading from the upper restrooms, does not meet current ADA standards. Access to this area is challenging, primarily during the summer months when many community events are held at the park. Specifically, the grant funding would be used to replace sidewalks and construct a ramp near the paddleboat vendor to allow accessibility to the vendor and new pier.

Should the Council choose to move forward with these improvements, staff will include a detailed description of the project and required



environmental documents with the grant application package. The proposed design of the new pier will feature floating platforms attached to the pathway, enabling the gangway slope to adjust based upon the height of the water level. The pier is also proposed to extend further into the lake with a 'T' shape end, allowing additional room for visitors and fisherpersons to access the lake. The grant application is due to OGALS by December 31, 2021. Per the grant requirements, the park improvements must be completed by June 30, 2023. The Prop 68 grant match for the pier and sidewalk improvements are part of the City's 2021-23 Budget. Should the City not receive the per capita grant funding, staff will come back to Council with a funding plan and prioritization of park safety projects.

## **ENVIRONMENTAL REVIEW:**

The California Environmental Quality Act does not apply to the recommended action in this report, because the action does not constitute a "Project" under CEQA Guidelines Sec. 15378. The grant application will include the required environmental report, which will be conducted by the Planning Department.

## **FISCAL IMPACT:**

The City of Atascadero is eligible to receive \$177,952 through the Per Capita Program. The Program requires a 20% local match (\$35,590) bringing the total budget amount of the project to \$213,524. The matching funds for the grant are budgeted as part of the Measure D-20 Parks Repair and Replacement line item.

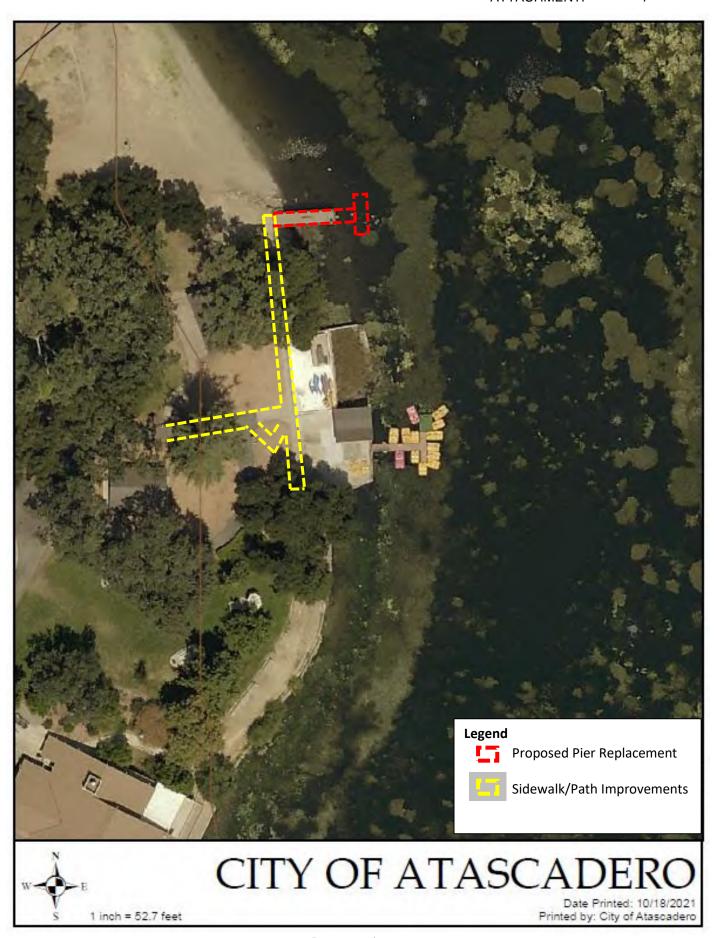
## **ALTERNATIVES:**

Council may choose not to approve the proposed Atascadero Lake Park improvements with anticipated funding by the Per Capita Program. Should this occur, staff requests specific direction on projects to pursue for funding by the grant.

## ATTACHMENTS:

- 1. Preliminary site map
- 2. Per Capita Program Procedural Guide

ITEM NUMBER: DATE: ATTACHMENT: A-4 10/26/21 1



# Procedural Guide for the

California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018

# PER CAPITA PROGRAM

September 2020





# State of California The Natural Resources Agency Department of Parks and Recreation Office of Grants and Local Services (OGALS)

"Creating Community through People, Parks, and Programs"

## Send correspondence to:

## **Street Address for Overnight Mail:**

Calif. Dept. of Parks and Recreation Office of Grants and Local Services 1416 Ninth Street, Room 918 Sacramento, CA 95814

## **Mailing Address:**

Calif. Dept. of Parks and Recreation Office of Grants and Local Services P.O. Box 942896 Sacramento, CA 94296-0001

Phone: (916) 653-7423

Website: http://www.parks.ca.gov/grants

## 2018-2019 California State Budget, Chapter 29

Budget Item 3790-101-6088 (b) - \$185,000,000 shall be available for the Local Park Rehabilitation, Creation in Urban Areas Program, consistent with subdivision (a) of Section 80061 of the Public Resources Code.

# STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION



## **Department Mission**

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

## **Community Engagement Division Mission**

The mission of the Community Engagement Division is to encourage healthy communities by connecting people to parks, supporting innovative recreational opportunities, embracing diversity, fostering inclusivity, and delivering superior customer service, with integrity for the enrichment of all.

## The Office of Grants and Local Services Mission

The mission of the Office of Grants and Local Services is to address California's diverse recreational, cultural and historical resource needs by developing grant programs, administering funds, offering technical assistance, building partnerships and providing leadership through quality customer service.

## **OGALS VISION GOALS**

To Be:

- A leader among park and recreation professionals.
- Proactive in anticipating public park and recreation needs and hownew legislation and grant programs could best meet these needs.
- Honest, knowledgeable and experienced grant administration facilitators.
- Sensitive to local concerns while mindful of prevailing laws, rules and regulations.
- Perceptive to opportunities for partnerships, growth and renewal where few existed before.
- Committed to providing quality customer service in every interaction and transaction.
- Responsive to the needs of applicants, grantees, nonprofit organizations, local governments, legislative members, and department employees.

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## **Per Capita Program Summary**

## **Background**

This program originates from Proposition 68, placed on the ballot via Senate Bill 5 (DeLeon, Chapter 852, statutes of 2017), and approved by voters on June 5, 2018. Funds for the program were appropriated via State Budget item 3790-101-6088(b). Legislative program information is found in the Public Resources Code (PRC) beginning at §80000 (see page 51). OGALS retains the right to waive requirements not mandated by statute. Funds are provided for two programs, as described below:

## General Per Capita Program: \$185,000,000

Funds are available for local park rehabilitation, creation, and improvement grants to local governments on a per capita basis. Grant recipients are encouraged to utilize awards to rehabilitate existing infrastructure and to address deficiencies in neighborhoods lacking access to the outdoors (PRC §80061(a)).

## **Urban County Per Capita: \$13,875,000**

Additional funds are available for Per Capita grants to cities and districts in urbanized counties (a county with a population of 500,000 or more) providing park and recreation services within jurisdictions of 200,000 or less in population. An entity eligible to receive funds under this subdivision shall also be eligible to receive funds available under the General Per Capita Program (PRC §80061(b)).

## Eligible Recipients (PRC §80062)

Sixty percent (60%) of the General Per Capita funds are allocated to the following entities based on population. The minimum allocation is \$200,000.

- Cities
- Eligible Districts, other than a regional park district, regional park and open-space districts, and regional open-space districts<sup>1</sup>

Forty percent (40%) of the General Per Capita funds are allocated to the following entities based on population. The minimum allocation is \$400,000.

- Counties
- Regional park districts, regional park and open space districts, and regional open space districts

#### **Allocations**

Visit OGALS' Per Capita webpage at www.parks.ca.gov/percapita for allocations.

<sup>1</sup> For purposes of this chapter, "district" means any regional park district, regional park and open-space district, or regional open-space district formed pursuant to Article 3 (commencing with §5500) of Chapter 3 of Division 5, any recreation and park district formed pursuant to Chapter 4 (commencing with §5780) of Division 5, or any authority formed pursuant to Division 26 (commencing with §35100). With respect to any community or unincorporated region that is not included within a district, and in which no city or county provides parks or recreational areas or facilities, "district" also means any other entity, including, but not limited to, a district operating multiple-use parklands pursuant to Division 20 (commencing with §71000) of the Water Code.

## **Eligible Projects**

 PROJECTS must be capital outlay for recreational purposes, either acquisition or DEVELOPMENT. Do not submit combined acquisition and DEVELOPMENT projects, rather submit separate APPLICATION PACKETS for each PROJECT type.

- Multiple PROJECTS may be completed under one contract; each PROJECT requires a separate APPLICATION PACKET.
- A PROJECT can only have one location. One PROJECT serving several parks is not permitted.
- GRANTEES are encouraged to partner with other GRANTEES on PROJECTS (PRC §80063(b)). See page 54 for information on allocation transfers.

## Match

PROJECTS not serving a "severely disadvantaged community" (median household income less than 60% of the statewide average) require a 20% match (see page 13) (PRC §80061(c)).

## No Supplanting

GRANTEES must use Per Capita grant funds to supplement existing expenditures, rather than replace them (PRC §80062(d)). For example, a GRANTEE has a budget for recreational capital expenditures of \$500,000 per year, and is receiving a \$200,000 allocation under the Per Capita program. The budget cannot be reduced to \$300,000, with the Per Capita funds making up the difference.

Similarly, if a PROJECT has been approved by the governing body, and a funding source has been identified, *Per Capita funds cannot be swapped in as a new funding source unless the prior funding source is applied to other identified recreational capital projects.* 

GRANTEES should keep all documents indicating intent to use Per Capita grant funds for PROJECTS.

## **Grant Process Overview**

The GRANT PERFORMANCE PERIOD is shown on the contract. Visit OGALS' <u>Per Capita</u> <u>webpage</u> at www.parks.ca.gov/percapita for deadlines and current information on each step in the process listed below.

- 1. **OGALS Mandatory Grant Administration Workshops** will be held statewide. All recipients are required to attend.
- 2. **Resolution:** GRANTEE passes one resolution approving the filing of *all* applications associated with the contract, and provides a copy to OGALS.
- 3. APPLICATION PACKET(s): The GRANTEE defines the PROJECT SCOPE(s) and amount of GRANT funds needed for each PROJECT. As PROJECTS are identified, the GRANTEE submits individual APPLICATION PACKET(s) to OGALS. OGALS reviews each APPLICATION PACKET and sends a letter of approval to the GRANTEE or requests additional information.
- 4. **Contract:** OGALS sends a contract to the GRANTEE once the OGALS has received and approved APPLICATION PACKET(S) equaling the total contract amount.
  - a. The contract section, beginning on page 42, includes a sample contract.
  - b. The GRANTEE must return the contract signed by the AUTHORIZED REPRESENTATIVE to OGALS.
  - c. OGALS returns a copy of the fully executed contract to the GRANTEE.
- 5. **Payments and end of GRANT PERFORMANCE PERIOD:** GRANTEE requests payments for eligible costs. The grant payments section, beginning on page 33, provides payment request instructions and forms.
  - a. The GRANTEE may request payments after each PROJECT is approved by OGALS.
  - b. The GRANTEE completes PROJECT SCOPE(s).
  - c. The Grantee sends project completion packet(s) to ogals.
  - d. OGALS processes the final payment request after each PROJECT is complete as documented by the GRANTEE in the PROJECT COMPLETION PACKET, and as verified by OGALS by conducting a site inspection.
- 6. Accounting and Audit: DPR's Audits Office may conduct an audit. The GRANTEE is required to retain all PROJECT records, including source documentation with original signatures, for five years following issuance of the final GRANT payment or PROJECT termination, whichever is later. The Accounting and Audit Section, beginning on page 48, provides directions and an Audit Checklist for DPR audit and accounting requirements.

## **Authorizing Resolution**

GRANTEE passes *one* resolution approving the filing of *all* APPLICATION PACKETS associated with the contract, and forwards a copy to OGALS.

The Authorizing Resolution on the following page may be reformatted; however, the language provided in the resolution must remain unchanged.

The Authorizing Resolution serves two purposes:

- 1. It is the means by which the GRANTEE'S Governing Body agrees to the terms of the contract; it provides confirmation that the GRANTEE has the funding to complete, operate and maintain PROJECTS associated with the contract.
- 2. Designates a position title to represent the Governing Body on all matters regarding PROJECTS associated with the contract. The incumbent in this position is referred to as the AUTHORIZED REPRESENTATIVE.

Resolution items 4, 5, 7, 8 and 9 are required by Proposition 68.

Complete the highlighted areas of the Authorizing Resolution (beginning on following page). The AUTHORIZED REPRESENTATIVE can delegate signatory authority to other individuals (by position title) either in entirety or for particular documents. This may be included in item 11 of the resolution, or the AUTHORIZED REPRESENTATIVE may submit a letter (on letterhead) or email to OGALS delegating authority.

#### **Resolution Form**

Resolution Number: (insert number here)

RESOLUTION OF THE (Title of Governing Body/City Council, Board of Supervisors)
OF (City, County, or District) APPROVING APPLICATION(S) FOR PER CAPITA
GRANT FUNDS

WHEREAS, the State Department of Parks and Recreation has been delegated the responsibility by the Legislature of the State of California for the administration of the Per Capita Grant Program, setting up necessary procedures governing application(s); and

WHEREAS, said procedures established by the State Department of Parks and Recreation require the grantee's Governing Body to certify by resolution the approval of project application(s) before submission of said applications to the State; and

WHEREAS, the grantee will enter into a contract(s) with the State of California to complete project(s);

NOW, THEREFORE, BE IT RESOLVED that the (grantee's governing body) hereby:

- 1. Approves the filing of project application(s) for Per Capita program grant project(s); and
- Certifies that said grantee has or will have available, prior to commencement of project work utilizing Per Capita funding, sufficient funds to complete the project(s); and
- 3. Certifies that the grantee has or will have sufficient funds to operate and maintain the project(s), and
- 4. Certifies that all projects proposed will be consistent with the park and recreation element of the [city/county/district's] general or recreation plan (PRC §80063(a)), and
- 5. Certifies that these funds will be used to supplement, not supplant, local revenues in existence as of June 5, 2018 (PRC §80062(d)), and
- Certifies that it will comply with the provisions of §1771.5 of the State Labor Code, and
- 7. (PRC §80001(b)(8)(A-G)) To the extent practicable, as identified in the "Presidential Memorandum--Promoting Diversity and Inclusion in Our National Parks, National Forests, and Other Public Lands and Waters," dated January 12, 2017, the [city/county/district] will consider a range of actions that include, but are not limited to, the following:
  - (A) Conducting active outreach to diverse populations, particularly minority, low-income, and disabled populations and tribal communities, to increase awareness within those communities and the public generally about specific programs and opportunities.
  - (B) Mentoring new environmental, outdoor recreation, and conservation leaders to increase diverse representation across these areas.
  - (C) Creating new partnerships with state, local, tribal, private, and nonprofit organizations to expand access for diverse populations.

- (D) Identifying and implementing improvements to existing programs to increase visitation and access by diverse populations, particularly minority, low-income, and disabled populations and tribal communities.
- (E) Expanding the use of multilingual and culturally appropriate materials in public communications and educational strategies, including through social media strategies, as appropriate, that target diverse populations.
- (F) Developing or expanding coordinated efforts to promote youth engagement and empowerment, including fostering new partnerships with diversity-serving and youth-serving organizations, urban areas, and programs.
- (G) Identifying possible staff liaisons to diverse populations.
- 8. Agrees that to the extent practicable, the project(s) will provide workforce education and training, contractor and job opportunities for disadvantaged communities (PRC §80001(b)(5)).
- 9. Certifies that the grantee shall not reduce the amount of funding otherwise available to be spent on parks or other projects eligible for funds under this division in its jurisdiction. A one-time allocation of other funding that has been expended for parks or other projects, but which is not available on an ongoing basis, shall not be considered when calculating a recipient's annual expenditures. (PRC §80062(d)).
- 10. Certifies that the grantee has reviewed, understands, and agrees to the General Provisions contained in the contract shown in the Procedural Guide; and
- 11. Delegates the authority to the (designated position, not name of person occupying position), or designee to conduct all negotiations, sign and submit all documents, including, but not limited to applications, agreements, amendments, and payment requests, which may be necessary for the completion of the grant scope(s); and
- 12. Agrees to comply with all applicable federal, state and local laws, ordinances, rules, regulations and guidelines.

Approved and adopted theday of, 20
I, the undersigned, hereby certify that the foregoing Resolution Numberwas duly adopted by the (grantee's governing body) following a roll call vote:
Ayes: Noes: Absent:

(Clerk)

## **Application Packet**

- GRANTEE may submit multiple APPLICATION PACKETS.
- Separate APPLICATION PACKETS are required for each PROJECT site and/or PROJECT type.
- Provide all APPLICATION PACKET items in the order shown in the following checklist.
- Submitted documents need not contain original signatures; but the GRANTEE must keep all original signed documents.
- GRANTEES are encouraged to submit documents digitally, as .pdf files. Do not send
  the APPLICATION PACKET as one file. E-mail each checklist item to the PROJECT
  OFFICER as a separate digital file, labeled using the digital file names indicated on
  the application checklist.
- If submitting hard copies, number all pages of the APPLICATION PACKET.

Any costs incurred prior to finalizing the contract are at the GRANTEE'S own risk.



## **Application Packet Checklist**

GRANTEES must complete the checklist below and submit it with the APPLICATION PACKET. An APPLICATION PACKET is not complete unless all items on the checklist are submitted. Each PROJECT requires its own APPLICATION PACKET.

Check if included	Check if not applicable	Application Item	Procedural Guide Page #	Check when signed by AUTHORIZED REPRESENTATIVE	Application Packet Page #
		Application Packet Checklist Digital file name: checklist.pdf	Pg. 11		Pg
		Application Digital file name: application.pdf	Pg. 12		Pg
		Development Project Scope/Cost Estimate, <i>or</i> Digital file name: devscope.pdf	Pg. 19		Pg
		Acquisition Requirements Digital file names: acqscope.pdf & acqdocs.pdf	Pg. 14		Pg
		Funding Sources Form Digital file name: fundingsources.pdf	Pg. 20		Pg
	Per Capita Match Calculator Digital file name: match.pdf		Pg. 13		Pg
		CEQA Compliance Certification  Digital file name: ceqa.pdf	Pg. 21		Pg
		Land Tenure documentation Digital file names: ownership.pdf or nonownership.pdf	Pg. 21		Pg
		Sub-Leases or Agreements Digital file name: otheragreements.pdf	Pg. 24		Pg
		Site Plan Digital file name: siteplan.pdf	Pg. 24		Pg
		GHG Emissions Reduction Worksheet (at completion) Digital file name: emissions.pdf	Pg. 24		Pg
		Photos Digital file name: photos.pdf	Pg. 24		Pg



# **Per Capita Project Application Form**

	PROJECT NAME	REQUESTED GRANT AMO	OUNT
		\$	
	PROJECT SITE NAME and PHYSICAL ADDRESS	MATCH AMOUNT (if project is	
	where PROJECT is located including zip code	a severely disadvantaged comm	unity)
	(substitute latitude and longitude where no street	\$	
	address is available)		
		LAND TENURE (☑ all that ap	ply)
		Owned in fee simple by GF	RANTEE
		Available (or will be availa	ble) under
		a ( ) year lease or easeme	
ı		( ) 3	
I	NEAREST CROSS STREET		
	Project Type (Check one) Acquisition ☐ Develop	oment□	
	COUNTY OF PROJECT LOCATION		
	GRANTEE NAME AND MAILING ADDRESS		
	SIV WITEE IV WIE / WYS IVIN WEIL TO / IS SIVE SO		
	AUTHORIZED REPRESENTATIVE AS SHOWN IN	RESOLUTION	
	Name (typed or printed) and Title En	nail address Pr	hone
	(3)		
	CDANT CONTACT For administration of smoot (if dif	format from AUTHORIZED DEDDE	OF NT A TIL (F)
	GRANT CONTACT-For administration of grant (if dif		,
	Name (typed or printed) and Title En	nail address Pr	hone
	GRANT SCOPE: I represent and warrant that this AF	PLICATION PACKET describes th	e intended
	use of the requested GRANT to complete the items lis	ted in the attached Developme	ent
	PROJECT Scope/Cost Estimate Form or acquisition de	ocumentation. I declare under p	penalty of
	perjury, under the laws of the State of California, tha		
	APPLICATION PACKET, including required attachments	, is accurate.	
	Signature of AUTHORIZED REPRESENTATIVE as shown		ate
	Oignature of Authonized Refresentative as Showin	iii Nesolulloli De	aiG
	Drint Name:		
	Print Name:		
	Title:		
ı			

## **Per Capita Match**

PROJECTS that do not serve severely disadvantaged communities (median household income less than 60% of the statewide average) must include 20% match from the GRANTEE (PRC §80061(c)).

Costs incurred to provide match must be eligible costs. Calculate match using the <u>Per Capita match calculator</u> at https://www.parksforcalifornia.org/percapita; submit the report with the APPLICATION PACKET.

Costs incurred to provide match must be eligible costs. State funds are not allowed for match. Eligible match sources are:

- Federal funds
- Local funds
- Private funds
- IN-HOUSE EMPLOYEE SERVICES
- Volunteer labor must maintain time and attendance records showing actual hours worked (see https://independentsector.org for volunteer hourly wage value)

## **Match and Eligible Costs**

The match is 20% but grantee must show 25% in additional costs if match is required. For example:

Determining the match amount:

PROJECT amount: \$125,000 20% match: (\$25,000) GRANT amount: \$100,000

Submitting costs for reimbursement

GRANT amount: \$100,000 25% in additional costs: \$25,000 PROJECT amount: \$125,000

In summary, the 20% match calculation is based on the PROJECT amount, not on the GRANT amount.

## **Acquisition Projects**

## **Acquisition Rules**

- 1. Purchase price cannot exceed the appraised value, even if the GRANTEE is willing to pay the difference.
- 2. Land cannot be acquired through eminent domain.
- 3. Associated acquisition costs, such as appraisals, escrow fees, title insurance, etc., combined must be less than 25% of the PROJECT costs.
- 4. A deed restriction must be recorded on the property after the acquisition is complete (see page 29).
- 5. Land must be open to the public for recreational purposes within three years from the date the final payment is issued by the State Controller's Office (SCO).<sup>2</sup>
- 6. GRANTEE must provide Title Insurance.
- 7. PROJECTS must be consistent with the park and recreation element of the [city/county/district's] general or recreation plan (PRC §80063(b)).
- 8. Per Capita funds must be used to supplement, not supplant, local revenues in existence as of June 5, 2018 (PRC §80062(d)).

## **Acquisition Grant Scope/Cost Estimate**

Provide the following information on a document signed by the AUTHORIZED REPRESENTATIVE:

- A brief description, for example, "Acquisition of approximately (enter total acreage
  to be acquired) for the development of park by (enter date no later than three
  years from the date final payment is issued by the SCO)."
- Estimated total costs for land and relocation
- Estimated total costs other than the purchase price and relocation costs, such as appraisals, escrow fees, title insurance fees, deed restriction recordation costs

#### **Acquisition Documentation**

For each parcel to be acquired, submit these documents:

- 1. An appraisal conducted within the last twelve months
- 2. A separate letter from an independent third party, AG rated appraiser certified by the California Office of Real Estate Appraisers stating the appraisal was reviewed, and was completed using acceptable methods
- 3. County Assessor's parcel map, showing parcel number and parcel to be acquired
- 4. Estimated value of each parcel to be acquired with a description of how that value was determined (such as the listed price on MLS, in-house estimation, website evaluation, assessed value)
- 5. Acreage of each parcel to be acquired
- 6. A description of any encumbrances that will remain on the property, such as grazing, timber, mineral rights or easements

<sup>&</sup>lt;sup>2</sup> Grantees will see this date on their project complete letter – "A final payment was issued by the SCO on xx/xx/20xx"

7. A brief description of the intended recreational use of the land with the estimated date by which the site will be open to the public for recreational purposes

For easement acquisitions, in addition to the requirements above, provide:

8. A copy of the proposed easement guaranteeing the authority to use the property for the purposes specified in the application.

For relocation costs, in addition to the requirements above, provide:

9. A letter signed by the AUTHORIZED REPRESENTATIVE, listing the relocation costs for each displaced tenant, certifying that the relocation amount does not exceed the maximum allowed pursuant to Government Code §7260-7277.

## **Eligible Acquisition Costs**

- IN-HOUSE EMPLOYEE SERVICES see accounting rules (page 48)
- GRANT/PROJECT administration and accounting
- Public meetings/focus groups/design workshop
- Appraisals, escrow fees, surveying, other costs associated with acquisition
- Cost of land

## Ineligible Acquisition Costs - Cannot be charged to the grant

- Costs to fulfill any mitigation requirements imposed by law (PRC §80020)
- Acquisitions where purchase price is greater than appraised value
- Costs for land acquired through eminent domain or condemnation
- Costs incurred outside the GRANT performance period
- Development costs

## **Development Projects**

## **Development Project Rules**

- 1. PROJECTS must be consistent with the park and recreation element of the GRANTEE'S general or recreation plan (PRC §80063(b)).
- 2. Per Capita funds must be used to supplement, not supplant, local revenues in existence as of June 5, 2018 (PRC §80062(d)).
- 3. Contracted work must comply with the provisions of §1771.5 of the State Labor Code.
- 4. GRANTEE must have adequate liability insurance, performance bond, or other security necessary to protect the State and GRANTEE'S interest against poor workmanship, fraud, or other potential loss associated with the completion of the PROJECT.
- 5. PRE-CONSTRUCTION COSTS may not exceed 25% of the PROJECT amount.
- 6. The primary purpose of any building constructed or improved must be public recreation. For example, renovating a gymnasium that includes office space for staff is eligible; renovating GRANTEE'S office building is not.
- 7. PROJECTS must be accessible, including an accessible path of travel to the PROJECT.

## **Eligible Development Costs**

All costs must be incurred within the GRANT PERFORMANCE PERIOD. Costs listed below are examples of eligible costs, and not inclusive. Contact OGALS if you have any questions regarding a PROJECT cost.

# Eligible Pre-construction Costs – up to 25% of PROJECT costs; incurred prior to groundbreaking as determined by the GRANTEE

- Public meetings, focus groups, design workshops
- Plans, specifications, construction documents, and cost estimates
- Permits
- CEQA
- Bid preparation and packages
- IN-HOUSE EMPLOYEE SERVICES prior to groundbreaking
- GRANT/PROJECT administration and accounting prior to groundbreaking

# Eligible Construction Costs – up to 100% of the PROJECT costs; incurred after groundbreaking.

- Construction necessary labor and construction activities to complete the PROJECT, including site preparation (demolition, clearing and grubbing, excavation, grading), onsite implementation and construction supervision
- Equipment Equipment use charges (rental and in-house) must be made in accordance with GRANTEE'S normal accounting practices.
- Bond and other signs
- Premiums on hazard and liability insurance to cover personnel or property
- Site preparation
- Purchase and installation of equipment: security cameras, lighting, signs, display boards, sound systems, video equipment, etc.
- Construction management: including site inspections and PROJECT administration

- Miscellaneous: other costs incurred during the construction phase, such as transporting materials, equipment, or personnel, and communications
- IN-HOUSE EMPLOYEE SERVICES after groundbreaking
- GRANT/PROJECT administration and accounting after groundbreaking

## Ineligible Development Costs – Cannot be charged to the grant

- PRE-CONSTRUCTION COSTS that exceed 25% of the PROJECT costs
- Development to fulfill any mitigation requirements imposed by law (PRC §80020)
- All non-capital costs, including interpretive and recreational programming, software and software development
- Construction or improvements to facilities that are not primarily designated for recreational purposes, such as park district offices
- Construction outside the boundaries of the recreation facility
- Furniture or equipment not site specific and not necessary for the core function of a new facility (non-capital outlay)
- Costs incurred before or after the GRANT PERFORMANCE PERIOD
- Indirect costs overhead business expenses of the GRANTEE'S fixed or ordinary operating costs (rent, mortgage payments, property taxes, utilities, etc.)
- Food and beverages
- Out-of-state travel
- Fundraising and grant writing
- Repairs activities performed to a section of a structure that are intended to allow the continued use.
- Maintenance activities intended to be performed on a regular basis to maintain the expected useful life of a structure.

# Distinguishing capital outlay (eligible) from maintenance and repair (not eligible):

- Capital outlay building something new, or for existing structures, activities intended to boost the condition beyond its original or current state.
- Repairs activities performed to a section of a structure that are intended to allow the continued use.
- Maintenance activities intended to be performed on a regular basis to maintain the expected useful life of a structure.

#### Examples:

Roof – replacing broken shingles is maintenance; fixing a hole is repair; replacing the roof is capital outlay.

Playground – adding additional fall material is maintenance; fixing the chains on a swing set is repair; replacing the play structures is capital outlay.

Windows – repairing the glazing is maintenance; replacing broken panes is repair; replacing the windows is capital outlay.

## Accounting Rules for In-House Employee Services

GRANTEES must follow these accounting practices for services performed by its employees to be eligible for reimbursement:

- Maintain time and attendance records as charges are incurred, identifying the employee through a name or other tracking system, and that employee's actual time spent on the PROJECT.
- Time estimates, including percentages, for work performed on the PROJECT are not acceptable.
- Time sheets that do not identify the specific employee's time spent on the PROJECT are not acceptable.
- Costs of the salaries and wages must be calculated according to the GRANTEE'S
  wage and salary scales, and may include benefit costs such as vacation, health
  insurance, pension contributions and workers' compensation.
- Overtime costs may be allowed under the GRANTEE'S established policy, provided that the regular work time was devoted to the same PROJECT.
- May not include overhead or cost allocation. These are the costs generally associated with supporting an employee, such as rent, personnel support, IT, utilities, etc.
- If planning to claim IN-HOUSE EMPLOYEE SERVICES costs, provide a sample timesheet for OGALS review to confirm these accounting practices are being followed.

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# State of California – The Natural Resources Agency DEPARTMENT OF PARKS AND RECREATION

# **Development Project Scope/Cost Estimate Form**

GRANTEE:			PROJECT Name			
Dovelon	Development project acons (Describe the project in 20 words or less).					
Develop	<b>Development project scope</b> (Describe the project in 30 words or less):					
Project S	Scope Items	- □ all that a	apply:			
Install new	Renovate existing	Replace existing	Recreation Element			
			Pool, aquatic center, splash pad			
			Trails or walking paths			
			Landscaping or irrigation			
			Group picnic, outdoor classrooms, other gather	ing spaces		
			Play equipment, outdoor fitness equipment			
			Sports fields, sports courts, court lighting	Sports fields, sports courts, court lighting		
			Community center, gym, other indoor facilities			
			Restroom, concession stand			
			Other:			
			Other:			
			Minor elements which support one or more of the recreation elements checked above: benches, lighting, parking, signage, etc.			
PRE-			curred prior to ground-breaking, such as design, kages, CEQA); up to 25% of total PROJECT cost.	\$		
			Construction	\$		
			Total PROJECT cost	\$		
	Subtract	GRANTEE ma	atch if not in severely disadvantaged community (20% of total PROJECT cost, see page 13)	Less match -\$		
			Total GRANT amount requested	\$		
The GRANTEE understands that all elements listed on this form must be complete and open to the public before the final grant payment will be made.						
AUTHO	AUTHORIZED REPRESENTATIVE Signature Date					
Print Na	Print Name and Title					

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# State of California – The Natural Resources Agency DEPARTMENT OF PARKS AND RECREATION

# **Funding Sources Form**

GRANTEE:	PROJECT Name		
PROJECTS funded by the program are not c and the PROJECT is open to the public. PRO • Be entirely funded by the GRANT, <i>or</i> • Require funds in excess of the GRANT.		SCOPE is complete,	
If the PROJECT requires funds in excess of the either the SCOPE of the larger project, or a			
For example, if the PROJECT is \$100,000 to SCOPE can be the \$500,000 park, or a \$100 playground, that can be complete and ope	0,000 element of the park		
<ul> <li>□ The PROJECT will be entirely funded by the GRANT, or</li> <li>□ The PROJECT requires funds in excess of the GRANT:</li> <li>□ The SCOPE is the same as the scope of the larger project, or</li> <li>□ The SCOPE is a subset of a larger project, the scope of that larger project is:</li> </ul>			
Larger project cost: \$	nticipated completion dat	e:	
List all funds that will be used. Submit revises ources be added or modified.	sed Funding Sources forr	n should funding	
Funding Source	Date Committed	Amount	
Per Capita/State of California	July 1, 2018	\$	
		\$	
		\$	
I represent and warrant that I have full authon behalf of the GRANTEE. I declare under pof California, that this status report, and an mentioned GRANT is true and correct to the	penalty of perjury, under t ny accompanying docume	he laws of the State	
AUTHORIZED REPRESENTATIVE Signat	ure	Date	
Print Name and Title			



# **CEQA Compliance Certification**

GRANTEE:
Project Name:
Project Address:
Is CEQA complete? □Yes □No Is completing CEQA a PROJECT SCOPE item? □Yes □No
What document was filed, or is expected to be filed for this project's CEQA analysis:
Date complete/expected to be completed  ☐ Notice of Exemption (attach recorded copy if filed)  ☐ Notice of Determination (attach recorded copy if filed)  ☐ Other:
If CEQA is complete, and a Notice of Exemption or Notice of Determination was not filed, attach a letter from the Lead Agency explaining why, certifying the project has complied with CEQA and noting the date that the project was approved by the Lead Agency.
Lead Agency Contact Information
Agency Name:
Contact Person:
Mailing Address:
Phone: ( ) Email:
Certification:
I hereby certify that the above referenced Lead Agency has complied or will comply with the California Environmental Quality Act (CEQA) and that the project is described in adequate and sufficient detail to allow the project's construction or acquisition.
I further certify that the CEQA analysis for this project encompasses all aspects of the work to be completed with grant funds.
AUTHORIZED REPRESENTATIVE Signature Date
Print Name and Title
FOR OGALS USE ONLY  CEQA Document   Date Received   PO Initials  NOF NOD

#### **Land Tenure**

The purpose of the land tenure requirement is to verify that the GRANTEE has sufficient legal rights to the property to fulfill the terms of the contract.

- PROJECT amounts up to \$100,000 require at least 20 years of land tenure at the site to be acquired or developed.
- PROJECT amounts greater than \$100,000 require at least 30 years of land tenure at the site to be acquired or developed.
- The 20- or 30-year land tenure requirement begins on July 1, 2018.
- The GRANTEE remains responsible for fulfillment of the terms of the contract, even
  if the GRANTEE'S land tenure agreement changes within the contract
  PERFORMANCE PERIOD.

## **Land Tenure Ownership Documentation**

If the GRANTEE owns the PROJECT site in fee simple, provide one of the following:

- Deed or deed recordation number, or
- Title report, or
- Tract map or assessor's map with owner's name

## **Land Tenure Non-Ownership Documentation**

If the GRANTEE does not own the PROJECT site in fee simple, provide:

- Land Tenure Agreement Checklist (page 22)
- Signed land tenure agreement

If the grantee does not own the project site in fee simple, and the existing land tenure agreement does not meet the requirements in the Land Tenure Checklist, provide

- Land Tenure Agreement Checklist (page 22)
- Signed land tenure agreement
- An explanation as to how the existing land tenure agreement adequately protects the State's interest. OGALS will review and determine if the land tenure is sufficient.

#### **Land Tenure Agreement Checklist**

If the GRANTEE does not own the land in fee simple, complete this checklist. Attach a copy of the signed land tenure agreement. Identify the page numbers where the required items can be found in the land tenure agreement and highlight the provisions in the agreement where the information is located. *All items are required.* 

## **Land Tenure Checklist**

GRANTEE:			PROJECT Name	
$\overline{\mathbf{V}}$	Page	Required Item		
		Type of agreement: For example: lease, joint powers agreement, easement, memorandum of understanding, etc.		
		Parties to the agreement (land and date signed: Party ————————————————————————————————————	Date Signed  ———————————————————————————————————	
		Term of the agreement:y	ears	
			O require at least 20 years of land tenure. On require at least 30 years of land tenure. Degins on July 1, 2018.	
			an option, which can be non-binding, for the nt beyond the original 20 or 30 year term.	
		<ul> <li>Termination clause: Any of the</li> <li>No termination clause – the ag</li> <li>Termination clause specifies the</li> </ul>	e following is acceptable: greement is non-revocable. he agreement is revocable only for cause. It allow the land owner to revoke the	
		the agreement:  • Authorizes the GRANTEE to programment of GRANTEE may delegate construction.  • Establishes when the general GRANTEE permission to operate recreational programs). The Glother entities but is bound through other entities but is bound through of the duration.  • Identifies which entity will main delegate maintenance to other	ceed with the construction PROJECT. The action to other entities.  public can use the PROJECT and gives the PROJECT site (such as scheduling RANTEE may delegate operational roles to bugh the contract provisions to ensure full	

#### Site Plan

Provide a drawing showing where all the items listed in the project scope/Cost Estimate Form will be located. To ensure that any building use meets the requirements of the program, include the function and approximate square footage of each room within buildings that are part of the scope, and the approximate total square footage of the buildings. It does not need to be a detailed engineering rendering.

## **Sub-leases or Agreements**

Provide a list of all *other* leases, agreements, memoranda of understanding, etc., affecting PROJECT property or its operation and maintenance.

#### **Photos**

Provide photos that will establish a "before" comparison for the site to be improved.

## Greenhouse Gas Emissions Reduction and Carbon Sequestration.<sup>3</sup>

If your PROJECT involves tree planting, follow the instructions below and submit with the PROJECT COMPLETION PACKET.

Before getting started, gather the following PROJECT information:

- Tree species
- Size of trees at planting
- Information on the distance and direction to the nearest building (ifapplicable)
- Information on the age and climate control of any nearby buildings (ifapplicable)
- Information about the tree's growing conditions

#### Getting started:

- 1. Navigate to the <u>i-Tree site</u> at https://planting.itreetools.org and select the tab for a new project.
- 2. On the Location map, select your state, county and city, and then click Next.
- 3. Configure the project parameters<sup>4</sup>:
  - "Electricity emissions factor" enter 285 and select kilograms
  - "Fuel emissions factor" enter 53.1 and select kilograms
  - "Years for the project" is the age of the trees 40 years from when they are planted. So, if the trees will be four years old at the time of planting, enter 44.
  - "Tree mortality" enter 0
- 4. Tree Planting Configurations
  - Enter the tree groups for the project; create a new group for each new species or for each new location.
  - Species select the species; add multiple species by creating new groups.

-

<sup>&</sup>lt;sup>3</sup> PRC §80001(b)(7)

<sup>&</sup>lt;sup>4</sup> Project parameters are from the California Air Resources Board's "Quantification Methodology for the California Natural Resources Agency Urban Greening Grant Program."

- DBH tree diameter four feet above the ground at time of planting.
- Distance to nearest tree select from drop down menu
- Tree is (north, south, east or west) of Building select the direction the tree is located to the nearest climate-controlled building.
- Climate controls select the type of climate controls the nearby building has installed. If a tree is more than 60 feet away from a climate-controlled building, select "none."
- Condition select the overall health of the trees at the time of planting.
- Exposure to sunlight select the amount of sun that reaches the tree, based on its surroundings.
- Number of trees enter the number of trees that are the same species and the same characteristics (e.g. distance to building, location in respect to building, exposure to sunlight, etc.) If some of these characteristics change, multiple lines of the same species should be input into the tool.

Once all the groups are entered, click next

5. Print the report in landscape mode, and submit it to OGALS.

# **Special Requirements**

- Status Reports (page 26)
- Bond Act Sign (page 28)
- Deed Restriction (page 29)

## **Status Report**

OGALS will send a Status Report every six months until receipt of a PROJECT COMPLETION PACKET. Payment requests will not be processed if Status Reports are overdue. See sample on following page.

## Sample Status Report – Due xx/xx/20xx (30 days from mail date)

Grantee:

Project Number: Project Name: Project Scope:

Project Phase: 

Pre-Construction/Pre-Acquisition 

Acquisition and/or Construction

When will you submit your next payment request?

For how much?

Estimated date of project completion:

Potential obstacles affecting completion:

Is the project: On Time? yes/no Within Budget? yes/no Within Scope? yes/no If no, explain:

Describe grant-funded work completed since last status report submitted on (DATE):

Are CCC or certified local corps working on this project? Yes/No

Provide photos showing work completed since (DATE)

Describe grant-funded work expected to be completed by (MailDate + 6 mos)

If there have been any changes to the proposed funding for this project, attach a revised Funding Sources Form.

Provide information on payments to be submitted over the next three years:

Between	Between	Between	Between	Between	Between	After
7/1/20	7/1/21	1/1/22	7/1/22	1/1/23	7/1/23	1/1/24
and	and	and	and	and	and	
6/30/21	12/31/21	6/30/22	12/30/22	6/30/23	12/30/23	
\$	\$	\$	\$	\$	\$	\$

The purpose of this data is to help the State estimate borrowing needs; you will not be held to these estimates.

I represent and warrant that I have full authority to execute this Grant Progress Status Report on behalf of the Grantee. I declare under penalty of perjury, under the laws of the State of California, that this status report, and any accompanying documents, for the above-mentioned Grant is true and correct to the best of my knowledge.

#### **AUTHORIZED REPRESENTATIVE Signature**

Date

Print Name and Title

(\*Certification to above information requires a signature by a person authorized in the resolution)

## **Bond Act Sign**

A sign acknowledging the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 as the funding source for the project must be installed during construction and at completion (PRC §80001(b)(3)). If appropriate, the same sign can be used during construction and completion.

## Sign requirements

The sign must be available during construction, at the final inspection of the PROJECT, and remain in place for a minimum of four (4) years from date of PROJECT completion. There is no minimum or maximum size other than the minimum size for the logo, as long as the sign contains the required wording.

## Sign Language

All signs must contain the following language:

GAVIN NEWSOM, GOVERNOR

Wade Crowfoot, Secretary for Natural Resources

Armando Quintero, Director, California Department of Parks and Recreation

Use the names of the current officials. The name of the director of the local agency or other governing body may be added. The sign may also include names (and/or logos) of other partners, organizations, individuals and elected representatives.

#### Logo

All signs must display the Parks and Water Bond Act logo (shown on the cover of this guide). Display the logo to maximize visibility and durability. <u>Download the logo</u> at http://resources.ca.gov/grants/logo-art/. The logo must measure a minimum of 24" tall. Exceptions may be approved, when appropriate, at OGALS' discretion.

## **Sign Construction**

All materials used shall be durable and resistant to the elements and graffiti.

#### Sign Cost

The cost of the sign(s) is an eligible PROJECT cost. Permanent signage is encouraged.

#### **Appropriateness of Signs**

For projects where the required sign may be out of place or affected by local sign ordinances, OGALS may authorize a sign that is more appropriate to the project.

#### State Approval

GRANTEE shall submit the proposed number, locations, size, and language of signs for preliminary review. Final payments will not be processed until post completion signage has been approved and installed.

#### **Deed Restriction**

The Deed Restriction restricts the title to the property, safeguarding the property for purposes consistent with the GRANT for the duration of the CONTRACT PERFORMANCE PERIOD.

If the GRANTEE owns the PROJECT land, a Deed Restriction must be recorded on the title to the property before OGALS will approve any grant payments. If the GRANTEE is acquiring land, a deed restriction is required before the PROJECT is complete.

A Deed Restriction *is not required* if the GRANTEE does not own the PROJECT land, such as where the GRANTEE is improving property it has access to under a lease agreement.

