## CITY OF REDONDO BEACH CITY COUNCIL AGENDA Tuesday, January 19, 2021

#### 415 DIAMOND STREET, REDONDO BEACH

# THIS VIRTUAL MEETING IS HELD PURSUANT TO EXECUTIVE ORDER N-29-20 ISSUED BY GOVERNOR NEWSOM ON MARCH 17, 2020.



Bill Brand, Mayor
Nils Nehrenheim, Councilmember, District 1
Todd Loewenstein, Councilmember, District 2
Christian Horvath, Councilmember, District 3
John F. Gran, Councilmember, District 4
Laura Emdee, Councilmember, District 5

Michael W. Webb, City Attorney Eleanor Manzano, City Clerk Steven Diels, City Treasurer

AGENDA AND SUPPORTING MATERIALS - An agenda packet is available 24 hours a day at the Redondo Beach Police Department and at www.redondo.org on the City Clerk page. Agenda packets are available during Library hours, at the reference desks at the Redondo Beach Main Library and Redondo Beach North Branch Library. During City Hall hours, agenda packets are available for review in the Office of the City Clerk, Door 1.

AGENDA POSTING NOTIFICATION - If you would like to receive notification of the agenda availability, please subscribe to our eNotify list at www.redondo.org/services/subscribe.asp. You will receive notification when the agenda is available for viewing on the website and you may view and/or print a copy of the agenda.

**DOCUMENTS DISTRIBUTED FOLLOWING THE POSTING OF THE AGENDA (BLUE FOLDER ITEMS)** - Any writing that relates to an agenda item for an open session that is distributed within 72 hours of the meeting is available for public inspection at the City Clerk's Office, 415 Diamond Street, Door 1, Redondo Beach. In addition, such writings and documents will be posted on the City's

website at www.redondo.org

**PUBLIC COMMENT** - The public is encouraged to address the City Council on any matter posted on the agenda or on any other matter within its jurisdiction. If you wish to address the City Council on non-agenda items, you may do so during the **PUBLIC PARTICIPATION ON NON-AGENDA ITEMS** section on the agenda. Each person is allotted three (3) minutes to speak.

Pursuant to provisions of the Brown Act, no action may be taken on a matter unless it is listed on the agenda, or unless certain emergency or special circumstances exist. The City Council may direct staff to investigate and/or schedule certain matters for consideration at a future City Council meeting.

AMERICANS WITH DISABILITIES ACT - It is the intention of the City of Redondo Beach to comply with the Americans with Disabilities Act (ADA) in all respects. If, as an attendee or a participant at this meeting, you will need special assistance beyond what is normally provided, the City will attempt to accommodate you in every reasonable manner. Please contact the City Clerk's Office at (310) 318-0656 at least forty-eight (48) hours prior to the meeting to inform us of your particular needs and to determine if accommodation is feasible. Please advise us at that time if you will need accommodations to attend or participate in meetings on a regular basis.

## CITY OF REDONDO BEACH CITY COUNCIL AGENDA Tuesday, January 19, 2021

#### 415 DIAMOND STREET, REDONDO BEACH

THIS VIRTUAL MEETING IS HELD PURSUANT TO EXECUTIVE ORDER N-29-20 ISSUED BY GOVERNOR NEWSOM ON MARCH 17, 2020.

# 4:30 PM - CANCELLED - CLOSED SESSION - ADJOURNED REGULAR MEETING

#### 6:00 PM - OPEN SESSION - REGULAR MEETING

# ALL COUNCILMEMBERS ARE PARTICIPATING BY VIRTUAL MEETING. MEMBERS OF THE PUBLIC MAY ONLY PARTICIPATE BY ZOOM, eCOMMENT OR EMAIL.

City Council meetings are broadcast live through Spectrum Cable, Channel 8, and Frontier Communications, Channel 41 and/or rebroadcast on Wednesday at 3PM and Saturday at 3PM following the date of the meeting. Live streams and indexed archives of meetings are available via internet. Visit the City's office website at www.Redondo.org/rbtv.

#### TO WATCH MEETING LIVE ON CITY'S WEBSITE:

https://redondo.legistar.com/Calendar.aspx

\*Click "In Progress" hyperlink under Video section of meeting

#### TO WATCH MEETING LIVE ON YOUTUBE:

https://www.youtube.com/c/CityofRedondoBeachIT

# TO JOIN ZOOM MEETING (FOR PUBLIC INTERESTED IN SPEAKING. OTHERWISE, PLEASE SEE ABOVE TO WATCH/LISTEN TO MEETING):

Register in advance for this meeting:

https://us02web.zoom.us/webinar/register/WN nMlxW8blT56 3exAklFxfw

After registering, you will receive a confirmation email containing information about joining the meeting.

If you are participating by phone, be sure to provide your phone # when registering. You will be provided a Toll Free number and a Meeting ID to access the meeting. Note; press # to bypass Participant ID. Attendees will be muted until the public participation period is opened. When you are called on to speak, press \*6 to unmute your line. Note, comments from the public are limited to 3 minutes per speaker.

#### eCOMMENT: COMMENTS MAY BE ENTERED DIRECTLY ON WEBSITE AGENDA PAGE:

- 1) Public comments can be entered before and during the meeting.
- 2) Select a SPECIFIC AGENDA ITEM to enter your comment;
- 3) Public will be prompted to Sign-Up to create a free personal account (one-time) and then comments may be added to each Agenda item of interest.
- 4) Public comments entered into eComment (up to 2200 characters; equal to approximately 3 minutes of oral comments) will become part of the official meeting record. Comments may be read out loud during the meeting.

EMAIL: TO PARTICIPATE BY WRITTEN COMMUNICATION BEFORE 3:00PM DAY OF MEETING (EMAILS WILL NOT BE READ OUT LOUD): Written materials pertaining to matters listed on the posted agenda received after the agenda has been published will be added as supplemental materials under the relevant agenda item. Public comments may be submitted by email to cityclerk@redondo.org. Emails must be received before 3:00 p.m. on the date of the meeting to ensure Council and staff have the ability to review materials prior to the meeting.

# 4:30 PM - CANCELLED - CLOSED SESSION - ADJOURNED REGULAR MEETING

#### 6:00 PM - OPEN SESSION - REGULAR MEETING

- A. CALL TO ORDER
- B. ROLL CALL
- C. SALUTE TO THE FLAG AND INVOCATION
- D. PRESENTATIONS/PROCLAMATIONS/ANNOUNCEMENTS
- E. APPROVE ORDER OF AGENDA
- F. AGENCY RECESS
- F.1. SPECIAL MEETING OF THE SUCCESSOR AGENCY

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

#### G. BLUE FOLDER ITEMS- ADDITIONAL BACK UP MATERIALS

Blue folder items are additional back up material to administrative reports and/or public comments received after the printing and distribution of the agenda packet for receive and file.

- G.1. For Blue Folder Documents Approved at the City Council Meeting
- H. CONSENT CALENDAR

Business items, except those formally noticed for public hearing, or those pulled for discussion are assigned to the Consent Calendar. The Mayor or any City Council Member may request that any Consent Calendar item(s) be removed, discussed, and acted upon separately. Items removed from the Consent Calendar will be taken up under the "Excluded Consent Calendar" section below. Those items remaining on the Consent Calendar will be approved in one motion. The Mayor will call on anyone wishing to address the City Council on any Consent Calendar item on the agenda, which has not been pulled by Council for discussion. Each speaker will be permitted to speak only once and comments will be limited to a total of three minutes.

**H.1.** APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR MEETING OF JANUARY 19, 2021

**CONTACT:** ELEANOR MANZANO, CITY CLERK

**H.2.** APPROVE MOTION TO READ BY TITLE ONLY AND WAIVE FURTHER READING OF ALL ORDINANCES AND RESOLUTIONS LISTED ON THE AGENDA.

**CONTACT:** ELEANOR MANZANO, CITY CLERK

#### H.3. PAYROLL DEMANDS

CHECKS 27101-27101 IN THE AMOUNT OF \$3,568.63, PD.12/24/2020

DIRECT DEPOSIT 230684-230687 IN THE AMOUNT OF \$1,151.63, PD. 12/24/2020

CHECKS 27102-27124 IN THE AMOUNT OF \$36,463.47, PD. 01/08/2021

<u>DIRECT DEPOSIT 230688-231119 IN THE AMOUNT OF \$1,864,951.06, PD. 01/08/2021</u>

CHECKS 27125-27126 IN THE AMOUNT OF \$221.79, PD. 01/08/2021

DIRECT DEPOSIT 231128-231133, \$30,233.89, PD. 01/08/2021

EFT/ACH \$7,476.79, PD. 12/24/2020 (PP2026)

EFT/ACH \$6.674.32. PD. 01/08/2021 (PP2101)

EFT/ACH \$407,780.31, PD. 01/12/2021 (PP2026)

EFT/ACH \$344,893.79, PD. 01/13/2021 (PP2101)

REPLACEMENT DEMANDS 231120-231127

ACCOUNTS PAYABLE DEMANDS

CHECKS 97337-97531 IN THE AMOUNT OF \$1,565,371.12

**REPLACEMENT DEMANDS 97336** 

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

- **H.4.** APPROVE CONTRACTS UNDER \$35,000:
  - 1. APPROVE AGREEMENT WITH DIANE CLEARY FOR MINUTES SECRETARY SERVICES IN AN AMOUNT NOT TO EXCEED \$35.00 PER HOUR FOR THE TERM OF JANUARY 1, 2021 TO DECEMBER 31, 2021.
  - 2. APPROVE AGREEMENT WITH GLICKSMAN CONSULTING LLC FOR ACTUARIAL SERVICES IN AN AMOUNT NOT TO EXCEED \$34,999 FOR THE TERM JULY 2, 2020 TO JULY 31, 2021.