#### **Deed Restriction Instructions**

- 1. The GRANTEE must own the PROJECT land and have an encumbered contract for the GRANT amount.
- 2. The PROJECT OFFICER will send the Deed Restriction to the GRANTEE. *Do not alterthe Deed Restriction*. The GRANTEE takes the following steps:
  - 1. Add ownership information to **Paragraph I of the Deed Restriction**: [formal name of GRANTEE] *Insert ownership information as it appears on the deed.*
  - 2. Create 3 copies (GRANTEE copy, OGALS copy and recorder's copy) of the Deed restriction and the required attachments:
    - (1) Exhibit A: Label this attachment "Exhibit A (Legal Description of Property)." Include a formal legal description of every parcel of property to which grant funds will be used for the development and/or acquisition thereof. This information can be obtained from the grant deed or title policy. (The assessor's parcel number or a street address is NOT a valid legal description.) and,
    - (2) Exhibit B: Label this attachment "Exhibit B (Grant Contract)" and include a complete copy of the Grant Contract and provisions signed by the AUTHORIZED REPRESENTATIVE and the State of California.
  - Notarize it: Take the following documents to a notary. OGALS recommends submitting these documents to the OGALS PROJECT OFFICER for review prior to notarizing.
    - Unsigned and undated Deed Restriction
    - Exhibit A (Legal Description of Property)
    - Exhibit B (Grant Contract)

The AUTHORIZED REPRESENTATIVE dates and signs the Deed Restriction signature page in the presence of a notary. The notary will complete a Notary Acknowledgement (Civil Code §1189).

- 4. Record it: Take the notarized documents bulleted above to the County Recorder's Office of the county in which the property is located. Ask the County Clerk to record the Deed Restriction with Notary Acknowledgement, Exhibit A, and Exhibit B, on the title to the property.
- 5. *Send it:* Send a copy of the notarized and recorded documents bulleted above to the OGALS PROJECT OFFICER.

RECORDING REQUESTED BY:
California Department of Parks and Recreation
Office of Grants and Local Services

WHEN RECORDED MAIL TO:
Office of Grants and Local Services
PO Box 942896
Sacramento, CA 94296-0001
Attn: [Project Officer]

#### **DEED RESTRICTION**

- I. WHEREAS, insert ownership information as it appears on the deed (hereinafter referred to as "Owner(s)" is/are recorded owner(s) of the real property described in Exhibit A, attached and incorporated herein by reference (hereinafter referred to as the "Property"); and
- II. WHEREAS, the California Department of Parks and Recreation (hereinafter referred to as "DPR") is a public agency created and existing under the authority of section 5001 of the California Public Resources Code (hereinafter referred to as the "PRC"). And
- III. WHEREAS, Owner(s) (or Grantee) received an allocation of grant funds pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 Per Capita Program for improvements on the Property; and
- IV. WHEREAS, on (enter date), DPR's Office of Grants and Local Services conditionally approved Grant [project number], (hereinafter referred to as "Grant") for improvements on the Property, subject to, among other conditions, recordation of this Deed Restriction on the Property; and
- V. WHEREAS, but for the imposition of the Deed Restriction condition of the Grant, the Grant would not be consistent with the public purposes of the Per Capita Program and the funds that are the subject of the Grant could therefore not have been allocated; and

VI. WHEREAS, Owner(s) has/have elected to comply with the Deed Restriction requirement of the Grant, so as to enable Owner(s), to receive the Grant funds and perform the work described in the Grant;

NOW, THEREFORE, in consideration of the issuance of the Grant funds by DPR, the undersigned Owner(s) for himself/herself/themselves and for his/her/their heirs, assigns, and successors-in-interest, hereby irrevocably covenant(s) with DPR that the condition of the grant (set forth at paragraph(s) 1 through 5 and in Exhibit B hereto) shall at all times on and after the date on which this Deed Restriction is recorded constitute for all purposes covenants, conditions and restrictions on the use and enjoyment of the Property that are hereby attached to the deed to the Property as fully effective components thereof.

- 1. <u>DURATION.</u> This Deed Restriction shall remain in full force and effect and shall bind Owner(s) and all his/her/their assigns or successors-in-interest for the period running from July 1, 20xx to June 30, 20xx (20 years) or June 30, 20xx (30 years).
- 2. TAXES AND ASSESMENTS. It is intended that this Deed Restriction is irrevocable and shall constitute an enforceable restriction within the meaning of a) Article XIII, section 8, of the California Constitution; and b) section 402.1 of the California Revenue and Taxation Code or successor statue. Furthermore, this Deed Restriction shall be deemed to constitute a servitude upon and burden to the Property within the meaning of section 3712(d) of the California Revenue and Taxation Code, or successor statue, which survives a sale of tax-deeded property.
- 3. <u>RIGHT OF ENTRY.</u> DPR or its agent or employees may enter onto the Property at times reasonably acceptable to Owner(s) to ascertain whether the use restrictions set forth above are being observed.
- 4. <u>REMEDIES.</u> Any act, conveyance, contract, or authorization by Owner(s) whether written or oral which uses or would cause to be used or would permit use of the Property contrary to the terms of this Deed Restriction will be deemed a violation and a breach hereof. DPR may pursue any and all available legal and/or equitable remedies to enforce the terms and conditions of this Deed Restriction up to and including a lien sale of the property. In the event of a breach, any forbearance on the part of DPR to

enforce the terms and provisions hereof shall not be deemed a waiver of enforcement rights regarding such breach, or any subsequent breach.

<u>SEVERABILITY.</u> If any provision of these restrictions is held to be invalid, or for any reason becomes unenforceable, no other provision shall be affected or impaired.

AUTHORIZED REPRESENTATIVE Signature	Date
Print Name and Title	
Business Name (if property is owned by a business):	
Additional signature, if required	Date
Print Name and Title	

## **Grant Payments**

Payments may be requested after a PROJECT is approved and the contract is encumbered. Payment requests are processed through the State Controller's Office and mailed to the GRANTEE approximately six to eight weeks from the date OGALS approves the request.

## **Payment Rules**

- 1. A Grant Expenditure Form (see page 35) is required with all reimbursement and final payment requests.
- 2. Payment requests prior to groundbreaking are limited to 25% of the PROJECT amount.
- 3. Payments before the final payment may not exceed 80% of the PROJECT amount. 20% of the PROJECT amount is retained for the final reimbursement.
- 4. A deed restriction is required prior to processing any reimbursement payments except an acquisition ADVANCE.
- 5. Group costs together to avoid frequent payment requests. Reimbursement requests greater than \$10,000 are encouraged.
- 6. For PROJECTS where match is required, GRANTEES must show eligible costs equal to 125% of the requested reimbursement amount (see page 13).
- 7. Complete CEQA prior to requesting any construction reimbursement.
- 8. Provide a sample timesheet to the PROJECT OFFICER *prior to* incurring any IN-HOUSE EMPLOYEE SERVICES costs, and if claiming IN-HOUSE EMPLOYEE SERVICES costs, provide a sample timesheet with each reimbursement payment request.
- 9. Provide a summary list of bidders, recommendation by reviewer of bidders, awarding by governing body and contract agreement to the PROJECT OFFICER *prior to requesting reimbursement* for costs on contracts requiring a bid process.
- 10. Provide construction progress photos, including a photo with the construction sign visible on the PROJECT site (see page 28), with all construction payment requests.
- 11. OGALS may withhold payment if the GRANTEE has outstanding issues, such as:
  - breach of any other contract with OGALS
  - an unresolved audit exception
  - an outstanding conversion
  - park sites closed or inadequately maintained
  - overdue Project Status Reports
  - other unmet grant requirements

## **Payment Request Form Instructions**

- All payment request types (reimbursement, final, ADVANCE) require this form.
- Payment requests may be submitted by e-mail to the PROJECT OFFICER.
- Round all amounts to the nearest whole dollar.
- A Grant Expenditure Form (see page 35) is required with all reimbursement and final payment requests.
- Complete the Payment Request Form as follows:
  - 1. PROJECT Number Number assigned by OGALS when this PROJECT was approved.
  - 2. Contract Number As shown in Certification of Funding section of the contract
  - 3. APPLICANT GRANTEE name as shown on the contract
  - 4. PROJECT Title Name of the PROJECT as shown in the Application
  - 5. Type of Payment check appropriate box on form
  - 6. Payment Information always round to the nearest dollar.
  - 7. Send Warrant To AGENCY name, address and contact person
  - 8. Signature of AUTHORIZED REPRESENTATIVE according to the Resolution

### **Payment Request Form**

State of California - Natural Resources Agency DEPARTMENT OF PARKS AND RECREATION

### PAYMENT REQUEST State Grant Programs

See Instructions on Page 2. 1. PROJECT NUMBER 2. CONTRACT NUMBER 3. APPLICANT 4. PROJECT NAME 5. TYPE OF PAYMENT □ Reimbursement ☐ Final ☐ Advance 6. PAYMENT INFORMATION (Round all figures to the nearest dollar) a. Grant Project Amount b. Funds Received To Date c. Available (a. minus b.) d. Amount Of This Request e. Remaining Funds After This Payment (c. minus d.) 7. SEND WARRANT TO: AGENCY NAME STREET ADDRESS CITY/STATE/ZIP CODE 8. CERTIFICATION AND SIGNATURE OF PERSON AUTHORIZED IN RESOLUTION I represent and warrant that I have full authority to execute this payment request on behalf of the Grantee. I declare under penalty of perjury, under the laws of the State of California, that this report, and any accompanying documents, for the above-mentioned Grant is true and correct to the best of my knowledge. SIGNATURE OF PERSON AUTHORIZED IN RESOLUTION FOR CALIFORNIA DEPARTMENT OF PARKS AND RECREATION USE ONLY PAYMENT APPROVAL SIGNATURE

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## **Grant Expenditure Form**

All payment requests require a summary of costs incurred. An electronic version of the <u>grant expenditure form</u> is available at www.parks.ca.gov/grants. GRANTEES may use their own spreadsheet if it contains the required information shown below. Keep copies of invoices or warrants with the PROJECT records, available to OGALS on request. Only provide the following information to OGALS:

#### **PROJECT Number:**

Warrant/	Deta(2)	Posiniant(2)	Durposo(4)	Pre-Construction	Construction
Check #(1)	Date(2)	Recipient(3)	Purpose(4)	Amount(5)	Amount(6)

PRE-CONSTRUCTION Subtotal (5)	\$
Construction Subtotal (6)	\$
Grand Total (5) + (6)	\$

#### List only ELIGIBLE COSTS charged to the GRANT.

**Column (1)** Electronic payment numbers/electronic funds transfer numbers in the "Warrant/Check Number" column are acceptable. Include an "EP" next to the electronic payment numbers/electronic funds transfer numbers.

If IN-HOUSE EMPLOYEE SERVICES or GRANTEE'S own equipment was used, a work order or other tracking number can be used instead of a check/warrant number.

**Column (2)** Date payment was made to recipient. If IN-HOUSE EMPLOYEE SERVICES were used, provide the date range with a summary of actual hours worked, and a sample timesheet.

**Column (3)** Name of Contractor, IN-HOUSE EMPLOYEE SERVICES, or other entity providing services and/or materials.

**Column (4)** SCOPE item related to the expenditure and a brief description, such as "playground design," "community center permits," "walkway materials," "sports field construction."

Column (5) PRE-CONSTRUCTION costs eligible for up to 25% of the GRANT.

Column (6) DEVELOPMENT costs eligible for up to 100% of GRANT.

## **Project Completion Packet**

PROJECT COMPLETION PACKETS must be submitted by March 31<sup>st</sup> of the year the contract expires.

GRANTEES are encouraged to submit documents digitally, as .pdf files. E-mail the documents to the PROJECT OFFICER as separate digital files, labeled as the document item. GRANTEES should follow up with PROJECT OFFICER to confirm documents were received.

The final payment (not less than 20% of the PROJECT amount) will be processed after PROJECT COMPLETION and the following occurs:

- 1. Approval of the PROJECT COMPLETION PACKET (page 37).
- 2. Site inspection by the PROJECT OFFICER to verify PROJECT COMPLETION.

To request the final payment and complete the PROJECT, the GRANTEE must submit the following documents:

- 1. Payment Request Form (page 35)
- 2. Grant Expenditure Form (page 35)
- 3. Final Funding Sources Form (page 20)
- 4. GHG Emissions Reduction Worksheet (page 24)
- 5. PROJECT COMPLETION Certification Form (page 38)
- 6. Photo of the bond act sign and location (page 28)
- 7. Recorded Deed Restriction, if not already provided (page 29)
- 8. Completed CEQA, if not already provided (page 21)
- 9. Notice of Completion (optional)<sup>5</sup>
- 10. Audit checklist with items checked that GRANTEE will retain for five years following receipt of final payment (page 50)

For acquisition PROJECTS, the GRANTEE must submit these additional documents:

- 1. A copy of the recorded deed to the property
- 2. A map sufficient to verify the description of the property including parcel numbers and acreage
- 3. Copy of title insurance policy
- 4. Copy of title report

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<sup>&</sup>lt;sup>5</sup> OGALS recommends that the GRANTEE file a Notice of Completion with the County Recorder pursuant to State of California Civil Code §3093. Filing the Notice of Completion is not a PROJECT COMPLETION requirement.



**Project Completion Certification Form** 

**Grantee:** 

Print Name and Title

# State of California – The Natural Resources Agency DEPARTMENT OF PARKS AND RECREATION

**Project Number:** 

Grantee contact for a	audit purposes		
Name:			
Address:			
Phone: ( )	Email:		
Project completion –	· list the grant scope i	tems:	
Provide revised Fund	ding Sources Form		
Interest earned on ac	dvanced funds:	\$	
Interest spent on elig	gible costs: \$		
Was a Notice of Com Yes / No	pletion filed with the	County Recorder or other appropriate entity	y?
	•	ended on the above-named Project and that the payment for all work done.	e
declares, deposes, or material matter which	certifies under penalty he or she knows to be	understand that every person who testifies, of perjury and willfully states as true any false, is guilty of perjury, which is a felony r two, three, or four years.	
with the intent to defra officer, or to any count if genuine, any false of felony-misdemeanor p more than one year, b	ud, presents for allowa ty, city, or District board r fraudulent claim, bill, a bunishable either by imp y a fine not exceeding o	de §72 and understand that every person who nce or for payment to any state board or or officer, authorized to allow or pay the same account, voucher, or writing, is guilty of a prisonment in county jail for a period of not one thousand dollars, or both, or by ceeding ten thousand dollars, or both.	
Certification on behalf	of the Grantee. I decla	ity to execute this Project Completion re under penalty of perjury that the foregoing ve-mentioned Grant is true and correct.	
AUTHORIZED REPRESEI	NTATIVE Signature		Date

## **Advance Payments**

- OGALS reserves the right to disapprove ADVANCE payment requests.
- Past performance, GRANTEE capacity, and the GRANTEE'S financial resources will all be considered before issuing an ADVANCE.
- GRANTEES that are unable to finance a considerable portion of their PROJECTS are encouraged to seek an allocation transfer (page 54).
- ADVANCE payments may be requested for costs the GRANTEE will incur within the next six months.
- ADVANCE funds must be placed in an interest-bearing account. Any interest earned on those funds must be spent within six months of receipt.
- The sum of DEVELOPMENT ADVANCES cannot exceed 50% of the PROJECT amount.

#### **Pre-Construction Advance**

Payment Type	Maximum Request	When to Request	Documents to Send to PROJECT OFFICER
Costs to be incurred in next six months	Preconstruction estimate shown on Development Project SCOPE/Cost Estimate Form	After the contract has been encumbered	<ul> <li>Payment Request Form</li> <li>ADVANCE justification (see below)</li> <li>Sample timesheet if funds will be spent on IN-HOUSE EMPLOYEE SERVICES</li> </ul>

#### Construction Advance

Payment	Maximum	When to	Documents to Send to PROJECT OFFICER
Type	Request	Request	
Costs to be incurred in next six months	No more than 50% of the grant amount.	After the contract has been encumbered, and construction will commence during the next six months	<ul> <li>Payment Request Form</li> <li>ADVANCE justification (see below)</li> <li>Bid documents (see page 33, number 9)</li> <li>Copy of signed contract and a notice to proceed or IN-HOUSE EMPLOYEE SERVICES schedule</li> <li>Filed NOD or NOE (page Error! Bookmark not defined.)</li> <li>Sample timesheet if funds will be spent on IN-HOUSE EMPLOYEE SERVICES</li> </ul>

#### **Advance Justification**

Provide the following information:

- Explanation as to why an ADVANCE is needed instead of a reimbursement. Describe any hardships the GRANTEE will experience if a reimbursement were issued instead of an ADVANCE.
- A payment schedule, with a month-by-month estimate, for up to six months, showing the
  anticipated amount needed, and to whom the funds will be paid (IN-HOUSE EMPLOYEE
  SERVICES or name of contractor). The six-month period should begin six to eight weeks after
  payment request is submitted.

 A funding plan, indicating how the GRANTEE intends to provide cash flow to the percentage of the PROJECT exceeding the 50% ADVANCE limit.

- A statement indicating the GRANTEE will put the advanced funds into a separate, interest bearing account, and spend any interest earned on the PROJECT.
- An acknowledgement that all invoices and contracts pursuant to which payments are made shall be made available to OGALS on demand.

## **Clearing the Advance**

ADVANCES must be cleared with six months of receipt, or earlier. ADVANCES should be cleared incrementally, that is, as costs are incurred.

An ADVANCE is cleared as follows:

- Submit a grant expenditure form (see page 35) documenting expenditures of eligible costs equal to the ADVANCE amount plus any earned interest (or 125% of the ADVANCE amount if match is required).
- Submit photos of construction completed and the construction sign (see page 28) with the ADVANCE funds (for construction ADVANCES).
- Return the balance of unspent GRANT funds to OGALS no later than thirty days after the end of the six-month ADVANCE period.
- OGALS will then return the GRANT funds to the contract balance. OGALS cannot return interest to the contract balance.

## **Subsequent Payments**

ADVANCE payments must be cleared before any payments will be approved.

This requirement may be waived in cases where a PROJECT requires timely payments to contractors, and the remaining balance of unspent ADVANCED funds cannot cover the next PROJECT payment. The following are required to request a waiver:

- 1. A letter to the PROJECT OFFICER, signed by the AUTHORIZED REPRESENTATIVE, explaining why the waiver is needed.
- 2. A statement in the letter that the majority of ADVANCED funds has been cleared.
- 3. A payment schedule with month by month estimates detailing the anticipated amount needed including the unspent balance of previously ADVANCED funds, along with the additional requested reimbursement or ADVANCE.

## **Acquisition Advance into Escrow**

Payment Type	When to Request	Documents to Send
ADVANCES up to 100% of the GRANT and MATCH amounts	After the contract is encumbered and escrow is open	See following instructions 1. Escrow letter 2. Title report cover page 3. Payment request form

The following items are required to request an ADVANCE payment into escrow:

1. A letter on the GRANTEE's letterhead, addressing all of the following elements, and signed by the GRANTEE'S AUTHORIZED REPRESENTATIVE:

a) Name, address and telephone number of the title company or escrow holder, and the escrow account number to which the GRANT funds will be disbursed.

- b) Copy of the property appraisal and written concurrence (page 14).
- c) GRANT contract number and amount of GRANT funds requested.
- d) A statement by the GRANTEE that "the preliminary title report shows that there are no liens, easements, or any other restrictions that would prevent completion of the PROJECT SCOPE and fulfillment of the contract provisions."
- e) A statement by the GRANTEE that "all funds (exclusive of the GRANT funds to be provided under this agreement) needed for the completion of the acquisition of the property or properties have been secured and have been or will be deposited to escrow on or about the same date as the requested GRANT funds." In making this statement, the GRANTEE is entitled to reasonably rely on the representations of the seller.
- 2. Cover page of the preliminary title report.
- 3. Payment Request Form. The "Send Warrant To" item 7 on the Payment Request Formmust be completed using the title company's or escrow holder's name, mailing address, and contact person (see page 35).

After approval by OGALS, the payment will be mailed by the State Controller's Office to the designated escrow company within approximately 30 working days.

#### **Returning Unexpended Advanced Funds for Acquisition**

If all or a portion of GRANT funds ADVANCED to the title or escrow company are not expended, the unused portion of the ADVANCED funds must be returned to OGALS within 60 days after completion of the acquisitions), within 60 days of the acquisition withdrawal, or within 60 days after the end of the GRANT PERFORMANCE PERIOD, whichever is earliest.

## **Per Capita Contract**



**GRANTEE:** Grantee Name

GRANT PERFORMANCE PERIOD is from July 1, 2018 through June 30, 2024

CONTRACT PERFORMANCE PERIOD is from July 1, 2018 through June 30, 2048

The GRANTEE agrees to the terms and conditions of this contract (CONTRACT), and the State of California, acting through its Director of the Department of Parks and Recreation, pursuant to the State of California, agrees to fund the total State grant amount indicated below.

The GRANTEE agrees to complete the PROJECT SCOPE(s) as defined in the Development PROJECT SCOPE/Cost Estimate Form or acquisition documentation for the application(s) filed with the State of California.

The General and Special Provisions attached are made a part of and incorporated into the Contract.

Total State grant amount not to exceed \$ [GRANT amount]

**GRANTEE** 

AUTHORIZED REPRESENTATIVE Signature	Date
Print Name and Title	
STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	
AUTHORIZED REPRESENTATIVE Signature	Date

#### Print Name and Title

CERTIFICATION OF FUNDING (FOR STATE USE ONLY)					
AMOUNT OF ESTIMATE \$		CONTRACT NUMBER	FUND	FUND	
ADJ. INCREASING ENCUMBRANCE \$		APPROPRIATION			
ADJ. DECREASING ENCUMBRANCE \$		ITEM VENDOR NUMBER			
UNENCUMBERED BALANCE \$		LINE ITEM ALLOTMENT	CHAPTER STATUTI	FISCAL YEAR	
T.B.A. NO.	B.R. NO.	INDEX	Funding Source	OBJ. EXPEND	
I hereby certify upon my personal knowledge that budgeted funds are available for this encumbrance.					
SIGNATURE OF ACCOUNTING OFFICER			DATE	DATE	

#### I. RECITALS

This CONTRACT is entered into between the California Department of Parks and Recreation (hereinafter referred to as "GRANTOR," "DEPARTMENT" or "STATE") and [grantee name] (hereinafter referred to as "GRANTEE").

The DEPARTMENT hereby grants to GRANTEE a sum (also referred to as "GRANT MONIES") not to exceed \$grant amount, subject to the terms and conditions of this CONTRACT and the 20xx/xx California State Budget, Chapter xx, statutes of 20xx, Item number – 3790-xxx-xxxx (appropriation chapter and budget item number hereinafter referred to as "PER CAPITA GRANT"). These funds shall be used for completion of the GRANT SCOPE(S).

The Grant Performance Period is from July 1, 20xx to June 30, 20xx.

#### II. GENERAL PROVISIONS

#### A. Definitions

As used in this CONTRACT, the following words shall have the following meanings:

- 1. The term "ACT" means the California Drought, Water, Parks Climate, Coastal Protection, and Outdoor Access for All Act of 2018, as referred to in section I of this CONTRACT.
- 2. The term "APPLICATION" means the individual project APPLICATION packet for a project pursuant to the enabling legislation and/or grant program process guide requirements.
- 3. The term "DEPARTMENT" or "STATE" means the California Department of Parks and Recreation.
- 4. The term "DEVELOPMENT" means capital improvements to real property by means of, but not limited to, construction, expansion, and/or renovation, of permanent or fixed features of the property.
- 5. The term "GRANTEE" means the party described as the GRANTEE in Section I of this CONTRACT.
- The term "GRANT SCOPE" means the items listed in the GRANT SCOPE/Cost Estimate Form or acquisition documentation found in each of the APPLICATIONS submitted pursuant to this grant.
- 7. The term "PROCEDURAL GUIDE" means the document identified as the "Procedural Guidefor California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 Per Capita Program." The PROCEDURAL GUIDE provides the procedures and policies controlling the administration of the grant.

## B. Project Execution

1. Subject to the availability of GRANT MONIES in the act, the STATE hereby grants to the GRANTEE a sum of money not to exceed the amount stated in Section I of this CONTRACT, in consideration of, and on condition that, the sum be expended in carrying out the purposes as set forth in the enabling legislation and referenced in the APPLICATION, Section I of this CONTRACT, and under the terms and conditions set forth in this CONTRACT.

The GRANTEE shall assume any obligation to furnish any additional funds that may be necessary to complete the GRANT SCOPE(S).

The GRANTEE agrees to submit any change or alteration from the original GRANT SCOPE(S) in writing to the STATE for prior approval. This applies to any and all changes that occur after

STATE has approved the APPLICATION. Changes in the GRANT SCOPE(S) must be approved in writing by the STATE.

- 2. The GRANTEE shall complete the GRANT SCOPE(S) in accordance with the time of the Grant Performance Period set forth in Section I of this CONTRACT, and under the terms and conditions of this CONTRACT.
- 3. The GRANTEE shall comply with the California Environmental Quality Act (<u>Public Resources Code</u>, §21000, et seq., Title 14, <u>California Code of Regulations</u>, §15000 et seq.).
- 4. The GRANTEE shall comply with all applicable current laws and regulations affecting DEVELOPMENT projects, including, but not limited to, legal requirements for construction contracts, building codes, health and safety codes, and laws and codes pertaining to individuals with disabilities, including but not limited to the Americans With Disabilities Act of 1990 (42 U.S.C. §12101 et seq.) and the California Unruh Act (California Civil Code §51 et seq.).

#### C. Procedural Guide

- 1. GRANTEE agrees to abide by the PROCEDURAL GUIDE.
- 2. GRANTEE acknowledges that STATE may make reasonable changes to its procedures as set forth in the PROCEDURAL GUIDE. If STATE makes any changes to its procedures and guidelines, STATE agrees to notify GRANTEE within a reasonable time.

## D. Project Administration

- 1. If GRANT MONIES are advanced for DEVELOPMENT projects, the advanced funds shall be placed in an interest bearing account until expended. Interest earned on the advanced funds shall be used on the project as approved by the STATE. If grant monies are advanced and not expended, the unused portion of the grant and any interest earned shall be returned to the STATE within 60 days after project completion or end of the Grant Performance Period, whichever is earlier.
- 2. The GRANTEE shall submit written project status reports within 30 calendar days after the STATE has made such a request. In any event, the GRANTEE shall provide the STATE a report showing total final project expenditures within 60 days of project completion or the end of the grant performance period, whichever is earlier. The Grant Performance Period is identified in Section I of this CONTRACT.
- 3. The GRANTEE shall make property or facilities acquired and/or developed pursuant to this contract available for inspection upon request by the STATE.

#### E. Project Termination

1. Project Termination refers to the non-completion of a GRANT SCOPE. Any grant funds that have not been expended by the GRANTEE shall revert to the STATE.

- 2. The GRANTEE may unilaterally rescind this CONTRACT at any time prior to the commencement of the project. The commencement of the project means the date of the letter notifying GRANTEE of the award or when the funds are appropriated, whichever is later. After project commencement, this CONTRACT may be rescinded, modified or amended only by mutual agreement in writing between the GRANTEE and the STATE, unless the provisions of this CONTRACT provide that mutual agreement is not required.
- 3. Failure by the GRANTEE to comply with the terms of the (a) PROCEDURAL GUIDE, (b) any legislation applicable to the ACT, (c) this CONTRACT as well as any other grant contracts, specified or general, that GRANTEE has entered into with STATE, may be cause for suspension of all obligations of the STATE unless the STATE determines that such failure was due to no fault of the GRANTEE. In such case, STATE may reimburse GRANTEE for eligible costs properly incurred in performance of this CONTRACT despite non-performance of the GRANTEE. To qualify for such reimbursement, GRANTEE agrees to mitigate its losses to the best of its ability.
- 4. Any breach of any term, provision, obligation or requirement of this CONTRACT by the GRANTEE shall be a default of this CONTRACT. In the case of any default by GRANTEE, STATE shall be entitled to all remedies available under law and equity, including but not limited to: a) Specific Performance; b) Return of all GRANT MONIES; c) Payment to the STATE of the fair market value of the project property or the actual sales price, whichever is higher; and d) Payment to the STATE of the costs of enforcement of this CONTRACT, including but not limited to court and arbitration costs, fees, expenses of litigation, and reasonable attorneyfees.
- 5. The GRANTEE and the STATE agree that if the GRANT SCOPE includes DEVELOPMENT, final payment may not be made until the work described in the GRANT SCOPE is complete and the GRANT PROJECT is open to the public.

#### F. Budget Contingency Clause

If funding for any fiscal year is reduced or deleted by the budget act for purposes of this program, the STATE shall have the option to either cancel this contract with no liability occurring to the STATE, or offer a CONTRACT amendment to GRANTEE to reflect the reduced grant amount. This Paragraph shall not require the mutual agreement as addressed in Paragraph E, provision 2, of this CONTRACT.

#### G. Hold Harmless

- The GRANTEE shall waive all claims and recourse against the STATE including the right to contribution for loss or damage to persons or property arising from, growing out of or in any way connected with or incident to this CONTRACT except claims arising from the concurrent or sole negligence of the STATE, its officers, agents, and employees.
- 2. The GRANTEE shall indemnify, hold harmless and defend the STATE, its officers, agents and employees against any and all claims, demands, damages, costs, expenses or liability costs arising out of the ACQUISITION, DEVELOPMENT, construction, operation or maintenance of the property described as the project which claims, demands or causes of action arise under California Government Code Section 895.2 or otherwise except for liability arising out of the concurrent or sole negligence of the STATE, its officers, agents, or employees.

3. The GRANTEE agrees that in the event the STATE is named as codefendant under the provisions of California Government Code Section 895 et seq., the GRANTEE shall notify the STATE of such fact and shall represent the STATE in the legal action unless the STATE undertakes to represent itself as codefendant in such legal action in which event the GRANTEE agrees to pay the STATE's litigation costs, expenses, and reasonable attorney fees.

- 4. The GRANTEE and the STATE agree that in the event of judgment entered against the STATE and the GRANTEE because of the concurrent negligence of the STATE and the GRANTEE, their officers, agents, or employees, an apportionment of liability to pay such judgment shall be made by a court of competent jurisdiction. Neither party shall request a jury apportionment.
- 5. The GRANTEE shall indemnify, hold harmless and defend the STATE, its officers, agents and employees against any and all claims, demands, costs, expenses or liability costs arising out of legal actions pursuant to items to which the GRANTEE has certified. The GRANTEE acknowledges that it is solely responsible for compliance with items to which it has certified.

#### H. Financial Records

- The GRANTEE shall maintain satisfactory financial accounts, documents, including loan documents, and all other records for the project and to make them available to the STATE for auditing at reasonable times. The GRANTEE also agrees to retain such financial accounts, documents and records for five years following project termination or issuance of final payment, whichever is later.
  - The GRANTEE shall keep such records as the STATE shall prescribe, including records which fully disclose (a) the disposition of the proceeds of STATE funding assistance, (b) the total cost of the project in connection with such assistance that is given or used, (c) the amount and nature of that portion of the project cost supplied by other sources, and (d) any other such records that will facilitate an effective audit.
- 3. The GRANTEE agrees that the STATE shall have the right to inspect and make copies of any books, records or reports pertaining to this contract or matters related thereto during regular office hours. The GRANTEE shall maintain and make available for inspection by the STATE accurate records of all of its costs, disbursements and receipts with respect to its activities under this contract. Such accounts, documents, and records shall be retained by the GRANTEE for at least five years following project termination or issuance of final payment, whichever is later.
- The GRANTEE shall use a generally accepted accounting system.

#### I. Use of Facilities

- 1. The GRANTEE agrees that the GRANTEE shall operate and maintain the property acquired or developed with the GRANT MONIES, for the duration of the Contract Performance Period.
- 2. The GRANTEE agrees that, during the Contract Performance Period, the GRANTEE shall use the property acquired or developed with GRANT MONIES under this contract only for the purposes of this grant and no other use, sale, or other disposition or change of the use of the property to one not consistent with its purpose shall be permitted except as authorized by the STATE and the property shall be replaced with property of equivalent value and usefulness as determined by the STATE.
- The property acquired or developed may be transferred to another entity if the successor entity assumes the obligations imposed under this CONTRACT and with the approval of STATE.

4. Any real Property (including any portion of it or any interest in it) may not be used as security for any debt or mitigation, without the written approval of the STATE provided that such approval shall not be unreasonably withheld as long as the purposes for which the Grantwas awarded are maintained. Any such permission that is granted does not make the STATE a guarantor or a surety for any debt or mitigation, nor does it waive the STATE'S rights to enforce performance under the Grant CONTRACT.

- 5. All real property, or rights thereto, acquired with GRANT MONIES shall be subject to an appropriate form of restrictive title, rights, or covenants approved by the STATE. If the project property is taken by use of eminent domain, GRANTEE shall reimburse STATE an amount at least equal to the amount of GRANT MONIES received from STATE or the pro-rated full market value of the real property, including improvements, at the time of sale, whichever is higher.
- 6. If eminent domain proceedings are initiated against GRANTEE, GRANTEE shall notify STATE within 10 days of receiving the complaint.

#### J. Nondiscrimination

- 1. The GRANTEE shall not discriminate against any person on the basis of sex, race, color, national origin, age, religion, ancestry, sexual orientation, or disability in the use of any property or facility developed pursuant to this contract.
- 2. The GRANTEE shall not discriminate against any person on the basis of residence except to the extent that reasonable differences in admission or other fees may be maintained on the basis of residence and pursuant to law.
- 3. All facilities shall be open to members of the public generally, except as noted under the special provisions of this project contract or under provisions of the enabling legislation and/or grant program.

#### K. Severability

If any provision of this CONTRACT or the application thereof is held invalid, that invalidity shall not affect other provisions or applications of the CONTRACT which can be given effect without the invalid provision or application, and to this end the provisions of this CONTRACT are severable.

#### L. Liability

- 1. STATE assumes no responsibility for assuring the safety or standards of construction, site improvements or programs related to the GRANT SCOPE. The STATE'S rights under this CONTRACT to review, inspect and approve the GRANT SCOPE and any final plans of implementation shall not give rise to any warranty or representation that the GRANT SCOPE and any plans or improvements are free from hazards or defects.
- 2. GRANTEE will secure adequate liability insurance, performance bond, and/or other security necessary to protect the GRANTEE's and STATE'S interest against poor workmanship, fraud, or other potential loss associated with completion of the grant project.

#### M. Assignability

Without the written consent of the STATE, the GRANTEE'S interest in and responsibilities under this CONTRACT shall not be assignable by the GRANTEE either in whole or in part.

#### N. Use of Grant Monies

GRANTEE shall not use any grant funds (including any portion thereof) for the purpose of making any leverage loan, pledge, promissory note or similar financial device or transaction, without: 1) the prior written approval of the STATE; and 2) any financial or legal interests created by any such leverage loan, pledge, promissory note or similar financial device or transaction in the project property shall be completely subordinated to this CONTRACT through a Subordination Agreement provided and approved by the STATE, signed by all parties involved in the transaction, and recorded in the County Records against the fee title of the project property.

#### N. Section Headings

The headings and captions of the various sections of this CONTRACT have been inserted only for the purpose of convenience and are not a part of this CONTRACT and shall not be deemed in any manner to modify, explain, or restrict any of the provisions of this CONTRACT.

#### O. Waiver

Any failure by a party to enforce its rights under this CONTRACT, in the event of a breach, shall *not* be construed as a waiver of said rights; and the waiver of any breach under this CONTRACT shall *not* be construed as a waiver of any subsequent breach.

**GRANTEE** 

Print Name and Title

AUTHORIZED REPRESENTATIVE Signature	Date
Print Name and Title	
STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	
AUTHORIZED REPRESENTATIVE Signature	Date

#### **Accounting and Audits**

#### **Accounting Requirements**

GRANTEES must use accounting practices that:

- Provide accounting data that clearly records costs incurred on the PROJECT and accurately reflects fiscal transactions, with the necessary controls and safeguards.
- Provide good audit trails, especially the source documents (purchase orders, receipts, progress payments, invoices, timecards, cancelled warrants, warrant numbers, etc.) specific to the PROJECT.

#### Accounting Rules for Employee Services (IN-HOUSE EMPLOYEESERVICES)

GRANTEES must follow these accounting practices for employee services:

- Maintain time and attendance records as charges are incurred, identifying the employee through a name or other tracking system, and that employee's actual time spent on the PROJECT.
- Time estimates, including percentages, for work performed on the PROJECT are not acceptable.
- Time sheets that do not identify the specific employee's time spent on the PROJECT are not acceptable.
- Costs of the salaries and wages must be calculated according to the GRANTEE'S wage and salary scales, and may include benefit costs such as vacation, health insurance, pension contributions and workers' compensation.
- Overtime costs may be allowed under the GRANTEE'S established policy, provided that the regular work time was devoted to the same PROJECT.
- May not include overhead or cost allocation. These are costs generally associated with supporting an employee, such as rent, personnel support, IT, utilities, etc.

#### **State Audit**

Grants are subject to audit by DPR. All PROJECT records must be retained for five years after final payment was issued, or PROJECT terminated, whichever is later.

The GRANTEE must provide the following when an audit date and time has been confirmed by DPR:

- All PROJECT records, including the source documents and cancelled warrants, books, papers, accounts, time sheets, or other records listed in the Audit Checklist or requested by DPR.
- An employee having knowledge of the PROJECT and its records to assist the DPR auditor.

#### **Record Keeping Recommendation**

GRANTEES are encouraged to keep records of all eligible costs, including those not submitted to OGALS for payment. This provides a potential source of additional eligible costs, should any submitted expenses be deemed ineligible.

Contact the DPR Audits Office at (916) 657-0370 for questions about these requirements.

ITEM NUMBER: 10/26/21 DATE: ATTACHMENT:

#### **Audit Checklist**

An audit of the PROJECT may be performed before or following PROJECT completion. The GRANTEE must retain and make available all PROJECT related records for five years following PROJECT termination or final payment of GRANT funds. Listed below are some of the items the auditor will examine during the review of your records as applicable. It is the responsibility of the GRANTEE to have these records available in a central location ready for review once an audit date and time has been confirmed. If you have any questions regarding these documents, contact the State Department of Parks and Recreation Audits Office at (916) 657-0370.

#### **CONTRACTS**

 Summary list of bidders (including individual bid packages) Recommendation by reviewer of bids Award by governing body (minutes of the meeting/resolution) Construction contract agreement Contract bonds (bid, performance, payment) Contract change orders □ Contractor's progress billings Payments to contractor (cancelled checks/ warrants, bank statements, EFT receipts\*\*) Stop Notices (filed by sub-contractors and release if applicable) □ Liquidated damages (claimed against the contractor)

□ Notice of completion (recorded)

**IN-HOUSE EMPLOYEE SERVICES\***  Authorization/work order identifying project Daily time sheets signed by employee and supervisor □ Hourly rate (salary schedules/payroll register) □ Fringe benefits (provide breakdown)

#### **IN-HOUSE EQUIPMENT\***

- □ Authorization/work order Daily time records identifying the project site
- Hourly rate related backup documents

#### MINOR CONTRACTS/ MATERIALS/ SERVICES/EQUIPMENT RENTALS

Purchase	O	ders/	Con	tra	ıcts	/Se	rvi	се
Agreemer	nts	;						
Invoices								
_		,					,	

Payments (cancelled checks/ warrants, bank statements and EFT receipts \*\*)

#### **ACQUISITION**

□ Appraisal Report
□ Did the owner accompany the appraiser?
□ 10 year history
<ul> <li>Statement of just compensation (signed by</li> </ul>
seller)
□ Statement of difference (if purchased above
appraisal)
□ Waiver of just compensation (if purchased
below appraisal: signed by seller)
□ Final Escrow Closing Statement
□ Cancelled checks/warrants, bank
statements and EFT receipts, [payment(s) to
seller(s)]
□ GRANT deed (vested to the participant) or
final order of condemnation
□ Title insurance policy (issued to participant)
□ Relocation documents

#### **INTEREST**

 Schedule of interest earned on State funds advanced (Interest on grant advances is accountable, even if commingled in a pooled fund account and/or interest was never allocated back to the grant fund.)

#### AGREEMENT/CONTRACTS

- □ Leases, agreements, etc., pertaining to developed/acquired property Proof of insurance pertaining to
- developed/acquired property

□ Income (rental, grazing, sale of

improvements, etc.)

\* Estimated time expended on the projects is not acceptable. Actual time records and all supporting documentation must be maintained as charges are incurred and made available for verification at the time of audit.

<sup>\*\*</sup> Front and back if copied.

#### References

## Public Resources Code relating to the Proposition 68 Per Capita program 80000.

This division shall be known, and may be cited, as the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.

#### 80001.

- (b) It is the intent of the people of California that all of the following shall occur in the implementation of this division:
  - (3) To the extent practicable, a project that receives moneys pursuant to this division will include signage informing the public that the project received funds from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.
  - (5) To the extent practicable, a project that receives moneys pursuant to this division will provide workforce education and training, contractor, and job opportunities for disadvantaged communities.
  - (7)To the extent practicable, administering entities should measure or require measurement of greenhouse gas emissions reductions and carbon sequestrations associated with projects that receive moneys pursuant to this division.
  - (8)To the extent practicable, as identified in the "Presidential Memorandum--Promoting Diversity and Inclusion in Our National Parks, National Forests, and Other Public Lands and Waters," dated January 12, 2017, the public agencies that receive funds pursuant to this division will consider a range of actions that include, but are not limited to, the following:
    - (A) Conducting active outreach to diverse populations, particularly minority, low-income, and disabled populations and tribal communities, to increase awareness within those communities and the public generally about specific programs and opportunities.
    - (B) Mentoring new environmental, outdoor recreation, and conservation leaders to increase diverse representation across these areas.
    - (C) Creating new partnerships with state, local, tribal, private, and nonprofit organizations to expand access for diverse populations.
    - (D) Identifying and implementing improvements to existing programs to increase visitation and access by diverse populations, particularly minority, low-income, and disabled populations and tribal communities.
    - (E) Expanding the use of multilingual and culturally appropriate materials in public communications and educational strategies, including through social media strategies, as appropriate, that target diverse populations.
    - (F) Developing or expanding coordinated efforts to promote youth engagement and empowerment, including fostering new partnerships with diversity-serving and youth-serving organizations, urban areas, and programs.
    - (G) Identifying possible staff liaisons to diverse populations.

#### 80002.

- (d) "Department" means the Department of Parks and Recreation.
- (n) "Severely disadvantaged community" means a community with a median household income less than 60 percent of the statewide average.

#### 80020.

Moneys allocated pursuant to this division shall not be used to fulfill any mitigation requirements imposed by law.

#### CHAPTER 3.

#### 80060.

For purposes of this chapter, "district" means any regional park district, regional park and open-space district, or regional open-space district formed pursuant to Article 3 (commencing with §5500) of Chapter 3 of Division 5, any recreation and park district formed pursuant to Chapter 4 (commencing with §5780) of Division 5, or any authority formed pursuant to Division 26 (commencing with §35100). With respect to any community or unincorporated region that is not included within a district, and in which no city or county provides parks or recreational areas or facilities, "district" also means any other entity, including, but not limited to, a district operating multiple-use parklands pursuant to Division 20 (commencing with §71000) of the Water Code.

#### 80061.

- (a) The sum of two hundred million dollars (\$200,000,000) shall be available to the department, upon appropriation by the Legislature, for local park rehabilitation, creation, and improvement grants to local governments on a per capita basis. Grant recipients shall be encouraged to utilize awards to rehabilitate existing infrastructure and to address deficiencies in neighborhoods lacking access to the outdoors.
- (b) The sum of fifteen million dollars (\$15,000,000) shall be available to the department, upon appropriation by the Legislature, for grants to cities and districts in urbanized counties providing park and recreation services within jurisdictions of 200,000 or less in population. For purposes of this subdivision, "urbanized county" means a county with a population of 500,000 or more. An entity eligible to receive funds under this subdivision shall also be eligible to receive funds available under subdivision (a).
- (c) Unless the project has been identified as serving a severely disadvantaged community, an entity that receives an award pursuant to this section shall be required to provide a match of 20 percent as a local share.

#### 80062.

(a)(1) The department shall allocate 60 percent of the funds available pursuant to subdivision (a) of Section 80061 to cities and districts, other than a regional park district, regional park and open-space district, open-space authority, or regional open-space district. Each city's and district's allocation shall be in the same ratio as the city's or district's population is to the combined total of the state's population that is included in incorporated and unincorporated areas within the county, except that each city or district shall be entitled to a minimum allocation of two hundred thousand dollars (\$200,000). If the boundary of a city overlaps the boundary of a district, the population in the overlapping area shall be attributed to each jurisdiction in proportion to the extent to which each operates and manages parks and recreational areas and facilities for that population. If the boundary of a city overlaps the boundary of a district, and in the area of overlap the city does not operate and manage parks and recreational areas and facilities, all grant funds for that area shall be allocated to the district.