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

**H.5.** <u>APPROVE PLANS AND SPECIFICATIONS FOR THE ELECTRIC VEHICLE</u> CHARGING INFRASTRUCTURE, JOB NO. 20770

**CONTACT:** TED SEMAAN, PUBLIC WORKS DIRECTOR

H.6. ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-008, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, LEASING CERTAIN PROPERTY TO CANCER SUPPORT COMMUNITY REDONDO BEACH, A CALIFORNIA 501 (C)(3) NON-PROFIT CORPORATION

APPROVE A LEASE WITH CANCER SUPPORT COMMUNITY REDONDO BEACH FOR THE PREMISES AT 121 W. TORRANCE BOULEVARD, SUITE 201 FOR A MONTHLY AMOUNT OF \$2,467.76 FOR THE TERM JANUARY 19, 2021 - JANUARY 19, 2022

CONTACT: STEPHEN PROUD, WATERFRONT AND ECONOMIC DEVELOPMENT DIRECTOR

H.7. APPROVE AGREEMENT WITH HITECH SYSTEMS INC. DBA PULSIAM FOR SAFETYNET REPORTING SERVER SOFTWARE AND DATA MIGRATION SERVICES FOR THE AMOUNT NOT TO EXCEED \$51,845.60 FOR THE TERM JANUARY 19, 2021 TO JANUARY 18, 2022.

CONTACT: CHRISTOPHER BENSON, INFORMATION TECHNOLOGY DIRECTOR

H.8. APPROVE THE NINTH AMENDMENT TO THE AGREEMENT WITH KOSMONT & ASSOCIATES, INC FOR REAL ESTATE CONSULTING SERVICES FOR AN ADDITIONAL AMOUNT OF \$50,000 FOR A NOT-TO-EXCEED TOTAL OF \$1.445M AND EXTENDING TERM TO DECEMBER 31, 2021

CONTACT: STEPHEN PROUD, WATERFRONT AND ECONOMIC DIRECTOR

H.9. APPROVE PURCHASE AGREEMENT FOR A PORTION OF THE PROPERTY AT 3615 INGLEWOOD AVENUE, REDONDO BEACH (PARTIAL FEE ACQUISITION) AND TEMPORARY CONSTRUCTION EASEMENT FOR SOUTHBOUND INGLEWOOD AVENUE RIGHT TURN AT MANHATTAN BEACH BOULEVARD PROJECT, JOB NO. 40960

CONTACT: TED SEMAAN, PUBLIC WORKS DIRECTOR

H.10. APPROVE THE 2021 BUDGET CALENDAR

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

H.11. APPROVE AMENDMENT #4 TO FUNDING AGREEMENT NO. FA.P00F3502
BETWEEN THE CITY OF REDONDO BEACH AND THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY (METRO) FOR THE REDONDO
BEACH BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PROJECT,
AWARDED THROUGH THE METRO 2009 CALL FOR PROJECTS AND APPROVE
PLANS AND SPECIFICATIONS FOR THE REDONDO BEACH BICYCLE
TRANSPORTATION PLAN IMPLEMENTATION PROJECT, JOB NO. 40940-40945
AND AUTHORIZE THE CITY CLERK TO ADVERTISE THE PROJECT FOR
COMPETITIVE BIDS UPON COMPLETION OF E-76 AUTHORIZATION PROCESS

**CONTACT:** TED SEMAAN, PUBLIC WORKS DIRECTOR

**H.12.** <u>APPROVE AMENDMENT NO. 1 BY AND BETWEEN MRI SOFTWARE LLC AND THE CITY OF REDONDO BEACH.</u>

APPROVE THE ORDER DOCUMENT NO. 2 AMENDING THE ORDER DOCUMENT DATED AND THE MASTER AGREEMENT MARCH 1, 2020 BETWEEN MRI AND THE CITY OF REDONDO BEACH FOR THE AMOUNT NOT EXCEED \$52,655 FOR THE TERM OF JANUARY 01, 2021 THROUGH DECEMBER 31, 2025.

**CONTACT:** ANGELICA ZAVALA, HOUSING SUPERVISOR

H.13. ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-012, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, APPROVING A LOCAL SALES TAX REVENUE SHARING AGREEMENT AND A SALES TAX SHARING IMPLEMENTATION AGREEMENT FOR THE REDONDO MITSUBISHI DEALERSHIP LOCATED JOINTLY IN REDONDO BEACH AND HERMOSA BEACH

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

**H.14.** APPROVE THE FIRST AMENDMENT TO THE AGREEMENT WITH CITY NET TO ADD NAVIGATION SERVICES FOR PEOPLE EXPERIENCING HOMELESSNESS IN REDONDO BEACH FOR THE EXISTING TERM OF SIX MONTHS

**CONTACT:** MICHAEL W. WEBB, CITY ATTORNEY

H.15. APPROVE AGREEMENT WITH LOS ANGELES COUNTY REGISTRAR-RECORDER FOR CITY'S USE OF COUNTY-OWNED BALLOT DROP-OFF BOXES FOR MARCH 2, 2021 GENERAL MUNICIPAL ELECTION BALLOTS

**CONTACT:** ELEANOR MANZANO, CITY CLERK

- I. EXCLUDED CONSENT CALENDAR ITEMS
- J. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

This section is intended to provide members of the public with the opportunity to comment on any subject that does not appear on this agenda for action. This section is limited to 30 minutes. Each speaker will be afforded three minutes to address the Mayor and Council. Each speaker will be permitted to speak only once. Written requests, if any, will be considered first under this section.