(2) On or before April 1, 2020, a city and a district that are subject to paragraph (1), and whose boundaries overlap, shall collaboratively develop and submit to the department a specific plan for allocating the grant funds in accordance with the formula specified in paragraph (1). If, by that date, the plan has not been developed and submitted to the department, the director shall determine the allocation of the grant funds between the affected jurisdictions.

- (b)(1) The department shall allocate 40 percent of the funds available pursuant to subdivision (a) of §80061 to counties and regional park districts, regional park and open-space districts, open-space authorities formed pursuant to Division 26 (commencing with §35100), and regional open-space districts formed pursuant to Article 3 (commencing with §5500) of Chapter 3 of Division 5.
  - (2) Each county's allocation under paragraph (1) shall be in the same ratio that the county's population is to the total state population, except that each county shall be entitled to a minimum allocation of four hundred thousand dollars (\$400,000).
  - (3) In any county that embraces all or part of the territory of a regional park district, regional park and open-space district, open-space authority, or regional open-space district, and whose board of directors is not the county board of supervisors, the amount allocated to the county shall be apportioned between that district and the county in proportion to the population of the county that is included within the territory of the district and the population of the county that is outside the territory of the district.
- (c) For the purpose of making the calculations required by this section, population shall be determined by the department, in cooperation with the Department of Finance, on the basis of the most recent verifiable census data and other verifiable population data that the department may require to be furnished by the applicant city, county, or district.
- (d) The Legislature intends all recipients of funds pursuant to subdivision (a) of §80061 to use those funds to supplement local revenues in existence on the effective date of the act adding this division. To receive an allocation pursuant to subdivision (a) of §80061, the recipient shall not reduce the amount of funding otherwise available to be spent on parks or other projects eligible for funds under this division in its jurisdiction. A one-time allocation of other funding that has been expended for parks or other projects, but which is not available on an ongoing basis, shall not be considered when calculating a recipient's annual expenditures. For purposes of this subdivision, the Controller may request fiscal data from recipients for the preceding three fiscal years. Each recipient shall furnish the data to the Controller no later than 120 days after receiving the request from the Controller.

#### 80063.

- (a) The director of the department shall prepare and adopt criteria and procedures for evaluating applications for grants allocated pursuant to subdivision (a) of §80061. The application shall be accompanied by certification that the project is consistent with the park and recreation element of the applicable city or county general plan or the district park recreation plan, as the case may be.
- (b) To utilize available grant funds as effectively as possible, overlapping and adjoining jurisdictions and applicants with similar objectives are encouraged to combine projects and submit a joint application. A recipient may allocate all or a portion of its per capita share for a regional or state project.

#### **Allocation Tables**

Visit OGALS' Per Capita webpage at www.parks.ca.gov/percapita for allocations.

#### **Allocation Transfer**

Entities that receive an allocation under the Per Capita program may transfer all or part of that allocation to another eligible entity, provided that the following requirements are met:

- 1. All required documentation must be submitted no later than six months from the end of the encumbrance period.
- 2. The transferring agency must submit a resolution authorizing the transfer of the allocation. The resolution must name the recipient entity and the transferred amount.<sup>6</sup>
- 3. The recipient must be eligible to receive Per Capita funds.
- 4. The recipient must have submitted the authorizing resolution shown on page 7.
- 5. The recipient must submit a resolution authorizing the receipt of funds; the resolution must state the donor and the transferred amount.

-

<sup>&</sup>lt;sup>6</sup> Please contact OGALS for sample transfer and recipient resolutions.

#### **Definitions**

Capitalized words and terms used in this guide are defined below.

**ADVANCE** – payment made to the GRANTEE for work that will occur in the future or work that has already occurred during the GRANT PERFORMANCE PERIOD and has not been paid for by the GRANTEE.

**APPLICATION PACKET** – the Application form and its required attachments described in the Application Checklist and Directions beginning on page 10.

**AUTHORIZED REPRESENTATIVE** – the GRANTEE'S designated position authorized in the Resolution to sign all required GRANT documents.

CEQA – the California Environmental Quality Act established policies and procedures requiring GRANTEES to identify, disclose to decision makers and the public, and attempt to lessen, significant impacts to environmental and historical resources that may occur as a result of the GRANTEE'S proposed PROJECT. (Public Resources Code §21000 et seq.; Title 14 California Code of Regulations §15000 et seq.)

**CONSTRUCTION COSTS** – costs incurred starting with the date when ground-breaking construction activities such as site preparation, grading, or gutting begins, and continuing to the end of the GRANT PERFORMANCE PERIOD.

**CONTRACT PERFORMANCE PERIOD** – the amount of time stated on the contract agreement, specifying the performance of the contractual grant obligations between the GRANTEE and DPR.

**DEVELOPMENT** – construction, expansion, or renovation.

**DPR** – the California Department of Parks and Recreation.

**GRANT** – funds made available to a GRANTEE for completion of the PROJECT SCOPE(s) during the GRANT PERFORMANCE PERIOD.

**GRANTEE** – an entity having a fully executed contract with DPR.

**GRANT PERFORMANCE PERIOD** – period of time that eligible costs may be incurred by the GRANTEE and paid for by DPR, as specified in the fully executed contract.

**IN-HOUSE EMPLOYEE SERVICES** — use of the GRANTEE'S employees working on the PROJECT SCOPE.

**OGALS** – DPR's Office of Grants and Local Services.

**PRE-CONSTRUCTION COSTS** — costs incurred within the GRANT PERFORMANCE PERIOD for the planning, design, and permit phase of the PROJECT before construction can begin.

**PROJECT** – the SCOPE as described in the APPLICATION PACKET to be completed with GRANT funds.

**PROJECT COMPLETION** – when the PROJECT is complete and the facilities are open and useable by the public.

**PROJECT COMPLETION PACKET** – The documents listed on page 37 that are required in order to request final payment following PROJECT COMPLETION.

**PROJECT OFFICER** – an OGALS employee, who acts as a liaison with GRANTEES and administers GRANT funds, facilitates compliance with the Procedural Guide, and the GRANT contract.

**SCOPE** – the acquisition, recreation features, and major support amenities described in the APPLICATION PACKET that must be completed prior to final GRANT payment.

**TOTAL PROJECT COST** – the combined dollar amount of all funding sources used to complete the acquisition, or recreation features and major support amenities described in the APPLICATION PACKET.



## Atascadero City Council

#### Staff Report - City Manager

#### Virtual Meetings – AB 361 Requirements

#### **RECOMMENDATION:**

Council adopt Draft Resolution making findings consistent with the requirements of AB 361 to continue to allow for the conduct of virtual meetings.

#### **DISCUSSION:**

On March 4, 2020, Governor Newsom declared a state of emergency due to the novel coronavirus COVID-19. That declaration is still in effect. Since March 12, 2020, Executive Orders from the Governor relaxed various Brown Act meeting requirements relating to teleconferencing rules, temporarily suspending the Brown Act provisions requiring the physical presence of council, board and commission members at public meetings. The most recent extension of those Orders expired on September 30, 2021.

On Friday, September 17, 2021, the Governor signed AB 361. AB 361 amends Government Code section 54953 to provide more clarity on the Brown Act's rules and restrictions surrounding the use of teleconferencing to conduct meetings. The newly enacted Government Code Section 54953(e) creates alternate measures to protect the ability of the public to appear before local legislative bodies.

With the passage of AB 361, local agencies are allowed to continue to conduct virtual meetings during a declared state of emergency, provided local agencies comply with specified requirements. The City Council previously adopted Resolution No. 2021-066 on September 28, 2021, finding that the requisite conditions exist for the legislative bodies of the City of Atascadero to conduct remote teleconference meetings in compliance with AB 361. (Government Code Section 54953(e).) AB 361 requires the City Council to reconsider the circumstances of the state of emergency not later than 30 days after teleconferencing for the first time pursuant to AB 361 and every 30 days thereafter in order to continue to conduct remote teleconference meetings.

In order to continue remote teleconferencing, the City Council must make the following findings (Gov. Code § 52953(e)(3)):

- The City Council has reconsidered the circumstances of the state of emergency.
- Any of the following circumstances exist:

 The state of emergency continues to directly impact the ability of the members to meet safely in person.

 State or local officials continue to impose or recommend measures to promote social distancing.

On August 31, 2021, County Health Officer issued Order No. 6 requiring face coverings in all public indoor settings and this order continues to remain in effect. Additionally, the City remains subject to the State Occupational Safety and Health Administration (CalOSHA) regulations which, among other requirements, obligate an employer to provide training to employees on COVID-19 transmission and risk reduction, including "The fact that particles containing the virus can travel more than six feet, especially indoors, so physical distancing, face coverings, increased ventilation indoors, and respiratory protection decrease the spread of COVID-19, but are most effective when used in combination." (CCR Section 3205(c)5(D).)

Adoption of the Draft Resolution reaffirms the Health Officer Order and CalOSHA requirements as the basis for continuing to meet virtually. Additionally, adoption of the Draft Resolution does not prohibit the conduct of a traditional or hybrid meeting if the circumstances of the declared health emergency change.

#### **FISCAL IMPACT:**

None.

#### **ATTACHMENT:**

**Draft Resolution** 

#### DRAFT RESOLUTION

# RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ATASCADERO, CALIFORNIA, PROCLAIMING THE CONTINUING NEED TO MEET BY TELECONFERENCE PURSUANT TO GOVERNMENT CODE SECTION 54953(e)

**WHEREAS**, all meetings of the City of Atascadero legislative bodies are open and public as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963); and

- **WHEREAS**, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and
- **WHEREAS**, Government Code section 54953(e) was added by AB 361, signed by Governor Newsom on September 17, 2021; and
- **WHEREAS**, on March 4, 2020, Governor Newsom declared a State of Emergency as a result of the COVID-19 pandemic; and
- **WHEREAS**, on March 17, 2020, the City of Atascadero declared a State of Emergency as a result of the COVID-19 pandemic; and
  - WHEREAS, such State of Emergency remains in effect; and
- **WHEREAS**, COVID-19 continues to threaten the health and lives of City of Atascadero residents; and
- **WHEREAS**, the Delta variant is highly transmissible in indoor settings and breakthrough cases are becoming more common; and
- **WHEREAS**, local officials have imposed or recommended measures to promote social distancing to include the wearing of masks indoors, regardless of vaccination status; and
- **WHEREAS**, the City Council previously adopted Resolution No. 2021-066 on September 28, 2021, finding that the requisite conditions exist for the legislative bodies of the City of Atascadero to conduct remote teleconference meetings in compliance with Government Code Section 54953(e); and
- **WHEREAS**, Government Code Section 54953(e) requires that the City Council must reconsider the circumstances of the state of emergency every 30 days in order to continue to conduct remote teleconference meetings in compliance with AB 361.
- **NOW, THEREFORE BE IT RESOLVED,** by the City Council of the City of Atascadero:

**SECTION 1.** Recitals. The above recitals are true and correct and are incorporated into this Resolution by this reference.

**SECTION 2.** Findings. The City Council does hereby find that:

- 1. The City Council has reconsidered the circumstances of the state of emergency declared as a result of the COVID-19 pandemic.
- 2. The COVID-19 pandemic continues to directly impact the ability of the members to meet safely in person whereby holding legislative body meetings in person will present imminent risk to the health and safety of attendees.
- 3. State or local officials continue to impose or recommend measures to promote social distancing.

**SECTION 3.** Compliance with Government Code Section 54953(e). The City Council and other legislative bodies will continue to meet by teleconference in accordance with Government Code section 54953(e).

**SECTION 4.** Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) 30 days from the date of adoption of this Resolution, or (ii) such time the City Council adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the legislative bodies of the City of Atascadero may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

PASSED AND ADOPTED at a day of, 2021.	regular meeting of the City Council held on the
On motion by Council Member _ Resolution is hereby adopted in its entired	and seconded by Council Member, the foregoing ty on the following roll call vote:
AYES: NOES: ABSENT: ABSTAIN:	CITY OF ATASCADERO
	Heather Moreno, Mayor
ATTEST:	
Lara K. Christensen, City Clerk	
APPROVED AS TO FORM:	
Brian A. Pierik, City Attorney	



## Atascadero City Council

## Staff Report - Community Development Department

#### **Affordable Housing Impact Fee Nexus Studies Update**

#### **RECOMMENDATION:**

Council review and comment on the nexus study provided by EPS consultants for a potential affordable housing fee program as part of an affordable housing strategy.

#### **DISCUSSION:**

The adopted 2021-2028 Housing Element requires that the City adopt an inclusionary housing program to help address the City's future needs for affordable housing.

In March 2021, following adoption of the Housing Element, Council was asked to review options for the implementation of an inclusionary housing program. The Council and Planning Commission discussed:

- Developing a program to encourage the development of housing that is affordable by design,
- Developing a fee program to collect fees that can be utilized to support the development of future affordable housing
- Or a combination of policy and incentives that meet Housing Element objectives.

The City Council directed staff to explore a multifaceted approach that included the potential for an affordable housing linkage fee to capture opportunities for lower-income housing units with a focus on affordable-by-design strategies to incentivize moderate and workforce housing units. (See Attachment 1 for a review of goals and considerations).

Options presented included adoption of mandates for new development to provide affordable housing, development standards that support and facilitate affordable-by-design units throughout the City and an affordable housing linkage fee charged on all new, market-rate residential development above an identified square-footage threshold to provide a funding source to support the construction of affordable housing. This report discusses one piece of the program: the relationship (or nexus) between new housing development and the need to fund future affordable housing through a potential fee program. Other portions of the housing program will be brought forward to the City Council at a later date.

In coordination with MIG, the City's Housing Element consultant, the City hired Economic & Planning Systems (EPS) to provide analysis and options for the development of an affordable housing linkage fee as a potential part of the City's comprehensive strategy for the provision and facilitation of affordable housing to meet the City's affordable housing goals. This is the first step in the analysis which will enable the consultant team to provide information and calculations for potential linkage fees, options for charging the fees, and analysis of development costs to ensure that any fee is realistic and feasible.

#### **ANALYSIS:**

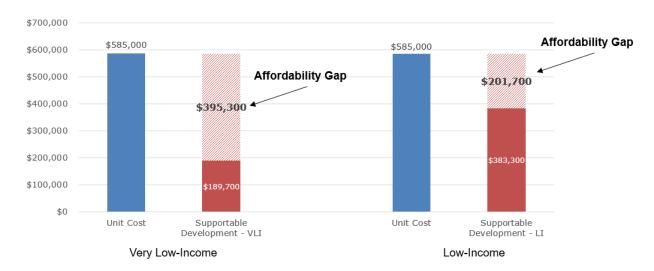
The Affordable Housing Impact Fee Nexus Study will examine the gap between the cost of developing housing and what Very Low- and Low-income households can afford and recommend strategies to support the City's affordable housing fund. Impact fees are a common tool used to increase City funding that can be applied towards the development of affordable housing. Adoption of impact fees requires a technical study to determine 'nexus' between new market rate development and demand for affordable units.

#### Prototype and Gap Analysis

In order to support an impact fee, a nexus needs to be established between the impact of new market-rate housing development and the need for affordable housing units. In general, new market-rate housing generates a need for increased services and thus, added service sector employees. The nexus analysis looks at what type of housing is built and how much those households earn and spend in the local economy. That leads to understanding how many jobs may be generated from that spending and how much those employees earn. This in turn informs how many housing units are needed for those added employees and what the gap is between housing development costs and employee household purchasing power.

In determining the impact, a number of assumptions are built into the analysis. In September and October, EPS met with regional housing and lending experts from the nonprofit and private sector to better understand the development process, local housing market dynamics and issues, and to vet assumptions used in the analysis. The analysis takes into account local density and typical sizes of housing units developed for lower-income households.

Development Prototype Ass	Development Prototype Assumptions	
Density/Acre	24	
Gross Unit Size	1,000	
Net Unit Size	900	
Number of Bedrooms	2	
Number of Persons per 2-bedroom Unit	3	
Parking Spaces/Unit	2	



#### Fee Structure Options

There are a variety of ways that a nexus fee can be structured. The fee can be based on unit type, unit size, lot size, zoning, etc. or a combination of factors. Fees can also be discounted or waived for units under a certain square-footage to encourage units that are considered "affordable-by-design". In general, the analysis correlates key characteristics of the new development (e.g., unit type, unit size, lot size, zoning, etc.) to assumptions about household income level when exploring alternative methods to a flat per unit fee. This means that alternative methods may inherently include some level of fee discount as we explore geographic or per square-foot based fees. The following discussion includes each option with pros and cons listed.

A. <u>Single family per unit and multifamily per unit</u>: This would establish a flat fee based on unit type regardless of unit size.

#### Pro:

• Easy to administer, with clear definitions.

#### Con:

Discourages "affordable by design" and encourages larger units.

B. <u>Single family per square foot and multifamily per square foot</u>: This would establish different per square-foot fees based on unit type and establish a maximum fee so as not to exceed amounts supported by the nexus analysis.

#### Pros:

- Encourages smaller units and those considered "affordable by design".
- Straight forward and easy to administer with clear definitions of unit types and parameters for which square-footage is used to calculate the fee.

#### Con:

- Fee will tier down from a per unit amount (established through nexus) that is tied to the median-sized home.
- New units that are smaller than the median-sized home will not generate as much revenue as they would under a flat fee per unit structure.
- New units that are larger than the median-sized home will not pay more than the maximum amount established by Nexus, which may end up being less on a per square foot basis.
- C. <u>Unit size as a threshold</u>: This approach would charge one fee to units smaller than 2,000 square feet, for example, and a different fee to units larger than 2,000 square feet.

#### Pro:

 Allows for meaningful differences in likely household income based on the size threshold.

#### Con:

- Because the maximum fee is tied to a median house size, the per squarefoot fee could be lower for larger homes, resulting in a perception that larger homes pay less.
- D. Zoning based fee (RS vs. other zones): In Atascadero, there is a correlation between location and cost of housing. Homes on larger acreage tend to be higher-cost properties regardless of housing unit size. A nexus fee could be tied to zoning which roughly correlates to lot size which may correlate with home value and, therefore, household income.

#### Pro:

 Allows for meaningful differences in household income for larger acreage property occupants based on zoning.

#### Con:

- Zoning is not always a perfect indicator of land use type. For example, RS zoned parcels adjacent to El Camino Real are different than larger view lots on the west side.
- There is not a meaningful distinction in unit size when compared across zoning designations based on recent permit history. More analysis is needed to determine if there is a meaningful distinction in value.
- Many undeveloped parcels left on the west side within the RS zoning are difficult parcels to develop with larger houses.

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E. <u>Fee based on "in" or "outside" the City's Urban Services Line</u>: This fee structure would look at a per unit or per square-foot based fee tied to whether a parcel is inside or outside the Urban Services Line. The fee has a geographic component that provides some nexus to the larger added value acreage properties while focusing more on proximity to services and nearness to the City's core rather than underlying zoning designations.

#### Pro:

Allows meaningful differences in likely unit size and/or household income.

#### Con:

 Could result in a lower square-foot fee for properties outside the Urban Services Line depending on the analysis of median house size by location.

#### **Potential Exemptions**

Currently, three is a legal exemption from Inclusionary Housing Fees imposed upon ADUs under 750 square-feet and deed restricted affordable units. Council may want to consider policies for additional exemptions which may include, but not be limited to:

- Units that are "Affordable by Design" (smaller than 1,000 square feet)
- Areas targeted for infill
- Deed-restricted units (by income or age)
- Replacement units (redevelopment)
- Rebuilt units (post fire, flood, earthquake, etc.)
- Other

#### Conclusion

Staff and the Consultant are looking for feedback on the preferred fee structure based on examples A through E above and based on the suggested exemptions. The Council may also wish to provide additional direction on factors to consider for fee analysis. It is important that local considerations and factors are considered but also vital that the available data be able to support the analysis and provide a basis for any impact fee.

#### **Next Steps**

Once the consultant receives input on a preferred fee structure and factors to consider, they will complete the nexus study and present their findings. The Council will then have to opportunity to determine appropriate discounts and exemptions to balance the need for affordable housing with community and economic growth.

#### FISCAL IMPACT:

Project costs are covered by grant funding received through Senate Bill 2 (SB 2). SB 2 allocates funding to each local community based on population size. In Atascadero, \$160,000 was allocated towards activities that meet the grant criteria, specifically activities that demonstrate a clear path to the production of affordable housing. \$93,925 was dedicated toward the development and adoption of the 2021-2028 Housing Element. The remaining \$66,075 of grant funding is earmarked for this project.

#### **ATTACHMENT:**

Overview of Housing Program Goals and Considerations



City Council/Planning Commission Joint Study Session: Affordable Housing Tools | March 11, 2021

## INCLUSIONARY HOUSING PROGRAM GOALS

Provide a future for people growing up here

Provide variety in types of affordable housing

Spread projects throughout town

Provide for variety to meet different affordable housing demands (income ranges and multigenerational)

Variety of affordable housing levels

Focus on incentives Encourage affordable by design

Bridaina generational wealth gap provide opportunities to build wealth

Need funds to provide services moving forward

Larger homes should support affordable housing in the community

Need a source of funds to support low and very-low

fairness in the program and not limited to legislative actions

With as little impact on developers consider larger homes

Need verv low- and low-income units

#### **Key Considerations**

free market how do we provide for Atascaderans?

developers - what constraints for the types of development we want? (affordable by design)

consider local preference

Paso doesn't have an inclusionary ordinance

attract local businesses

concern cost or fee or inclusionary will transfer to market rate

supportive houses work well together to consolidate services

make development cheaper to encourage more units and smaller accommodate permanent supportive housing

administrative burden of inclusionary

provide for low-wage workers

subsidized projects for non-profits create long-term financial impacts to teh City in terms of service costs

need open space design standards that support ariety and high quality of life

affordable by design doesn't get us to low and very-low

consider service needs of arger homes

exempt affordable fees for smaller units

concern about cost to develop

can't waive fees - must cover our costs

pursue in a fair

way that is

simplify the development process

consider ways to spread affordable housing throughout the city

talk to local developers

#### **Key Questions:**

- 1. What do we want to achieve with an inclusionary housing program?
- 2. Understanding what is not working with our existing inclusionary policy, let's discuss what should change

## Affordable by Design

easiest to attain moderate based on County standards in Atascadero

duplexes can blend into SF neighborhood consider modular for single family affordable housing

need for sale affordable housing rental housing most appropriate for low and very low fractional density can spur affordable development

**Other Comments** 

fractional units would create more affordable units in general variety of housing types is supported with affordable by design

incentives may be necessary to encourage, esp at the lower income levels density ratio encourages affordable by design

purchase and rental options Grover Beach example - for sale in the \$100s allows for equity building on for-sale moderate very much needed for many in town and should be a focus outside of RHNA

## **Inclusionary Housing**

## **Affordable Housing Linkage Fees**

PSHH works with developers to meet inclusionary requirements a good inclusionary ordinance has options and a variety of tools

PSHH is available as a resource

can be a burden on developers for supportive and lower income units

on larger homes can support affordable housing for those who provide services in the community

don't support fee for commercial development

can be used for supportive housing and lower income units

deed restrictions do not allow for growth of equity can be a burned on developers

at a level that does not burden larger homes only apply to larger homes more equitable option that only applied to select discretionary projects

consider multiple tools to address affordable

housing

**NEXT STEPS:** 

Staff: complete economic study for impact fee for market rate housing Staff: identify incentives and requirements for affordable by design

consider impacts to developers

10/26/21



## Atascadero City Council

### Staff Report - Fire Department

#### **Emergency Evacuation Traffic Planning Study**

#### **RECOMMENDATION:**

Council receive and file the Emergency Evacuation Traffic Planning Study.

#### **DISCUSSION:**

The Atascadero City Council, in response to recent catastrophic wildfire events and the potential for lengthy power shutdowns, adopted "Ensure Comprehensive Safety Readiness and Risk Mitigation" as one of three main goals in the 2019-2021 City of Atascadero Action Plan. One of the broad categories included under this goal was to implement a comprehensive evacuation and communications plan.

In early 2020, staff began researching potential contractors to assist the City in developing this evacuation and communications plan. Evacuation planning for all hazards is important, however, using new technology to develop mass-evacuation plans in response to recent fast-moving wildfires in a wildland urban interface area is critical. Data-driven wildfire evacuation systems that use GIS mapping plus real-time weather and traffic are a new and emerging area of expertise.

Atascadero Fire was one of the very first agencies in the State to execute a contract with Zonehaven to provide the Evacuation Management Platform for the City of Atascadero. Zonehaven was formed as a result of devastating fires in Northern California and has since partnered with over 200 cities throughout the State. They developed a wildfire planning and evacuation management system that can be used for all hazards. Components of the plan include:

- Smart evacuation zones
- Dynamic, up-to-date maps and plans
- Custom fire/evacuation scenarios and recommendations
- A community evacuation interface with multi-channel notifications

Zonehaven was implemented in Atascadero during 2020 and was ready for use before the wildfire season of 2021. Zones are identified and available for the public to receive current information. Fire and Police personnel have trained to activate a zone evacuation and start the notification process, which includes Hi/Lo sirens, City social media, landline and cell phone reverse 911 through the Sheriff's Department and cell phone wireless emergency alerting through County OES. Zonehaven will be implemented throughout

San Luis Obispo by fire season 2022 and will give all emergency responders in the county a common operating platform on which to manage a large-scale evacuation.

To meet the City Council goal of implementing a comprehensive evacuation plan, staff began to look for a consultant that would assist in further evaluation and detail. Staff was looking to address issues concerning the challenging geography and road structure of Atascadero such as clear, pre-identified evacuation routes, identified streets to close for one-way traffic, identified bottleneck areas for better use of traffic control, and identified neighborhoods with one way in/out access.

In January of 2021, Atascadero Fire executed a contract with W-Trans to complete an indepth traffic and engineering analysis to address the above questions. The final purpose of the study would be to provide strategies and action items to employ during a wildland fire or other natural disaster that would facilitate the evacuation of vehicles from zones established through the Zonehaven platform.

The focus of the study was further defined into the following points:

- Estimate evacuation time for groups of zones under various fire intrusion scenarios
- Determine time savings by operating roads with contraflow lanes
- Recommend traffic signal operational changes during evacuation
- Recommend locations where manual traffic control should be provided
- Identify road closure needs

W-Trans has completed the study and provided recommendations in the attached report. One notable recommendation is the identified control points. These are ranked in the order of most critical and will be placed in the Zonehaven platform to identify those intersections where traffic control must occur to move cars quickly. This traffic control may be done manually by Police or Public Works staff or may involve changing traffic signals. Another recommendation includes limiting traffic from entering and exiting the freeway at certain on/off ramps during an evacuation. For this to occur, it will be critical that Atascadero Fire and Police Departments establish procedures with Cal Trans and CHP and train with those partners on a regular basis. For the full list of recommendations, see page 12 of the study.

Evacuation planning continues to evolve in California. Atascadero has led the county with programs such as the Zonehaven platform and public education campaigns such as "Defend Atascadero," "Know your Zone" and "Hear the Hi/Lo, time to go." Recommendations from this study are additional tools that will help us to be better prepared and to better protect our community.

#### **FISCAL IMPACT:**

The study has no direct costs beyond previously approved consultant costs. Implementation of any recommendations may require additional costs that would be addressed with future budgeting and grant proposals.

#### ATTACHMENT:

W-Trans Emergency Evacuation Traffic Planning Study



## **Draft Report**

## **Emergency Evacuation Traffic Planning Study**

Prepared for the City of Atascadero

October 14, 2021

#### Introduction

#### **Analysis Focus**

This document provides traffic engineering analysis and findings related to Emergency Evacuation for the City of Atascadero. The purpose of this planning study is to provide strategies and action items to employ during fire and other natural disaster events to facilitate the evacuation of vehicles from selected zones in Atascadero. The focus of this analysis was to determine the following information:

- Estimate evacuation time for groups of zones under various fire intrusion scenarios.
- Determine time savings by operating roads with contraflow lanes.
- Recommend traffic signal operational changes during evacuation.
- Recommend locations where manual traffic control should be provided.
- Identify road closure needs

These efforts utilized information in the Zonehaven app which has already been initiated for the City.

#### **Disclaimer**

This document examines the simulation of three different fire evacuation scenarios which have been determined by the City of Atascadero Fire Department. Data for the evacuation zones were based on information provided by the Zonehaven mapping software and are disclosed in the report. These scenarios are intended to provide the City with some general strategies for assignment of personnel at key intersections and roadways during fire events.

It is important that the City of Atascadero provide evacuation orders to the public as early as possible and to guide the evacuation on a zone-by-zone basis so that the evacuation can be spread over as much time as possible, thereby minimizing congestion and delay for its citizens. The City should communicate strategies to the public through several communication channels well in advance and also during the event so that evacuation does not occur en masse.

Dissemination of evacuation orders is up to the City of Atascadero to implement and will need to be tailored to the specifics of any such event. The scenarios evaluated in this report are intended for guidance purposes and do not comprise a directive for any actual emergency.

It should be acknowledged that evacuation during a fire or other emergency event can produce unexpected traffic patterns that cannot be predicted in advance. During fire events, traffic can be impacted by many factors such as the direction of the wind, the path of the fire, the number of firefighting responders, the volume of traffic during evacuation, the number of people that follow evacuation directions, unsafe traffic maneuvers and behavior by the public, driver visibility on evacuation routes, etc.



## **Study Area Zones and Scenarios**

#### **Zonehaven Data**

Zonehaven is an on-line platform to assist communities with data and information for fire events. The City of Atascadero had Zonehaven map the City into zones. This zone system was used for the purposes of this traffic evaluation study. Figure 1 shows the Zonehaven zones for the City of Atascadero. As shown in Figure 1, there are a total of 27 evacuation zones within the City of Atascadero.

The City selected a set of zones for evaculation under three different wildfire-related evacuation scenarios. Scenario A assumes that a westerly wind would cause fire to encroach the City from the west to east and require zones 3, 7, 8 to evacuate to the north and the south via US-101 and to the east via SR 41. Scenario B also predicts that a westerly wind would spread fire from the west to east and require zones 1, 2, and 4 to evacuate to the north and south via US 101 and to the east via SR 41. Scenario C presumes that the fire would encroach the City due to an easterly wind blowing from the east to the west and would require zones 15, 16, and 18 to evacuate to the north and south via US 101 and to the west via CA 41. These three scenarios are depicted in Figure 2.

#### Scenario A

- Zones 3, 7 and 8 (west side of 101)
- Westerly wind, afternoon peak hour
- Evacuation Destinations
  - Northbound 101
  - Southbound 101
  - Eastbound SR-41

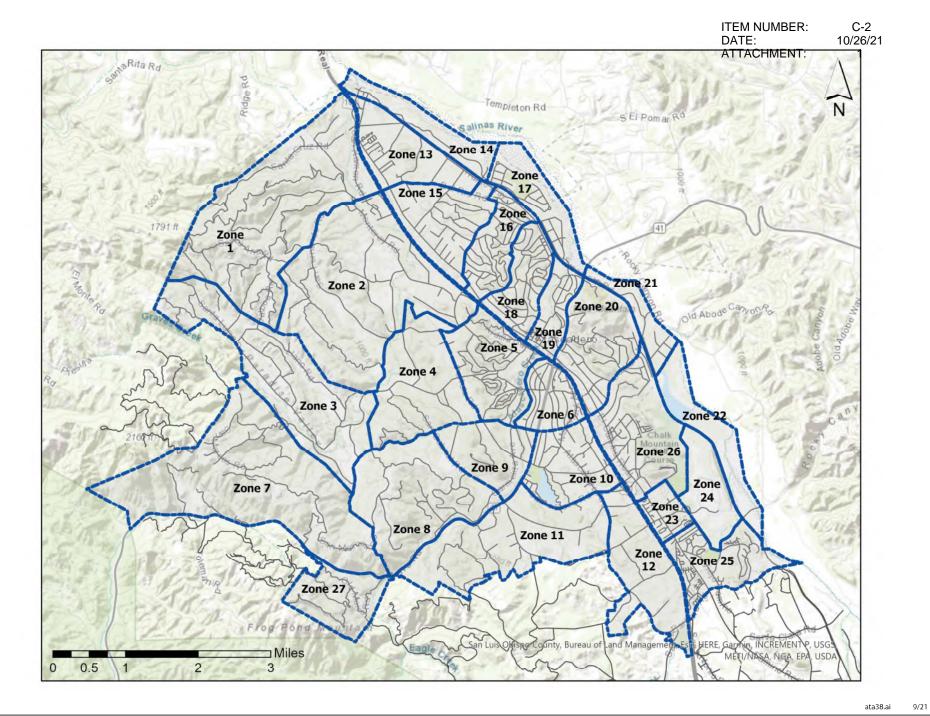
#### Scenario B

- Zones 1, 2 and 4 (west side of 101)
- Westerly wind, afternoon peak hour
- Evacuation Destinations
  - Northbound 101
  - Southbound 101
  - Eastbound SR-41

#### Scenario C

- Zones 15, 16 and 18 (east side of 101)
- Easterly wind, afternoon peak hour
- Evacuation Destinations
  - Northbound 101
  - Southbound 101
  - Westbound SR-41







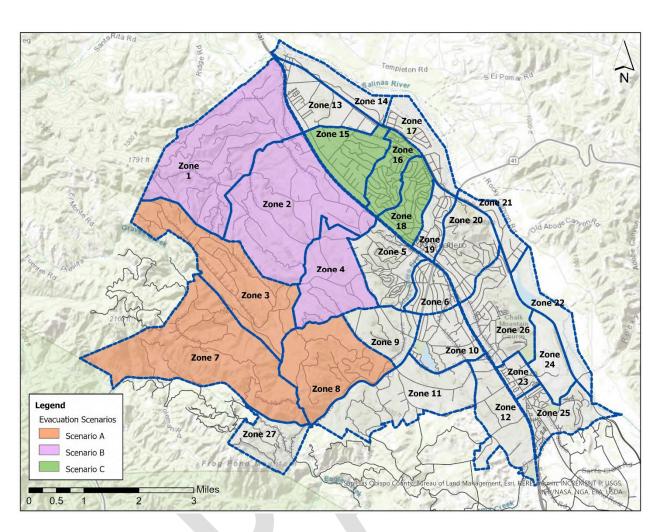


Figure 2 Evacuation Zones in City of Atascadero

As presented in Table 1, each of the evacuation zones were recorded with the number of structures, population, and estimated number of vehicles as provided in the *Zonehaven* app. As the evacuation zones in Scenario B and C are located near the urban core with higher densities, they consist of a substantially higher population as well as number of vehicles compared with zones in Scenario A, which are located in the rural edge of the City.



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Table 1 – Evacuation Zone Summary			
	Number of Structures	Populations	Number of Vehicles
Scenario A			
Zone 3	398	443	796
Zone 7	177	432	354
Zone 8	415	563	830
Total	990	1,438	1,980
Scenario B			
Zone 1	660	1,023	1,200
Zone 2	850	1,564	1,700
Zone 4	531	826	1,062
Total	1,981	3,413	3,962
Scenario C			
Zone 15	570	977	1,140
Zone 16	830	1,801	1,660
Zone 18	1,006	2,497	2,012
Total	2,406	5,275	4,812

Source: Zonehaven, 2021



## **Evacuation Routes**

The evacuation routes for zones under each scenario were identified by using Google Maps to choose the shortest travel time. It is noted that the evacuation routes were selected to start near the center of each zones and connect to the closest highway access point. Multiple routes for each zone/destination were utilized as much as possible. All of the individual travel paths assumed from each zone to each of the three evacuation destinations are included in Appendix A. Following is a summary for each evacuation scenario.

As shown in the Figure 3, evacuation routes from zones 3, 7, and 8 under Scenario A would lead the traffic to several highway access points including Del Rio Road, San Anselmo Road, Traffic Way, Curbaril Avenue, and Santa Rosa Road along US 101 and Portola Road, San Gabriel Road, and Los Altos Road along SR 41.

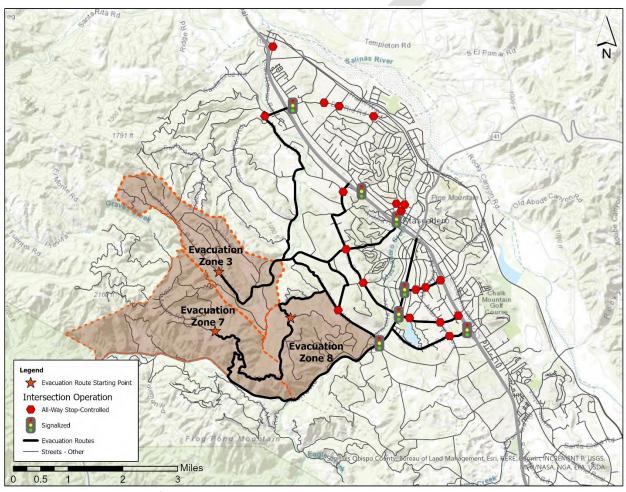


Figure 3 Evacuation Routes for Zones in Scenario A



The evacuation routes for Scenario B are shown in Figure 4. Similarly, to Scenario A, the evacuating traffic from zones 1,2, and 4 under Scenario B were assumed to access the highways through connections with San Ramon Road, El Camino Real, Del Rio Road, San Anselmo Road, and Traffic Way along US 101 and Portola Road and San Gabriel Road along SR 41.

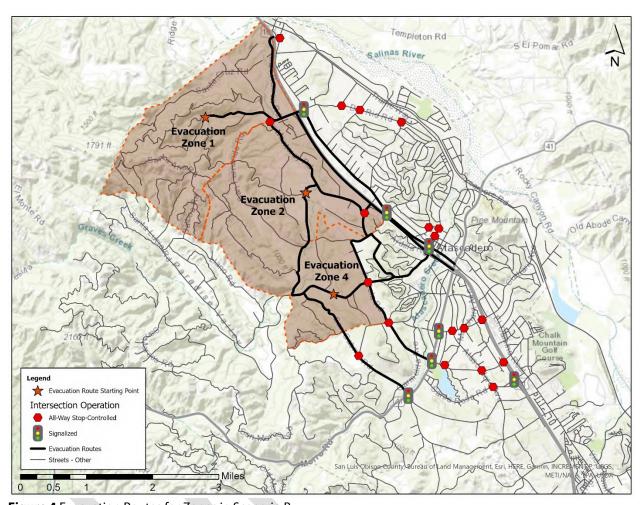


Figure 4 Evacuation Routes for Zones in Scenario B



The evacuation routes for Scenario C are shown in Figure 5. For Scenario C, the evacuating traffic from zones 15, 16, and 18 were assumed to access highways via Del Rio Road, San Anselmo Road, Rosario Avenue, Traffic Way, and El Camino Real along US 101 and Mercedes, and El Camino Real along SR 41.

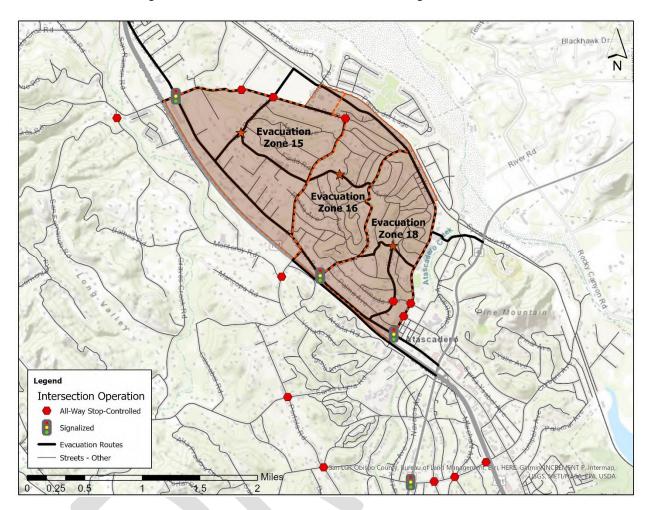


Figure 5 Evacuation Routes for Zones in Scenario C



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## **Traffic Operational Analysis**

## **Analysis Process**

The following process was used to estimate traffic volumes on evacuation routes and analyze the impact of the additional traffic flow:

- Travel paths from each zone to each of the three evacuation destinations were determined. Where feasible, multiple paths were assumed for the same origin/destination path.
- The total evacuating traffic volume for each zone was assumed to be the same number of vehicles recorded in the Zonehaven app zone.
- All scenarios assumed that 75% of the evacuating traffic would be destined for US 101 and the remaining 25% would be destinated to SR41 (east or west depending on the wind direction)
- The volume % by path was estimated assuming that traffic would spread evenly amongst all the paths as much as possible.
- The resulting volume was recorded by specific turning movement at each of the key intersections along each
- The City specified that fire events would be most likely in the afternoon, therefore, background traffic for key intersections on evacuation routes was assumed to be the weekday p.m. peak hour which is generally the peak traffic hour of the day.
- Background traffic volumes were acquired from past traffic studies conducted over the last 5-6 years and were factored with an annual growth rate of 1.5 percent per year to represent a "normalized" (non-Covid) Year 2020 traffic volume. It should be noted that there was no data for some intersections.
- Key intersections were then evaluated to determine their delay and Level of Service with the added traffic. This process is discussed below.

The resulting traffic volume assignment data is included in Appendix B.

## **Traffic Analysis Study Area**

The study area selected based on evacuation routes consists of the following intersections:

- 1. Del Rio Road/US101 SB Ramps
- 2. Del Rio Road/US101 NB Ramps
- 3. Del Rio Road/El Camino Real
- 4. San Anselmo Road/US101 SB Ramps
- 5. San Anselmo Road/US101 NB Ramps
- 6. San Anselmo Road/El Camino Real
- 7. Rosario Avenue-US101 NB On-Ramp/El Camino Real
- 8. Traffic Way/US101 SB Ramps
- 9. Traffic Way/US101 NB Off-Ramp
- 10. Traffic Way/El Camino Real



- 11. SR 41/US101 SB Ramps
- 12. SR41/El Camino Real
- 13. US101 NB Ramps-Plaza Del Camino Driveway/El Camino Real
- 14. Santa Rosa Road/US101 SB Ramps
- 15. Santa Rosa Road/US101 NB On-Ramp-West Front Road
- 16. Santa Rosa Road/El Camino Real
- 17. SR41/San Gabriel Road
- 18. SR41/Santa Rosa Road
- 19. SR41/Portola Road
- 20. SR41/Curbaril Avenue
- 21. SR41/Atascadero Avenue

## **Intersection Operations with Evacuation**

Operating conditions during the weekday p.m. peak period were evaluated to capture the highest potential impacts for the wildfire scenarios as well as the highest volumes on the local transportation network. The p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward-bound commute. Because winds are likely to pick up in the afternoon, increasing the wildfire threats, only afternoon peak period was evaluated.

Each of the study intersections were examined to determine their delay and Level of Service (LOS) with the added traffic volumes from the various evacuation scenarios. Generally, intersection operations are graded based on their level of average delay and assigned a grade from LOS A (minor delay) to LOS F (significant delay). LOS D conditions are generally considered acceptable during peak hour conditions.

As shown in Table 2, upon the addition of project-related traffic to the Existing volumes, the study intersections are identified which would be expected to experience excessive delay and longer queuing due to the added traffic. Therefore, these intersections with LOS E and F conditions were targeted for strategies to increase their capacity and decrease delay for evacuating traffic. These action items are discussed in the next section.