J.1. For eComments and Emails Received from the Public

#### K. EX PARTE COMMUNICATIONS

This section is intended to allow all elected officials the opportunity to reveal any disclosure or ex parte communication about the following public hearings

#### L. PUBLIC HEARINGS

L.1. PUBLIC HEARING TO CONSIDER THE ADOPTION OF A RESOLUTION OF NECESSITY TO ACQUIRE CERTAIN REAL PROPERTY INTERESTS FROM 1700 ARTESIA BLVD.

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-011, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DECLARING CERTAIN REAL PROPERTY INTERESTS NECESSARY FOR PUBLIC PURPOSES AND AUTHORIZING THE ACQUISITION THEREOF IN CONNECTION WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE AVIATION BLVD. AT ARTESIA BLVD. NORTHBOUND RIGHT TURN LANE PROJECT, JOB NO. 40780 (PART FEE TAKE AND TEMPORARY CONSTRUCTION EASEMENT OVER PORTIONS OF APN 4162-001-014)

### **PROCEDURES**:

- A. Open Public Hearing, take testimony; and
- B. Close Public Hearing: and
- C. Adopt by Title only Resolution No. CC-2101-011

**CONTACT:** TED SEMAAN, PUBLIC WORKS DIRECTOR

- M. ITEMS CONTINUED FROM PREVIOUS AGENDAS
- N. ITEMS FOR DISCUSSION PRIOR TO ACTION

N.1. <u>DISCUSSION AND POSSIBLE ACTION REGARDING APPROVAL OF A PROFESSIONAL SERVICES AGREEMENT WITH PETDATA, INC. FOR ANIMAL LICENSING SERVICES FOR THE TERM JANUARY 19, 2021 TO JANUARY 18, 2026</u>

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

N.2. DISCUSSION AND POSSIBLE ACTION REGARDING THE DESIGN ALTERNATIVES FOR MANHATTAN BEACH BOULEVARD - AVIATION BOULEVARD TO INGLEWOOD AVENUE PROJECT, JOB NO. 41190

CONTACT: TED SEMAAN, PUBLIC WORKS DIRECTOR

N.3. DISCUSSION AND POSSIBLE ACTION REGARDING THE BUDGET AND FINANCE COMMISSION'S REQUEST FOR PREPARATION OF A WORKERS' COMPENSATION STUDY FOR THE FIRE DEPARTMENT

**CONTACT:** MARNI RUHLAND, FINANCE DIRECTOR

N.4. <u>DISCUSSION AND POSSIBLE ACTION REGARDING POTENTIAL MUNICIPAL CODE CHANGES FOR SALE, USE AND DISTRIBUTION OF BALLOONS</u>

**CONTACT:** TED SEMAAN, PUBLIC WORKS DIRECTOR

- O. CITY MANAGER ITEMS
- **O.1.** <u>DISCUSSION AND POSSIBLE ACTION REGARDING THE CITY'S LOCAL EMERGENCY PERTAINING TO COVID-19</u>

**CONTACT:** JOE HOEFGEN, CITY MANAGER

- P. MAYOR AND COUNCIL ITEMS
- P.1. DISCUSSION AND CONSIDERATION OF RESOLUTIONS OPPOSING CALIFORNIA STATE SENATE BILL 9 AND SENATE BILL 10 RELATED TO RESIDENTIAL DEVELOPMENT AS THESE BILLS WOULD PREEMPT LOCAL REGULATIONS FOR HOUSING

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-009, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 9 (ATKINS) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING TWO RESIDENTIAL UNITS AND PARCEL MAP DIVIDING A LOT INTO TWO EQUAL PARTS FOR RESIDENTIAL USE

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-010, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 10 (WEINER) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING UP TO 10 UNITS

**CONTACT:** BRANDY FORBES, COMMUNITY DEVELOPMENT DIRECTOR

- Q. MAYOR AND COUNCIL REFERRALS TO STAFF
- R. CLOSED SESSION

#### S. RECONVENE TO OPEN CLOSED SESSION

## T. ADJOURNMENT

The next meeting of the City Council of the City of Redondo Beach will be an Adjourned Regular meeting to be held at 4:30 p.m. (Closed Session) and a Regular meeting to be held at 6:00 p.m. (Open Session) on Tuesday, February 2, 2021, in the Redondo Beach City Hall Council Chamber, 415 Diamond Street, Redondo Beach, California, via teleconference.