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Table 2 –Intersection Analysis			
Study Intersection	Scenario A	Scenario B	Scenario C
Approach	PM Peak	PM Peak	PM Peak
	LOS	LOS	LOS
1. Del Rio Rd/US 101 NB Ramps		LOS F	
2. Del Rio Rd/US 101 SB Ramps		LOS F	LOS E
3. Del Rio Rd/El Camino Real		LOS E	LOS F
4. San Anselmo Rd/US 101 NB Ramps		LOS F	LOS F
NB (US 101 NB Off-Ramp) Approach	LOSF		
5. San Anselmo Rd/US 101 SB Ramps		LOS F	LOS F
SB (US 101 SB Off-Ramp) Approach	LOS F		
6. San Anselmo Rd/El Camino Real		LOS E	LOS F
7. Rosario Ave-US 101 NB On-Ramp/El Camino Real			
8. Traffic Wy/US 101 SB Ramps			
SB (US 101 SB Off-Ramp) Approach	LOS F	LOS F	LOS F
9. Traffic Wy/US 101 NB Off-Ramp			
NB (US 101 NB Off-Ramp) Approach		LOS F	LOS F
10. Traffic Wy/El Camino Real	LOS E	LOS F	LOS F
11. SR 41/US 101 SB Ramps	4		
12. SR 41/El Camino Real	LOS E	LOS F	LOS F
13. US 101 NB Ramps-Plaza Del Camino Driveway/El Camino Real			
14. Santa Rosa Rd/US 101 SB Ramps			
15. Santa Rosa Rd/US 101 NB On-Ramp-W Front Rd			
16. Santa Rosa Rd/El Camino Real	LOS E	LOS E	
17. SR 41/San Gabriel Rd			LOS F
18. SR 41/Santa Rosa Rd			
NB (Santa Rosa Rd) Approach			LOS F
19. SR 41/Portola Rd	LOS F		LOS F
20. SR 41/Curbaril Rd	LOS F	LOS E	LOS F
21. SR 41/Atascadero Ave	LOS F	LOS F	LOS F

Notes: LOS = Level of Service

More details on the intersection level of service analysis including calculation sheets for each of the study intersections under the three evaluation scenarios are included in Appendix C.



## **Traffic Recommendations**

## **Considerations & Evacuation Strategy**

The goal of any evacuation event is to move as much traffic as possible in the shortest amount of time. Generally, with mass evacuations, traffic delay can last for hours. It is assumed that any fire event will require residents to leave the immediate area of the City by using major regional routes such as US 101 and SR 41. Some traffic will seek back roads out of the area, but for the purposes of this evacuation analysis, it was assumed that all of the evacuating traffic would seek destinations to one of the three regional routes, north on US 101, south on US 101 and either west or east on SR 41. Following is a summary of the Strategy and Action Items to facilitate vehicle evaculation during fire or other natural disaster events.

# Strategy 1 - Increase vehicle capacity for evacuating traffic at US 101 interchanges.

The City of Atascadero has the luxury of having eight interchanges with US 101. However, with the exception of the SR 41 interchange, most of these have low vehicle capacity due to the two-lane overpasses. Therefore, the action items that are recommended were structured to utilize as many interchanges as possible and to increase the capacity of these interchanges by eliminating off-ramp traffic and traffic from the side of the freeway that is not in peril. These closures would allow evacuating traffic to access the northbound or southbound ramps without any conflicts from other traffic competing for available capacity.

# Strategy 2 - Increase vehicle capacity at intersections projected to operate deficiently.

Based on the intersection level of service analysis as well as the review of the evacuation trips, recommended actions such as closing roadways, modifying traffic signal operation, and providing manual traffic controls were made at selected intersections for each scenario. These action items are intended to favor capacity for evacuation routes and increase the capacity of the intersection and facilitate traffic flow during periods of increased traffic demand.

## Strategy 3 - Provide manual traffic control at all-way stop controlled intersections.

There are a number of intersections on local residential and collector streets in Atascadero which are controlled by all-way Stops. An all-way stop controlled intersection is the lowest capacity traffic control device. Increased traffic demand on focused approaches will result in excessive queues due to the capacity profile. Action items are presented in the recommendations to provide manual traffic control at key all-way stop controlled intersections, especially at those intersections which are key outlets from residential neighborhoods.

#### **Additional Notes**

- The recommendations include a number of action items calling for manual traffic control by police and local City staff. A prioritized list of these intersections under each scenario are shown.
- It should be noted that use of contra flow lanes (i.e., converting a two-lane two-way roadway to two-lane one-way) was considered, but dismissed due to the preponderance of two-lane roads and single lane access to US 101 ramps.



Information on the time to evacuate traffic was requested but cannot accurately be provided due to the level of complexity and unknown factors during an evaculation. Evaculation should start as early as possible to ensure the safety of local residents.

#### **Scenario A Evacuation Recommendations**

Following is a summary of the Action Items recommended for an evacuation that is typified by Scenario A. These action items are also depicted in Figure 6 including the priority list of manual traffic control locations.

#### **Del Rio Road Interchange**

- Close NB and SB Offramps
- Close Del Rio Road (West of ECR)
- Traffic Signals at interchange ramps go to flashing yellow.

#### San Anselmo Road Interchange

- Close NB and SB Offramps
- Close San Anselmo Road (West of ECR)
- Ramp intersections are uncontrolled, therefore, no changes would be needed since traffic would have free access onto freeway due to road closures.
- San Anselmo Road/Monterey Road (all-way stop) Provide manual traffic control.

#### Santa Lucia Road/Portola Road

• Provide manual traffic control at existing all-way stop.

#### **Traffic Way Interchange**

- Close NB and SB Offramps
- Close Traffic Way (West of ECR)
- All evacuation movements directed to US 101 SB on-ramp.
- Santa Lucia Road/Ardilla Avenue (all-way stop) Provide manual traffic control.

#### **SR41 Corridor**

- SR41/San Gabriel Road Place traffic signal operation on flashing with manual traffic control
- SR41/Portola Road Place traffic signal operation on flashing with manual traffic control
- SR41/Curbaril Avenue Place traffic signal operation on flashing yellow for SR41 approaches and on flashing red for Curbaril Avenue approaches.
- SR41/Atascadero Avenue Place traffic signal operation on flashing yellow for SR41 approaches and on flashing red for Atascadero Avenue approaches.

#### SR 41 Interchange

- Close NB and SB Offramps
- SR41/101 SB Ramps Provide manual traffic control.
- SR41/El Camino Avenue Provide manual traffic control.



#### **Curbaril Interchange**

- Close NB and SB Offramps
- Close Curbaril Avenue (West of San Luis Avenue)
- Provide manual traffic control at all-way stop controlled intersections of Curbaril Avenue/101 SB ramps,
   Curbaril Avenue/Cristobal Ave.-Marchant Ave., and Curbaril Avenue/Atascadero Avenue.

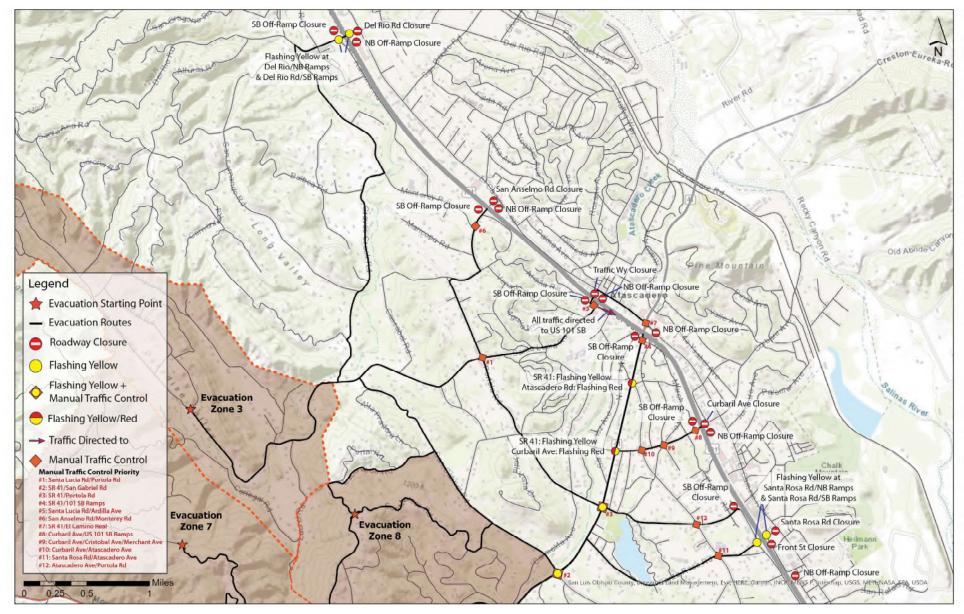
#### **Santa Rosa Road Interchange**

- Close NB and SB Offramps
- Close Santa Rosa Road (West of ECR)
- Close East Front Street (North of Montecito Avenue)
- Traffic Signals at interchange ramps go to flashing yellow.
- Provide manual traffic control at all-way stop controlled intersections of Santa Rosa Road/Atascadero Avenue and Portola Road/Atascadero Avenue

#### **US 101 Freeway**

- Coordinate with Caltrans and the California Highway Patrol to place the following changeable message signs:
  - o NB All Atascadero traffic exit at Santa Barbara Road Only
  - o SB All Atascadero traffic exit at San Ramon Road/Santa Cruz Road Only







#### **Scenario B Evacuation Recommendations**

Following is a summary of the Action Items recommended for an evacuation that is typified by Scenario B. These action items are also depicted in Figure 7 including the priority list of manual traffic control locations.

#### **Del Rio Road Interchange**

- Close NB and SB Offramps
- Close Del Rio Road (West of ECR)
- Traffic Signals at interchange ramps go to flashing yellow.

#### San Anselmo Road Interchange

- Close NB and SB Offramps
- Close San Anselmo Road (West of ECR)
- Ramp intersections are uncontrolled, therefore, no changes would be needed since traffic would have free access onto freeway due to road closures.
- San Anselmo Road/Monterey Road (all-way stop) Provide manual traffic control.

#### Santa Lucia Road/Portola Road

• Provide manual traffic control at existing all-way stop.

#### **Traffic Way Interchange**

- Close NB and SB Offramps
- Close Traffic Way (West of ECR)
- All evacuation movements directed to US 101 SB on-ramp.
- Santa Lucia Road/Ardilla Avenue (all-way stop) Provide manual traffic control.

#### **SR41 Corridor**

- SR41/San Gabriel Road Place traffic signal operation on flashing with manual traffic control
- SR41/Portola Road Place traffic signal operation on flashing with manual traffic control
- SR41/Curbaril Avenue Place traffic signal operation on flashing yellow for SR41 approaches and on flashing red for Curbaril Avenue approaches.
- SR41/Atascadero Avenue Place traffic signal operation on flashing yellow for SR41 approaches and on flashing red for Atascadero Avenue approaches.

### SR 41 Interchange

- Close NB and SB Offramps
- SR41/101 SB Ramps Provide manual traffic control.
- SR41/El Camino Avenue Provide manual traffic control.

#### **Curbaril Interchange**

Close NB and SB Offramps

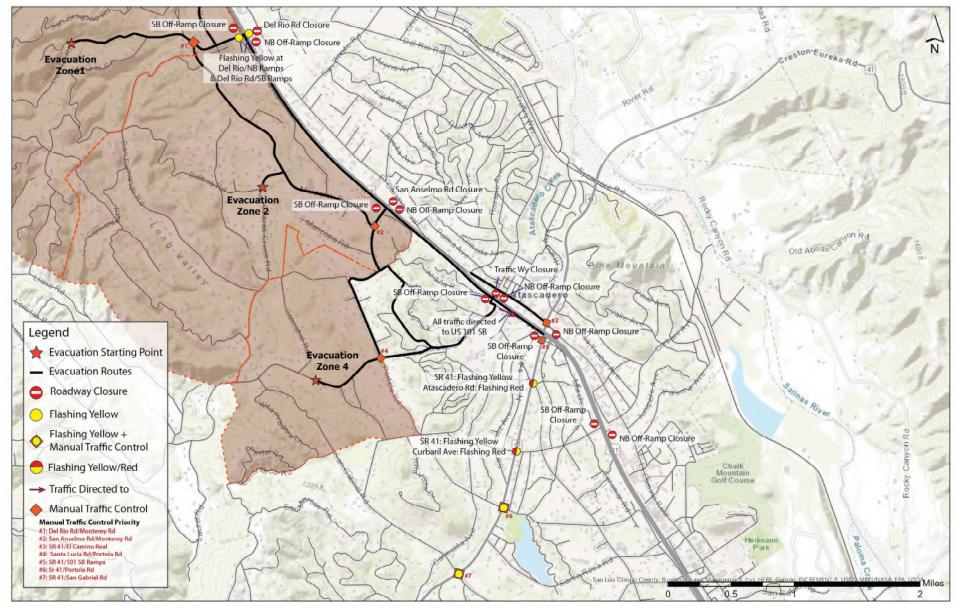


## **US 101 Freeway**

- Coordinate with Caltrans and the California Highway Patrol to place the following changeable message signs:
  - o NB All Atascadero traffic exit at Santa Barbara Road Only
  - o SB All Atascadero traffic exit at San Ramon Road/Santa Cruz Road Only









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## **Scenario C Evacuation Recommendations**

Following is a summary of the Action Items recommended for an evacuation that is typified by Scenario C. These action items are also depicted in Figure 8 including the priority list of manual traffic control locations.

#### **Del Rio Road Interchange**

- Close NB and SB Offramps
- Close Del Rio Road (West of 101 Ramps)
- Traffic Signals at interchange ramps go to flashing yellow.
- Del Rio Road/El Camino Real Place traffic signal operation on flashing with manual traffic control

#### San Anselmo Road Interchange

- Close NB and SB Offramps
- Close San Anselmo Road (West of 101 Ramps)
- Ramp intersections are uncontrolled, therefore, no changes would be needed since traffic would have free access onto freeway due to road closures.
- San Anselmo Road/El Camino Real Place traffic signal operation on flashing with manual traffic control

#### **Traffic Way Interchange**

- Close NB and SB Offramps
- Close Traffic Way (West of 101 Ramps)
- All evacuation movements directed to US 101 SB on-ramp.
- Traffic Way/El Camino Real Place traffic signal operation on flashing with manual traffic control

#### **SR 41 Interchange**

- Close NB and SB Offramps
- SR41/101 SB Ramps Provide manual traffic control.
- SR41/El Camino Avenue Provide manual traffic control.

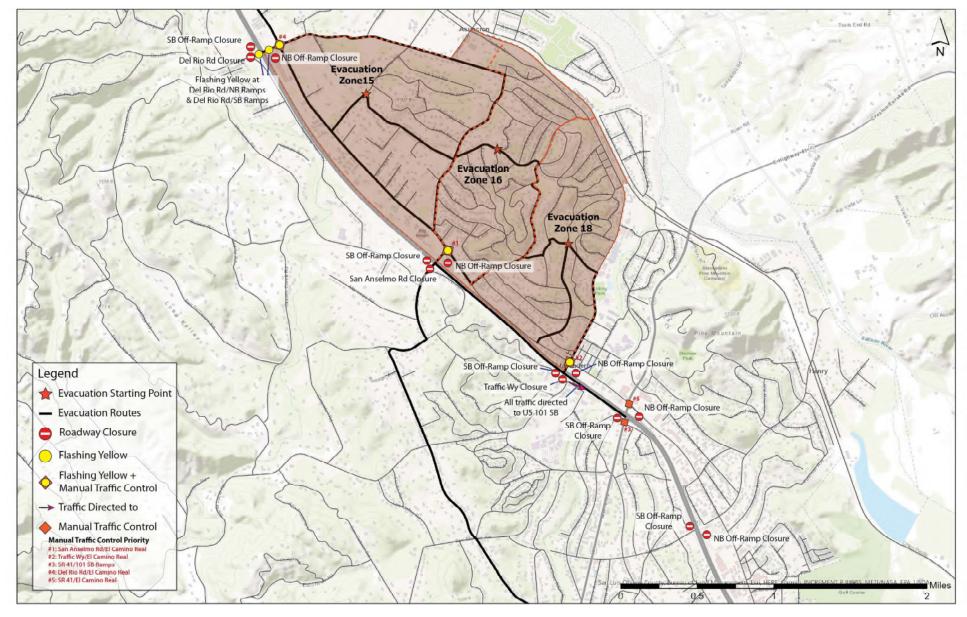
#### **Curbaril Interchange**

Close NB and SB Offramps

#### **US 101 Freeway**

- Coordinate with Caltrans and the California Highway Patrol to place the following changeable message signs:
  - o NB All Atascadero traffic exit at Santa Barbara Road Only
  - o SB All Atascadero traffic exit at San Ramon Road/Santa Cruz Road Only





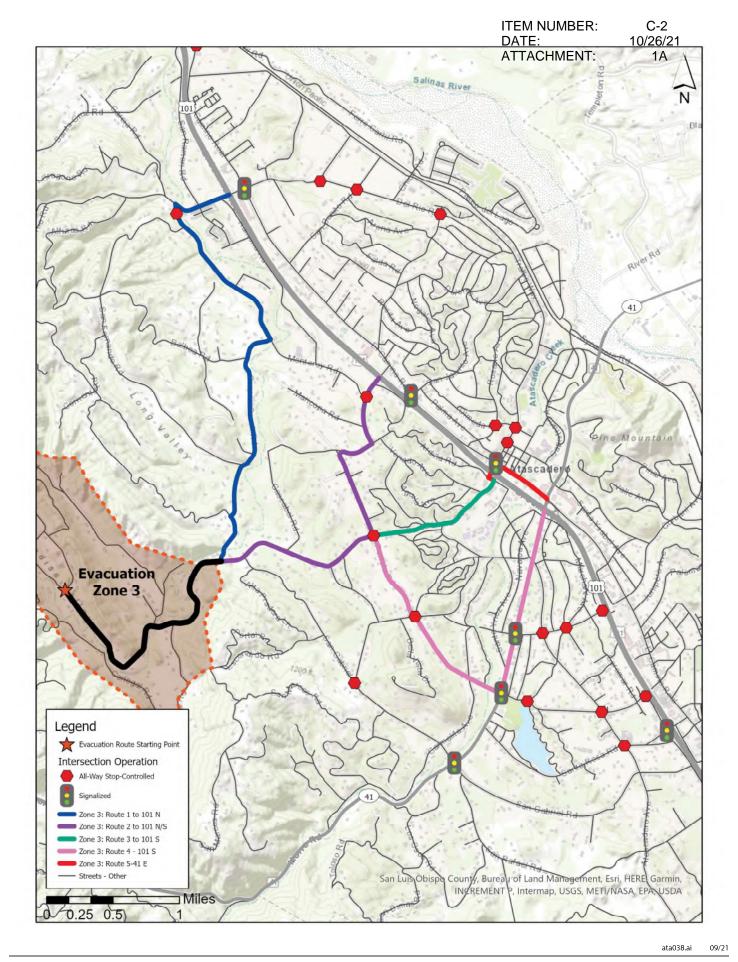


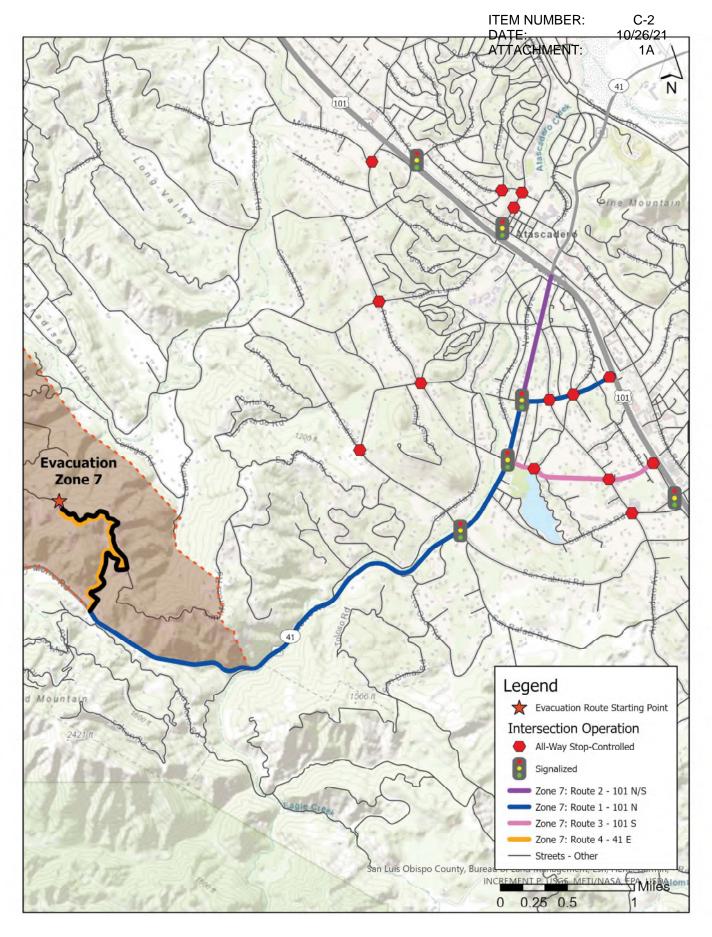
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## **Appendix A**

## **Evacuation Routes & Paths**

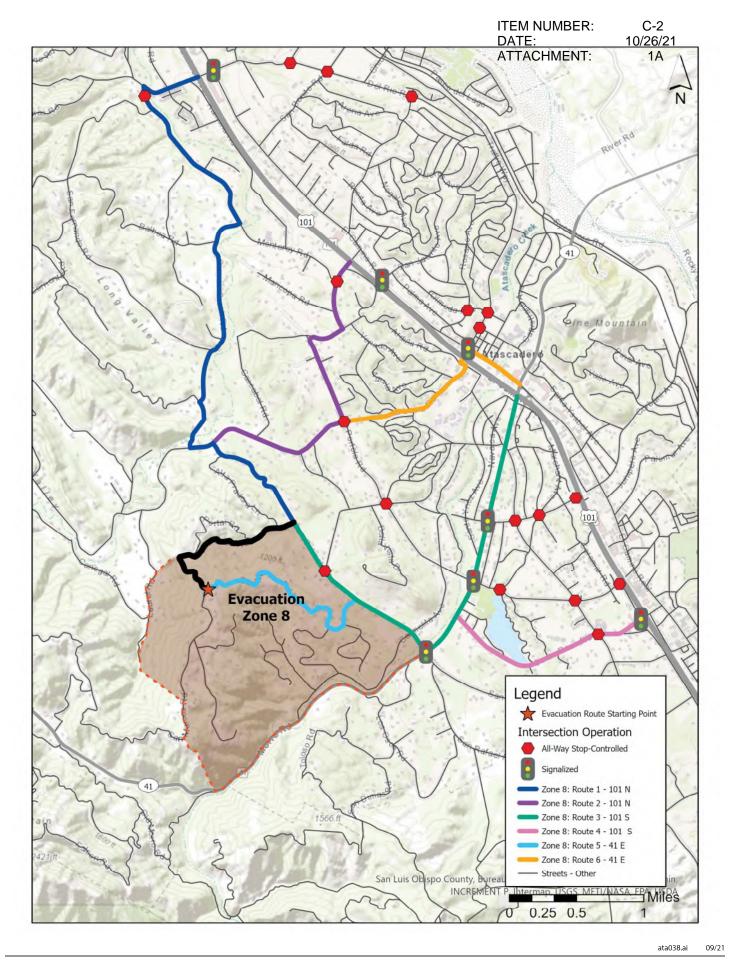


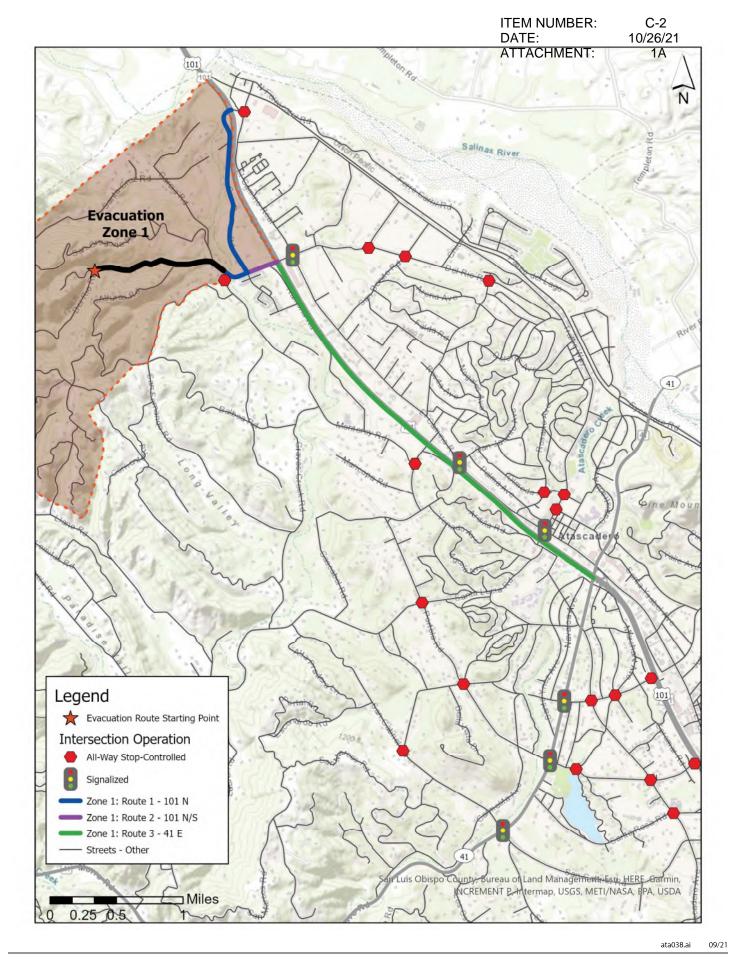


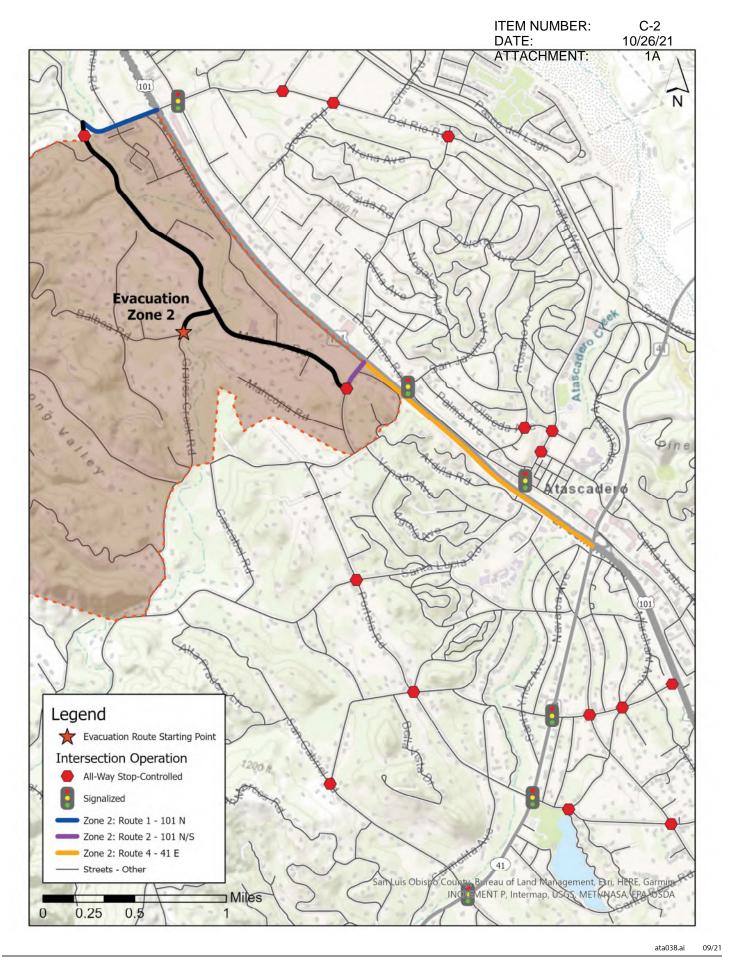


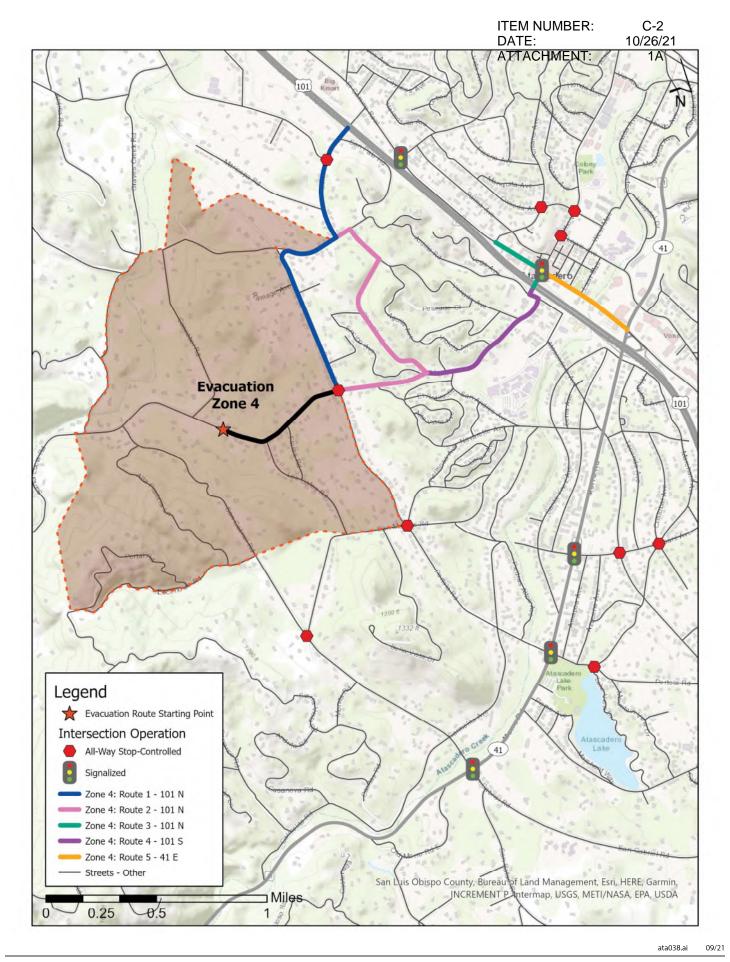
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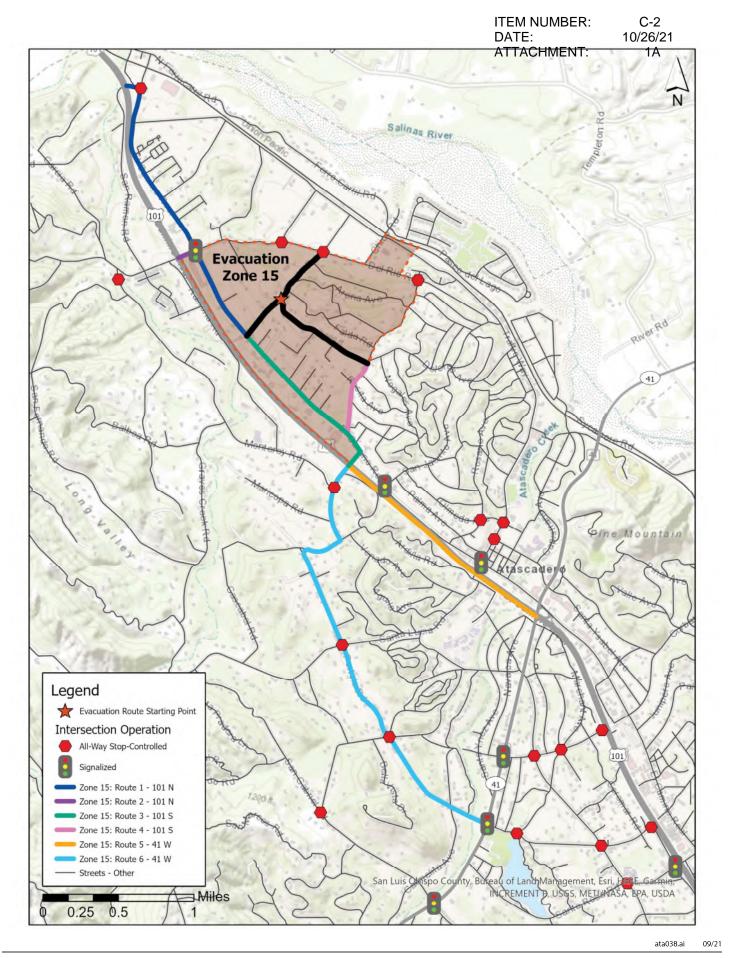




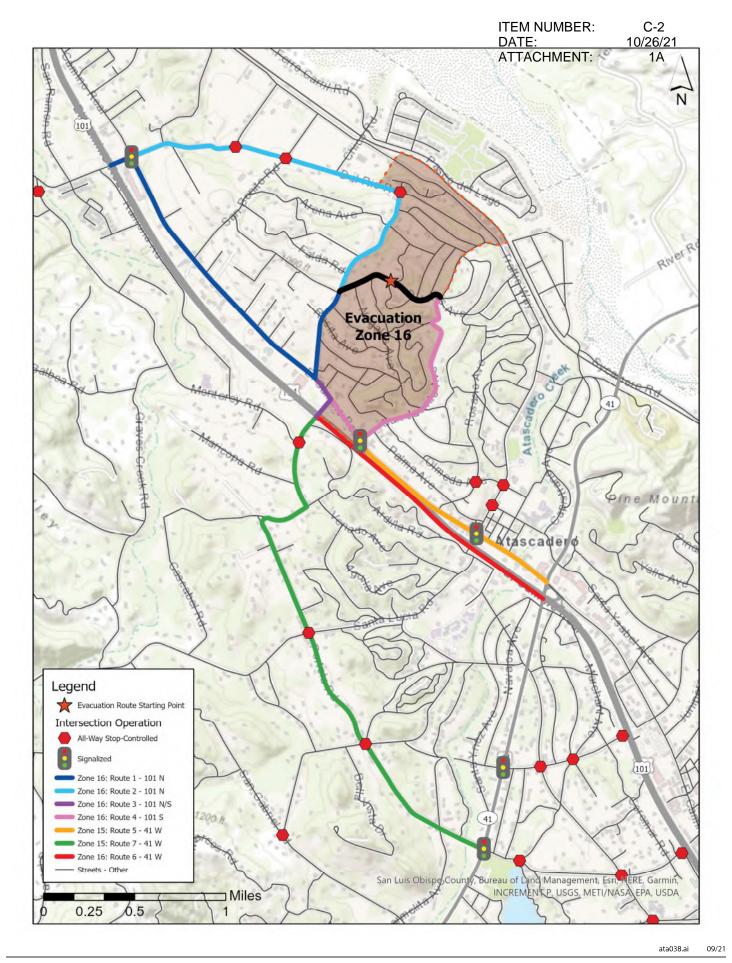


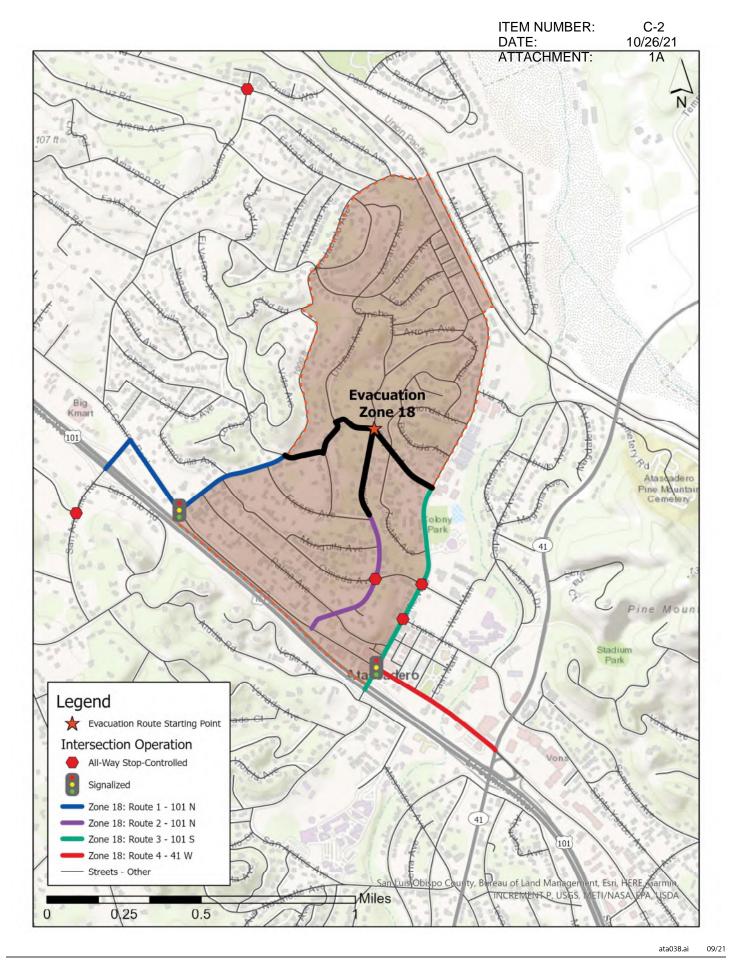














## **Appendix B**

## **Traffic Volume Estimates**





Destination	Route # (see maps)	Total Distance (Miles)	Total Time (Minutes)	%	No. of Vehicles	Step 1		Step 2		Step 3		Step 4		Step 5	St	tep 6	St	ep 7
	Westerly Wind					Direction Street	Direction	n Street	Direction	Street	Direction	Street	Directio	n Street	Direction	n Street	Direction	Stree
Zone 3		Startin	g Point: Sant	a Lucia Rd (	 at Lomitas F 	  } 												
101 N @ San Anselmo Rd	2	4.1	8	18	143	SE Santa Lucia	North	Portola Rd	East	Ardilla Ave	NE	San Anselmo Rd	North	US-101				
101 N @ Del Rio Rd	1	4.8	10	17	135	SE Santa Lucia	NE	Santa Ana Rd	NE	Graves Creek Rd/San Benito Rd	North	Monterey Rd	East	Del Rio Rd	North	US-101		
101 S @ San Anselmo Rd	2	4	8	8	64	SE Santa Lucia	North	Portola Rd	East	Ardilla Ave	NE	San Anselmo Rd	South	US-101				
101 S @ Traffic Way	3	3.9	8	12	96		South	US-101										
101 S @ CA-41	4	5.4	14	20	159	SE Santa Lucia	South	Portola Rd	East	CA-41	South	US-101						
SR 41 E @ El Camino Real	5	6.3	11	<u>25</u> 100	<u>199</u> 796	SE Santa Lucia	South	El Camino Real	East	CA-41								
Zone 7		Sta	rting Point:			1												
101 N @ CA-41	2	6.1	14	18	64	SE San Marcos Rd	SE	Los Altos Rd	East	CA-41	North	US-101						
101 N @ Curbaril	1	6.5	14	17	60	SE San Marcos Rd	SE	Los Altos Rd	East	CA-41	East	Curbaril Ave	North	US-101				
101 S @ CA-41	2	6.1	14	20	71	SE San Marcos Rd	SE	Los Altos Rd	East	CA-41	South	US-101						
101 S @ Santa Rosa Rd	3	5.2	12	20	71	SE San Marcos Rd		CA-41	East	Santa Rosa Road	South	US-101						
SR 41 E @ Los Altos Rd	4	1.4	5	<u>25</u> 100	<u>89</u> 354	SE San Marcos Rd	SE	Los Altos Rd	East	CA-41								
Zone 8		Starting	Point: San N	1arcos Rd a	t Escondido	Rd												
101 N @ San Anselmo Rd	2	4.1	9	18	149	NE Escondido Rd	North	San Gabriel Rd	East	Santa Lucia Rd	North	Portola Rd	North	San Anselmo Rd	North	US-101		
101 N @ Del Rio Rd	1	3.9	10	17	141	NE Escondido Rd	North	San Gabriel Rd	North	Santa Ana Rd	North	Graves Creek Rd	North	Monterey Rd	East	Del Rio	North	US-101
101 S @ Santa Rosa Rd	4	3.6	9	20	166	NE San Marcos Rd	NE	Monita Rd	SE	San Gabriel Rd	East	CA-41	South	Santa Rosa Rd	South	US-101		
101 S @ CA-41	3	3.6	12	20	166	NE San Marcos Rd		Monita Rd	SE	San Gabriel Rd	East	CA-41	South	US-101				
SR 41 E @ El Camino Real	5	3.5	12	10	83	NE Escondido Rd	North	San Gabriel Rd	East	Santa Lucia Rd	South	El Camino Real	East	CA-41				
SR 41 E @ San Gabriel	6	1.9	5	<u>15</u> 100	<u>125</u> 830	SE San Marcos Rd	South	San Gabriel Rd	East	CA-41								

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Scenario 1 Scenario A 7/13/2021

#### **Turning Movement Volume: Summary**

ID	Intersection Name	North	bound	So	outhbou	nd	Eastb	ound	West	oound	Total
ID	Intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	276	0	0	0	276

ID ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	276	0	0	0	0	0	276

	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	3	Del Rio Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	293	64	0	0	0	357

ID	ID Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	293	0	0	0	0	0	293

D	Intersection Name	North	bound	South	bound	Easth	oound	Total
טו	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
6	San Anselmo Rd/El Camino Real	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
7	El Camino Real/Rosario Ave- US NB On-Ramp	0	0	0	0	0	0	0	0	0	0	0	0	0

## Generated with PTV VISTRO

ID	Interception Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	W	estbour/	nd	Total	
	טו	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	282	96	0	0	0	378

Ī	ID	Intersection Name	North	bound	Eastb	ound	Westl	oound	Total
	טו	intersection Name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	282	0	0	0	282

ĺ	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
ĺ	10	Traffic Wy/El Camino Real	0	0	0	0	0	0	0	199	83	0	0	0	282

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	278	395	0	0	0	673

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
12	SR 41/El Camino Real	0	0	0	83	0	0	0	214	0	0	0	0	297

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

ſ	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	nd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	60	0	0	0	0	60

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	60	0	0	0	0	0	60

## Generated with PTV VISTRO

ID	Interception Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection rvaine	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	71	166	0	0	0	237

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Eastb	ound	West	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Ī	20	SR 41/Los Altos Rd	354	0	0	0	0	0	354

ī	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	456	0	0	0	354	0	0	0	0	810

ID	Intersection Name	Northl	bound	Eastb	oound	West	oound	Total
טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
22	SR 41/Santa Rosa Rd	0	0	574	236	0	0	810

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	nd	V	estbour/	nd	Total
l ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	159	0	0	0	574	0	0	0	0	733

Generated with PTV VISTRO

ID.	Internation Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	SR 41/Curbaril Ave	0	673	60	0	0	0	0	0	0	0	0	0	733

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	673	0	0	0	0	673

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
26	SR 41/Mercedes Ave	0	0	0	199	0	0	0	297	0	0	0	0	496

Scenario B Rout	es and Traffic	Volumes														
Destination	Route # (see maps)	Total Distance (Miles)	Total Time (Minutes)	0/2	No. of Vehicles	Step 1		Step 2		Step 3		Step 4		Step 5	Ste	ep 6
	Westerly Wind					Direction Street	Directio	on Street	Direction	Street	Direction	Street	Direction	Street	Direction	Street
Zone 1		Starti	ng Point: De	 el Rio Rd at L	 a Canada Lr 	 1										
101 N @ Del Rio Rd 101 N @ San Ramon Rd	2 1	1.3 2.5	4 6	25 20		East Del Rio Rd East Del Rio Rd	North North	US-101 San Ramon Rd	North	US-101						
101 S @ Del Rio Rd	2	1.3	3	35	420	East Del Rio Rd	South	US-101								
SR 41 E @ CA-101	3	4	6	<u>20</u> 100	240 1200	East Del Rio Rd	South	US-101	East	CA-41						
Zone 2		Startin	g Point: Gra	ves Creek Ro	l at Balboa F	Rd										
101 N @ Del Rio Rd 101 N @ San Anselmo Rd	1 2	1.6 1.1	4 3	20 20		East Graves Creek R East Graves Creek R		Monterey Rd Monterey Rd	East East	Del Rio Rd San Anselmo Rd	North North	US-101 US-101				
101 S @ San Anselmo Rd	2	1.1	3	40	680	East Graves Creek R	d South	Monterey Rd	East	San Anselmo Rd	South	US-101				
SR 41 E @ CA-101	4	3.9	10	<u>20</u> 100	340 1700	East Graves Creek R	d South	Monterey Rd	East	San Anselmo Rd	South	US-101	East	CA-41		
Zone 4		Starting	g Point: San	ta Lucia Rd o	t Cascabel I	Rd										
101 N @ San Anselmo Rd 101 N @ San Anselmo Rd 101 N @ Rosario Ave	1 2 3	1.9 2.3 2.6	5 6 6	15 10 10	106	East Santa Lucia Rd East Santa Lucia Rd East Santa Lucia Rd	North North East	Portola Rd Chaupline Ave Traffic Way	East North North	Ardilla Rd Vernado Ave El Camino Real	North West West	San Anselmo Rd Ardilla Rd Rosario Ave	North North North	US-101 San Anselmo Rd US-101	North	US-101
101 S @ Traffic Way	4	2.2	4	40	425	East Santa Lucia Rd	North	Ardilla Ave	East	Traffic Way	South	US-101				
SR 41 E @ El Camino Real	5	2.3	5	<u>25</u>	<u>266</u>	East Santa Lucia Rd	South	El Camino Real	East	CA-41						