F.1., File # 21-1932 Meeting Date: 1/19/2021

**TITLE** 

SPECIAL MEETING OF THE SUCCESSOR AGENCY

# THIS VIRTUAL MEETING IS HELD PURSUANT TO EXECUTIVE ORDER N-29-20 ISSUED BY GOVERNOR NEWSOM ON MARCH 17, 2020

# AGENDA SPECIAL MEETING SUCCESSOR AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH TUESDAY, JANUARY 19, 2021 - 6:00 P.M. REDONDO BEACH CITY COUNCIL CHAMBERS 415 DIAMOND STREET

Per Redondo Beach City Council Resolution No. CC-1201-561 the Redondo Beach City Council became the Successor Agency to the Redevelopment Agency of the City of Redondo Beach Pursuant To Part 1.85 of Division 24 of the California Health and Safety Code Acting as the Successor Agency to the Redevelopment Agency.

#### **CALL MEETING TO ORDER**

#### **ROLL CALL**

- A. APPROVAL OF ORDER OF AGENDA
- B. ADDITIONAL ITEMS FOR IMMEDIATE CONSIDERATION

#### **B1. BLUE FOLDER ITEMS**

Blue folder items are additional back up material to administrative reports and/or public comments received after the printing and distribution of the agenda packet for receive and file.

#### C. CONSENT CALENDAR

Business items, except those formally noticed for public hearing, or those pulled for discussion are assigned to the Consent Calendar. The AGENCY Members may request that any Consent Calendar item(s) be removed, discussed, and acted upon separately. Items removed from the Consent Calendar will be taken up under the "Excluded Consent Calendar" section below. Those items remaining on the Consent Calendar will be approved in one motion following Oral Communications.

- C1. APPROVAL OF AFFIDAVIT OF POSTING for the Successor Agency to the Former Redevelopment Agency of the City of Redondo Beach meeting of January 19, 2021.
- C2. APPROVAL OF MOTION TO READ BY TITLE ONLY and waive further reading of all Ordinances and Resolutions listed on the agenda.
- C3. APPROVAL OF THE MINUTES OF THE:
  - a. Special Meeting of June 16, 2020.
- C4. ADOPT BY TITLE ONLY RESOLUTION NO. SA-2101-01, A RESOLUTION OF THE SUCCESSOR AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH, CALIFORNIA APPROVING AND ADOPTING A RECOGNIZED OBLIGATION PAYMENT SCHEDULE PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 34177(I).

CONTACT: MARNI RUHLAND, FINANCE DIRECTOR

#### D. EXCLUDED CONSENT CALENDAR ITEMS

#### E. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

This section is intended to provide members of the public with the opportunity to comment on any subject that does not appear on this agenda for action. This section is limited to 30 minutes. Each speaker will be afforded three minutes to address the Successor Agency to the Former Redevelopment Agency. Each speaker will be permitted to speak only once. Written requests, if any, will be considered first under this section.

- F. EX PARTE COMMUNICATIONS
- G. PUBLIC HEARINGS
- H. OLD BUSINESS
- I. NEW BUSINESS
- J. MEMBERS ITEMS AND REFERRALS TO STAFF
- K. ADJOURNMENT

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Any writings or documents provided to a majority of the members of the Authority regarding any item on this agenda will be made available for public inspection at the City Clerk's Counter at City Hall located at 415 Diamond Street during normal business hours



**Eleanor Manzano** City Clerk

415 Diamond Street, P.O. Box 270 Redondo Beach, California 90277-0270 www.redondo.org tel 310 318-0656 fax 310 374-0220

STATE OF CALIFORNIA )
COUNTY OF LOS ANGELES ) SS
CITY OF REDONDO BEACH )

## **AFFIDAVIT OF POSTING**

In compliance with the Brown Act, the following materials have been posted at the locations indicated below.

Legislative Body

Successor Agency

Posting Type

Special Meeting Agenda

**Posting Locations** 

415 Diamond Street, Redondo Beach, CA 90277

✓ City Hall Kiosk

Meeting Date & Time

January 19, 2021 6:00 p.m. Open Session

As City Clerk of the City of Redondo Beach, I declare, under penalty of perjury, the document noted above was posted at the date displayed below.

Eleanor Manzano, City Clerk Redondo Beach Community Financing Authority

Date: January 14, 2021

# **MOTION TO READ BY TITLE ONLY**

and waive further reading of all

Ordinances and Resolutions on the Agenda.

Recommendation - Approve

Special Meeting Successor Agency Redondo Beach, California June 16, 2020

#### CALL TO ORDER

Via Teleconference, A Special Meeting of the Successor Agency was called to order by Chairman Brand at 6:10 p.m., in the City Hall Council Chamber, 415 Diamond Street.