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Scenario 2 Scenario B 7/6/2021

#### **Turning Movement Volume: Summary**

ID.	Internation Name	North	bound	Sc	outhbou	nd	Eastb	ound	West	oound	Total
טו	Intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	640	660	0	0	1300

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	640	0	0	0	0	0	640

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
3	Del Rio Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	606	1020	0	0	0	1626

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	606	0	0	0	0	0	606

ID	Intersection Name	North	bound	South	bound	Eastb	ound	Total
ID	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
6	San Anselmo Rd/El Camino Real	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
7	El Camino Real/Rosario Ave- US NB On-Ramp	106	0	0	0	0	0	0	0	0	0	0	0	106

## Generated with PTV VISTRO

Ī	ın	Intersection Name	N	orthbour	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	372	424	0	0	0	796

Ī	ID	Intersection Name	Northl	bound	Eastb	ound	West	bound	Total
	טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	612	0	0	0	612

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
10	Traffic Wy/El Camino Real	0	0	0	0	0	0	106	240	266	0	0	0	612

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
12	SR 41/El Camino Real	0	0	0	266	0	0	0	340	0	0	0	0	606

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ĺ	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

## Generated with PTV VISTRO

ID	Interception Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
ĺ	19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Eastb	oound	West	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Ī	20	SR 41/Los Altos Rd	0	0	0	0	0	0	0

ın	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	North	bound	Easth	oound	Westl	bound	Total
טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
22	SR 41/Santa Rosa Rd	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	0	0	0	0	0	0	0	0	0	0

Generated with PTV VISTRO

ID	Internaction Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	SR 41/Curbaril Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

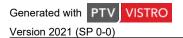
ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	V	/estbour	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Γ	26	SR 41/Mercedes Ave	0	0	0	240	0	0	0	606	0	0	0	0	846

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
27	El Camino Real/US 101 NB (N of Atascadero)	0	0	0	0	0	240	0	0	0	0	0	0	240

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
l ib	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
28	San Ramon Rd/US 101 SB Ramp (N of Atascadero)	0	240	0	0	0	0	0	0	0	0	0	0	240

Destination	Route # (see maps)	Total Distance (Miles)	Total Time (Minutes)	%	No. of Vehicles		Step 1		Step 2		Step 3		Step 4		Step 5	Sto	ер 6
	Easterly Wind		I			Direction	Street	Direction	Street	Direction	Street	Direction	n Street	Direction	Street	Direction	Street
Zone 15		Starti	ng Point: Sai	n Benito Rd	 at Colima Ro	 											
101 S @ San Asnselmo Rd	3	1.4	4	20	228	West	San Benito Rd	South	El Camino Real	West	San Anselmo Rd	South	US-101				
101 S @ San Asnselmo Rd	4	1.4	5	20	228	South	Colima Rd	SW	San Anselmo Rd	South	El Camino Real	West	San Anselmo Rd	South	US-101		
101 N @ Del Rio Rd	2	1	3	25	285	West	San Benito Rd	North	El Camino Real	West	Del Rio Rd	North	US-101				
101 N @ San Ramon Rd	1	2.1	4	15	171	West	San Benito Rd	North	El Camino Real	West	San Ramon Rd	North	US-101				
SR 41 W @ Portola Rd	5	3.8	7	10	114	West	San Benito Rd	South	El Camino Real	West	San Anselmo Rd	South	Portola Rd	West	CA-41		
SR 41 W @ CA-101	6	2.8	7	<u>10</u>	<u>114</u>	West	San Benito Rd	South	El Camino Real	West	San Anselmo Rd	South	US-101	West	CA-41		
Zone 16		Startin	g Point: Dold	100 ores Ave at (	1140 Curvado Circ	le											
20110 20		Startm															
101 N @ San Asnselmo Rd	3	2.7	4	18	299	West	Dolores Ave	West	San Anselmo Rd	South	El Camino Real	West	San Anselmo Rd	North	US-101		
101 N @ Del Rio Rd	1	2.3	4	10	166	West	Dolores Ave	North	El Camino Real	West	Del Rio Rd	North	US-101				
101 N @ Del Rio Rd	2	2.4	6	10	166	West	Dolores Ave	NE	San Anselmo Rd	NW	Del Rio Rd	North	US-101				
101 S @ San Anselmo Rd	3	1.1	4	21	349	West	Dolores Ave	South	El Camino Real	West	San Anselmo Rd	South	US-101				
101 S @ San Asnselmo Rd	4	1.8	6	20	332	East	Dolores Ave	SW	San Jacinto Ave	North	El Camino Real	West	San Anselmo Rd	South	US-101		
SR 41 W @ San Anselmo Rd	5	2.4	6	8	133	West	Dolores Ave	West	San Anselmo Rd	South	El Camino Real	West	San Anselmo Rd	South	US-101	West	CA-41
SR 41 W @ El Camino Real	6	2.3	6	<u>7</u>	116	West	Dolores Ave	South	El Camino Real	West	CA-41						
SR 41 W @ Portola Rd	7	3.7	9	<u>6</u>	100	West	Dolores Ave	West	San Anselmo Rd	South	El Camino Real	West	San Anselmo Rd	South	Portola Rd	West	CA-41
Zone 18		Start	ing Point: Ba	100 jada Ave at	Rosario Ave	<u> </u>											
					1												
101 N @ Rosario Ave	2	0.7	3	20	402	West	Rosario Ave	North	US-101								
101 N @ San Anselmo Rd	1	1.1	4	15	302	South	Bajada Ave	SW	Dulzura Ave	West	Nogales Ave	West	San Jacinto Ave	North	El Camino Real	North	US-101
101 S @ Traffic Way	3	1	4	40	805	South	Bajada Ave	sw	Traffic Way	South	US-101						
SR 41 W @ El Camino Real	4	1.3	4	<u>25</u>	<u>503</u>	West	Rosario Ave	South	El Camino Real	West	CA-41						
and the second second	,	2.0		100	2012	.,				1							



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Scenario 3 Scenario C 7/6/2021

## **Turning Movement Volume: Summary**

10	Internation Name	North	bound	Sc	outhbou	nd	Eastb	ound	West	oound	Total
טו	Intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	0	0	0	0	0

Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	טו	intersection ivaline	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
ſ	2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	0	0	0	0	0	617	617

	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	Westbound			Total
	טו	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	3	Del Rio Rd/El Camino Real	451	171	0	0	0	0	0	0	0	0	166	0	788

ID	Intersection Name	Northbound			Southbound			Eastbound			W	Total		
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	0	0	1273	196	0	1469

ID	Intersection Name	Northbound			Southbound			Eastbound			W	Total		
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	0	0	0	0	1608	601	2209

ID	Intersection Name	North	bound	South	Southbound Ea		oound	Total
ID	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
6	San Anselmo Rd/El Camino Real	625	0	0	1584	0	0	2209

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total
טו		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
7	El Camino Real/Rosario Ave- US NB On-Ramp	0	0	0	0	105	0	0	0	0	503	402	0	1010

### Generated with PTV VISTRO

10	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	805	0	0	805

Ī	ID	Intersection Name	North	bound	Eastb	ound	West	oound	Total
	טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	0	0	0	805	805

Ī	ī	Interception Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
	ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	10	Traffic Wy/El Camino Real	0	0	0	0	608	0	0	0	0	0	805	0	1413

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	884	0	884

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
12	SR 41/El Camino Real (S of Atascadero)	0	0	0	0	0	608	0	0	0	0	0	0	608

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID.	Intersection Name	N	orthbour	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

### Generated with PTV VISTRO

ID	Interception Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Internation Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Eastb	ound	West	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Ī	20	SR 41/Los Altos Rd	0	0	0	0	1080	0	1080

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	0	0	0	0	0	0	0	1080	0	1080

ID	Intersection Name	North	bound	Eastb	oound	Westl	bound	Total
טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
22	SR 41/Santa Rosa Rd	0	0	0	0	0	1080	1080

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	0	0	196	0	0	0	0	884	0	1080

### Generated with PTV VISTRO

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	ıd	V	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	SR 41/Curbaril Ave	0	0	0	0	884	0	0	0	0	0	0	0	884

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	0	0	0	884	0	884

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
26	SR 41/Mercedes Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
27	El Camino Real/US 101 NB (N of Atascadero)	171	0	0	0	0	0	0	0	0	0	0	0	171

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
l ib	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
28	San Ramon Rd/US 101 SB Ramp (N of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

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Scenario 1 Scenario A 7/13/2021

#### **Turning Movement Volume: Summary**

ID	Intersection Name	North	bound	Sc	outhbou	nd	Eastb	ound	West	oound	Total
ID	Intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	276	0	0	0	276

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	276	0	0	0	0	0	276

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
3	Del Rio Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	293	64	0	0	0	357

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	293	0	0	0	0	0	293

D	Intersection Name	North	bound	South	bound	Easth	oound	Total
טו	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
6	San Anselmo Rd/El Camino Real	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
7	El Camino Real/Rosario Ave- US NB On-Ramp	0	0	0	0	0	0	0	0	0	0	0	0	0

### Generated with PTV VISTRO

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	282	96	0	0	0	378

ĺ	ID	Intersection Name	North	bound	Eastb	ound	West	oound	Total
	טו	intersection Name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	282	0	0	0	282

ID.	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
10	Traffic Wy/El Camino Real	0	0	0	0	0	0	0	199	83	0	0	0	282

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	278	395	0	0	0	673

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
12	SR 41/El Camino Real	0	0	0	83	0	0	0	214	0	0	0	0	297

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbour	nd	Sc	outhbou	nd	Е	astboun	nd	W	estbour/	nd	Total
l ib	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	60	0	0	0	0	60

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	60	0	0	0	0	0	60

### Generated with PTV VISTRO

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	ıd	V	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	71	166	0	0	0	237

ın	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Eastb	ound	West	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Ī	20	SR 41/Los Altos Rd	354	0	0	0	0	0	354

ī	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	456	0	0	0	354	0	0	0	0	810

ID	Intersection Name	North	bound	Easth	oound	Westl	bound	Total
טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
22	SR 41/Santa Rosa Rd	0	0	574	236	0	0	810

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	ıd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	159	0	0	0	574	0	0	0	0	733

Generated with PTV VISTRO

ID	Internaction Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	SR 41/Curbaril Ave	0	673	60	0	0	0	0	0	0	0	0	0	733

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	ıd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	673	0	0	0	0	673

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
26	SR 41/Mercedes Ave	0	0	0	199	0	0	0	297	0	0	0	0	496

## **Appendix C**

**Intersection Level of Service Calculations** 



	۶	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₽			र्स						र्स	7
Traffic Volume (veh/h)	0	389	60	145	135	0	0	0	0	232	0	91
Future Volume (veh/h)	0	389	60	145	135	0	0	0	0	232	0	91
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	•	No	4070	4070	No	•				4070	No	4070
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	418	65	156	145	0				249	0	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	682	106	358	267	0				451 0.25	0	401
Arrive On Green	0.00	0.43	0.43	0.43 330	0.43	0.00					0.00	0.25
Sat Flow, veh/h	0	1580	246		619	0				1781	0	1585
Grp Volume(v), veh/h	0	0	483	301	0	0				249	0	98
Grp Sat Flow(s), veh/h/ln	0	0	1826	949	0	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	5.2	2.7	0.0	0.0				3.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	0.0	5.2	7.9	0.0	0.0				3.1	0.0	1.2
Prop In Lane	0.00	^	0.13	0.52	0	0.00				1.00	0	1.00
Lane Grp Cap(c), veh/h	0	0	788	625	0	0				451	0	401
V/C Ratio(X)	0.00	0.00	0.61	0.48	0.00	0.00				0.55	0.00	0.24
Avail Cap(c_a), veh/h HCM Platoon Ratio	1.00	1.00	1153 1.00	868 1.00	0 1.00	1.00				1125 1.00	1.00	1001
	0.00	0.00	1.00	1.00	0.00	0.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	5.6	6.1	0.00	0.00				8.2	0.00	1.00 7.5
Uniform Delay (d), s/veh	0.0	0.0	0.8	0.6	0.0	0.0				1.1	0.0	0.3
Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
Unsig. Movement Delay, s/veh	0.0	0.0	0.9	0.5	0.0	0.0				0.0	0.0	0.5
LnGrp Delay(d),s/veh	0.0	0.0	6.3	6.7	0.0	0.0				9.3	0.0	7.8
LnGrp LOS	Α	Α	0.5 A	Α	Α	Α				9.5 A	Α	Α.
Approach Vol, veh/h		483			301						347	
Approach Delay, s/veh		6.3			6.7						8.9	
Approach LOS		0.5 A			Α						0.9 A	
		A			A						٨	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				14.9		10.4		14.9				
Change Period (Y+Rc), s				4.0		4.0		4.0				
Max Green Setting (Gmax), s				16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s				7.2		5.1		9.9				
Green Ext Time (p_c), s				2.0		1.3		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			Α									

	۶	<b>→</b>	•	•	<b>—</b>	•	1	<b>†</b>	<i>&gt;</i>	<b>/</b>	<b>↓</b>	<b>√</b>
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			₽			4	7			
Traffic Volume (veh/h)	343	292	0	0	180	193	79	0	162	0	0	0
Future Volume (veh/h)	343	292	0	0	180	193	79	0	162	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	4070	No	•	•	No	4070	4070	No	4070			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	373	317	0	0	196	210	86	0	176			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	453	276	0	0	444	476	345	0	307			
Arrive On Green	0.54	0.54	0.00	0.00	0.54	0.54	0.19	0.00	0.19			
Sat Flow, veh/h	496	514	0	0	826	885	1781	0	1585			
Grp Volume(v), veh/h	690	0	0	0	0	406	86	0	176			
Grp Sat Flow(s),veh/h/ln	1011	0	0	0	0	1711	1781	0	1585			
Q Serve(g_s), s	11.7	0.0	0.0	0.0	0.0	4.3	1.2	0.0	3.0			
Cycle Q Clear(g_c), s	16.0	0.0	0.0	0.0	0.0	4.3	1.2	0.0	3.0			
Prop In Lane	0.54	0	0.00	0.00	0	0.52	1.00	^	1.00			
Lane Grp Cap(c), veh/h	730	0	0.00	0	0.00	920	345	0	307			
V/C Ratio(X)	0.95 730	0.00		0.00	0.00	0.44 920	0.25 958	0.00	0.57 852			
Avail Cap(c_a), veh/h HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0 1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	9.6	0.00	0.00	0.00	0.00	4.2	10.2	0.00	10.9			
Incr Delay (d2), s/veh	21.1	0.0	0.0	0.0	0.0	0.3	0.4	0.0	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.0	0.0	0.0	0.0	0.0	0.6	0.4	0.0	0.9			
Unsig. Movement Delay, s/veh		0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5			
LnGrp Delay(d),s/veh	30.7	0.0	0.0	0.0	0.0	4.5	10.5	0.0	12.6			
LnGrp LOS	C	Α	A	Α	Α	Α.	В	Α	В			
Approach Vol, veh/h		690	<u>,,</u>		406			262				
Approach Delay, s/veh		30.7			4.5			11.9				
Approach LOS		C			A			В				
				4	, ,							
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s		9.8 4.0		20.0 4.0				20.0 4.0				
Max Green Setting (Gmax), s		16.0		16.0				16.0				
				18.0								
Max Q Clear Time (g_c+l1), s		5.0 0.8		0.0				6.3 1.8				
Green Ext Time (p_c), s		0.0		0.0				1.0				
Intersection Summary			10.0									
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			В									

	ၨ	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	<i>&gt;</i>	<b>/</b>	<b>+</b>	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4		Ţ	<b>†</b>	7	7	î,	
Traffic Volume (veh/h)	82	82	267	21	91	9	226	117	20	14	99	55
Future Volume (veh/h)	82	82	267	21	91	9	226	117	20	14	99	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	85	275	22	94	9	233	121	21	14	102	57
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	200	324	109	299	25	269	939	796	118	470	263
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.21	0.15	0.50	0.50	0.07	0.42	0.41
Sat Flow, veh/h	641	980	1585	142	1464	125	1781	1870	1585	1781	1127	630
Grp Volume(v), veh/h	170	0	275	125	0	0	233	121	21	14	0	159
Grp Sat Flow(s),veh/h/ln	1620	0	1585	1730	0	0	1781	1870	1585	1781	0	1757
Q Serve(g_s), s	1.5	0.0	8.8	0.0	0.0	0.0	6.7	1.8	0.4	0.4	0.0	3.1
Cycle Q Clear(g_c), s	4.5	0.0	8.8	3.0	0.0	0.0	6.7	1.8	0.4	0.4	0.0	3.1
Prop In Lane	0.50		1.00	0.18		0.07	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	433	0	324	433	0	0	269	939	796	118	0	733
V/C Ratio(X)	0.39	0.00	0.85	0.29	0.00	0.00	0.87	0.13	0.03	0.12	0.00	0.22
Avail Cap(c_a), veh/h	917	0	826	945	0	0	338	939	796	135	0	733
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	20.2	17.9	0.0	0.0	21.9	7.0	6.6	23.2	0.0	9.9
Incr Delay (d2), s/veh	0.2	0.0	2.4	0.5	0.0	0.0	14.9	0.3	0.1	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.2	1.3	0.0	0.0	3.5	0.6	0.1	0.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	0.0	22.7	18.4	0.0	0.0	36.8	7.3	6.7	23.3	0.0	10.6
LnGrp LOS	В	Α	С	В	Α	Α	D	Α	Α	С	Α	<u>B</u>
Approach Vol, veh/h		445			125			375			173	
Approach Delay, s/veh		21.1			18.4			25.6			11.6	
Approach LOS		С			В			С			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	30.5		14.8	12.0	26.0		14.8				
Change Period (Y+Rc), s	3.5	4.5		3.5	3.5	4.5		3.5				
Max Green Setting (Gmax), s	4.5	26.0		28.0	10.5	20.0		28.0				
Max Q Clear Time (g_c+l1), s	2.4	3.8		10.8	8.7	5.1		5.0				
Green Ext Time (p_c), s	0.0	0.7		0.5	0.0	0.7		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			С									

	۶	<b>→</b>	•	•	<b>←</b>	•	1	<b>†</b>	~	<b>/</b>	<b></b>	✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4		ሻ	<b>∱</b> β		ሻ	<b>^</b>	7
Traffic Volume (veh/h)	336	26	153	7	20	0	241	217	21	6	200	240
Future Volume (veh/h)	336	26	153	7	20	0	241	217	21	6	200	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	357	28	163	7	21	0	256	231	22	6	213	255
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	31	381	94	281	0	293	1142	108	11	674	293
Arrive On Green	0.24	0.24	0.24	0.20	0.20	0.00	0.16	0.35	0.35	0.01	0.19	0.19
Sat Flow, veh/h	1657	130	1585	462	1385	0	1781	3281	310	1781	3554	1546
Grp Volume(v), veh/h	385	0	163	28	0	0	256	124	129	6	213	255
Grp Sat Flow(s),veh/h/ln	1787	0	1585	1847	0	0	1781	1777	1814	1781	1777	1546
Q Serve(g_s), s	16.5	0.0	6.9	1.0	0.0	0.0	11.1	3.9	3.9	0.3	4.1	12.6
Cycle Q Clear(g_c), s	16.5	0.0	6.9	1.0	0.0	0.0	11.1	3.9	3.9	0.3	4.1	12.6
Prop In Lane	0.93		1.00	0.25		0.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	430	0	381	374	0	0	293	618	631	11	674	293
V/C Ratio(X)	0.90	0.00	0.43	0.07	0.00	0.00	0.87	0.20	0.20	0.54	0.32	0.87
Avail Cap(c_a), veh/h	430	0	381	374	0	0	293	618	631	90	720	313
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	25.4	25.5	0.0	0.0	32.2	18.0	18.1	39.1	27.6	31.1
Incr Delay (d2), s/veh	23.8	0.0	3.5	0.4	0.0	0.0	23.9	0.2	0.2	35.0	0.3	21.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	2.7	0.5	0.0	0.0	6.4	1.5	1.5	0.2	1.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	0.0	28.9	25.9	0.0	0.0	56.1	18.2	18.2	74.1	27.8	52.3
LnGrp LOS	D	Α	С	С	Α	Α	E	В	В	E	С	D
Approach Vol, veh/h		548			28			509			474	
Approach Delay, s/veh		45.7			25.9			37.3			41.6	
Approach LOS		D			С			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	17.0	19.0		20.0	4.5	31.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	13.0	16.0		16.0	4.0	25.0				
Max Q Clear Time (g_c+l1), s		18.5	13.1	14.6		3.0	2.3	5.9				
Green Ext Time (p_c), s		0.2	0.0	0.3		0.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			41.3									
HCM 6th LOS			D									

# HCM 6th Signalized Intersection Summary 10: El Camino Real & Traffic Way

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology cannot be performed with phasing conflicts.

# HCM 6th Signalized Intersection Summary 11: US 101 SB Ramps & SR 41

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology supports speed limit in the range of 25 to 55 mph.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1,1	<b>↑</b>	77	ሻ	<b>ተ</b> ኈ		ሻሻ	<b>^</b>	7	7	<b>^</b>	7
Traffic Volume (veh/h)	197	532	458	179	253	107	198	438	291	195	322	99
Future Volume (veh/h)	197	532	458	179	253	107	198	438	291	195	322	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1856	1856	1841	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	205	554	477	186	264	111	206	456	303	203	335	103
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	4	3	3	4	3	3	3	3	3	3	3
Cap, veh/h	358	673	1231	215	934	382	271	830	359	190	931	408
Arrive On Green	0.10	0.37	0.37	0.12	0.39	0.39	0.08	0.24	0.24	0.11	0.26	0.26
Sat Flow, veh/h	3428	1841	2768	1767	2418	989	3428	3526	1526	1767	3526	1546
Grp Volume(v), veh/h	205	554	477	186	189	186	206	456	303	203	335	103
Grp Sat Flow(s), veh/h/ln	1714	1841	1384	1767	1749	1658	1714	1763	1526	1767	1763	1546
Q Serve(g_s), s	6.6	31.7	13.4	12.0	8.6	9.0	6.8	13.2	22.0	12.5	9.0	4.4
Cycle Q Clear(g_c), s	6.6	31.7	13.4	12.0	8.6	9.0	6.8	13.2	22.0	12.5	9.0	4.4
Prop In Lane	1.00	01.7	1.00	1.00	0.0	0.60	1.00	10.2	1.00	1.00	0.0	1.00
Lane Grp Cap(c), veh/h	358	673	1231	215	675	640	271	830	359	190	931	408
V/C Ratio(X)	0.57	0.82	0.39	0.87	0.28	0.29	0.76	0.55	0.84	1.07	0.36	0.25
Avail Cap(c_a), veh/h	358	673	1231	259	675	640	458	942	408	190	931	408
HCM 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
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	33.4	21.6	50.0	24.5	24.6	52.3	39.0	42.3	51.7	34.7	17.8
Incr Delay (d2), s/veh	1.6	8.3	0.7	22.2	1.0	1.1	4.4	0.6	13.6	83.8	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	15.3	4.4	6.6	3.7	3.7	3.1	5.7	9.5	9.9	3.8	2.3
Unsig. Movement Delay, s/veh		10.0	7.7	0.0	0.7	0.7	0.1	0.7	5.0	0.0	0.0	2.0
LnGrp Delay(d),s/veh	51.1	41.7	22.3	72.2	25.5	25.8	56.7	39.5	55.9	135.6	35.0	18.2
LnGrp LOS	D D	D	C	E	23.3 C	23.0 C	50.7 E	D	55.5 E	F	C	10.2 B
Approach Vol, veh/h		1236			561		<u> </u>	965	<u> </u>	<u> </u>	641	
Approach Delay, s/veh		35.8			41.1			48.3			64.1	
		_			_			_				
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.1	47.0	12.7	37.2	16.7	49.4	16.0	33.9				
Change Period (Y+Rc), s	5.0	4.6	3.5	6.6	4.6	* 4.6	3.5	* 6.6				
Max Green Setting (Gmax), s	17.0	37.8	15.5	26.0	11.5	* 45	12.5	* 31				
Max Q Clear Time (g_c+l1), s	14.0	33.7	8.8	11.0	8.6	11.0	14.5	24.0				
Green Ext Time (p_c), s	0.1	2.1	0.3	2.5	0.2	2.3	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			45.6									
HCM 6th LOS			D									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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13: El Camino Real & US 101 NB Ramps / Plaza Del Camino Driveway

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		ર્ન	7	ሻ	<b>†</b> %		ሻ	ħβ	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	•	1.00	1.00		1.00	1.00	-	1.00	1.00	-	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	748		0	748	634	160	1421	0	160	1421	_
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0.00	1870	1585	0.00	1870	1585	1781	3647	0.00	1781	3647	0.00
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
	0	1870	1585	0	1870	1585	1781	1777	0	1781	1777	0
Grp Sat Flow(s), veh/h/ln	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0
Q Serve(g_s), s				0.0			0.0				0.0	
Cycle Q Clear(g_c), 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
Prop In Lane	0.00	740	1.00	0.00	740	1.00	1.00	4.404	0.00	1.00	4.404	0.00
Lane Grp Cap(c), veh/h	0	748		0	748	634	160	1421	0	160	1421	
V/C Ratio(X)	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avail Cap(c_a), veh/h	0	748	4.00	0	748	634	160	1421	0	160	1421	4.00
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	Α	Α		Α	Α	Α	Α	Α	Α	Α	Α	
Approach Vol, veh/h		0	Α		0			0			0	Α
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+l1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				
$u = \gamma$		0.0		0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			Α									
Notes												

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4						4	
Traffic Volume (veh/h)	2	279	183	102	307	121	0	0	0	320	14	77
Future Volume (veh/h)	2	279	183	102	307	121	0	0	0	320	14	77
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	2	303	199	111	334	132				348	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	91	391	256	192	377	137				735	32	
Arrive On Green	0.37	0.37	0.37	0.74	0.74	0.74				0.43	0.43	0.00
Sat Flow, veh/h	1	1057	691	228	1020	370				1711	74	0
Grp Volume(v), veh/h	504	0	0	577	0	0				363	0	0
Grp Sat Flow(s), veh/h/ln	1750	0	0	1618	0	0				1785	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0				5.8	0.0	0.0
Cycle Q Clear(g_c), s	10.2	0.0	0.0	12.2	0.0	0.0				5.8	0.0	0.0
Prop In Lane	0.00	0.0	0.39	0.19	0.0	0.23				0.96	0.0	0.00
Lane Grp Cap(c), veh/h	738	0	0.59	706	0	0.23				767	0	0.00
V/C Ratio(X)	0.68	0.00	0.00	0.82	0.00	0.00				0.47	0.00	
Avail Cap(c_a), veh/h	790	0.00	0.00	751	0.00	0.00				767	0.00	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
	1.00	0.00	0.00	0.86	0.00	0.00				1.00	0.00	
Upstream Filter(I)	11.2	0.00	0.00		0.00	0.00				8.2	0.00	0.00
Uniform Delay (d), s/veh	2.2		0.0	4.7		0.0				2.1		0.0
Incr Delay (d2), s/veh		0.0		5.8	0.0						0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	2.3	0.0	0.0				2.0	0.0	0.0
Unsig. Movement Delay, s/veh		0.0	0.0	40.5	0.0	0.0				40.0	0.0	0.0
LnGrp Delay(d),s/veh	13.4	0.0	0.0	10.5	0.0	0.0				10.3	0.0	0.0
LnGrp LOS	В	Α	Α	В	Α	Α				В	Α	
Approach Vol, veh/h		504			577						363	Α
Approach Delay, s/veh		13.4			10.5						10.3	
Approach LOS		В			В						В	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				18.8		21.2		18.8				
Change Period (Y+Rc), s				4.0		4.0		4.0				
Max Green Setting (Gmax), s				16.0		16.0		16.0				
Max Q Clear Time (g_c+l1), s				12.2		7.8		14.2				
Green Ext Time (p_c), s				0.9		1.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			В									
			U									
Notes												

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7		4				
Traffic Volume (veh/h)	72	396	78	8	332	337	193	171	76	0	0	0
Future Volume (veh/h)	72	396	78	8	332	337	193	171	76	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	78	430	85	9	361	366	210	186	83			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	152	484	89	97	741	634	311	276	123			
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40			
Sat Flow, veh/h	126	1210	223	13	1853	1585	779	690	308			
Grp Volume(v), veh/h	593	0	0	370	0	366	479	0	0			
Grp Sat Flow(s),veh/h/ln	1559	0	0	1866	0	1585	1776	0	0			
Q Serve(g_s), s	8.8	0.0	0.0	0.0	0.0	7.2	8.9	0.0	0.0			
Cycle Q Clear(g_c), s	14.7	0.0	0.0	5.9	0.0	7.2	8.9	0.0	0.0			
Prop In Lane	0.13		0.14	0.02		1.00	0.44		0.17			
Lane Grp Cap(c), veh/h	726	0	0	839	0	634	710	0	0			
V/C Ratio(X)	0.82	0.00	0.00	0.44	0.00	0.58	0.67	0.00	0.00			
Avail Cap(c_a), veh/h	726	0	0	839	0	634	710	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.73	0.00	0.00	0.60	0.00	0.60	1.00	0.00	0.00			
Uniform Delay (d), s/veh	11.4	0.0	0.0	9.0	0.0	9.4	9.9	0.0	0.0			
Incr Delay (d2), s/veh	5.4	0.0	0.0	0.2	0.0	0.8	5.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.0	1.8	0.0	1.9	3.5	0.0	0.0			
Unsig. Movement Delay, s/veh						10.1	44.0					
LnGrp Delay(d),s/veh	16.8	0.0	0.0	9.2	0.0	10.1	14.9	0.0	0.0			
LnGrp LOS	В	Α	Α	Α	Α	В	В	Α	Α			
Approach Vol, veh/h		593			736			479				
Approach Delay, s/veh		16.8			9.7			14.9				
Approach LOS		В			Α			В				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		20.0		20.0				20.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		16.0		16.0				16.0				
Max Q Clear Time (g_c+l1), s		10.9		16.7				9.2				
Green Ext Time (p_c), s		1.0		0.0				2.0				
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ર્ન	7		4		ሻ	<b>∱</b> ∱		ሻ	<b>^</b>	7
Traffic Volume (veh/h)	219	4	309	4	25	19	412	681	4	9	617	309
Future Volume (veh/h)	219	4	309	4	25	19	412	681	4	9	617	309
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	4	325	4	26	20	434	717	4	9	649	325
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	6	620	8	50	39	356	1881	10	20	1174	509
Arrive On Green	0.19	0.19	0.19	0.06	0.06	0.06	0.20	0.52	0.52	0.01	0.33	0.33
Sat Flow, veh/h	1752	30	1583	139	902	694	1781	3623	20	1781	3554	1540
Grp Volume(v), veh/h	235	0	325	50	0	0	434	352	369	9	649	325
Grp Sat Flow(s),veh/h/ln	1783	0	1583	1734	0	0	1781	1777	1866	1781	1777	1540
Q Serve(g_s), s	11.0	0.0	14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1
Cycle Q Clear(g_c), s	11.0	0.0	14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1
Prop In Lane	0.98		1.00	0.08		0.40	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	342	0	620	96	0	0	356	923	969	20	1174	509
V/C Ratio(X)	0.69	0.00	0.52	0.52	0.00	0.00	1.22	0.38	0.38	0.45	0.55	0.64
Avail Cap(c_a), veh/h	475	0	739	96	0	0	356	923	969	99	1174	509
HCM 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
Upstream Filter(I)	0.36	0.00	0.36	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	21.0	41.3	0.0	0.0	36.0	13.0	13.0	44.2	24.7	25.6
Incr Delay (d2), s/veh	0.3	0.0	0.1	2.3	0.0	0.0	121.1	1.2	1.1	5.8	1.9	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	5.0	1.1	0.0	0.0	19.6	4.3	4.5	0.2	5.8	6.6
Unsig. Movement Delay, s/veh			24.0	10.0							22.2	24.0
LnGrp Delay(d),s/veh	34.2	0.0	21.0	43.6	0.0	0.0	157.1	14.2	14.1	50.0	26.6	31.6
LnGrp LOS	С	A	С	D	A	A	F	В	В	D	С	<u>C</u>
Approach Vol, veh/h		560			50			1155			983	
Approach Delay, s/veh		26.6			43.6			67.8			28.4	
Approach LOS		С			D			Е			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	34.7		22.3	6.0	51.7		10.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	23.0		24.0	5.0	36.0		5.0				
Max Q Clear Time (g_c+l1), s	20.0	18.1		16.1	2.5	12.7		4.5				
Green Ext Time (p_c), s	0.0	2.2		1.0	0.0	3.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.9									
HCM 6th LOS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	₽		ሻ	<b>₽</b>			4			- ↔	
Traffic Volume (veh/h)	18	321	28	86	306	84	9	9	41	393	18	9
Future Volume (veh/h)	18	321	28	86	306	84	9	9	41	393	18	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	338	29	91	322	88	9	9	43	414	19	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2
Cap, veh/h	163	525	45	122	406	111	126	133	437	603	22	10
Arrive On Green	0.09	0.32	0.32	0.07	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	1631	140	1781	1358	371	139	366	1207	1312	60	29
Grp Volume(v), veh/h	19	0	367	91	0	410	61	0	0	442	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1771	1781	0	1729	1712	0	0	1401	0	0
Q Serve(g_s), s	0.5	0.0	9.7	2.7	0.0	11.9	0.0	0.0	0.0	14.6	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	9.7	2.7	0.0	11.9	1.3	0.0	0.0	15.9	0.0	0.0
Prop In Lane	1.00		0.08	1.00	_	0.21	0.15		0.70	0.94		0.02
Lane Grp Cap(c), veh/h	163	0	570	122	0	517	696	0	0	635	0	0
V/C Ratio(X)	0.12	0.00	0.64	0.75	0.00	0.79	0.09	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	212	0	1168	440	0	1362	906	0	0	817	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	0.0	15.8	25.0	0.0	17.6	11.5	0.0	0.0	16.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.2	10.3	0.0	2.8	0.1	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	3.3	1.4	0.0	4.2	0.4	0.0	0.0	4.5	0.0	0.0
Unsig. Movement Delay, s/veh		0.0	17.0	25.2	0.0	20.4	11.6	0.0	0.0	17.0	0.0	0.0
LnGrp Delay(d),s/veh	23.1 C	0.0	17.0 B	35.3 D	0.0 A	20.4 C	11.6 B	0.0	0.0 A	17.8	0.0	0.0
LnGrp LOS	U	A 200	Б	U		U	В	A	A	В	A 440	A
Approach Vol, veh/h		386			501			61			442	
Approach Delay, s/veh		17.3			23.1			11.6			17.8	
Approach LOS		В			С			В			В	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	23.6		23.8	8.5	22.3		23.8				
Change Period (Y+Rc), s	3.5	6.0		4.0	3.5	6.0		4.0				
Max Green Setting (Gmax), s	13.5	36.0		27.0	6.5	43.0		27.0				
Max Q Clear Time (g_c+l1), s	4.7	11.7		17.9	2.5	13.9		3.3				
Green Ext Time (p_c), s	0.1	2.0		1.8	0.0	2.4		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			19.3									
HCM 6th LOS			В									

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	/	<b>/</b>	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		f)		7		7		↔			- ↔	
Traffic Volume (veh/h)	57	990	318	46	390	17	44	26	41	11	46	29
Future Volume (veh/h)	57	990	318	46	390	17	44	26	41	11	46	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870 59	1796 1031	1870	1870 48	1796 406	1870 18	1870 46	1870 27	1870 43	1870 11	1870 48	1870 30
Adj Flow Rate, veh/h Peak Hour Factor	0.96	0.96	331 0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0.90	7	0.90	0.90	7	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Cap, veh/h	91	831	267	80	1135	1001	136	54	65	76	111	63
Arrive On Green	0.05	0.64	0.64	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	1303	418	1781	1796	1585	529	505	610	120	1038	589
Grp Volume(v), veh/h	59	0	1362	48	406	18	116	0	0	89	0	0
Grp Sat Flow(s), veh/h/ln	1781	0	1721	1781	1796	1585	1644	0	0	1747	0	0
Q Serve(g_s), s	2.1	0.0	40.6	1.7	6.8	0.3	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	40.6	1.7	6.8	0.3	4.1	0.0	0.0	3.0	0.0	0.0
Prop In Lane	1.00	0.0	0.24	1.00	0.0	1.00	0.40	0.0	0.37	0.12	0.0	0.34
Lane Grp Cap(c), veh/h	91	0	1097	80	1135	1001	255	0	0.07	250	0	0.01
V/C Ratio(X)	0.65	0.00	1.24	0.60	0.36	0.02	0.46	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	210	0	1097	185	1135	1001	794	0	0	848	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	11.5	29.8	5.6	4.4	27.2	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.0	116.4	7.0	0.9	0.0	1.5	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	44.1	0.8	1.8	0.1	1.7	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	127.9	36.9	6.5	4.4	28.7	0.0	0.0	27.8	0.0	0.0
LnGrp LOS	D	A	F	D	A	A	С	A	A	С	A	A
Approach Vol, veh/h		1421			472			116			89	
Approach Delay, s/veh		124.2			9.5			28.7			27.8	
Approach LOS		F			Α			С			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	45.9		11.4	6.7	45.5		11.4				
Change Period (Y+Rc), s	3.5	5.3		4.6	3.5	5.3		4.6				
Max Green Setting (Gmax), s	6.6	40.6		29.4	7.5	39.7		29.4				
Max Q Clear Time (g_c+l1), s	3.7	42.6		5.0	4.1	8.8		6.1				
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	2.4		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			89.0									
HCM 6th LOS			F									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	<b>•</b>	7	ሻ	1•			4			4	
Traffic Volume (veh/h)	23	40	18	72	36	34	6	1073	153	60	520	29
Future Volume (veh/h)	23	40	18	72	36	34	6	1073	153	60	520	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	10=0	No	10=0	40=0	No	10=0	10=0	No	10=0	40=0	No	10=0
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	41	19	74	37	35	6	1106	158	62	536	30
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2
Cap, veh/h	45	859	758	95	430	407	42	516	73	75	406	22
Arrive On Green	0.03	0.48	0.48	0.05	0.51	0.51	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	1796	1585	1781	849	803	3	1607	229	94	1264	68
Grp Volume(v), veh/h	24	41	19	74	0	72	1270	0	0	628	0	0
Grp Sat Flow(s),veh/h/ln	1781	1796	1585	1781	0	1652	1839	0	0	1426	0	0
Q Serve(g_s), s	1.2	1.1	0.6	3.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	1.1	0.6	3.6	0.0	2.0	28.0	0.0	0.0	28.0	0.0	0.0
Prop In Lane	1.00	050	1.00	1.00	^	0.49	0.00	0	0.12	0.10	0	0.05
Lane Grp Cap(c), veh/h	45	859	758	95	0	837	632	0	0	503	0	0
V/C Ratio(X)	0.53	0.05	0.03	0.78	0.00	0.09	2.01	0.00	0.00	1.25	0.00	0.00
Avail Cap(c_a), veh/h	112 1.00	859 1.00	758 1.00	153 1.00	0 1.00	837 1.00	632 1.00	0 1.00	1.00	503 1.00	0 1.00	0 1.00
HCM Platoon Ratio	1.00		1.00	1.00	0.00	1.00		0.00	1.00	1.00	0.00	
Upstream Filter(I) Uniform Delay (d), s/veh	42.0	1.00 12.1	12.0	40.7	0.00	11.1	1.00 30.5	0.00	0.00	29.9	0.00	0.00
Incr Delay (d2), s/veh	7.1	0.1	0.1	9.6	0.0	0.2	459.7	0.0	0.0	127.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	0.0	93.8	0.0	0.0	28.3	0.0	0.0
Unsig. Movement Delay, s/veh		0.4	0.2	1.7	0.0	0.1	33.0	0.0	0.0	20.5	0.0	0.0
LnGrp Delay(d),s/veh	49.0	12.2	12.1	50.4	0.0	11.3	490.2	0.0	0.0	156.9	0.0	0.0
LnGrp LOS	43.0 D	В	12.1 B	D	Α	В	430.2 F	Α	Α	F	Α	Α
Approach Vol, veh/h	<u> </u>	84	<u> </u>		146	<u> </u>	<u>'</u>	1270		<u> </u>	628	
Approach Delay, s/veh		22.7			31.1			490.2			156.9	
Approach LOS		C C			C C			430.Z			130.5 F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	47.0		32.0	5.7	49.5		32.0				
Change Period (Y+Rc), s	3.5	5.3		4.0	3.5	5.3		4.0				
Max Green Setting (Gmax), s	7.5	41.7		28.0	5.5	43.7		28.0				
Max Q Clear Time (g_c+I1), s	5.6	3.1		30.0	3.2	4.0		30.0				
Green Ext Time (p_c), s	0.0	0.2		0.0	0.0	0.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			341.9									
HCM 6th LOS			F									

	۶	<b>→</b>	•	•	-	•	1	<b>†</b>	/	<b>/</b>	<b>+</b>	✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>↑</b>	7		ĵ»			4	7		4	7
Traffic Volume (veh/h)	110	724	42	11	54	70	31	478	14	68	540	128
Future Volume (veh/h)	110	724	42	11	54	70	31	478	14	68	540	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	4070	No	4070	4070	No	4070	4070	No	4070	4070	No	4070
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h Peak Hour Factor	121 0.91	796 0.91	46 0.91	12 0.91	59 0.91	77 0.91	34 0.91	525 0.91	15 0.91	75 0.91	593 0.91	141 0.91
Percent Heavy Veh, %	2	7	0.91	0.91	7	0.91	0.91	0.91	0.91	0.91	0.91	2
Cap, veh/h	80	630	556	25	226	295	32	487	440	41	326	313
Arrive On Green	0.04	0.35	0.35	0.01	0.32	0.32	0.28	0.28	0.28	0.20	0.20	0.20
Sat Flow, veh/h	1781	1796	1585	1781	707	923	113	1751	1585	209	1651	1585
Grp Volume(v), veh/h	121	796	46	12	0	136	559	0	15	668	0	141
Grp Sat Flow(s), veh/h/ln	1781	1796	1585	1781	0	1630	1865	0	1585	1860	0	1585
Q Serve(g_s), s	5.0	39.1	2.2	0.7	0.0	6.9	31.0	0.0	0.8	22.0	0.0	8.7
Cycle Q Clear(g_c), s	5.0	39.1	2.2	0.7	0.0	6.9	31.0	0.0	0.8	22.0	0.0	8.7
Prop In Lane	1.00		1.00	1.00		0.57	0.06		1.00	0.11		1.00
Lane Grp Cap(c), veh/h	80	630	556	25	0	521	518	0	440	367	0	313
V/C Ratio(X)	1.52	1.26	0.08	0.48	0.00	0.26	1.08	0.00	0.03	1.82	0.00	0.45
Avail Cap(c_a), veh/h	80	630	556	80	0	571	518	0	440	367	0	313
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.3	36.2	24.2	54.6	0.0	28.2	40.3	0.0	29.4	44.8	0.0	39.5
Incr Delay (d2), s/veh	285.8	131.3	0.0	5.3	0.0	0.1	62.4	0.0	0.0	380.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	39.0	8.0	0.4	0.0	2.7	22.8	0.0	0.3	48.9	0.0	3.4
Unsig. Movement Delay, s/veh		407.5	04.0	50.0	0.0	00.0	400 7	0.0	00.4	1010	0.0	00.0
LnGrp Delay(d),s/veh	339.1	167.5	24.3	59.9	0.0	28.3	102.7	0.0	29.4	424.9	0.0	39.8
LnGrp LOS	F	F	С	E	A 440	С	F	A	С	F	A	<u>D</u>
Approach Vol, veh/h		963			148			574			809	
Approach LOC		182.2			30.8			100.8			357.8	
Approach LOS		F			С			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	44.4		26.0	9.0	41.0		35.6				
Change Period (Y+Rc), s	4.0	5.3		4.0	4.0	5.3		4.6				
Max Green Setting (Gmax), s	5.0	39.1		22.0	5.0	39.1		31.0				
Max Q Clear Time (g_c+l1), s	2.7	41.1		24.0	7.0	8.9		33.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			211.5									
HCM 6th LOS			F									

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Scenario 2 Scenario B

7/6/2021

#### **Turning Movement Volume: Summary**

ID	Intersection Name	North	bound	So	outhbou	nd	Eastb	oound	West	oound	Total
טו	intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	640	660	0	0	1300

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	/estbour	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	640	0	0	0	0	0	640

ın	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
3	Del Rio Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	606	1020	0	0	0	1626

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	606	0	0	0	0	0	606

ſ	ID	Intersection Name	North	bound	South	bound	Eastb	ound	Total
	טו	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
	6	San Anselmo Rd/El Camino Real	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
7	El Camino Real/Rosario Ave- US NB On-Ramp	106	0	0	0	0	0	0	0	0	0	0	0	106

### Generated with PTV VISTRO

ID	Internaction Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	nd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	372	424	0	0	0	796

Ī	ID	Intersection Name	Northl	bound	Eastb	ound	West	bound	Total
	טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	612	0	0	0	612

ID.	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	nd	V	/estbour	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
10	Traffic Wy/El Camino Real	0	0	0	0	0	0	106	240	266	0	0	0	612

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	d	W	/estbour	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
12	SR 41/El Camino Real	0	0	0	266	0	0	0	340	0	0	0	0	606

ID.	Internation Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ור	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

### Generated with PTV VISTRO

ID	Interception Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Eastb	oound	West	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Ī	20	SR 41/Los Altos Rd	0	0	0	0	0	0	0

ın	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	Northl	bound	Eastb	oound	West	oound	Total
טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
22	SR 41/Santa Rosa Rd	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	0	0	0	0	0	0	0	0	0	0

### Generated with PTV VISTRO

15	,	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
"L	,	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	4	SR 41/Curbaril Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
$\Gamma$	25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	V	/estbour	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Γ	26	SR 41/Mercedes Ave	0	0	0	240	0	0	0	606	0	0	0	0	846

Ī	ID	Intersection Name	N	orthbour	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	27	El Camino Real/US 101 NB (N of Atascadero)	0	0	0	0	0	240	0	0	0	0	0	0	240

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
l ib	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
28	San Ramon Rd/US 101 SB Ramp (N of Atascadero)	0	240	0	0	0	0	0	0	0	0	0	0	240

	۶	-	•	•	<b>←</b>	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4î			र्स						र्स	7
Traffic Volume (veh/h)	0	753	720	145	135	0	0	0	0	232	0	91
Future Volume (veh/h)	0	753	720	145	135	0	0	0	0	232	0	91
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	810	774	156	145	0				249	0	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	451	431	175	111	0				410	0	365
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	879	840	0	217	0				1781	0	1585
Grp Volume(v), veh/h	0	0	1584	301	0	0				249	0	98
Grp Sat Flow(s), veh/h/ln	0	0	1719	217	0	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	16.0	0.0	0.0	0.0				3.9	0.0	1.6
Cycle Q Clear(g_c), s	0.0	0.0	16.0	16.0	0.0	0.0				3.9	0.0	1.6
Prop In Lane	0.00	•	0.49	0.52	^	0.00				1.00	•	1.00
Lane Grp Cap(c), veh/h	0	0	882	287	0	0				410	0	365
V/C Ratio(X)	0.00	0.00	1.80	1.05	0.00	0.00				0.61	0.00	0.27
Avail Cap(c_a), veh/h	0	1.00	882	287	1.00	0				914	0	814
HCM Platoon Ratio	1.00	1.00	1.00 1.00	1.00 1.00	1.00	1.00 0.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	7.6	9.7	0.00	0.00				1.00	0.00	1.00 9.8
Uniform Delay (d), s/veh	0.0	0.0	362.4	67.0	0.0	0.0				10.7	0.0	0.4
Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.4
%ile BackOfQ(50%),veh/ln	0.0	0.0	91.2	6.0	0.0	0.0				1.3	0.0	0.0
Unsig. Movement Delay, s/veh	0.0	0.0	31.2	0.0	0.0	0.0				1.0	0.0	0.4
LnGrp Delay(d),s/veh	0.0	0.0	370.0	76.8	0.0	0.0				12.2	0.0	10.2
LnGrp LOS	Α	Α	570.0 F	70.0 F	Α	Α				12.2 B	Α	В
Approach Vol, veh/h		1584	<u> </u>	<u>'</u>	301					<u> </u>	347	
Approach Delay, s/veh		370.0			76.8						11.6	
Approach LOS		570.0			70.0 E						11.0 R	
					_						D	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.0		11.2		20.0				
Change Period (Y+Rc), s				4.0		4.0		4.0				
Max Green Setting (Gmax), s				16.0		16.0		16.0				
Max Q Clear Time (g_c+l1), s				18.0		5.9		18.0				
Green Ext Time (p_c), s				0.0		1.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			274.7									
HCM 6th LOS			F									

J	• -	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<u>/</u>	<b>&gt;</b>	ţ	✓	
Movement EB	BL I	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		ર્ન			f)			ની	7				
	07	292	0	0	180	193	79	Ö	162	0	0	0	
Future Volume (veh/h) 70	07	292	0	0	180	193	79	0	162	0	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0				
, —, ,	00		1.00	1.00		1.00	1.00		1.00				
. ,	00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Work Zone On Approach		No			No			No					
Adj Sat Flow, veh/h/ln 187		1870	0	0	1870	1870	1870	1870	1870				
		317	0	0	196	210	86	0	176				
		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2				
		131	0	0	444	476	345	0	307				
Arrive On Green 0.5		0.54	0.00	0.00	0.54	0.54	0.19	0.00	0.19				
,		243	0	0	826	885	1781	0	1585				
Grp Volume(v), veh/h 108		0	0	0	0	406	86	0	176				
Grp Sat Flow(s), veh/h/ln 83		0	0	0	0	1711	1781	0	1585				
(O— //	1.7	0.0	0.0	0.0	0.0	4.3	1.2	0.0	3.0				
, (0- /-	3.0	0.0	0.0	0.0	0.0	4.3	1.2	0.0	3.0				
Prop In Lane 0.7			0.00	0.00		0.52	1.00		1.00				
1 1 7	54	0	0	0	0	920	345	0	307				
\ /		0.00	0.00	0.00	0.00	0.44	0.25	0.00	0.57				
1 \ - /	54	0	0	0	0	920	958	0	852				
		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
		0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00				
Uniform Delay (d), s/veh 10		0.0	0.0	0.0	0.0	4.2	10.2	0.0	10.9				
Incr Delay (d2), s/veh 302		0.0	0.0	0.0	0.0	0.3	0.4	0.0	1.7				
Initial Q Delay(d3),s/veh 0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/5/8		0.0	0.0	0.0	0.0	0.6	0.4	0.0	0.9				
Unsig. Movement Delay, s/		0.0	0.0	0.0	0.0	4.5	40 F	0.0	40 C				
LnGrp Delay(d),s/veh 313		0.0	0.0	0.0	0.0	4.5	10.5	0.0	12.6				
LnGrp LOS	F	A	A	A	A 400	A	В	A	В				
Approach Vol, veh/h		1085			406			262					
Approach Delay, s/veh	3	13.7			4.5			11.9					
Approach LOS		F			Α			В					
Timer - Assigned Phs		2		4				8					
Phs Duration (G+Y+Rc), s		9.8		20.0				20.0					
Change Period (Y+Rc), s		4.0		4.0				4.0					
Max Green Setting (Gmax)		16.0		16.0				16.0					
Max Q Clear Time (g_c+l1)	), s	5.0		18.0				6.3					
Green Ext Time (p_c), s		8.0		0.0				1.8					
Intersection Summary													
HCM 6th Ctrl Delay			197.0										
HCM 6th LOS			F										

<i>•</i>	<b>→</b>	•	•	<b>←</b>	•	1	<b>†</b>	<b>/</b>	<b>&gt;</b>	ţ	√	
Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	र्स	7		4		*	<b>↑</b>	7	ሻ	f)		
Traffic Volume (veh/h) 82	82	267	21	91	9	226	117	20	14	99	55	
Future Volume (veh/h) 82	82	267	21	91	9	226	117	20	14	99	55	
Initial Q (Qb), veh 0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT) 1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln 1870 1	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h 85	85	275	22	94	9	233	121	21	14	102	57	
Peak Hour Factor 0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, % 2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h 233	200	324	109	299	25	269	939	796	118	470	263	
	0.20	0.20	0.20	0.20	0.21	0.15	0.50	0.50	0.07	0.42	0.41	
Sat Flow, veh/h 641	980	1585	142	1464	125	1781	1870	1585	1781	1127	630	
Grp Volume(v), veh/h 170	0	275	125	0	0	233	121	21	14	0	159	
Grp Sat Flow(s),veh/h/ln1620	0	1585	1730	0	0	1781	1870	1585	1781	0	1757	
Q Serve(g_s), s 1.5	0.0	8.8	0.0	0.0	0.0	6.7	1.8	0.4	0.4	0.0	3.1	
Cycle Q Clear(g_c), s 4.5	0.0	8.8	3.0	0.0	0.0	6.7	1.8	0.4	0.4	0.0	3.1	
Prop In Lane 0.50		1.00	0.18		0.07	1.00		1.00	1.00		0.36	
Lane Grp Cap(c), veh/h 433	0	324	433	0	0	269	939	796	118	0	733	
	0.00	0.85	0.29	0.00	0.00	0.87	0.13	0.03	0.12	0.00	0.22	
Avail Cap(c_a), veh/h 917	0	826	945	0	0	338	939	796	135	0	733	
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh 18.4	0.0	20.2	17.9	0.0	0.0	21.9	7.0	6.6	23.2	0.0	9.9	
Incr Delay (d2), s/veh 0.2	0.0	2.4	0.5	0.0	0.0	14.9	0.3	0.1	0.2	0.0	0.7	
Initial Q Delay(d3),s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/lnl.7	0.0	3.2	1.3	0.0	0.0	3.5	0.6	0.1	0.1	0.0	1.0	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh 18.6	0.0	22.7	18.4	0.0	0.0	36.8	7.3	6.7	23.3	0.0	10.6	
LnGrp LOS B	A	С	В	A	A	D	A	A	С	A	В	
Approach Vol, veh/h	445			125			375			173		
	21.1			18.4			25.6			11.6		
Approach LOS	С			В			С			В		
Timer - Assigned Phs 1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s7.5	30.5		14.8	12.0	26.0		14.8					
Change Period (Y+Rc), s 3.5	4.5		3.5	3.5	4.5		3.5					
Max Green Setting (Gmax), 5	26.0		28.0	10.5	20.0		28.0					
Max Q Clear Time (g_c+l12),4s	3.8		10.8	8.7	5.1		5.0					
Green Ext Time (p_c), s 0.0	0.7		0.5	0.0	0.7		0.7					
Intersection Summary												
HOME OF LEGIS												
HCM 6th Ctrl Delay		20.8										

Intersection														
Int Delay, s/veh	25.5													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		<b></b>	7		4						4	7		
Traffic Vol, veh/h	0	937	1208	288	392	0	0	0	0	167	1	176		
Future Vol, veh/h	0	937	1208	288	392	0	0	0	0	167	1	176		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	85	0	72		
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized	_	_	None	_	_	None	_	_	None	_	_	None		
Storage Length	-	_	0	_	_	_	_	_	_	_	_	50		
Veh in Median Storage	.# -	0	-	_	0	_	-	0	-	-	0	-		
Grade, %	, -	0	_	_	0	_	_	0	-	-	0	_		
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2		
Mvmt Flow	0	1018	1313	313	426	0	0	0	0	182	1	191		
WWW.CT IOW		1010	1010	010	120					102	•	101		
Major/Minor N	//ajor1		N	Major2					ı	Minor2				
Conflicting Flow All	//ajul l -	0	0	2331	0	0				2812	3383	498		
Stage 1	-	-	U	2331	-	-				1052	1052	490		
Stage 2			_							1760	2331	_		
	-	-	-	4.12	-	-				6.42	6.52	6.22		
Critical Hdwy	-	-	-	4.12	-	-				5.42	5.52			
Critical Hdwy Stg 1	-	-	-	-	-	-						-		
Critical Hdwy Stg 2	-	-	-	2 240	-	-				5.42	5.52	2 240		
Follow-up Hdwy	-	-		2.218	-	-				3.518	4.018			
Pot Cap-1 Maneuver	0	-		~ 212	-	0				~ 20	8	572		
Stage 1	0	-	-	-	-	0				336	303	-		
Stage 2	0	-	-	-	-	0				~ 152	71	-		
Platoon blocked, %		-	-	040	-					^	^	500		
Mov Cap-1 Maneuver	-	-		~ 212	-	-				0	0	533		
Mov Cap-2 Maneuver	-	-	-	-	-	-				0	0	-		
Stage 1	-	-	-	-	-	-				336	0	-		
Stage 2	-	-	-	-	-	-				0	0	-		
Approach	EB			WB						SB				
HCM Control Delay, s	0			118.7										
HCM LOS										-				
Minor Lane/Major Mvm	t	EBT	EBR	WBL	WBT	SBLn1	SBLn2							
Capacity (veh/h)		_	-	~ 212	-	-	533							
HCM Lane V/C Ratio		-		1.477	-	-	0.359							
HCM Control Delay (s)		_	-	280.2	0	-	15.5							
HCM Lane LOS		_	_	F	A	-	С							
HCM 95th %tile Q(veh)		-	-	18.9	-	-	1.6							
Notes														
~: Volume exceeds cap	acity	\$. D.	alay eye	eeds 30	)Ne	+: Com	nutation	Not D	efined	*· \\	major	volume	in platoon	
. Volume exceeds cap	doity	ψ. Dt	Jay CAL	ocus st	103	·. Coll	pulation	ו ואטנ טי	Cillicu	. 🖽	Παյυι	VOIUITIE	iii piatooii	

Intersection													
Int Delay, s/veh	10.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			ĵ.			र्स	7				
Traffic Vol, veh/h	741	252	0	0	415	214	174	0	397	0	0	0	
Future Vol, veh/h	741	252	0	0	415	214	174	0	397	0	0	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	None	-	_	None	
Storage Length	-	-	-	-	-	-	-	-	25	-	-	-	
Veh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	805	274	0	0	451	233	189	0	432	0	0	0	
Major/Minor I	Major1		ľ	Major2			Minor1						
Conflicting Flow All	684	0	_	_	_	0	2452	2568	274				
Stage 1	_	-	_	-	-	_	1884	1884	-				
Stage 2	_	_	_	_	_	_	568	684	_				
Critical Hdwy	4.12	_	_	_	-	-	6.42	6.52	6.22				
Critical Hdwy Stg 1	_	_	-	_	-	_	5.42	5.52	-				
Critical Hdwy Stg 2	_	_	-	-	_	_	5.42	5.52	-				
Follow-up Hdwy	2.218	_	-	_	-	_		4.018	3.318				
Pot Cap-1 Maneuver	909	-	0	0	-	-	~ 34	26	765				
Stage 1	-	-	0	0	-	-	~ 131	119	-				
Stage 2	_	-	0	0	-	-	567	449	-				
Platoon blocked, %		-			-	-							
Mov Cap-1 Maneuver	909	-	-	-	-	-	0	0	765				
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-				
Stage 1	-	-	-	-	-	-	0	0	-				
Stage 2	-	-	-	-	-	-	567	0	-				
Approach	EB			WB			NB						
HCM Control Delay, s	22.8			0									
HCM LOS	22.0			V			<u>-</u>						
110111 200													
Minor Lang/Major Mym	nt N	JDI 51 N	VIDI 22	EBL	EBT	\M/DT	WPP						
Minor Lane/Major Mvm	it l	NBLn11			EDI	WBT	WBR						
Capacity (veh/h)		-	765	909	-	-	-						
HCM Cantrol Dolay (a)			0.564		-	-	-						
HCM Control Delay (s)		-	15.6	30.6	0	-	-						
HCM Lane LOS	١ -	<del>-</del>	C	D	А	-	-						
HCM 95th %tile Q(veh)	)	-	3.6	12.1	-	-	-						
Notes													
~: Volume exceeds cap	pacity	\$: De	elay exc	eeds 3	00s	+: Com	putatio	n Not D	efined	*: All	major v	volume i	in platoon

	۶	<b>→</b>	•	•	<b>←</b>	•	1	<b>†</b>	~	<b>/</b>	<b></b>	✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4		ሻ	<b>∱</b> β		ሻ	<b>^</b>	7
Traffic Volume (veh/h)	336	26	153	7	20	0	241	217	21	6	200	240
Future Volume (veh/h)	336	26	153	7	20	0	241	217	21	6	200	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	357	28	163	7	21	0	256	231	22	6	213	255
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	31	381	94	281	0	293	1142	108	11	674	293
Arrive On Green	0.24	0.24	0.24	0.20	0.20	0.00	0.16	0.35	0.35	0.01	0.19	0.19
Sat Flow, veh/h	1657	130	1585	462	1385	0	1781	3281	310	1781	3554	1546
Grp Volume(v), veh/h	385	0	163	28	0	0	256	124	129	6	213	255
Grp Sat Flow(s),veh/h/ln	1787	0	1585	1847	0	0	1781	1777	1814	1781	1777	1546
Q Serve(g_s), s	16.5	0.0	6.9	1.0	0.0	0.0	11.1	3.9	3.9	0.3	4.1	12.6
Cycle Q Clear(g_c), s	16.5	0.0	6.9	1.0	0.0	0.0	11.1	3.9	3.9	0.3	4.1	12.6
Prop In Lane	0.93		1.00	0.25		0.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	430	0	381	374	0	0	293	618	631	11	674	293
V/C Ratio(X)	0.90	0.00	0.43	0.07	0.00	0.00	0.87	0.20	0.20	0.54	0.32	0.87
Avail Cap(c_a), veh/h	430	0	381	374	0	0	293	618	631	90	720	313
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	25.4	25.5	0.0	0.0	32.2	18.0	18.1	39.1	27.6	31.1
Incr Delay (d2), s/veh	23.8	0.0	3.5	0.4	0.0	0.0	23.9	0.2	0.2	35.0	0.3	21.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	2.7	0.5	0.0	0.0	6.4	1.5	1.5	0.2	1.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	0.0	28.9	25.9	0.0	0.0	56.1	18.2	18.2	74.1	27.8	52.3
LnGrp LOS	D	Α	С	С	Α	Α	E	В	В	E	С	D
Approach Vol, veh/h		548			28			509			474	
Approach Delay, s/veh		45.7			25.9			37.3			41.6	
Approach LOS		D			С			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	17.0	19.0		20.0	4.5	31.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	13.0	16.0		16.0	4.0	25.0				
Max Q Clear Time (g_c+l1), s		18.5	13.1	14.6		3.0	2.3	5.9				
Green Ext Time (p_c), s		0.2	0.0	0.3		0.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			41.3									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	10.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4		ሻ	<b>↑</b> ↑		ሻ	ĵ.	
Traffic Vol, veh/h	0	0	0	44	7	27	253	529	78	27	486	4
Future Vol, veh/h	0	0	0	44	7	27	253	529	78	27	486	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	60	-	-
Veh in Median Storage,	# -	1	-	_	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	48	8	29	275	575	85	29	528	4
Major/Minor			ľ	Minor1		1	Major1		١	//ajor2		
Conflicting Flow All				1756	1758	330	532	0	0	660	0	0
Stage 1				1168	1168	-	-	-	-	-	-	-
Stage 2				588	590	-	-	-	_	-	_	_
Critical Hdwy				6.63	6.53	6.93	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1				5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy				3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver				84	84	667	1034	-	-	926	-	-
Stage 1				259	267	-	-	-	-	-	-	-
Stage 2				554	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver				60	0	667	1034	-	-	926	-	-
Mov Cap-2 Maneuver				60	0	-	-	-	-	-	-	-
Stage 1				190	0	-	-	-	-	-	-	-
Stage 2				537	0	-	-	-	-	-	-	-
Approach				WB			NB			SB		
HCM Control Delay, s				155.1			2.9			0.5		
HCM LOS				F								
Minor Lane/Major Mvmt	t	NBL	NBT	NBRV	VBLn1	SBL	SBT	SBR				
Capacity (veh/h)		1034	-	_		926	_	_				
HCM Lane V/C Ratio		0.266	-	-	0.922		-	-				
HCM Control Delay (s)		9.7	_		155.1	9	-	-				
HCM Lane LOS		A	-	-	F	A	-	-				
HCM 95th %tile Q(veh)		1.1	-	-	5.2	0.1	-	-				

Intersection													
Int Delay, s/veh	134.9												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
ane Configurations	LDL	\$	LDIX	VVDL	₩ <u>₩</u>	WDIX	NDL	וטוו	ווטוז	ODL	4	ODIN	
Fraffic Vol, veh/h	0	665	520	178	386	0	0	0	0	162	1	141	
future Vol, veh/h	0	665	520	178	386	0	0	0	0	162	1	141	
conflicting Peds, #/hr	0	003	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	None	Olop -	-	Stop	
Storage Length	_	_	-	_	_	-	_	_	-	_	_	Olop -	
eh in Median Storage	.# -	0	_	_	0	_	_	0	_	_	0	_	
Grade, %	-, π	0	_	<u>-</u>	0	_	_	0	<u>-</u>	_	0	_	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
leavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
1vmt Flow	0	723	565	193	420	0	0	0	0	176	1	153	
WWW.CT IOW	U	120	000	100	120			J	J	170	•	100	
	Major1			Major2					N	/linor2			
Conflicting Flow All	-	0	0	1288	0	0				1812	2094	420	
Stage 1	-	-	-	-	-	-				806	806	-	
Stage 2	-	-	-	-	-	-				1006	1288	-	
critical Hdwy	-	-	-	4.12	-	-				6.42	6.52	6.22	
ritical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.52	-	
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.52	-	
ollow-up Hdwy	-	-	-	2.218	-	-				3.518		3.318	
ot Cap-1 Maneuver	0	-	-	538	-	0				~ 86	52	633	
Stage 1	0	-	-	-	-	0				439	395	-	
Stage 2	0	-	-	-	-	0				353	234	-	
latoon blocked, %		-	-	F00	-					40	^	000	
Nov Cap-1 Maneuver	-	-	-	538	-	-				~ 46	0	633	
Nov Cap-2 Maneuver	-	-	-	-	-	-				~ 46	0	-	
Stage 1	-	-	-	-	-	-				439 188	0	-	
Stage 2	-	-	-	<del>-</del>	-	-				100	0	-	
pproach	EB			WB						SB			
ICM Control Delay, s	0			4.9					\$	901.8			
ICM LOS										F			
//Iinor Lane/Major Mvm	ıt	EBT	EBR	WBL	WBT:	SRI n1							
Capacity (veh/h)		LDI	LDIX	538	- 1000								
ICM Lane V/C Ratio		-	-	0.36		2.824							
ICM Control Delay (s)		-	-	15.4		901.8							
ICM Lane LOS		_	_	13.4 C	A	F							
HCM 95th %tile Q(veh)		_	_	1.6		30.7							
,				1.0		00.1							
Notes													
: Volume exceeds cap	pacity	\$: De	elay exc	eeds 3	00s	+: Com <sub>l</sub>	outation	Not D	efined	*: All	major	olume i	n platoon

Seconfigurations   Configurations   Co	Intersection								
The Configurations	nt Delay, s/veh	131.3							
The Configurations	Movement	FRT	FRR	WRI	WRT	NRI	NRR		
ffic Vol, veh/h 1056 0 0 415 155 261  ure Vol, veh/h 1056 0 0 415 155 261  ffilditing Peds, #/hr 0 0 0 0 0 0 0  n Control Free Free Free Free Free Stop Stop  Channelized - None - None - None rage Length 0 0 0 1  n Median Storage, # 0 0 0 0 1  n Median Storage, # 0 0 0 0 1  n Median Storage, # 0 0 0 0 1  de, % 0 0 0 0 0 1  de, % 10 0 0 0 0 1  de, % 2 2 2 2 2 2 2 2 2  mt Flow 1148 0 0 451 168 284   por/Minor Major1 Major2 Minor1  fflicting Flow All 0 1599 574  Stage 1 1148 - Stage 2 451 - 1  icial Hdwy Stg 1 56.3 6.93  icial Hdwy Stg 1 56.3 543 1  cove-up Hdwy 56.3 543 1  cove-up Hdwy 54.3 54.3 1  cove-up Hdwy 54.3			LDIX	****			HUIT		
ure Vol, veh/h 1056 0 0 415 155 261  filicting Peds, #h/h 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1056	Λ	0			261		
Inflicting Peds, #/hr									
Control   Free   Free   Free   Free   Free   Stop   Stop									
Channelized - None - None - None rage Length 0									
rage Length									
n in Median Storage, # 0							-		
Ade,   Work   Factor   92   92   92   92   92   92   92   9			_				_		
ak Hour Factor 92 92 92 92 92 92 92 92 ayy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									
avy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									
Minor   Major   Major   Major   Minor									
Stage 1									
Stage 1		1170		- 0	101	.00	201		
Stage 1	· /b A ·	N4.1. 4		4.1.0		P 4			
Stage 1									
Stage 2       -       -       -       451       -         ical Hdwy       -       -       -       6.63       6.93         ical Hdwy Stg 1       -       -       -       5.83       -         ical Hdwy Stg 2       -       -       -       5.43       -         low-up Hdwy       -       -       -       3.519       3.319         Cap-1 Maneuver       -       0       0       -       265       -         Stage 1       -       0       0       -       641       -         toon blocked, %       -       -       -       -       v       2ap-1 Maneuver       -       -       -       106       463         v Cap-2 Maneuver       -       -       -       -       106       -       -       Stage 1       -       -       265       -									
ical Hdwy Stg 1		-		-					
ical Hdwy Stg 1 5.83 - ical Hdwy Stg 2 5.43 - low-up Hdwy 3.519 3.319  Cap-1 Maneuver - 0 0 - ~106 463  Stage 1 - 0 0 - 265 - Stage 2 - 0 0 - 641 - loton blocked, % 106 463  V Cap-1 Maneuver ~106 463  V Cap-2 Maneuver ~106 463  V Cap-2 Maneuver ~106 - Stage 1 265 - Stage 2 641 - loton blocked, %		-	-	-					
Stage 1		-		-					
Now-up Hdwy		-		-					
Cap-1 Maneuver - 0 0 - ~106 463  Stage 1 - 0 0 - 265 - Stage 2 - 0 0 - 641 -  toon blocked, % 106 463  v Cap-1 Maneuver ~106 463 v Cap-2 Maneuver ~106 - Stage 1 265 - Stage 2 641 -  oroach EB WB NB  M Control Delay, s 0 0 \$595.6 M LOS F  or Lane/Major Mvmt NBLn1 EBT WBT  oracity (veh/h) 205 M Lane V/C Ratio 2.206 M Control Delay (s) \$595.6 M Lane LOS F M 95th %tile Q(veh) 35.7				-					
Stage 1 - 0 0 - 265 - Stage 2 - 0 0 - 641 - Stage 2 - 0 0 - 641 - Stage 2 - 0 0 0 - 641 - Stage 2 - 0 0 0 - 641 - Stage 2 - 0 0 0 - 641 - Stage 1 - 0 - 0 - 265 - Stage 1 - 0 - 0 - 641 - Stage 1 - 0 - 0 - 641 - Stage 2 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -				-					
Stage 2       -       0       0       -       641       -         toon blocked, %       -<		-			-				
toon blocked, %		-			-				
v Cap-1 Maneuver 106			U	U	-	641	-		
V Cap-2 Maneuver					-	100	400		
Stage 1       -       -       -       265       -         Stage 2       -       -       -       641       -         Poroach       EB       WB       NB         M Control Delay, s       0       0       \$595.6         M LOS       F             F       -       -         NBLn1       EBT       WBT         Doacity (veh/h)       205       -       -         M Lane V/C Ratio       2.206       -       -         M Lane LOS       F       -       -         M Lane LOS       F       -       -         M 95th %tile Q(veh)       35.7       -       -				-					
Stage 2         -         -         -         641         -           Proach         EB         WB         NB         NB           M Control Delay, s         0         0         \$ 595.6           M LOS         F         -           For Lane/Major Mvmt         NBLn1         EBT         WBT           Deacity (veh/h)         205         -         -           M Lane V/C Ratio         2.206         -         -           M Control Delay (s)         \$ 595.6         -         -           M Lane LOS         F         -         -           M Sth %tile Q(veh)         35.7         -         -			-	-	-				
Droach   EB   WB   NB   M   Control Delay, s   0   0   \$595.6   M   LOS   F   F   Concisty (veh/h)   205     M   Lane V/C Ratio   2.206     M   Lane LOS   F     M   Lane LOS   F     M   Lane LOS   F     M   Lane LOS   F     M   Sth % tile Q(veh)   35.7   -   Concess   State   Sta		-	-	-	-				
M Control Delay, s 0 0 \$ 595.6 M LOS F  Nor Lane/Major Mvmt NBLn1 EBT WBT Dacity (veh/h) 205 M Lane V/C Ratio 2.206 M Control Delay (s) \$ 595.6 M Lane LOS F M 195th %tile Q(veh) 35.7	Stage 2	-	-	-	-	041	-		
M Control Delay, s 0 0 \$595.6 M LOS F  Nor Lane/Major Mvmt NBLn1 EBT WBT Dacity (veh/h) 205 M Lane V/C Ratio 2.206 M Control Delay (s) \$595.6 M Lane LOS F M 195th %tile Q(veh) 35.7									
M LOS F  or Lane/Major Mvmt NBLn1 EBT WBT  cacity (veh/h) 205  M Lane V/C Ratio 2.206  M Control Delay (s) \$595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7	proach	EB		WB					
or Lane/Major Mvmt NBLn1 EBT WBT Dacity (veh/h) 205  M Lane V/C Ratio 2.206  M Control Delay (s) \$595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7	CM Control Delay, s	0		0	\$				
Dacity (veh/h) 205  M Lane V/C Ratio 2.206  M Control Delay (s) \$ 595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7	CM LOS					F			
Dacity (veh/h) 205  M Lane V/C Ratio 2.206  M Control Delay (s) \$ 595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7									
Dacity (veh/h) 205  M Lane V/C Ratio 2.206  M Control Delay (s) \$ 595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7	nor Lane/Major Mvr	mt I	NBLn1	EBT	WBT				
M Lane V/C Ratio 2.206  M Control Delay (s) \$ 595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7				_	_				
M Control Delay (s) \$ 595.6  M Lane LOS F  M 95th %tile Q(veh) 35.7	M Lane V/C Ratio			_	_				
M Lane LOS F M 95th %tile Q(veh) 35.7		s) \$		-	-				
M 95th %tile Q(veh) 35.7 es	CM Lane LOS	,		-	_				
es		h)		-	-				
	`								
routine exceeds capacity — \$. Delay exceeds 5005 — +. Computation Not Delined — . All major volume in platoon		nnacity	¢. Da	day aya	oodo 2	10c	L. Com	outation Not Defined	*: All major volume in platean
	rolullie exceeds ca	apacity	φ. De	ay exc	eeus 3	JUS	±. ∪0111β	Dutation Not Delined	. Ali major volume in piatoon

## HCM 6th Signalized Intersection Summary 10: El Camino Real & Traffic Way

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology cannot be performed with phasing conflicts.

### HCM 6th Signalized Intersection Summary 11: US 101 SB Ramps & SR 41

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology supports speed limit in the range of 25 to 55 mph.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻሻ	<b>†</b>	77	ሻ	<b>∱</b> }		ሻሻ	<b>^</b>	7	ሻ	<b>^</b>	#
Traffic Volume (veh/h)	197	658	458	179	253	107	198	438	291	378	322	99
Future Volume (veh/h)	197	658	458	179	253	107	198	438	291	378	322	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	U	1.00	1.00	U	1.00	1.00	U	0.97	1.00	U	0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approac		No	1.00	1.00	No	1.00	1.00	No	1.00	1.00	No	1.00
Adj Sat Flow, veh/h/ln	1856	1841	1856	1856	1841	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	205	685	477	186	264	111	206	456	303	394	335	103
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	4	3	3	4	3	3	3	3	3	3	3
Cap, veh/h	358	673	1231	215	934	382	271	830	359	190	931	408
Arrive On Green	0.10	0.37	0.37	0.12	0.39	0.39	0.08	0.24	0.24	0.11	0.26	0.26
Sat Flow, veh/h	3428	1841	2768	1767	2418	989	3428	3526	1526	1767	3526	1546
Grp Volume(v), veh/h	205	685	477	186	189	186	206	456	303	394	335	103
Grp Sat Flow(s),veh/h/l		1841	1384	1767	1749	1658	1714	1763	1526	1767	1763	1546
Q Serve(g_s), s	6.6	42.4	13.4	12.0	8.6	9.0	6.8	13.2	22.0	12.5	9.0	4.4
Cycle Q Clear(g_c), s	6.6	42.4	13.4	12.0	8.6	9.0	6.8	13.2	22.0	12.5	9.0	4.4
Prop In Lane	1.00	070	1.00	1.00	075	0.60	1.00	200	1.00	1.00	004	1.00
Lane Grp Cap(c), veh/h		673	1231	215	675	640	271	830	359	190	931	408
V/C Ratio(X)	0.57	1.02	0.39	0.87	0.28	0.29	0.76	0.55	0.84	2.07	0.36	0.25
Avail Cap(c_a), veh/h	358	673	1231	259	675	640	458	942	408	190	931	408
HCM 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
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/ve		36.8	21.6	50.0	24.5	24.6	52.3	39.0	42.3	51.7	34.7	17.8
Incr Delay (d2), s/veh	2.0	37.3	0.8	22.2	1.0	1.1	4.4	0.6	13.6	498.7	0.3	0.4
Initial Q Delay(d3),s/vel		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),ve		25.3	4.4	6.6	3.7	3.7	3.1	5.7	9.5	31.8	3.8	2.3
Unsig. Movement Delag	•											
LnGrp Delay(d),s/veh	51.5	74.0	22.4	72.2	25.5	25.8	56.7	39.5	55.9	550.5	35.0	18.2
LnGrp LOS	D	F	С	E	С	С	Е	D	E	F	С	В
Approach Vol, veh/h		1367			561			965			832	
Approach Delay, s/veh		52.6			41.1			48.3			277.0	
Approach LOS		D			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc	) (60 1	47.0	12.7	37.2	16.7	49.4	16.0	33.9				
Change Period (Y+Rc)		4.6	3.5	6.6	4.6	* 4.6	3.5	* 6.6				
Max Green Setting (Gn		37.8	15.5	26.0	11.5	* 45	12.5	* 31				
Max Q Clear Time (g_c	, ,	44.4	8.8	11.0	8.6	11.0	14.5	24.0				
Green Ext Time (p_c),	, .	0.0	0.0	2.5	0.0	2.3	0.0	2.4				
** /	5 0.1	0.0	0.3	2.0	0.2	2.3	0.0	2.4				
Intersection Summary			00.0									
HCM 6th Ctrl Delay			99.9									
HCM 6th LOS			F									
Notes												

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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13: El Camino Real & US 101 NB Ramps /Plaza Del Camino Driveway

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		स	7		4	7	ች	<b>†</b> \$		ች	ħβ		
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	1	No			No			No			No		
Adj Sat Flow, veh/h/ln 1	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	0	748		0	748	634	160	1421	0	160	1421		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sat Flow, veh/h	0	1870	1585	0	1870	1585	1781	3647	0	1781	3647	0	
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0	
Grp Sat Flow(s), veh/h/ln		1870	1585	0	1870	1585	1781	1777	0	1781	1777	0	
Q Serve(g_s), 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	
Cycle Q Clear(g_c), 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	
	0.00	0.0	1.00	0.00	0.0	1.00	1.00	0.0	0.00	1.00	0.0	0.00	
Lane Grp Cap(c), veh/h	0	748		0	748	634	160	1421	0	160	1421	0.00	
	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	0	748		0	748	634	160	1421	0	160	1421		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Unsig. Movement Delay,			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LnGrp LOS	A	A	3.0	A	A	A	A	A	A	A	A	3.0	
Approach Vol, veh/h		0	Α		0			0			0	Α	
Approach Delay, s/veh		0.0	- / (		0.0			0.0			0.0	- / \	
Approach LOS		3.0			3.0			3.0			3.0		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc),	S	22.5		22.5		22.5		22.5					
Change Period (Y+Rc), s	3	4.5		4.5		4.5		4.5					
Max Green Setting (Gma		18.0		18.0		18.0		18.0					
Max Q Clear Time (g_c+	, .	0.0		0.0		0.0		0.0					
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0					
Intersection Summary													
HCM 6th Ctrl Delay			0.0										
HCM 6th LOS			Α										
Notes													

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4						4		
Traffic Volume (veh/h)	2	208	17	102	307	121	0	0	0	320	14	77	
Future Volume (veh/h)	2	208	17	102	307	121	0	0	0	320	14	77	
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0	
Ped-Bike Adj(A_pbT)	1.00	•	1.00	1.00	•	1.00				1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00	
Work Zone On Approac		No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870	
Adj Flow Rate, veh/h	2	226	18	111	334	132				348	15	0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2	
Cap, veh/h	92	624	49	194	381	139				743	32		
Arrive On Green	0.37	0.37	0.37	0.73	0.73	0.73				0.43	0.43	0.00	
Sat Flow, veh/h	3	1706	135	237	1042	379				1711	74	0.00	
	246			577						363	0	0	
Grp Volume(v), veh/h		0	0		0	0							
Grp Sat Flow(s),veh/h/l		0	0	1657	0	0				1785	0	0	
Q Serve(g_s), s	0.0	0.0	0.0	8.1	0.0	0.0				5.8	0.0	0.0	
Cycle Q Clear(g_c), s	3.9	0.0	0.0	12.0	0.0	0.0				5.8	0.0	0.0	
Prop In Lane	0.01	^	0.07	0.19	•	0.23				0.96	^	0.00	
Lane Grp Cap(c), veh/h		0	0	714	0	0				775	0		
V/C Ratio(X)	0.32	0.00	0.00	0.81	0.00	0.00				0.47	0.00		
Avail Cap(c_a), veh/h	828	0	0	768	0	0				775	0		
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	0.00	0.86	0.00	0.00				1.00	0.00	0.00	
Uniform Delay (d), s/ve		0.0	0.0	4.9	0.0	0.0				8.0	0.0	0.0	
Incr Delay (d2), s/veh	0.2	0.0	0.0	5.3	0.0	0.0				2.0	0.0	0.0	
Initial Q Delay(d3),s/vel	h 0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0	
%ile BackOfQ(50%),ve	h/ln1.2	0.0	0.0	2.2	0.0	0.0				2.0	0.0	0.0	
Unsig. Movement Delay	y, s/veh	1											
LnGrp Delay(d),s/veh	9.5	0.0	0.0	10.1	0.0	0.0				10.1	0.0	0.0	
LnGrp LOS	Α	Α	Α	В	Α	Α				В	Α		
Approach Vol, veh/h		246			577						363	Α	
Approach Delay, s/veh		9.5			10.1						10.1		
Approach LOS		Α			В						В		
Timer - Assigned Phs				4		6		8					
Phs Duration (G+Y+Rc	), s			18.6		21.4		18.6					
Change Period (Y+Rc)	, S			4.0		4.0		4.0					
Max Green Setting (Gn	nax), s			16.0		16.0		16.0					
Max Q Clear Time (g_c				5.9		7.8		14.0					
Green Ext Time (p_c),				0.6		1.0		0.6					
ntersection Summary													
HCM 6th Ctrl Delay			10.0										
HCM 6th LOS			Α										
Notes													

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			र्स	7		4					
Traffic Volume (veh/h)	72	396	78	8	332	337	193	171	76	0	0	0	
Future Volume (veh/h)	72	396	78	8	332	337	193	171	76	0	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Work Zone On Approac		No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	78	430	85	9	361	366	210	186	83				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2				
Cap, veh/h	152	484	89	97	741	634	311	276	123				
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40				
Sat Flow, veh/h	126	1210	223	13	1853	1585	779	690	308				
Grp Volume(v), veh/h	593	0	0	370	0	366	479	0	0				
Grp Sat Flow(s), veh/h/li	n1559	0	0	1866	0	1585	1776	0	0				
Q Serve(g_s), s	8.8	0.0	0.0	0.0	0.0	7.2	8.9	0.0	0.0				
Cycle Q Clear(g_c), s	14.7	0.0	0.0	5.9	0.0	7.2	8.9	0.0	0.0				
Prop In Lane	0.13		0.14	0.02		1.00	0.44		0.17				
Lane Grp Cap(c), veh/h	726	0	0	839	0	634	710	0	0				
V/C Ratio(X)	0.82	0.00	0.00	0.44	0.00	0.58	0.67	0.00	0.00				
Avail Cap(c_a), veh/h	726	0	0	839	0	634	710	0	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I)	0.95	0.00	0.00	0.60	0.00	0.60	1.00	0.00	0.00				
Uniform Delay (d), s/vel	h 11.4	0.0	0.0	9.0	0.0	9.4	9.9	0.0	0.0				
Incr Delay (d2), s/veh	6.9	0.0	0.0	0.2	0.0	0.8	5.1	0.0	0.0				
Initial Q Delay(d3),s/veh	า 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),vel	h/lr <b>5</b> .0	0.0	0.0	1.8	0.0	1.9	3.5	0.0	0.0				
Unsig. Movement Delay	, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	0.0	9.2	0.0	10.1	14.9	0.0	0.0				
LnGrp LOS	В	Α	Α	Α	Α	В	В	Α	Α				
Approach Vol, veh/h		593			736			479					
Approach Delay, s/veh		18.3			9.7			14.9					
Approach LOS		В			Α			В					
Timer - Assigned Phs		2		4				8					
Phs Duration (G+Y+Rc)	), s	20.0		20.0				20.0					
Change Period (Y+Rc),		4.0		4.0				4.0					
Max Green Setting (Gm		16.0		16.0				16.0					
Max Q Clear Time (g_c	, ,	10.9		16.7				9.2					
Green Ext Time (p_c), s	, .	1.0		0.0				2.0					
Intersection Summary													
HCM 6th Ctrl Delay			13.9										
HCM 6th LOS			В										
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4	7		4			ħβ		ች	<b>^</b>	7	
Traffic Volume (veh/h)	219	4	309	4	25	19	412	681	4	9	617	309	
Future Volume (veh/h)	219	4	309	4	25	19	412	681	4	9	617	309	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	h	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	231	4	325	4	26	20	434	717	4	9	649	325	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	336	6	620	8	50	39	356	1881	10	20	1174	509	
Arrive On Green	0.19	0.19	0.19	0.06	0.06	0.06	0.20	0.52	0.52	0.01	0.33	0.33	
Sat Flow, veh/h	1752	30	1583	139	902	694	1781	3623	20	1781	3554	1540	
Grp Volume(v), veh/h	235	0	325	50	0	0	434	352	369	9	649	325	
Grp Sat Flow(s), veh/h/ln	1783	0	1583	1734	0	0	1781	1777	1866	1781	1777	1540	
Q Serve(g_s), s	11.0	0.0	14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1	
Cycle Q Clear(g_c), s	11.0	0.0	14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1	
Prop In Lane	0.98		1.00	0.08		0.40	1.00		0.01	1.00		1.00	
Lane Grp Cap(c), veh/h	342	0	620	96	0	0	356	923	969	20	1174	509	
V/C Ratio(X)	0.69	0.00	0.52	0.52	0.00	0.00	1.22	0.38	0.38	0.45	0.55	0.64	
Avail Cap(c_a), veh/h	475	0	739	96	0	0	356	923	969	99	1174	509	
HCM 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	
Upstream Filter(I)	0.36	0.00	0.36	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh		0.0	21.0	41.3	0.0	0.0	36.0	13.0	13.0	44.2	24.7	25.6	
Incr Delay (d2), s/veh	0.3	0.0	0.1	2.3	0.0	0.0	121.1	1.2	1.1	5.8	1.9	6.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh		0.0	5.0	1.1	0.0	0.0	19.6	4.3	4.5	0.2	5.8	6.6	
Unsig. Movement Delay													
LnGrp Delay(d),s/veh	34.2	0.0	21.0	43.6	0.0	0.0	157.1	14.2	14.1	50.0	26.6	31.6	
LnGrp LOS	С	Α	С	D	Α	Α	F	В	В	D	С	С	
Approach Vol, veh/h		560			50			1155			983		
Approach Delay, s/veh		26.6			43.6			67.8			28.4		
Approach LOS		С			D			E			С		
	1	2		1		6		0					
Timer - Assigned Phs Phs Duration (G+Y+Rc)	32 U	34.7		22.3	6.0	51.7		10.0					
Change Period (Y+Rc),		5.0		5.0	5.0	5.0		5.0					
Max Green Setting (Gmax Q Clear Time (g_c-		23.0		24.0	5.0	36.0		5.0					
	, .	18.1		16.1	2.5	12.7		4.5					
Green Ext Time (p_c), s	0.0	2.2		1.0	0.0	3.0		0.0					
Intersection Summary													
HCM 6th Ctrl Delay			44.9										
HCM 6th LOS			D										