#### **ROLL CALL**

Members Present:

Nehrenheim, Loewenstein, Horvath, Emdee, Gran, Chairman

Brand

Members Absent:

None

Officials Present:

Eleanor Manzano, City Clerk Michael W. Webb, City Attorney Joe Hoefgen, City Manager

Vickie Kroneberger, Chief Deputy City Clerk

#### APPROVAL OF ORDER OF AGENDA

It was the consensus of the Agency to approve the Order of Agenda as presented. Motion carried unanimously.

#### ADDITIONAL ITEMS FOR IMMEDIATE CONSIDERATION

#### **BLUE FOLDER ITEMS - NONE**

#### **CONSENT CALENDAR**

- C. **CONSENT CALENDAR**
- C1. APPROVAL OF AFFIDAVIT OF POSTING for the Special Meeting of the Successor Agency to the Former Redevelopment Agency of the City of Redondo Beach meeting of June 16, 2020.
- C2. APPROVAL OF MOTION TO READ BY TITLE ONLY and waive further reading of all Ordinances and Resolutions listed on the agenda.
- APPROVAL THE MINUTES OF THE: C3.
  - Special Meeting of January 21, 2020.
- ADOPT RESOLUTION NO. SA-2006-02, A RESOLUTION OF THE SUCCESSOR C4. AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH APPROVING AND ADOPTING THE ADMINISTRATIVE BUDGET PURSUANT TO HEALTH AN SAFETY COE SECTION 34177(J).

Chairman Brand called for public comment via eComment. There being no comments, Chairman Brand closed the public comment period.

Motion by Member Horvath, seconded by Member Loewenstein, to approve Consent Calendar items C1 through C4. Motion carried unanimously with the following roll call vote:

AYES:

Nehrenheim, Loewenstein, Horvath, Gran, Emdee

NOES:

MINUTES - SPECIAL SUCCESSOR AGENCY January 21, 2020 PAGE NO. 1

ABSENT: None

City Clerk Manzano read Resolution No. SA-2006-02 by title only.

#### **EXCLUDED CONSENT CALENDAR ITEMS - NONE**

#### PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

Chairman Brand called for public comment via eComment. There being no comments, Chairman Brand closed the public comment period.

#### **EX PARTE COMMUNICATIONS - NONE**

**PUBLIC HEARINGS - NONE** 

**OLD BUSINESS - NONE** 

**NEW BUSINESS - NONE** 

#### MEMBER ITEMS AND REFERRALS TO STAFF - NONE

#### ADJOURNED 6:15 P.M.

There being no further business to come before the Agency, Member Horvath moved, seconded by Member Nehrenheim, to adjourn the meeting at 6:15 p.m. Motion carried unanimously, with the following roll call vote:

AYES:

Nehrenheim, Loewenstein, Horvath, Gran, Emdee

NOES:

None

ABSENT: None

Bill Brand, Chairman	
Joe Hoefgen	
Executive Director/Secretary	



Agency Action Date: January 19, 2021

To:

CHAIRMAN AND MEMBERS OF THE SUCCESSOR AGENCY

From:

MARNI RUHLAND, FINANCE DIRECTOR

Subject:

CONSIDERATION OF RESOLUTION TO APPROVE AND ADOPT A RECOGNIZED OBLIGATION PAYMENT SCHEDULE PURSUANT TO

**CALIFORNIA HEALTH AND SAFETY CODE SECTION 34177(I)** 

#### **RECOMMENDATION**

Adopt the attached resolution by the title only, waiving further reading: A RESOLUTION OF THE SUCCESSOR AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH, CALIFORNIA APPROVING AND ADOPTING A RECOGNIZED OBLIGATION PAYMENT SCHEDULE PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 34177(I).

#### **EXECUTIVE SUMMARY**

The City of Redondo Beach became the Successor Agency to the Redevelopment Agency of the City of Redondo Beach effective February 1, 2012. Pursuant to AB 1X 26, one of the responsibilities of the Successor Agency is to prepare a Recognized Obligation Payment Schedule ("ROPS") and submit it first to the oversight board for its approval, then to the County Auditor-Controller, the County Administrative Officer, the State Controller, and the State Department of Finance. The ROPS approved by the oversight board is also to be posted on the City's website.

#### BACKGROUND

On June 28, 2011, as part of the 2011-2012 State of California budget, companion bills Assembly Bill 1X 26 ("AB 26") and Assembly Bill 1X 27 ("AB 27") were enacted, dissolving the Redevelopment Agency of the City of Redondo Beach ("Agency"), unless the City of Redondo Beach ("City") elected to participate in the "Alternative Voluntary Redevelopment Program" established by AB 27 and paid an annual "community remittance" payment to the County of Los Angeles. On July 18, 2011, a Petition for Writ of Mandate was filed in the Supreme Court of the State of California in the matter of California Redevelopment Association, et al. v. Ana Matosantos, et al., Case No. S194861 ("Legal Action"), challenging the constitutionality of AB 26 and AB 27 on behalf of cities, counties and redevelopment agencies. On December 29, 2011, the Supreme Court issued its opinion in the Legal Action, upholding AB 26, invalidating AB 27, extending certain statutory deadlines under Health and Safety Code Sections 34170 through 34191, and dissolving all redevelopment agencies throughout the State, effective February 1, 2012.