Base 12:00 am 08/03/2006 Baseline

	۶	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	<b>/</b>	<b>&gt;</b>	ţ	√	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	*	f)		ሻ	ĵ.			4			4		
Traffic Volume (veh/h)	18	321	28	86	306	84	9	9	41	39	18	9	
Future Volume (veh/h)	18	321	28	86	306	84	9	9	41	39	18	9	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approac	h	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	19	338	29	91	322	88	9	9	43	41	19	9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2	
Cap, veh/h	257	647	56	151	458	125	139	41	141	264	75	26	
Arrive On Green	0.14	0.40	0.40	0.08	0.34	0.34	0.12	0.12	0.12	0.12	0.12	0.12	
Sat Flow, veh/h	1781	1631	140	1781	1358	371	149	327	1137	776	601	206	
Grp Volume(v), veh/h	19	0	367	91	0	410	61	0	0	69	0	0	
Grp Sat Flow(s), veh/h/li	n1781	0	1771	1781	0	1729	1613	0	0	1583	0	0	
Q Serve(g_s), s	0.3	0.0	5.4	1.7	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	0.3	0.0	5.4	1.7	0.0	7.1	1.1	0.0	0.0	1.2	0.0	0.0	
Prop In Lane	1.00		0.08	1.00		0.21	0.15		0.70	0.59		0.13	
Lane Grp Cap(c), veh/h	257	0	703	151	0	583	321	0	0	364	0	0	
V/C Ratio(X)	0.07	0.00	0.52	0.60	0.00	0.70	0.19	0.00	0.00	0.19	0.00	0.00	
Avail Cap(c_a), veh/h	338	0	1862	702	0	2171	1375	0	0	1357	0	0	
HCM 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	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/vel	h 12.7	0.0	7.9	15.1	0.0	9.9	13.6	0.0	0.0	13.6	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.0	0.6	4.6	0.0	1.6	0.3	0.0	0.0	0.2	0.0	0.0	
Initial Q Delay(d3),s/vel	า 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),vel	h/ln0.1	0.0	1.1	0.7	0.0	1.7	0.4	0.0	0.0	0.4	0.0	0.0	
Unsig. Movement Delay	, s/veh												
LnGrp Delay(d),s/veh	12.8	0.0	8.5	19.8	0.0	11.4	13.9	0.0	0.0	13.9	0.0	0.0	
LnGrp LOS	В	Α	Α	В	Α	В	В	Α	Α	В	Α	Α	
Approach Vol, veh/h		386			501			61			69		
Approach Delay, s/veh		8.7			12.9			13.9			13.9		
Approach LOS		Α			В			В			В		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)	), s6.4	19.6		8.3	8.4	17.5		8.3					
Change Period (Y+Rc),		6.0		4.0	3.5	6.0		4.0					
Max Green Setting (Gm		36.0		27.0	6.5	43.0		27.0					
Max Q Clear Time (g c		7.4		3.2	2.3	9.1		3.1					
Green Ext Time (p_c), s	, ,	2.1		0.3	0.0	2.5		0.3					
Intersection Summary													
HCM 6th Ctrl Delay			11.4										
HCM 6th LOS			11.4 B										
I IOW OUI LOG			ט										

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>		ሻ	<u></u>	¥	
Traffic Vol, veh/h	369	41	31	401	74	26
Future Vol, veh/h	369	41	31	401	74	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	_	-	100	-	0	INOITE
Veh in Median Storage		_	-	0	0	_
Grade, %	, # 0	_	-	0	0	_
Peak Hour Factor	91	91	91	91	91	91
	7	2	2	7	2	2
Heavy Vehicles, %		45	34	441	81	29
Mvmt Flow	405	45	34	44 1	01	29
Major/Minor N	/lajor1		Major2	ا	Minor1	
Conflicting Flow All	0	0	450	0	937	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	509	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	_	-	-	-	5.42	-
Critical Hdwy Stg 2	_	_	_	_	5.42	_
Follow-up Hdwy	_	_	2.218	_		3.318
Pot Cap-1 Maneuver	_	_	1110	_	294	627
Stage 1	<u>-</u>	_	-	_	657	-
Stage 2	_	_	_	_	604	_
Platoon blocked, %	<u>-</u>	_		_	004	
Mov Cap-1 Maneuver	_	_	1110	_	285	627
Mov Cap-1 Maneuver	_	_	-	_	412	021
		_			657	
Stage 1	-	-	-	-		-
Stage 2	-	-	-	-	585	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		15.5	
HCM LOS	•				С	
Min and an affiliation NA		IDL 4	EDT	EDD	MDI	MOT
Minor Lane/Major Mvm	t ſ	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		452	-	-	1110	-
HCM Lane V/C Ratio		0.243	-	-	0.031	-
HCM Control Delay (s)		15.5	-	-	8.3	-
HCM Lane LOS		С	-	-	Α	-
HCM 95th %tile Q(veh)		0.9	-	-	0.1	-

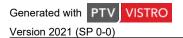
	۶	<b>→</b>	•	•	<b>—</b>	•	1	<b>†</b>	<i>&gt;</i>	<b>/</b>	<b>+</b>	✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	₽		7		7		₩			- 4	
Traffic Volume (veh/h)	57	416	82	46	390	17	44	26	41	11	46	29
Future Volume (veh/h)	57	416	82	46	390	17	44	26	41	11	46	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00	1.00	4.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	1070	No	1070	1070	No	1070	1070	No	1070	1070	No	1070
Adj Sat Flow, veh/h/ln	1870 59	1796 433	1870 85	1870 48	1796 406	1870 18	1870 46	1870 27	1870 43	1870 11	1870 48	1870 30
Adj Flow Rate, veh/h Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0.90	7	0.90	0.90	0.90 7	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Cap, veh/h	91	930	183	80	1135	1001	136	54	65	76	111	63
Arrive On Green	0.05	0.64	0.64	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	1458	286	1781	1796	1585	529	505	610	120	1038	589
Grp Volume(v), veh/h	59	0	518	48	406	18	116	0	0	89	0	0
Grp Sat Flow(s), veh/h/ln	1781	0	1745	1781	1796	1585	1644	0	0	1747	0	0
Q Serve(g_s), s	2.1	0.0	9.7	1.7	6.8	0.3	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	9.7	1.7	6.8	0.3	4.1	0.0	0.0	3.0	0.0	0.0
Prop In Lane	1.00		0.16	1.00		1.00	0.40		0.37	0.12		0.34
Lane Grp Cap(c), veh/h	91	0	1112	80	1135	1001	255	0	0	250	0	0
V/C Ratio(X)	0.65	0.00	0.47	0.60	0.36	0.02	0.46	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	210	0	1112	185	1135	1001	794	0	0	848	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	5.9	29.8	5.6	4.4	27.2	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.0	1.4	7.0	0.9	0.0	1.5	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.5	0.8	1.8	0.1	1.7	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh		0.0	7.0	00.0	0.5		00.7	0.0	0.0	07.0	0.0	0.0
LnGrp Delay(d),s/veh	37.3	0.0	7.3	36.9	6.5	4.4	28.7	0.0	0.0	27.8	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	С	A	A	С	A	A
Approach Vol, veh/h		577			472			116			89	
Approach LOS		10.4			9.5			28.7			27.8	
Approach LOS		В			Α			С			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	45.9		11.4	6.7	45.5		11.4				
Change Period (Y+Rc), s	3.5	5.3		4.6	3.5	5.3		4.6				
Max Green Setting (Gmax), s	6.6	40.6		29.4	7.5	39.7		29.4				
Max Q Clear Time (g_c+l1), s	3.7	11.7		5.0	4.1	8.8		6.1				
Green Ext Time (p_c), s	0.0	3.2		0.5	0.0	2.4		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			В									

C-2 10/26/21 1A 07/26/2021

	۶	<b>→</b>	•	•	<b>←</b>	•	•	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	✓	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ች	<b>↑</b>	7	ሻ	1•			4			4		
Traffic Volume (veh/h)	23	40	18	72	36	34	6	400	93	60	520	29	
Future Volume (veh/h)	23	40	18	72	36	34	6	400	93	60	520	29	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approacl		No			No			No			No		
	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	24	41	19	74	37	35	6	412	96	62	536	30	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2	
Cap, veh/h	45	859	758	95	430	407	44	473	109	80	444	24	
Arrive On Green	0.03	0.48	0.48	0.05	0.51	0.51	0.32	0.32	0.32	0.32	0.32	0.32	
	1781	1796	1585	1781	849	803	6	1474	340	107	1381	75	
Grp Volume(v), veh/h	24	41	19	74	0	72	514	0	0	628	0	0	
Grp Sat Flow(s), veh/h/ln		1796	1585	1781	0	1652	1820	0	0	1563	0	0	
Q Serve(g_s), s	1.2	1.1	0.6	3.6	0.0	2.0	0.0	0.0	0.0	4.6	0.0	0.0	
Cycle Q Clear(g_c), s	1.2	1.1	0.6	3.6	0.0	2.0	23.4	0.0	0.0	28.0	0.0	0.0	
Prop In Lane	1.00		1.00	1.00		0.49	0.01		0.19	0.10		0.05	
Lane Grp Cap(c), veh/h		859	758	95	0	837	627	0	0	548	0	0	
V/C Ratio(X)	0.53	0.05	0.03	0.78	0.00	0.09	0.82	0.00	0.00	1.15	0.00	0.00	
Avail Cap(c_a), veh/h	112	859	758	153	0	837	627	0	0	548	0	0	
HCM 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	
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh		12.1	12.0	40.7	0.0	11.1	28.0	0.0	0.0	30.3	0.0	0.0	
Incr Delay (d2), s/veh	7.1	0.1	0.1	9.6	0.0	0.2	8.5	0.0	0.0	85.9	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh		0.4	0.2	1.7	0.0	0.7	11.2	0.0	0.0	24.5	0.0	0.0	
Unsig. Movement Delay			10.1	1		44.0				4400			
LnGrp Delay(d),s/veh	49.0	12.2	12.1	50.4	0.0	11.3	36.6	0.0	0.0	116.2	0.0	0.0	
LnGrp LOS	D	В	<u>B</u>	<u>D</u>	A	В	<u>D</u>	A	A	<u> </u>	Α	A	
Approach Vol, veh/h		84			146			514			628		
Approach Delay, s/veh		22.7			31.1			36.6			116.2		
Approach LOS		С			С			D			F		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)	, s8.2	47.0		32.0	5.7	49.5		32.0					
Change Period (Y+Rc),		5.3		4.0	3.5	5.3		4.0					
Max Green Setting (Gm		41.7		28.0	5.5	43.7		28.0					
Max Q Clear Time (g_c+	+115,6s	3.1		30.0	3.2	4.0		25.4					
Green Ext Time (p_c), s		0.2		0.0	0.0	0.4		0.9					
Intersection Summary													
HCM 6th Ctrl Delay			71.6										
HCM 6th LOS			Е										

Base 12:00 am 08/03/2006 Baseline

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Movement E	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	¥	<b>^</b>	7	Ĭ	ĵ.			र्स	7		र्स	7	
	110	51	42	11	54	70	31	478	14	68	540	128	
Future Volume (veh/h)	110	51	42	11	54	70	31	478	14	68	540	128	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No			No			No			No		
•	870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870	
	121	56	46	12	59	77	34	525	15	75	593	141	
	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2	
	111	285	251	26	78	102	37	575	521	57	454	436	
	0.06	0.16	0.16	0.01	0.11	0.11	0.33	0.33	0.33	0.27	0.27	0.27	
Sat Flow, veh/h 1	781	1796	1585	1781	707	923	113	1751	1585	209	1651	1585	
Grp Volume(v), veh/h	121	56	46	12	0	136	559	0	15	668	0	141	
Grp Sat Flow(s), veh/h/ln1	781	1796	1585	1781	0	1630	1865	0	1585	1860	0	1585	
Q Serve(g_s), s	5.0	2.2	2.0	0.5	0.0	6.5	23.0	0.0	0.5	22.0	0.0	5.7	
Cycle Q Clear(g_c), s	5.0	2.2	2.0	0.5	0.0	6.5	23.0	0.0	0.5	22.0	0.0	5.7	
Prop In Lane 1	1.00		1.00	1.00		0.57	0.06		1.00	0.11		1.00	
Lane Grp Cap(c), veh/h	111	285	251	26	0	180	612	0	521	511	0	436	
V/C Ratio(X)	1.09	0.20	0.18	0.46	0.00	0.75	0.91	0.00	0.03	1.31	0.00	0.32	
Avail Cap(c_a), veh/h	111	878	774	111	0	796	722	0	614	511	0	436	
HCM Platoon Ratio 1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I) 1	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh 3	37.5	29.3	29.2	39.1	0.0	34.5	25.8	0.0	18.2	29.0	0.0	23.1	
Incr Delay (d2), s/veh 11		0.1	0.1	4.6	0.0	2.4	13.4	0.0	0.0	151.6	0.0	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/l	lr5.5	0.9	0.7	0.3	0.0	2.6	11.7	0.0	0.2	31.0	0.0	2.0	
Unsig. Movement Delay,	s/veh	l											
LnGrp Delay(d),s/veh 14	48.3	29.4	29.3	43.8	0.0	36.9	39.2	0.0	18.2	180.7	0.0	23.3	
LnGrp LOS	F	С	С	D	Α	D	D	Α	В	F	Α	С	
Approach Vol, veh/h		223			148			574			809		
Approach Delay, s/veh		93.9			37.5			38.6			153.2		
Approach LOS		F			D			D			F		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	s5.2	18.0		26.0	9.0	14.2		30.9					
Change Period (Y+Rc), s		5.3		4.0	4.0	5.3		4.6					
Max Green Setting (Gmax		39.1		22.0	5.0	39.1		31.0					
Max Q Clear Time (g_c+l		4.2		24.0	7.0	8.5		25.0					
Green Ext Time (p_c), s		0.1		0.0	0.0	0.4		1.3					
Intersection Summary													
HCM 6th Ctrl Delay			98.4										
HCM 6th LOS			90.4 F										
I IOW OUI LOS			Г										



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Scenario 3 Scenario C

7/6/2021

#### **Turning Movement Volume: Summary**

ID	Intersection Name	North	bound	Sc	outhbou	nd	Eastb	ound	West	oound	Total
טו	intersection Name	Left	Right	Left	Thru	Right	Thru	Right	Left	Thru	Volume
1	Del Rio Rd/US 101 SB Ramp	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
2	Del Rio Rd/US 101 NB Ramp	0	0	0	0	0	0	0	0	0	0	0	617	617

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	V	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
3	Del Rio Rd/El Camino Real	451	171	0	0	0	0	0	0	0	0	166	0	788

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
4	San Anselmo Rd/US101 SB Ramps	0	0	0	0	0	0	0	0	0	1273	196	0	1469

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
5	San Anselmo Rd/US101 NB Ramps	0	0	0	0	0	0	0	0	0	0	1608	601	2209

ID	Intersection Name	North	bound	South	bound	Eastb	ound	Total
טו	intersection Name	Left	Thru	Thru	Right	Left	Right	Volume
6	San Anselmo Rd/El Camino Real	625	0	0	1584	0	0	2209

Ì	ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	/estbour	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	7	El Camino Real/Rosario Ave- US NB On-Ramp	0	0	0	0	105	0	0	0	0	503	402	0	1010

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10	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
8	Traffic Wy/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	805	0	0	805

ĺ	ID	Intersection Name	North	bound	Eastb	ound	West	oound	Total
	טו	intersection Name	Left	Right	Thru	Right	Left	Thru	Volume
	9	Traffic Wy/US 101 NB Off- Ramp	0	0	0	0	0	805	805

Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	10	Traffic Wy/El Camino Real	0	0	0	0	608	0	0	0	0	0	805	0	1413

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
11	SR41/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	884	0	884

Ī	ID	Intersection Name	N	orthbour	nd	So	outhbou	nd	Е	astboun	nd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
	12	SR 41/El Camino Real (S of Atascadero)	0	0	0	0	0	608	0	0	0	0	0	0	608

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
13	El Camino Real/US 101 NB Ramps (S of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
14	Curbaril Ave/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
ا ا	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
15	Curbaril Ave/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

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Ī	ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
	טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Ī	16	Curbaril Ave/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
17	Santa Rosa Rd/US 101 SB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ın	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
18	Santa Rosa Rd/US 101 NB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
19	Santa Rosa Rd/El Camino Real	0	0	0	0	0	0	0	0	0	0	0	0	0

	ID	Intersection Name	South	bound	Easth	ound	Westl	oound	Total
	טו	intersection name	Left	Right	Left	Thru	Thru	Right	Volume
Γ	20	SR 41/Los Altos Rd	0	0	0	0	1080	0	1080

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	d	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
21	SR 41/San Gabriel Rd	0	0	0	0	0	0	0	0	0	0	1080	0	1080

	ID	Intersection Name	North	bound	Eastb	ound	West	oound	Total
	טו	intersection name	Left	Right	Thru	Right	Left	Thru	Volume
ſ	22	SR 41/Santa Rosa Rd	0	0	0	0	0	1080	1080

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astbour	nd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
23	SR 41/Portola Rd	0	0	0	0	0	196	0	0	0	0	884	0	1080

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ID	Internaction Name	N	orthbou	nd	So	outhbou	nd	Е	astbour	ıd	W	estbour/	nd	Total
ID	Intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
24	SR 41/Curbaril Ave	0	0	0	0	884	0	0	0	0	0	0	0	884

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
25	SR 41/ Atascadero Ave	0	0	0	0	0	0	0	0	0	0	884	0	884

ID	Intersection Name	N	orthbou	nd	So	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
ID	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
26	SR 41/Mercedes Ave	0	0	0	0	0	0	0	0	0	0	0	0	0

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	V	/estbour	nd	Total
טו	intersection Name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
27	El Camino Real/US 101 NB (N of Atascadero)	171	0	0	0	0	0	0	0	0	0	0	0	171

ID	Intersection Name	N	orthbou	nd	Sc	outhbou	nd	Е	astboun	ıd	W	estbour/	nd	Total
טו	intersection name	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
28	San Ramon Rd/US 101 SB Ramp (N of Atascadero)	0	0	0	0	0	0	0	0	0	0	0	0	0

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₽			र्स						र्स	7
Traffic Volume (veh/h)	0	113	60	145	135	0	0	0	0	232	0	91
Future Volume (veh/h)	0	113	60	145	135	0	0	0	0	232	0	91
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00	4.00	1.00	1.00	4.00	1.00				1.00	4.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	^	No	4070	4070	No	0				4070	No	4070
Adj Sat Flow, veh/h/ln	0	1870 122	1870	1870 156	1870 145	0				1870 249	1870 0	1870 98
Adj Flow Rate, veh/h Peak Hour Factor	0.93	0.93	65 0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Cap, veh/h	0	380	202	454	272	0				500	0	445
Arrive On Green	0.00	0.33	0.33	0.33	0.33	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0.00	1148	612	570	821	0.00				1781	0.00	1585
Grp Volume(v), veh/h	0	0	187	301	0	0				249	0	98
Grp Sat Flow(s), veh/h/ln	0	0	1760	1391	0	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	1.6	2.3	0.0	0.0				2.4	0.0	1.0
Cycle Q Clear(g_c), s	0.0	0.0	1.6	4.0	0.0	0.0				2.4	0.0	1.0
Prop In Lane	0.00		0.35	0.52		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	583	726	0	0				500	0	445
V/C Ratio(X)	0.00	0.00	0.32	0.41	0.00	0.00				0.50	0.00	0.22
Avail Cap(c_a), veh/h	0	0	1367	1371	0	0				1383	0	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	5.2	5.9	0.0	0.0				6.2	0.0	5.7
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.4	0.0	0.0				8.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.4	0.0	0.0				0.5	0.0	0.2
Unsig. Movement Delay, s/veh	2.2	0.0		0.0	0.0	0.0				7.0	0.0	
LnGrp Delay(d),s/veh	0.0	0.0	5.5	6.3	0.0	0.0				7.0	0.0	5.9
LnGrp LOS	A	A	A	A	A	A				Α	A	A
Approach Vol, veh/h		187			301						347	
Approach Delay, s/veh		5.5			6.3						6.7	
Approach LOS		Α			Α						Α	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				10.8		9.8		10.8				
Change Period (Y+Rc), s				4.0		4.0		4.0				
Max Green Setting (Gmax), s				16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s				3.6		4.4		6.0				
Green Ext Time (p_c), s				0.8		1.4		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			6.3									
HCM 6th LOS			Α									

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Movement E	BL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		र्स			ĵ.			4	7				
Traffic Volume (veh/h)	67	292	0	0	180	810	79	0	162	0	0	0	
Future Volume (veh/h)	67	292	0	0	180	810	79	0	162	0	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0				
	.00		1.00	1.00		1.00	1.00		1.00				
	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Work Zone On Approach		No			No			No					
Adj Sat Flow, veh/h/ln 18	870	1870	0	0	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	73	317	0	0	196	880	86	0	176				
	.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2				
Cap, veh/h	144	412	0	0	160	717	345	0	307				
	.54	0.54	0.00	0.00	0.54	0.54	0.19	0.00	0.19				
Sat Flow, veh/h	0	766	0	0	297	1333	1781	0	1585				
Grp Volume(v), veh/h	390	0	0	0	0	1076	86	0	176				
Grp Sat Flow(s), veh/h/ln 7		0	0	0	0	1630	1781	0	1585				
	0.0	0.0	0.0	0.0	0.0	16.0	1.2	0.0	3.0				
	6.0	0.0	0.0	0.0	0.0	16.0	1.2	0.0	3.0				
	.19		0.00	0.00		0.82	1.00		1.00				
Lane Grp Cap(c), veh/h		0	0	0	0	876	345	0	307				
	.70	0.00	0.00	0.00	0.00	1.23	0.25	0.00	0.57				
	556	0	0	0	0	876	958	0	852				
	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I) 1	.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00				
Uniform Delay (d), s/veh		0.0	0.0	0.0	0.0	6.9	10.2	0.0	10.9				
	4.0	0.0	0.0	0.0	0.0	112.6	0.4	0.0	1.7				
• ,	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/lr	n1.1	0.0	0.0	0.0	0.0	29.2	0.4	0.0	0.9				
Unsig. Movement Delay, s													
LnGrp Delay(d),s/veh	9.5	0.0	0.0	0.0	0.0	119.5	10.5	0.0	12.6				
LnGrp LOS	Α	Α	Α	Α	Α	F	В	Α	В				
Approach Vol, veh/h		390			1076			262					
Approach Delay, s/veh		9.5			119.5			11.9					
Approach LOS		Α			F			В					
Timer - Assigned Phs		2		4				8					
Phs Duration (G+Y+Rc), s	3	9.8		20.0				20.0					
Change Period (Y+Rc), s		4.0		4.0				4.0					
Max Green Setting (Gmax	(). s	16.0		16.0				16.0					
Max Q Clear Time (g_c+l1		5.0		18.0				18.0					
Green Ext Time (p_c), s	<i>γ</i> , -	0.8		0.0				0.0					
Intersection Summary													
HCM 6th Ctrl Delay			78.3										
			10.0										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		सी	7		4		ሻ		- 7		Þ		
Traffic Volume (veh/h)	82	82	267	21	257	9	677	288	20	14	99	55	
Future Volume (veh/h)	82	82	267	21	257	9	677	288	20	14	99	55	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No			No			No			No		
	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	85	85	275	22	265	9	698	297	21	14	102	57	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	221	189	332	85	354	12	331	939	796	116	430	240	
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.22	0.19	0.50	0.50	0.07	0.38	0.37	
Sat Flow, veh/h	574	899	1585	65	1687	55	1781	1870	1585	1781	1127	630	
Grp Volume(v), veh/h	170	0	275	296	0	0	698	297	21	14	0	159	
Grp Sat Flow(s), veh/h/ln		0	1585	1807	0	0	1781	1870	1585	1781	0	1757	
Q Serve(g_s), s	0.0	0.0	8.9	2.5	0.0	0.0	10.0	5.1	0.4	0.4	0.0	3.3	
Cycle Q Clear(g_c), s	5.1	0.0	8.9	8.2	0.0	0.0	10.0	5.1	0.4	0.4	0.0	3.3	
Prop In Lane	0.50	•	1.00	0.07	•	0.03	1.00	000	1.00	1.00	•	0.36	
Lane Grp Cap(c), veh/h		0	332	451	0	0	331	939	796	116	0	670	
V/C Ratio(X)	0.42	0.00	0.83	0.66	0.00	0.00	2.11	0.32	0.03	0.12	0.00	0.24	
Avail Cap(c_a), veh/h	829	0	810	979	0	0	331	939	796	132	0	670	
HCM 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	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh		0.0	20.3	20.0	0.0	0.0	21.9	7.9	6.8	23.7	0.0	11.4	
Incr Delay (d2), s/veh	0.2	0.0	2.0	2.3	0.0	0.0	508.5	0.9	0.1		0.0	0.8	
Initial Q Delay(d3),s/veh		0.0	0.0 3.2	0.0 3.5	0.0	0.0	50.3	0.0	0.0	0.0	0.0	1.2	
%ile BackOfQ(50%),veh Unsig. Movement Delay			J.Z	ა.ა	0.0	0.0	50.5	1.0	0.1	0.2	0.0	1.2	
LnGrp Delay(d),s/veh	, s/ven 18.9	0.0	22.3	22.3	0.0	0.0	530.3	8.8	6.8	23.9	0.0	12.2	
LnGrp LOS	10.9 B	Α	22.3 C	22.3 C	Α	Α	550.5 F	Α	Α	23.9 C	Α	12.2 B	
	D	445			296		<u> </u>	1016			173	D	
Approach Vol, veh/h Approach Delay, s/veh		21.0			22.3			367.1			13.2		
Approach LOS		21.0 C			22.3 C			507.1			13.2 B		
											D		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)		31.0		15.3	14.0	24.5		15.3					
Change Period (Y+Rc),		4.5		3.5	3.5	4.5		3.5					
Max Green Setting (Gma		26.0		28.0	10.5	20.0		28.0					
Max Q Clear Time (g_c+		7.1		10.9	12.0	5.3		10.2					
Green Ext Time (p_c), s	0.0	1.9		0.5	0.0	0.7		1.7					
Intersection Summary													
HCM 6th Ctrl Delay			202.7										
HCM 6th LOS			F										

March   Marc	Intersection													
Configurations	Int Delay, s/veh	168.2												
Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
ffic Vol, veh/h	Lane Configurations													
ure Vol., velvlh         0         331         188         1561         588         0         0         0         167         1         176           fridicting Peds, #hr         0	Traffic Vol, veh/h	0			1561		0	0	0	0	167			
## Control   Free   Stop   Sto	Future Vol, veh/h											1		
Control   Free	Conflicting Peds, #/hr						0			0				
Channelized - None - None - None - None rage Length - 0 - 0 - 0 - 0 - 0 - 0 - 50 - 50 rin Median Storage, # - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	Sign Control	Free		Free	Free	Free	Free	Stop	Stop	Stop		Stop	Stop	
rage Length 0 50  rin Median Storage, # - 0 - 0	RT Channelized		_	None	_									
In Median Storage, # - 0	Storage Length	-	_		_	_		-	-		_	-		
Index   Inde		# -	0	-	-	0	-	-	0	-	-	0	-	
Ak Hour Factor   92   92   92   92   92   92   92   9	Grade, %		0	-	_		-	-	0	_	_	0	_	
avy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Peak Hour Factor	92			92			92					92	
or/Minor         Major1         Major2         Minor2           filicting Flow All         -         0         0         564         0         0         4580         4597         711           Stage 1         -         -         -         -         -         4033         4033         -           Stage 2         -         -         -         -         547         564         -           ical Hdwy         -         -         4.12         -         6.42         6.52         6.22           ical Hdwy Stg 1         -         -         -         -         5.42         5.52         -           ical Hdwy Stg 2         -         -         -         -         5.42         5.52         -           ical Hdwy Stg 1         -         -         -         -         5.42         5.52         -           ical Hdwy Stg 2         -         -         -         -         3.518         4.018         3.318           Cap-1 Maneuver         0         -         -         0         580         508         -           or Cap-2 Maneuver         -         -         -         -         0         0	Heavy Vehicles, %													
or/Minor         Major1         Major2         Minor2           afficiting Flow All         -         0         0         4580         4597         711           Stage 1         -         -         -         -         4033         4033         -           Stage 2         -         -         -         -         547         564         -           ical Hdwy         -         -         -         -         -         542         5.52         -           ical Hdwy Stg 1         -         -         -         -         -         542         5.52         -           ical Hdwy Stg 2         -         -         -         -         -         542         5.52         -           ical Hdwy Stg 2         -         -         -         -         -         542         5.52         -           ical Hdwy Stg 2         -	Mvmt Flow													
Afficting Flow All - 0 0 564 0 0 4580 4597 711  Stage 1 4033 4033 - 547 564 - 642 6.52 6.22  ical Hdwy Stg 1 547 564 - 6.22  ical Hdwy Stg 1 542 5.52 - 6.22  ical Hdwy Stg 2		_		_•			-	•	_	_				
Afficting Flow All - 0 0 564 0 0 4580 4597 711  Stage 1 4033 4033 - 547 564 - 622  Stage 2 547 564 - 652 6.22  icial Hdwy Stg 1 54.12 54.2 5.52 - 622  icial Hdwy Stg 2 54.2 5.52 - 623  icial Hdwy Stg 2	Major/Minor M	laior1		ı	Major2					N	Minor2			
Stage 1			Λ			Λ	Λ			-		<b>4507</b>	711	
Stage 2														
ical Hdwy 4.12 6.42 6.52 6.22 ical Hdwy Stg 1 5.42 5.52 - ical Hdwy Stg 2 5.42 5.52 - ow-up Hdwy 2.218 3.518 4.018 3.318 Cap-1 Maneuver 0 ~1008 - 0 ~1 ~1 433 Stage 1 0 0 ~9 8 - Stage 2 0 0 580 508 - ctoon blocked, % 0 580 508 - ctoon blocked, %	•													
ical Hdwy Stg 1 5.42 5.52														
ical Hdwy Stg 2				_	7.12									
cow-up Hdwy       -       -       2.218       -       3.518       4.018       3.318         Cap-1 Maneuver       0       -       -       1       433         Stage 1       0       -       -       0       -       9       8       -         Stage 2       0       -       -       -       0       580       508       -         stoon blocked, %       -       -       -       -       0       0       403         v Cap-1 Maneuver       -       -       -       0       0       403         v Cap-2 Maneuver       -       -       -       0       0       -         Stage 1       -       -       -       -       9       0       -         Stage 2       -       -       -       -       9       0       -         Stage 2       -       -       -       -       -       9       0       -         Stage 1       -       -       -       -       -       9       0       -         Stage 2       -       -       -       -       -       -       -       -       -       - <td>, ,</td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	, ,				_									
Cap-1 Maneuver 0~1008 - 0					2 218									
Stage 1       0       -       -       -       0       580       508       -         Stage 2       0       -       -       -       0       580       508       -         door blocked, %       -       -       -       -       0       0       403         door Cap-1 Maneuver       -       -       -       0       0       -         door 2 Maneuver       -       -       -       0       0       -         Stage 1       -       -       -       -       9       0       -         Stage 2       -       -       -       -       0       0       -         Stage 2       -       -       -       -       0       0       -         Stage 2       -       -       -       -       0       0       -         M Control Delay, s       0       235.8       SB       SB         M Control Delay, s       0       235.8       SB       SB         M Lane V/C Ratio       -       -       -       403         M Lane LOS       -       -       -       -       -       -         M Lane														
Stage 2       0       -       -       0       580       508       -         doon blocked, %       -       -       -       0       0       403         do Cap-1 Maneuver       -       -       -       0       0       -         do Cap-2 Maneuver       -       -       -       0       0       -         Stage 1       -       -       -       -       9       0       -         Stage 2       -       -       -       -       0       0       -         broach       EB       WB       WB       SB         M Control Delay, s       0       235.8       -       <					-									
toon blocked, %				_	_	_							_	
v Cap-1 Maneuver       -       -       0       0       403         v Cap-2 Maneuver       -       -       -       0       0       -         Stage 1       -       -       -       -       9       0       -         Stage 2       -       -       -       -       0       0       -         oroach       EB       WB       WB       SB         M Control Delay, s       0       235.8       -       -         M LOS       -       -       -       -       -         Or Lane/Major Mvmt       EBT       EBR       WBL       WBT SBLn1 SBLn2       -       -         vacity (veh/h)       -       -       -       403       - <td< td=""><td></td><td>J</td><td>_</td><td>_</td><td></td><td>_</td><td></td><td></td><td></td><td></td><td>000</td><td>000</td><td></td><td></td></td<>		J	_	_		_					000	000		
V Cap-2 Maneuver       -		_		_~	- 1008	_	_				0	0	403	
Stage 1       -       -       -       -       9       0       -         Stage 2       -       -       -       -       0       0       -         Or Canch       EB       WB       WB       SB         M Control Delay, s       0       235.8       -	Nov Cap-2 Maneuver				-									
Stage 2	· · · · · · · · · · · · · · · · · · ·				-		-				•		-	
SB	•	_	_	_	_	_	_							
M Control Delay, s 0 235.8  M LOS -  or Lane/Major Mvmt EBT EBR WBL WBT SBLn1 SBLn2  pacity (veh/h)~ 1008 403  M Lane V/C Ratio - 1.683 0.475  M Control Delay (s) - \$324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5	g- <u>-</u>													
M Control Delay, s 0 235.8  M LOS -  or Lane/Major Mvmt EBT EBR WBL WBT SBLn1 SBLn2  pacity (veh/h)~ 1008 403  M Lane V/C Ratio - 1.683 0.475  M Control Delay (s) - \$ 324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5	pproach	FR			WR						SB			
Or Lane/Major Mvmt	•													
or Lane/Major Mvmt	HCM LOS	J			200.0						_			
Dacity (veh/h)~ 1008 403  M Lane V/C Ratio - 1.683 0.475  M Control Delay (s) - \$324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5														
Dacity (veh/h)~ 1008 403  M Lane V/C Ratio - 1.683 0.475  M Control Delay (s) - \$324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5	Minor Lane/Major Mymt FRT FRR WRI WRT SRI n1 SRI n2													
M Lane V/C Ratio 1.683 0.475  M Control Delay (s) - \$ 324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5														
M Control Delay (s) - \$324.6 0 - 21.7  M Lane LOS - F A - C  M 95th %tile Q(veh) - 92.9 - 2.5														
M Lane LOS F A - C M 95th %tile Q(veh) 92.9 2.5 es														
M 95th %tile Q(veh) 92.9 2.5 es			_											
es			-	_										
					02.0			2.0						
volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon	Notes	.,	Δ.5		, .	20			N. C	<b>c</b> .	<b>4</b>			
	: Volume exceeds cap	acity	\$: De	elay exc	eeds 30	JUS	+: Com	putation	Not D	efined	*: All	major v	/olume i	in platoon

Intersection													
Int Delay, s/veh	10.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		स			₽			सी	7				
Fraffic Vol, veh/h	135	252	0	0	2023	815	174	0	397	0	0	0	
uture Vol, veh/h	135	252	0	0	2023	815	174	0	397	0	0	0	
onflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
ign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
T Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
torage Length	-	-	-	-	-	-	-	-	25	-	-	-	
eh in Median Storage	e,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
eak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
eavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
/Ivmt Flow	147	274	0	0	2199	886	189	0	432	0	0	0	
/lajor/Minor I	Major1		1	Major2			Minor1						
Conflicting Flow All	3085	0	_	-	_	0	3210	3653	274				
Stage 1	-	-	_	_	_	-	568	568					
Stage 2	_	_	-	_	-	_	2642	3085	_				
	4.12	_	-	_	_	_	6.42	6.52	6.22				
Critical Hdwy Stg 1 5.42 5.52 -													
Critical Hdwy Stg 1 5.42 5.52 - Critical Hdwy Stg 2 5.42 5.52 -													
, ,													
Pot Cap-1 Maneuver	~ 106	-	0	0	-	-	~ 11	5	765				
Stage 1	-	-	0	0	-	-	567	506	-				
Stage 2	-	-	0	0	-	-	~ 54	28	-				
Platoon blocked, %		-			-	-							
Nov Cap-1 Maneuver	~ 106	-	-	-	-	-	0	0	765				
Nov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-				
Stage 1	-	-	-	-	-	-	0	0	-				
Stage 2	-	-	-	-	-	-	~ 54	0	-				
pproach	EB			WB			NB						
ICM Control Delay, s	102.8			0									
HCM LOS							-						
Minor Lane/Major Mum	nt N	JRI n1 I	VIRI n2	EBL	EBT	WBT	WBR						
Minor Lane/Major Mvmt NBLn1 NBLn2 EBL EBT WBT WBR  Capacity (veh/h) - 765 ~ 106													
HCM Lane V/C Ratio		-	0.564		-	_	<u>-</u>						
HCM Control Delay (s)		-		294.7	0		-						
HCM Control Delay (s)		_	C	294.7 F	A	_	_						
HCM 95th %tile Q(veh	)	_	3.6	10.4		_	_						
•			3.0	10.7									
Notes										4.			
-: Volume exceeds cap	pacity	\$: De	elay exc	eeds 3	00s	+: Com	putation	n Not D	efined	*: All	major v	olume ir	n platoon

	۶	<b>→</b>	*	•	<b>←</b>	•	4	<b>†</b>	~	<b>/</b>	<b>\</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4		7	<b>∱</b> ∱		7	<b>^</b>	7
Traffic Volume (veh/h)	336	26	153	7	20	0	866	217	21	6	200	1824
Future Volume (veh/h)	336	26	153	7	20	0	866	217	21	6	200	1824
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	357	28	163	7	21	0	921	231	22	6	213	1940
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	394	31	376	92	277	0	289	1169	110	11	711	309
Arrive On Green	0.24	0.24	0.24	0.20	0.20	0.00	0.16	0.36	0.36	0.01	0.20	0.20
Sat Flow, veh/h	1657	130	1585	462	1385	0	1781	3281	310	1781	3554	1547
Grp Volume(v), veh/h	385	0	163	28	0	0	921	124	129	6	213	1940
Grp Sat Flow(s),veh/h/ln	1787	0	1585	1847	0	0	1781	1777	1814	1781	1777	1547
Q Serve(g_s), s	16.7	0.0	7.0	1.0	0.0	0.0	13.0	3.9	3.9	0.3	4.1	16.0
Cycle Q Clear(g_c), s	16.7	0.0	7.0	1.0	0.0	0.0	13.0	3.9	3.9	0.3	4.1	16.0
Prop In Lane	0.93	_	1.00	0.25		0.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	425	0	376	369	0	0	289	633	646	11	711	309
V/C Ratio(X)	0.91	0.00	0.43	0.08	0.00	0.00	3.18	0.20	0.20	0.54	0.30	6.27
Avail Cap(c_a), veh/h	425	0	376	369	0	0	289	633	646	89	711	309
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	25.9	26.0	0.0	0.0	33.5	17.8	17.8	39.6	27.2	32.0
Incr Delay (d2), s/veh	25.6	0.0	3.6	0.4	0.0	0.0	990.8	0.1	0.1	35.1	0.2	2379.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	2.8	0.5	0.0	0.0	84.9	1.5	1.5	0.2	1.6	209.9
Unsig. Movement Delay, s/veh		0.0	00.5	00.4	0.0	0.0	4004.0	40.0	40.0	747	07.5	0444.0
LnGrp Delay(d),s/veh	55.3	0.0	29.5	26.4	0.0	0.0	1024.3	18.0	18.0	74.7	27.5	2411.3
LnGrp LOS	E	A 5.40	С	С	A	Α	F	B	В	E	C 04.50	F
Approach Vol, veh/h		548			28			1174			2159	
Approach Delay, s/veh		47.6			26.4			807.4			2169.7	
Approach LOS		D			С			F			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	17.0	20.0		20.0	4.5	32.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		19.0	13.0	16.0		16.0	4.0	25.0				
Max Q Clear Time (g_c+l1), s		18.7	15.0	18.0		3.0	2.3	5.9				
Green Ext Time (p_c), s		0.1	0.0	0.0		0.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			1447.7									
HCM 6th LOS			F									

Intersection													
Int Delay, s/veh 220	66.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					4		*	<b>↑</b> ↑		*	- ↑		
Traffic Vol, veh/h	0	0	0	547	409	27	147	529	78	27	591	4	
uture Vol, veh/h	0	0	0	547	409	27	147	529	78	27	591	4	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
•	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	75	-	-	60	-	-	
/eh in Median Storage, #	<b>#</b> -	1	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
leavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
/lvmt Flow	0	0	0	595	445	29	160	575	85	29	642	4	
lajor/Minor			-	Minor1			Major1		N	/lajor2			
Conflicting Flow All				1640	1642	330	646	0	0	660	0	0	
Stage 1				938	938	-	-	-	-	-	-	-	
Stage 2				702	704	_	_	_	_	_	_	_	
critical Hdwy				6.63	6.53	6.93	4.13	_	_	4.13	_	_	
ritical Hdwy Stg 1				5.83	5.53	0.50		_	_		_	_	
ritical Hdwy Stg 2				5.43	5.53	_	_	_	_	_	_	_	
ollow-up Hdwy				3.519	4.019	3.319	2.219	_	_	2.219	_	_	
ot Cap-1 Maneuver				~ 100	~ 99	667	937	_	_	926	_	_	
Stage 1				~ 342		-	-	_	_	-	_	-	
Stage 2				~ 490		-	-	-	-	-	_	-	
Platoon blocked, %								-	-		-	-	
Nov Cap-1 Maneuver				~ 80	0	667	937	-	-	926	-	-	
lov Cap-2 Maneuver				~ 80	0	-	-	-	-	-	-	-	
Stage 1				~ 284	0	_	-	-	-	_	-	-	
Stage 2				~ 475	0	-	-	-	-	-	-	-	
pproach				WB			NB			SB			
ICM Control Delay, s			\$ 1	5437.9			1.9			0.4			
ICM LOS			Ψ	F			1.0			0.7			
10111 200													
		NE	Not	NES	N/DL /	05:	007	000					
Minor Lane/Major Mvmt		NBL	NBT		VBLn1	SBL	SBT	SBR					
Capacity (veh/h)		937	-	-		926	-	-					
CM Lane V/C Ratio		0.171	-		12.873		-	-					
ICM Control Delay (s)		9.6	-		5437.9	9	-	-					
ICM Lane LOS		A	-	-	•	A	-	-					
HCM 95th %tile Q(veh)		0.6	-	-	126.4	0.1	-	-					
lotes													
: Volume exceeds capa	city	\$: De	elay exc	eeds 3	00s	+: Com	putation	Not De	efined	*: All	major v	olume i	in platoon
	-,		,								,,,,,,		

ntersection													
nt Delay, s/veh	17.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
ane Configurations		<b>1</b>	LDIX	WIDE.	4	WDIX	HUL	1101	HUIT	ODL	4	OBIT	
raffic Vol, veh/h	0	293	96	983	386	0	0	0	0	162	1	141	
uture Vol, veh/h	0	293	96	983	386	0	0	0	0	162	1	141	
onflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
ign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop	
Storage Length	_	_	-	-	-	-	-	_	-	-	-	-	
eh in Median Storage,	# -	0	-	_	0	-	_	0	-	_	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
eak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
eavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
1vmt Flow	0	318	104	1068	420	0	0	0	0	176	1	153	
Agior/Minor M	laior1			laior?						/linor2			
-	lajor1	0		Major2	^	^					2070	420	
Conflicting Flow All Stage 1	-	0	0	422	0	0				2926 2556	2978 2556	420	
Stage 1	-	-	-	-	-	-				370	422	-	
ritical Hdwy	-	-	-	4.12	-	-				6.42	6.52	6.22	
critical Hdwy Stg 1	_	_	-	4.12	_	_				5.42	5.52	0.22	
ritical Hdwy Stg 2	-		-	-	-	_				5.42	5.52	-	
follow-up Hdwy	-	_	_	2.218	-	-					4.018	3 3 1 8	
ot Cap-1 Maneuver	0	_		1137		0				~ 17	14	633	
Stage 1	0	<u> </u>	_	- 1107	_	0				~ 59	54	-	
Stage 2	0	_	_	_	_	0				699	588	_	
latoon blocked, %	U	_	_		_	U				000	000		
lov Cap-1 Maneuver	-	_	_	1137	_	_				0	0	633	
Nov Cap-2 Maneuver	_	_	_	-	_	_				0	0	-	
Stage 1	-	_	_	-	-	-				~ 59	0	-	
Stage 2	_	_	_	_	-	-				0	0	-	
nnroach	ED			MD						CD			
Approach	EB			WB						SB			
ICM Control Delay, s	0			24.1						8.5			
ICM LOS										Α			
/linor Lane/Major Mvmt		EBT	EBR	WBL	WBT:	SBL <sub>n1</sub>							
Capacity (veh/h)		-	-	1137	-	1365							
ICM Lane V/C Ratio		-	-	0.94	-	0.242							
ICM Control Delay (s)		-	-	33.6	0	8.5							
ICM Lane LOS		-	-	D	Α	Α							
HCM 95th %tile Q(veh)		-	-	16.2	-	1							
Notes													
·: Volume exceeds capa	acity	\$: Da	elay exc	ands 31	)ne	+: Com	nutation	Not D	efined	*· \ \	majory	volume i	n platoon
. Volume exceeds cape	acity	ψ. De	nay ext	ceus J	303	· . Com	Julation	ו וייטני של	omi <del>c</del> u	. 📶	major	volume I	η ριαισσιτ

Intersection								
Int Delay, s/veh	150							
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	<b>^</b>			<b>↑</b>	Y			
Fraffic Vol, veh/h	444	0	0	1220	155	261		
uture Vol, veh/h	444	0	0	1220	155	261		
onflicting Peds, #/hr	0	0	0	0	0	0		
ign Control	Free	Free	Free	Free	Stop	Stop		
T Channelized	-	None	-	None	-	None		
torage Length	-	-	-	-	0	-		
eh in Median Storage		-	-	0	0	-		
rade, %	0	-	-	0	0	-		
eak Hour Factor	92	92	92	92	92	92		
eavy Vehicles, %	2	2	2	2	2	2		
lvmt Flow	483	0	0	1326	168	284		
ajor/Minor l	Major1	ı	Major2	N	Minor1			
onflicting Flow All	0	-	-	-	1809	242		
Stage 1	-	-	-	-	483	-		
Stage 2	-	-	-	-	1326	-		
ritical Hdwy	-	-	-	-	6.63	6.93		
itical Hdwy Stg 1	-	-	-	-	5.83	-		
tical Hdwy Stg 2	-	-	-	-	5.43	-		
ollow-up Hdwy	-	-	-	-	3.519	3.319		
ot Cap-1 Maneuver	-	0	0	-	~ 78	759		
Stage 1	-	0	0	-	587	-		
Stage 2	-	0	0	-	247	-		
atoon blocked, %	-			-				
ov Cap-1 Maneuver	-	-	-	-	~ 78	759		
ov Cap-2 Maneuver	-	-	-	-	~ 78	-		
Stage 1	-	-	-	-	587	-		
Stage 2	-	-	-	-	247	-		
proach	EB		WB		NB			
CM Control Delay, s	0		0	\$	750.2			
CM LOS					F			
inor Lane/Major Mvm	nt N	NBLn1	EBT	WBT				
apacity (veh/h)	. 1	178	LDI	1101				
CM Lane V/C Ratio		2.54	_	_				
CM Control Delay (s)	\$	750.2	_	_				
CM Lane LOS	φ	750.2 F	_	-				
CM 95th %tile Q(veh)	)	38.7	_					
`		50.7						
otes								* * * * * * * * * * * * * * * * * * * *
Volume exceeds cap	pacity	\$: De	elay exc	ceeds 30	00s	+: Com	putation Not Defined	*: All major volume in platoon

### HCM 6th Signalized Intersection Summary 10: El Camino Real & Traffic Way

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology cannot be performed with phasing conflicts.