Resolution Adopting the ROPS Page 2

The City elected to become the Successor Agency to the Agency by Resolution No. CC-1201-561, dated January 10, 2012. One of the responsibilities of the City, as Successor Agency, is to prepare a Recognized Obligation Payment Schedule ("ROPS"), which sets forth the nature, amount, and source(s) of payment of all "enforceable obligations" of the Agency (as defined by law) to be paid by the Successor Agency after the Agency's dissolution, covering the forward-looking one fiscal year, which is to cover the period from July 1, 2021 through June 30, 2022. Only payments required pursuant to the ROPS may be made by the Successor Agency after May 1, 2012.

The "enforceable obligations" listed in the ROPS may include the following: bonds; loans legally required to be repaid pursuant to a payment schedule with mandatory repayment terms; payments required by the federal government, preexisting obligations to the state or obligations imposed by state law; judgments, settlements or binding arbitration decisions that bind the agency; legally binding and enforceable agreements or contracts; contracts or agreements necessary for the continued administration or operation of the agency, including agreements to purchase or rent office space, equipment and supplies; and amounts borrowed from or payments owing to the Low and Moderate Income Housing Fund of a redevelopment agency, which had been deferred as of June 29, 2011. However, the ROPS is to exclude pass-through payments to be made by the county after dissolution of the Agency and any agreements, contracts or arrangements between the City and the Agency, except any of the following agreements between the City and the Agency; (1) any written agreements between the City and the Agency entered into prior to December 31, 2010, solely for the purpose of securing or repaying indebtedness obligations to third parties; and (2) loan agreements entered into between the Agency and the City within two years of the date of creation of the Agency.

Pursuant to Health and Safety Code section 34177(I)(2), as modified by the Supreme Court's opinion in the Legal Action, the City, as Successor Agency, is required to prepare a ROPS covering the period from July 1, 2021 through June 30, 2022, by February 1, 2021. The ROPS is submitted to and duly approved by the Los Angeles County 4<sup>th</sup> Supervisorial District Consolidated Oversight Board ("Approved ROPS"). The Approved ROPS is finally submitted to the County Auditor-Controller, the County Administrative Officer, the State Controller's Office and the State Department of Finance, and posted on the City's website.

Staff has prepared the ROPS covering the period from July 1, 2021 through June 30, 2022. It consists of the following forms:

- The Summary Form summarizes funding totals from the Detail Form for the fiscal year.
- The Detail Form lists the outstanding obligations, debts and payments scheduled by funding source.
- The Report of Cash Balances Form calculates the Successor Agency's actual cash balance as of June 30, 2019.
- The Notes Form is optionally used to explain unique circumstances or to add detail for the current ROPS line items.

Resolution Adopting the ROPS Page 3

January 19, 2021

#### COORDINATION

This report required coordination with the Financial Services Department and the City Manager's Office. The City Attorney has approved the resolution as to form.

#### **FISCAL IMPACT**

The total Redevelopment Property Tax Trust Fund (RPTTF) funding for the period of July 1, 2021 through June 30, 2022 is estimated to be \$2,399,883.

Submitted by: Marni Ruhland, Finance Director Approved for forwarding: Joe Hoefgen, City Manager

#### Attachment:

Resolution

#### **RESOLUTION NO. SA-2101-01**

A RESOLUTION OF THE SUCCESSOR AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH, CALIFORNIA APPROVING AND ADOPTING A RECOGNIZED OBLIGATION PAYMENT SCHEDULE PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 34177(I)

WHEREAS, pursuant to California Health and Safety Code ("Health and Safety Code") section 34173(d), the City of Redondo Beach ("Successor Agency") elected to become the successor agency to the Redevelopment Agency of the City of Redondo Beach by Resolution No. CC-1201-561 on January 10, 2012; and

WHEREAS, Health and Safety Code section 34177(m) requires the Successor Agency to prepare a recognized obligation payment schedule ("ROPS") covering the period of July 1, 2021 to June 30, 2022, at least 90 days before the date of property tax distribution, which the City Department of Finance has determined to be February 1, 2021; and

WHEREAS, Health and Safety Code section 34177(I)(2) requires the Successor Agency to submit the ROPS to the Successor Agency's oversight board for its approval, and upon such approval, the Successor Agency is required to submit a copy of the approved ROPS ("Approved ROPS") to the Los Angeles County ("County") Auditor-Controller, the County Administrative Officer, the California State ("State") Controller, and the State Department of Finance, the Successor's Agency's oversight board, and post the Approved ROPS on the Successor Agency's website; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, THE SUCCESSOR AGENCY TO THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDONDO BEACH DOES HEREBY RESOLVE AS FOLLOWS:

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

SECTION 2. The approval of the ROPS through this Resolution does not commit the Successor Agency to any action that may have a significant effect on the environment. As a result, such action does not constitute a project subject to the requirements of the California Environmental Quality Act. The City Clerk is authorized and directed to file a Notice of Exemption with the appropriate official of the County of Los Angeles, California, within five (5) days following the date of adoption of this Resolution.