# HCM 6th Signalized Intersection Summary 11: US 101 SB Ramps & SR 41

ITEM NUMBER: DATE: ATTACHMENT: C-2 10/26/21 1A 07/26/2021

HCM 6th Edition methodology supports speed limit in the range of 25 to 55 mph.

Base 12:00 am 08/03/2006 Baseline

	۶	<b>→</b>	$\searrow$	•	•	•	4	<b>†</b>	/	-	<b>↓</b>	4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻሻ	<b>†</b>	77	ች	<b>∱</b> }		ሻሻ	<b>^</b>	7	*	<b>^</b>	7	
Traffic Volume (veh/h)	197	318	458	179	253	107	198	438	291	112	322	707	
Future Volume (veh/h)	197	318	458	179	253	107	198	438	291	112	322	707	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	•	1.00	1.00	•	1.00	1.00	•	0.97	1.00		0.98	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approac		No	1.00	1.00	No	1.00	1.00	No	1.00	1.00	No	1.00	
Adj Sat Flow, veh/h/ln	1856	1841	1856	1856	1841	1856	1856	1856	1856	1856	1856	1856	
Adj Flow Rate, veh/h	205	331	477	186	264	111	206	456	303	117	335	736	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	3	4	3	3	4	3	3	3	3	3	3	3	
Cap, veh/h	449	722	1305	215	934	382	271	830	359	143	837	367	
Arrive On Green	0.09	0.26	0.26	0.12	0.39	0.39	0.08	0.24	0.24	0.08	0.24	0.24	
Sat Flow, veh/h	3428	1841	2768	1767	2418	989	3428	3526	1526	1767	3526	1545	
	205	331	477	186	189	186	206	456	303	117	335	736	
Grp Volume(v), veh/h			1384	1767	1749	1658	1714	1763	1526	1767	1763	1545	
Grp Sat Flow(s),veh/h/l	6.6	1841 17.5	1384	12.0	8.6	9.0	6.8	1763	22.0	7.6	9.3	19.3	
Q Serve(g_s), s					8.6								
Cycle Q Clear(g_c), s	6.6	17.5	14.5	12.0	0.0	9.0	6.8	13.2	22.0	7.6	9.3	19.3	
Prop In Lane	1.00	700	1.00	1.00	C7.F	0.60	1.00	020	1.00	1.00	007	1.00	
Lane Grp Cap(c), veh/h		722	1305	215	675	640	271	830	359	143	837	367	
V/C Ratio(X)	0.46	0.46	0.37	0.87	0.28	0.29	0.76	0.55	0.84	0.82	0.40	2.01	
Avail Cap(c_a), veh/h	449	722	1305	259	675	640	458	942	408	190	837	367	
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/ve		32.4	24.3	50.0	24.5	24.6	52.3	39.0	42.3	52.5	37.3	21.8	
Incr Delay (d2), s/veh	0.6	1.8	0.7	22.2	1.0	1.1	4.4	0.6	13.6	18.2	0.4	462.6	
Initial Q Delay(d3),s/ve		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),ve		8.5	5.1	6.6	3.7	3.7	3.1	5.7	9.5	4.0	4.0	53.9	
Unsig. Movement Dela	-												
LnGrp Delay(d),s/veh	49.6	34.2	25.0	72.2	25.5	25.8	56.7	39.5	55.9	70.6	37.7	484.4	
LnGrp LOS	D	С	С	<u>E</u>	С	С	E	D	<u>E</u>	E	D	F	
Approach Vol, veh/h		1013			561			965			1188		
Approach Delay, s/veh		33.0			41.1			48.3			317.6		
Approach LOS		С			D			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Ro	3), <b>\$</b> 9.1	50.1	12.7	34.1	19.8	49.4	12.9	33.9					
Change Period (Y+Rc)		4.6	3.5	6.6	4.6	* 4.6	3.5	* 6.6					
Max Green Setting (Gn		37.8	15.5	26.0	11.5	* 45	12.5	* 31					
Max Q Clear Time (g_c		19.5	8.8	21.3	8.6	11.0	9.6	24.0					
Green Ext Time (p_c),		3.8	0.3	2.6	0.2	2.3	0.1	2.4					
Intersection Summary	J. 1	5.5	5.5	0	J.L		J.,						
			128.9										
HCM 6th Ctrl Delay			120.9 F										
HCM 6th LOS			Г										
Notes													

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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13: El Camino Real & US 101 NB Ramps / Plaza Del Camino Driveway

•	<b>→</b>	$\rightarrow$	•	•	•	1	<b>†</b>	/	1	ļ	4
Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	सी	7		4	7	ች	<b>∱</b> ∱		ች	ħβ	
Traffic Volume (veh/h) 0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h) 0	0	0	0	0	0	0	0	0	0	0	0
nitial Q (Qb), veh 0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT) 1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Vork Zone On Approach	No			No	,,,,,		No			No	
Adj Sat Flow, veh/h/ln 1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h 0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor 0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, % 2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h 0	748	_	0	748	634	160	1421	0	160	1421	_
Arrive On Green 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h 0	1870	1585	0	1870	1585	1781	3647	0	1781	3647	0
Grp Volume(v), veh/h 0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s), veh/h/ln 0	1870	1585	0	1870	1585	1781	1777	0	1781	1777	0
Q Serve( $g_s$ ), 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
Cycle Q Clear(g_c), 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
Prop In Lane 0.00	0.0	1.00	0.00	0.0	1.00	1.00	0.0	0.00	1.00	0.0	0.00
Lane Grp Cap(c), veh/h 0	748	1.00	0.00	748	634	160	1421	0.00	160	1421	0.00
V/C Ratio(X) 0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Avail Cap(c_a), veh/h 0	748		0.00	748	634	160	1421	0.00	160	1421	
HCM 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
Jpstream Filter(I) 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jniform Delay (d), s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ncr Delay (d2), s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
nitial Q Delay(d3),s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jnsig. Movement Delay, s/veh		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
_nGrp Delay(d),s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
_nGrp LOS A	A	3.0	A	A	A	A	A	A	A	A	3.0
Approach Vol, veh/h	0	Α		0			0			0	Α
Approach Delay, s/veh	0.0			0.0			0.0			0.0	- 7.
approach LOS	3.0			3.0			3.0			3.0	
Fimer - Assigned Phs	2		4		6		8				
Phs Duration (G+Y+Rc), s	22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+l1), s	0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s	0.0		0.0		0.0		0.0				
ntersection Summary											
HCM 6th Ctrl Delay		0.0									
HCM 6th LOS		A									
Notes											

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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	ၨ	-	$\searrow$	•	•	•	•	<b>†</b>	/	-	<b>↓</b>	4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4						4		
Traffic Volume (veh/h)	2	208	17	102	307	121	0	0	0	320	14	77	
Future Volume (veh/h)	2	208	17	102	307	121	0	0	0	320	14	77	
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00	
Work Zone On Approac		No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870	
Adj Flow Rate, veh/h	2	226	18	111	334	132				348	15	0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2	
Cap, veh/h	92	624	49	194	381	139				743	32		
Arrive On Green	0.37	0.37	0.37	0.73	0.73	0.73				0.43	0.43	0.00	
Sat Flow, veh/h	3	1706	135	237	1042	379				1711	74	0	
Grp Volume(v), veh/h	246	0	0	577	0	0				363	0	0	
Grp Sat Flow(s), veh/h/li		0	0	1657	0	0				1785	0	0	
Q Serve(g_s), s	0.0	0.0	0.0	8.1	0.0	0.0				5.8	0.0	0.0	
Cycle Q Clear(g_c), s	3.9	0.0	0.0	12.0	0.0	0.0				5.8	0.0	0.0	
Prop In Lane	0.01	0.0	0.07	0.19	0.0	0.23				0.96	0.0	0.00	
Lane Grp Cap(c), veh/h		0	0.07	714	0	0.20				775	0	0.00	
V/C Ratio(X)	0.32	0.00	0.00	0.81	0.00	0.00				0.47	0.00		
Avail Cap(c_a), veh/h	828	0.00	0.00	768	0.00	0.00				775	0.00		
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	0.00	0.86	0.00	0.00				1.00	0.00	0.00	
Uniform Delay (d), s/vel		0.0	0.0	4.9	0.0	0.0				8.0	0.0	0.0	
Incr Delay (d2), s/veh	0.2	0.0	0.0	5.3	0.0	0.0				2.0	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0	
%ile BackOfQ(50%),vel		0.0	0.0	2.2	0.0	0.0				2.0	0.0	0.0	
Unsig. Movement Delay			0.0		0.0	0.0					0.0	0.0	
LnGrp Delay(d),s/veh	9.5	0.0	0.0	10.1	0.0	0.0				10.1	0.0	0.0	
LnGrp LOS	A	A	A	В	A	A				В	A	0.0	
Approach Vol, veh/h	- , ,	246			577						363	Α	
Approach Delay, s/veh		9.5			10.1						10.1	А	
Approach LOS		Α.			В						В		
					D						U		
Timer - Assigned Phs				4		6		8					
Phs Duration (G+Y+Rc)				18.6		21.4		18.6					
Change Period (Y+Rc),				4.0		4.0		4.0					
Max Green Setting (Gm				16.0		16.0		16.0					
Max Q Clear Time (g_c				5.9		7.8		14.0					
Green Ext Time (p_c), s	8			0.6		1.0		0.6					
Intersection Summary													
HCM 6th Ctrl Delay			10.0										
HCM 6th LOS			Α										
Notes													

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

•	<b>→</b>	•	•	<b>←</b>	•	1	†	~	/	ţ	4	
Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	4			र्स	7		4					
Traffic Volume (veh/h) 72	396	78	8	332	337	193	171	76	0	0	0	
Future Volume (veh/h) 72	396	78	8	332	337	193	171	76	0	0	0	
Initial Q (Qb), veh 0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT) 1.00		1.00	1.00		1.00	1.00		1.00				
Parking Bus, Adj 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln 1870	1870	1870	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h 78	430	85	9	361	366	210	186	83				
Peak Hour Factor 0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Percent Heavy Veh, % 2	2	2	2	2	2	2	2	2				
Cap, veh/h 152	484	89	97	741	634	311	276	123				
Arrive On Green 0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40				
Sat Flow, veh/h 126	1210	223	13	1853	1585	779	690	308				
Grp Volume(v), veh/h 593	0	0	370	0	366	479	0	0				
Grp Sat Flow(s),veh/h/ln1559	0	0	1866	0	1585	1776	0	0				
Q Serve(g_s), s 8.8	0.0	0.0	0.0	0.0	7.2	8.9	0.0	0.0				
Cycle Q Clear(g_c), s 14.7	0.0	0.0	5.9	0.0	7.2	8.9	0.0	0.0				
Prop In Lane 0.13		0.14	0.02		1.00	0.44		0.17				
Lane Grp Cap(c), veh/h 726	0	0	839	0	634	710	0	0				
V/C Ratio(X) 0.82	0.00	0.00	0.44	0.00	0.58	0.67	0.00	0.00				
Avail Cap(c_a), veh/h 726	0	0	839	0	634	710	0	0				
HCM Platoon Ratio 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Upstream Filter(I) 0.95	0.00	0.00	0.60	0.00	0.60	1.00	0.00	0.00				
Uniform Delay (d), s/veh 11.4	0.0	0.0	9.0	0.0	9.4	9.9	0.0	0.0				
Incr Delay (d2), s/veh 6.9	0.0	0.0	0.2	0.0	0.8	5.1	0.0	0.0				
Initial Q Delay(d3),s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/lr5.0	0.0	0.0	1.8	0.0	1.9	3.5	0.0	0.0				
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh 18.3	0.0	0.0	9.2	0.0	10.1	14.9	0.0	0.0				
LnGrp LOS B	A	A	A	A	В	В	Α	A				
Approach Vol, veh/h	593			736			479					
Approach Delay, s/veh	18.3			9.7			14.9					
Approach LOS	В			Α			В					
Timer - Assigned Phs	2		4				8					
Phs Duration (G+Y+Rc), s	20.0		20.0				20.0					
Change Period (Y+Rc), s	4.0		4.0				4.0					
Max Green Setting (Gmax), s	16.0		16.0				16.0					
Max Q Clear Time (g_c+I1), s	10.9		16.7				9.2					
Green Ext Time (p_c), s	1.0		0.0				2.0					
Intersection Summary												
HCM 6th Ctrl Delay		13.9										
HCM 6th LOS		В										

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Movement EB	L EB	T EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		1 7		4		ች	<b>†</b> \$		ሻ	<b>^</b>	7	
Traffic Volume (veh/h) 21		4 309	4	25	19	412	681	4	9	617	309	
Future Volume (veh/h) 21		4 309	4	25	19	412	681	4	9	617	309	
		0 0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT) 1.0	0	1.00	1.00		0.99	1.00		0.98	1.00		0.97	
Parking Bus, Adj 1.0		0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	N	0		No			No			No		
Adj Sat Flow, veh/h/ln 187	0 187	0 1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h 23	1	4 325	4	26	20	434	717	4	9	649	325	
Peak Hour Factor 0.9	5 0.9	5 0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2 2	2	2	2	2	2	2	2	2	2	
Cap, veh/h 33	6	6 620	8	50	39	356	1881	10	20	1174	509	
Arrive On Green 0.1	9 0.1	9 0.19	0.06	0.06	0.06	0.20	0.52	0.52	0.01	0.33	0.33	
Sat Flow, veh/h 175	2 3	0 1583	139	902	694	1781	3623	20	1781	3554	1540	
Grp Volume(v), veh/h 23	5	0 325	50	0	0	434	352	369	9	649	325	
Grp Sat Flow(s), veh/h/ln178	3	0 1583	1734	0	0	1781	1777	1866	1781	1777	1540	
Q Serve(g_s), s 11.		0 14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1	
Cycle Q Clear(g_c), s 11.	0 0.	0 14.1	2.5	0.0	0.0	18.0	10.7	10.7	0.5	13.5	16.1	
Prop In Lane 0.9	8	1.00	0.08		0.40	1.00		0.01	1.00		1.00	
Lane Grp Cap(c), veh/h 34	2	0 620	96	0	0	356	923	969	20	1174	509	
V/C Ratio(X) 0.6	9 0.0	0 0.52	0.52	0.00	0.00	1.22	0.38	0.38	0.45	0.55	0.64	
Avail Cap(c_a), veh/h 47	5	0 739	96	0	0	356	923	969	99	1174	509	
HCM Platoon Ratio 1.0	0 1.0	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I) 0.3	6 0.0	0 0.36	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh 33.	9 0.	0 21.0	41.3	0.0	0.0	36.0	13.0	13.0	44.2	24.7	25.6	
Incr Delay (d2), s/veh 0.	3 0.	0 0.1	2.3	0.0	0.0	121.1	1.2	1.1	5.8	1.9	6.0	
Initial Q Delay(d3),s/veh 0.	0 0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/lr4.	7 0.	0 5.0	1.1	0.0	0.0	19.6	4.3	4.5	0.2	5.8	6.6	
Unsig. Movement Delay, s/v	eh											
LnGrp Delay(d),s/veh 34.	2 0.	0 21.0	43.6	0.0	0.0	157.1	14.2	14.1	50.0	26.6	31.6	
LnGrp LOS	)	A C	D	Α	Α	F	В	В	D	С	С	
Approach Vol, veh/h	56	0		50			1155			983		
Approach Delay, s/veh	26.	6		43.6			67.8			28.4		
Approach LOS		0		D			Е			С		
Timer - Assigned Phs	1	2	4	5	6		8					
Phs Duration (G+Y+Rc), 23.	0 34.	7	22.3	6.0	51.7		10.0					
Change Period (Y+Rc), s 5.			5.0	5.0	5.0		5.0					
Max Green Setting (Gmax),			24.0	5.0	36.0		5.0					
Max Q Clear Time (g_c+20),			16.1	2.5	12.7		4.5					
Green Ext Time (p_c), s 0.			1.0	0.0	3.0		0.0					
Intersection Summary												
HCM 6th Ctrl Delay		44.9										
HCM 6th LOS		D										
I IOW OUT LOO		U										

Movement         EBL         EBT         EBR         WBL         WBT         WBR         NBL         NBR         SBL         SBT         SBR           Lane Configurations         7         6         7         6         4	
<u> </u>	
Traine volume (verifit) 10 321 20 00 1300 04 3 3 41 33 10 3	
Future Volume (veh/h) 18 321 28 86 1386 84 9 9 41 39 18 9	
Initial Q (Qb), veh 0 0 0 0 0 0 0 0 0 0	
Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	
Work Zone On Approach No No No	
Adj Sat Flow, veh/h/ln 1870 1796 1870 1870 1870 1870 1870 1870 1870 1870	
Adj Flow Rate, veh/h 19 338 29 91 1459 88 9 9 43 41 19 9	
Peak Hour Factor 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	
Percent Heavy Veh, % 2 7 2 2 7 2 2 2 2 2 2	
Cap, veh/h 133 1060 91 119 1077 65 74 27 94 154 47 17	
Arrive On Green 0.07 0.65 0.65 0.07 0.64 0.64 0.08 0.08 0.08 0.08 0.08 0.08	
Sat Flow, veh/h 1781 1631 140 1781 1677 101 145 336 1149 842 578 213	
Grp Volume(v), veh/h 19 0 367 91 0 1547 61 0 0 69 0 0	
Grp Sat Flow(s),veh/h/ln1781 0 1771 1781 0 1778 1631 0 0 1633 0 0	
Q Serve(g_s), s 0.7 0.0 6.1 3.4 0.0 43.0 0.0 0.0 0.0 0.1 0.0 0.0	
Cycle Q Clear(g_c), s 0.7 0.0 6.1 3.4 0.0 43.0 2.3 0.0 0.0 2.4 0.0 0.0	
Prop In Lane 1.00 0.08 1.00 0.06 0.15 0.70 0.59 0.13	
Lane Grp Cap(c), veh/h 133 0 1151 119 0 1142 195 0 0 219 0 0	
V/C Ratio(X) 0.14 0.00 0.32 0.76 0.00 1.35 0.31 0.00 0.00 0.32 0.00 0.00	
Avail Cap(c_a), veh/h 173 0 1151 359 0 1142 705 0 0 700 0 0	
HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	
Upstream Filter(I) 1.00 0.00 1.00 1.00 0.00 1.00 0.00 0.0	
Uniform Delay (d), s/veh 29.0 0.0 5.2 30.7 0.0 12.0 29.3 0.0 0.0 29.4 0.0 0.0	
Incr Delay (d2), s/veh 0.5 0.0 0.2 11.4 0.0 165.5 0.9 0.0 0.0 0.8 0.0 0.0	
Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	
%ile BackOfQ(50%),veh/lr0.3 0.0 1.4 1.7 0.0 62.4 0.9 0.0 0.0 1.1 0.0 0.0	
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh 29.5 0.0 5.3 42.2 0.0 177.5 30.2 0.0 0.0 30.2 0.0 0.0	
LnGrp LOS C A A D A F C A A C A A	
Approach Vol, veh/h 386 1638 61 69	
Approach Delay, s/veh 6.5 170.0 30.2 30.2	
Approach LOS A F C C	
Timer - Assigned Phs 1 2 4 5 6 8	
Phs Duration (G+Y+Rc), s8.0 49.5 9.5 8.5 49.0 9.5	
Change Period (Y+Rc), s 3.5 6.0 4.0 3.5 6.0 4.0	
Max Green Setting (Gmatk), <b>5</b> 36.0 27.0 6.5 43.0 27.0	
Max Q Clear Time (g_c+115,4s 8.1 4.4 2.7 45.0 4.3	
Green Ext Time (p_c), s 0.1 2.1 0.3 0.0 0.0 0.2	
Intersection Summary	
HCM 6th Ctrl Delay 132.3	
HCM 6th LOS F	

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Intersection	2.2					
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽		<b>ነ</b>		W	
Traffic Vol, veh/h	369	41	31	1481	74	26
Future Vol, veh/h	369	41	31	1481	74	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	2	2	7	2	2
Mvmt Flow	405	45	34	1627	81	29
NA=:==/NA:===	1-:1		M-:0		M: 1	
	1ajor1		Major2		Minor1	100
Conflicting Flow All	0	0	450		2123	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	1695	-
Critical Hdwy	-	-	4.12	-	O	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1110	-	~ 55	627
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	163	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	_	_	1110	-	~ 53	627
Mov Cap-2 Maneuver	_	_	-	_	130	-
Stage 1	_	_	_	_	657	_
Stage 2	_	_	_	_	158	_
Olago 2					100	
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		62.9	
HCM LOS					F	
Minor Lane/Major Mvmt		NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		164	_	_	1110	_
HCM Lane V/C Ratio		0.67	_	_	0.031	_
HCM Control Delay (s)		62.9	_	_	8.3	_
HCM Lane LOS		62.5	_	_	Α	<u>-</u>
HCM 95th %tile Q(veh)		3.9	_	_	0.1	_
TICIVI 9501 7001E Q(VEII)		5.5	-	-	0.1	_
Notes						

\$: Delay exceeds 300s

~: Volume exceeds capacity

\*: All major volume in platoon

+: Computation Not Defined

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	1>		ሻ	<b>•</b>	7		4			4	
Traffic Volume (veh/h)	57	416	82	46	1470	17	44	26	41	11	46	29
Future Volume (veh/h)	57	416	82	46	1470	17	44	26	41	11	46	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	433	85	48	1531	18	46	27	43	11	48	30
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2
Cap, veh/h	91	930	183	80	1135	1001	136	54	65	76	111	63
Arrive On Green	0.05	0.64	0.64	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	1458	286	1781	1796	1585	529	505	610	120	1038	589
Grp Volume(v), veh/h	59	0	518	48	1531	18	116	0	0	89	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1745	1781	1796	1585	1644	0	0	1747	0	0
Q Serve(g_s), s	2.1	0.0	9.7	1.7	40.2	0.3	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	9.7	1.7	40.2	0.3	4.1	0.0	0.0	3.0	0.0	0.0
Prop In Lane	1.00		0.16	1.00	=	1.00	0.40		0.37	0.12		0.34
Lane Grp Cap(c), veh/h	91	0	1112	80	1135	1001	255	0	0	250	0	0
V/C Ratio(X)	0.65	0.00	0.47	0.60	1.35	0.02	0.46	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	210	0	1112	185	1135	1001	794	0	0	848	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	5.9	29.8	11.7	4.4	27.2	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.0	1.4	7.0	163.1	0.0	1.5	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.5	0.8	60.5	0.1	1.7	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh		0.0	7.0	26.0	1710	1 1	20.7	0.0	0.0	07.0	0.0	0.0
LnGrp Delay(d),s/veh LnGrp LOS	37.3 D	0.0 A	7.3 A	36.9 D	174.8 F	4.4 A	28.7 C	0.0 A	0.0 A	27.8 C	0.0	0.0
	U		A	U		A	U		A	U	A	A
Approach Vol, veh/h		577			1597			116			89	
Approach LOS		10.4			168.8			28.7			27.8	
Approach LOS		В			F			С			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	45.9		11.4	6.7	45.5		11.4				
Change Period (Y+Rc), s	3.5	5.3		4.6	3.5	5.3		4.6				
Max Green Setting (Gmax), s	6.6	40.6		29.4	7.5	39.7		29.4				
Max Q Clear Time (g_c+I1), s	3.7	11.7		5.0	4.1	42.2		6.1				
Green Ext Time (p_c), s	0.0	3.2		0.5	0.0	0.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			118.2									
HCM 6th LOS			F									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		<b></b>	7	ሻ	î,			4			4		
Traffic Volume (veh/h)	23	40	18	72	36	34	6	400	93	60	1404	29	
Future Volume (veh/h)	23	40	18	72	36	34	6	400	93	60	1404	29	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	1	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	24	41	19	74	37	35	6	412	96	62	1447	30	
	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	2	
Cap, veh/h	45	859	758	95	430	407	44	473	109	59	527	11	
	0.03	0.48	0.48	0.05	0.51	0.51	0.32	0.32	0.32	0.32	0.32	0.32	
Sat Flow, veh/h	1781	1796	1585	1781	849	803	6	1473	340	50	1641	34	
Grp Volume(v), veh/h	24	41	19	74	0	72	514	0	0	1539	0	0	
Grp Sat Flow(s), veh/h/ln	1781	1796	1585	1781	0	1652	1820	0	0	1725	0	0	
Q Serve(g_s), s	1.2	1.1	0.6	3.6	0.0	2.0	0.0	0.0	0.0	4.6	0.0	0.0	
Cycle Q Clear(g_c), s	1.2	1.1	0.6	3.6	0.0	2.0	23.4	0.0	0.0	28.0	0.0	0.0	
Prop In Lane	1.00		1.00	1.00		0.49	0.01		0.19	0.04		0.02	
Lane Grp Cap(c), veh/h	45	859	758	95	0	837	626	0	0	597	0	0	
V/C Ratio(X)	0.53	0.05	0.03	0.78	0.00	0.09	0.82	0.00	0.00	2.58	0.00	0.00	
Avail Cap(c_a), veh/h	112	859	758	153	0	837	626	0	0	597	0	0	
HCM 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	
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh		12.1	12.0	40.7	0.0	11.1	28.0	0.0	0.0	30.4	0.0	0.0	
Incr Delay (d2), s/veh	7.1	0.1	0.1	9.6	0.0	0.2	8.5	0.0		714.8	0.0	0.0	
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh		0.4	0.2	1.7	0.0	0.7	11.2	0.0	0.0	130.9	0.0	0.0	
Unsig. Movement Delay,													
3 ( ),	49.0	12.2	12.1	50.4	0.0	11.3	36.6	0.0		745.3	0.0	0.0	
LnGrp LOS	D	В	В	D	Α	В	D	Α	Α	F	Α	Α	
Approach Vol, veh/h		84			146			514			1539		
Approach Delay, s/veh		22.7			31.1			36.6			745.3		
Approach LOS		С			С			D			F		
Timer - Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc),	s8.2	47.0		32.0	5.7	49.5		32.0					
Change Period (Y+Rc), s		5.3		4.0	3.5	5.3		4.0					
Max Green Setting (Gma	ax <b>", 5</b>	41.7		28.0	5.5	43.7		28.0					
Max Q Clear Time (g_c+		3.1		30.0	3.2	4.0		25.4					
Green Ext Time (p_c), s	0.0	0.2		0.0	0.0	0.4		0.9					
Intersection Summary													
HCM 6th Ctrl Delay			513.5										
HCM 6th LOS			F										

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C-2 10/26/21 1A 07/26/2021

Novement   EBL   EBT   EBR   WBL   WBT   WBR   NBL   NBT   NBR   SBL   SBT   SBR		۶	<b>-</b>	•	•	•	•	•	<b>†</b>	/	-	<b>↓</b>	1	
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Traffic Volume (vehhh) 110 51 42 11 938 70 31 478 14 68 540 128 Future Volume (vehh) 110 51 42 11 938 70 31 478 14 68 540 128 Initial Q (Ob), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		ች	<b></b>	1		ĵ.			4	7		4	7	
Initial Q (Qb), veh							70	31			68			
Ped-Bike Adj (A_pbT)	Future Volume (veh/h)	110	51	42	11	938	70	31	478	14	68	540	128	
Parking Bus. Adj	Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	
Mork Zöne On Approach   No	Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Adj Sat Flow, veh/h/ln 1870 1796 1870 1870 1870 1870 1870 1870 1870 1870			1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Adj Flow Rate, veh/h         121         56         46         12         1031         77         34         525         15         75         593         141           Peak Hour Factor         0.91	Work Zone On Approac													
Peak Hour Factor   0.91   0.														
Percent Heavy Veh, % 2														
Cap, veh/h         77         664         586         25         561         42         31         472         427         40         316         303           Arrive On Green         0.04         0.37         0.37         0.01         0.34         0.27         0.27         0.27         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.15         168         120         0.18         5.0         2.21         0.8         0.0         110         1585         1781         0.158         186         0         1585         186         0         1585         186         0         1585         186         0         1585         186         0         1885         186         0         1885         186         0         1585         186         0         1585         186         0         1585         186         0         1856         20         0         182         22.0         0         0         18         22.0         0         9.1           Cycle Q Clear(g s.), s.         5.0         2.3         2.2         0.8			0.91											
Arrive On Green														
Sat Flow, veh/h         1781         1796         1585         1781         1651         123         113         1751         1585         209         1651         1585           Gry Volume(v), veh/h         121         56         46         12         0         1108         559         0         1585         1668         0         141           Gry Sat Flow(s), veh/h/In/1781         1796         1585         1881         0         1774         1865         0         1585         1680         0         1585           Q Serve(g_s), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Cycle Q Clear(g_c), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Prop In Lane         1.00														
Grp Volume(v), veh/h 121 56 46 12 0 1108 559 0 15 668 0 141 Grp Sat Flow(s), veh/h/In1781 1796 1585 1781 0 17774 1865 0 1585 1860 0 1585 Q Serve(g_s), s 5.0 2.3 2.2 0.8 0.0 39.1 31.0 0.0 0.8 22.0 0.0 9.1 Cycle Q Clear(g_c), s 5.0 2.3 2.2 0.8 0.0 39.1 31.0 0.0 0.8 22.0 0.0 9.1 Prop In Lane 1.00 1.00 1.00 0.07 0.06 1.00 0.11 1.00 Lane Grp Cap(c), veh/h 77 664 586 25 0 603 503 0 427 356 0 303 V/C Ratio(X) 1.56 0.08 0.08 0.49 0.00 1.84 1.11 0.00 0.04 1.88 0.0 303 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0														
Grp Sat Flow(s), veh/h/In1781         1796         1585         1781         0         1774         1865         0         1585         1860         0         1585           Q Serve(g, s), s         5,0         2,3         2,2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Cycle Q Clear(g, c), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Prop In Lane         1.00         0.04         1.88         0.00         0.46         Avail Cap(c, a), weh/h         77         664         586         77         0         603         503         0         427         356         0         303         0         1.00         1.00         1.00         1.00         1.00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>1651</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>						1651								
Q Serve(g_s), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Cycle Q Clear(g_e), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Prop In Lane         1.00         1.00         1.00         1.00         1.00         1.00         1.00           Lane Grp Cap(c), veh/h         77         664         586         25         0         603         503         0         427         356         0         303           V/C Ratio(X)         1.56         0.08         0.08         0.49         0.00         1.84         1.11         0.00         0.04         1.88         0.00         0.46           Avail Cap(c_a), weh/h         77         664         586         77         0         603         503         0         427         356         0         303           HCM 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<														
Cycle Q Clear(g_c), s         5.0         2.3         2.2         0.8         0.0         39.1         31.0         0.0         0.8         22.0         0.0         9.1           Prop In Lane         1.00         1.00         1.00         0.07         0.06         1.00         0.11         1.00           Lane Grp Cap(c), veh/h         77         664         586         25         0         603         503         0         427         356         0         303           V/C Ratio(X)         1.56         0.08         0.49         0.00         1.84         1.11         0.00         0.04         1.88         0.00         0.46           Avail Cap(c_a), veh/h         77         664         586         77         0         603         503         0         427         356         0         303           HCM Platoon Ratio         1.00														
Prop In Lane 1.00 1.00 1.00 0.07 0.06 1.00 0.11 1.00  Lane Grp Cap(c), veh/h 77 664 586 25 0 603 503 0 427 356 0 303  V/C Ratio(X) 1.56 0.08 0.08 0.49 0.00 1.84 1.11 0.00 0.04 1.88 0.00 0.46  Avail Cap(c_a), veh/h 77 664 586 77 0 603 503 0 427 356 0 303  HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0														
Lane Grp Cap(c), veh/h 77 664 586 25 0 603 503 0 427 356 0 303  V/C Ratio(X) 1.56 0.08 0.08 0.08 0.49 0.00 1.84 1.11 0.00 0.04 1.88 0.00 0.46  Avail Cap(c_a), veh/h 77 664 586 77 0 603 503 0 427 356 0 303  HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	,		2.3			0.0			0.0			0.0		
V/C Ratio(X)														
Avail Cap(c_a), veh/h 77 664 586 77 0 603 503 0 427 356 0 303  HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0														
HCM Platoon Ratio	\ /													
Upstream Filter(I) 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 Uniform Delay (d), s/veh 55.0 23.6 23.5 56.3 0.0 38.0 42.0 0.0 31.0 46.5 0.0 41.3 Incr Delay (d2), s/veh 306.4 0.0 0.0 5.4 0.0 383.1 74.5 0.0 0.0 405.4 0.0 0.4 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.														
Uniform Delay (d), s/veh 55.0														
Incr Delay (d2), s/veh 306.4														
Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	• ( ):													
%ile BackOfQ(50%),veh/ln8.8       1.0       0.8       0.4       0.0       80.6       24.3       0.0       0.3       50.3       0.0       3.5         Unsig. Movement Delay, s/veh       LnGrp Delay(d),s/veh       361.4       23.6       23.6       61.7       0.0       421.0       116.5       0.0       31.0       451.9       0.0       41.7         LnGrp LOS       F       C       C       E       A       F       F       A       C       F       A       D         Approach Vol, veh/h       223       1120       574       809         Approach Delay, s/veh       206.9       417.2       114.3       380.4         Approach LOS       F       F       F       F       F         Timer - Assigned Phs       1       2       4       5       6       8         Phs Duration (G+Y+Rc), s5.6       47.8       26.0       9.0       44.4       35.6         Change Period (Y+Rc), s 4.0       5.3       4.0       4.0       5.3       4.6         Max Green Setting (Gmax\$, 8       39.1       22.0       5.0       39.1       31.0         Max Q Clear Time (p_c), s 0.0       0.1       0.0														
Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh 361.4 23.6 23.6 61.7 0.0 421.0 116.5 0.0 31.0 451.9 0.0 41.7  LnGrp LOS F C C E A F F A C F A D  Approach Vol, veh/h 223 1120 574 809  Approach Delay, s/veh 206.9 417.2 114.3 380.4  Approach LOS F F F F F F F F F F F F F F F F F F F														
LnGrp Delay(d),s/veh       361.4       23.6       23.6       61.7       0.0       421.0       116.5       0.0       31.0       451.9       0.0       41.7         LnGrp LOS       F       C       C       E       A       F       F       A       C       F       A       D         Approach Vol, veh/h       223       1120       574       809         Approach Delay, s/veh       206.9       417.2       114.3       380.4         Approach LOS       F       F       F       F         F       F       F       F       F         Timer - Assigned Phs       1       2       4       5       6       8         Phs Duration (G+Y+Rc), s5.6       47.8       26.0       9.0       44.4       35.6         Change Period (Y+Rc), s 4.0       5.3       4.0       4.0       5.3       4.6         Max Green Setting (Gmax\$,\$\$\mathbf{s}\$       39.1       22.0       5.0       39.1       31.0         Max Q Clear Time (g_c+l*12,8       4.3       24.0       7.0       41.1       33.0         Green Ext Time (p_c), s 0.0       0.1       0.0       0.0       0.0       0.0         Intersection Sum	, , ,			0.8	0.4	0.0	80.6	24.3	0.0	0.3	50.3	0.0	3.5	
LnGrp LOS         F         C         C         E         A         F         F         A         C         F         A         D           Approach Vol, veh/h         223         1120         574         809           Approach Delay, s/veh         206.9         417.2         114.3         380.4           Approach LOS         F         F         F         F           Timer - Assigned Phs         1         2         4         5         6         8           Phs Duration (G+Y+Rc), s5.6         47.8         26.0         9.0         44.4         35.6           Change Period (Y+Rc), s 4.0         5.3         4.0         4.0         5.3         4.6           Max Green Setting (Gmax5, 8         39.1         22.0         5.0         39.1         31.0           Max Q Clear Time (g_c+l12,8         4.3         24.0         7.0         41.1         33.0           Green Ext Time (p_c), s 0.0         0.1         0.0         0.0         0.0         0.0           Intersection Summary           HCM 6th Ctrl Delay         325.3					<b>24</b> =		1010	440 =			1=1.0			
Approach Vol, veh/h 223 1120 574 809 Approach Delay, s/veh 206.9 417.2 114.3 380.4 Approach LOS F F F F F  Timer - Assigned Phs 1 2 4 5 6 8 Phs Duration (G+Y+Rc), s5.6 47.8 26.0 9.0 44.4 35.6 Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6 Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0 Max Q Clear Time (g_c+12), 8 4.3 24.0 7.0 41.1 33.0 Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0 0.0  Intersection Summary HCM 6th Ctrl Delay 325.3	1 1 7													
Approach Delay, s/veh 206.9 417.2 114.3 380.4  Approach LOS F F F F F  Timer - Assigned Phs 1 2 4 5 6 8  Phs Duration (G+Y+Rc), s5.6 47.8 26.0 9.0 44.4 35.6  Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6  Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0  Max Q Clear Time (g_c+l12), 8 4.3 24.0 7.0 41.1 33.0  Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 325.3	<u> </u>	<u> </u>		С	<u> </u>		<u> </u>	<u> </u>		С	<u> </u>		ט	
Approach LOS F F F F F F  Timer - Assigned Phs 1 2 4 5 6 8  Phs Duration (G+Y+Rc), s5.6 47.8 26.0 9.0 44.4 35.6  Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6  Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0  Max Q Clear Time (g_c+l*12,8 4.3 24.0 7.0 41.1 33.0  Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 325.3														
Timer - Assigned Phs 1 2 4 5 6 8  Phs Duration (G+Y+Rc), s5.6 47.8 26.0 9.0 44.4 35.6  Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6  Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0  Max Q Clear Time (g_c+l12, 8 4.3 24.0 7.0 41.1 33.0  Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 325.3														
Phs Duration (G+Y+Rc), s5.6       47.8       26.0       9.0       44.4       35.6         Change Period (Y+Rc), s 4.0       5.3       4.0       4.0       5.3       4.6         Max Green Setting (Gmax₅, s 39.1       22.0       5.0       39.1       31.0         Max Q Clear Time (g_c+l¹2), s 4.3       24.0       7.0       41.1       33.0         Green Ext Time (p_c), s 0.0       0.1       0.0       0.0       0.0       0.0         Intersection Summary       HCM 6th Ctrl Delay       325.3       325.3	Approach LOS		F			F			F			F		
Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6  Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0  Max Q Clear Time (g_c+l12,8 4.3 24.0 7.0 41.1 33.0  Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 325.3	Timer - Assigned Phs	1	2		4	5	6		8					
Change Period (Y+Rc), s 4.0 5.3 4.0 4.0 5.3 4.6  Max Green Setting (Gmax\$, 39.1 22.0 5.0 39.1 31.0  Max Q Clear Time (g_c+l12,8 4.3 24.0 7.0 41.1 33.0  Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0  Intersection Summary  HCM 6th Ctrl Delay 325.3	Phs Duration (G+Y+Rc)	), s5.6	47.8		26.0	9.0	44.4		35.6					
Max Green Setting (Gmax5,6: 39.1       22.0       5.0       39.1       31.0         Max Q Clear Time (g_c+l12),8: 4.3       24.0       7.0       41.1       33.0         Green Ext Time (p_c), s 0.0       0.1       0.0       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       325.3					4.0	4.0	5.3		4.6					
Max Q Clear Time (g_c+l12),8s       4.3       24.0       7.0       41.1       33.0         Green Ext Time (p_c), s       0.0       0.1       0.0       0.0       0.0         Intersection Summary         HCM 6th Ctrl Delay       325.3														
Green Ext Time (p_c), s 0.0 0.1 0.0 0.0 0.0 0.0           Intersection Summary           HCM 6th Ctrl Delay         325.3						7.0								
HCM 6th Ctrl Delay 325.3						0.0	0.0		0.0					
HCM 6th Ctrl Delay 325.3	Intersection Summary													
				325.3										
	•													

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