SECTION 3. The Successor Agency approves and adopts the ROPS, in substantially in the form attached to this Resolution as Exhibit "A", as required by Health and Safety Code Section 34177.

SECTION 4. The City Manager is hereby authorized and directed to take any action necessary to carry out the purposes of this Resolution and comply with applicable law regarding the ROPS, including submitting the ROPS to the County Auditor-Controller, the County Administrative Officer, the State Controller, State Department of Finance, and the Successor Agency's oversight board, and following approval of the ROPS by the oversight board, submitting the approved ROPS to the County Auditor-Controller, the County Administrative Officer, the State Controller, and the State Department of Finance, and posting the approved ROPS on the Successor Agency's website.

SECTION 5. The City Clerk shall certify to the passage and adoption of this resolution, shall enter the same in the Book of Original Resolutions.

PASSED, APPROVED AND ADOPTED this 19th day of January, 2021.

	William C. Brand, Chairman Redondo Beach Successor Agency
APPROVED AS TO FORM:	ATTEST:
Michael W. Webb, City Attorney	Eleanor Manzano, CMC, City Clerk

STATE OF CALIFORNIA COUNTY OF LOS ANGELES CITY OF REDONDO BEACH	) )ss )
that Resolution No. SA-2101-01 the City of Redondo Beach, Calif 19 <sup>th</sup> day of January, 2021, and	the City of Redondo Beach, California, do hereby certify was passed and adopted by the Successor Agency of fornia, at a special meeting of said Agency held on the thereafter signed and approved by the Chairman and at said resolution was adopted by the following vote:
AYES: NOES: ABSENT: ABSTAIN:	

RESOLUTION NO. SA-2101-01 SUCCESSOR AGENCY ROPS PAGE NO. 3

Eleanor Manzano, CMC City Clerk

# Recognized Obligation Payment Schedule (ROPS 21-22) - Summary Filed for the July 1, 2021 through June 30, 2022 Period

Successor Agency: Redondo Beach

County: Los Angeles

Current Period Requested Funding for Enforceable Obligations (ROPS Detail)	(	22A Total July - cember)	 -22B Total lanuary - June)	RC	OPS 21-22 Total	
A Enforceable Obligations Funded as Follows (B+C+D)	\$	-	\$ -	\$	-	
B Bond Proceeds		-	-		-	
C Reserve Balance		-	-		-	
D Other Funds		-	-		-	
E Redevelopment Property Tax Trust Fund (RPTTF) (F+G)	\$	273,135	\$ 2,126,748	\$	2,399,883	
F RPTTF		148,135	2,001,748		2,149,883	
G Administrative RPTTF		125,000	125,000		250,000	
H Current Period Enforceable Obligations (A+E)	\$	273,135	\$ 2,126,748	\$	2,399,883	

## **Certification of Oversight Board Chairman:**

Pursuant to Section 34177 (o) of the Health and Safety code, I hereby certify that the above is a true and accurate Recognized Obligation Payment Schedule for the above named successor agency.

Name	Title
/s/	
Signature	Date

# Redondo Beach Recognized Obligation Payment Schedule (ROPS 21-22) - ROPS Detail July 1, 2021 through June 30, 2022

Α	В	С	D	E	F	G	Н	ı	J	К	L	М	N	0	Р	Q	R	S	Т	U	V	w
			_	_								ROPS 21-22A (Jul - Dec) ROPS 21-22B (Jan - Jun)										
Item	Project Name	Obligation	Agreement	Agreement Termination	Payee	Description	Project	Total Outstanding	Potirod	ROPS 21-22		Fur	nd Soui	rces		21-22A	Fund Sources				21-22B	
#	Troject Name	Туре	Date	Date	layee	Description	Area	Obligation	remed	Total		Reserve Balance		RPTTF	Admin RPTTF	Total	Bond Proceeds	Reserve Balance		RPTTF	Admin RPTTF	Total
								\$18,066,597		\$2,399,883	\$-	\$-	\$-	\$148,135	\$125,000	\$273,135	\$-	\$-	\$-	\$2,001,748	\$125,000	\$2,126,748
2	Allocation Bonds	Revenue Bonds Issued On or Before 12/31/10	07/01/ 1996	07/01/2026	US Bank	Improvements within South Bay Center project area	All	3,260,000	N	\$836,770	-	-	-	145,885	-	\$145,885	-	-	-	690,885	-	\$690,885
4	County Deferral Loans	Third- Party Loans	02/14/ 1984	06/30/2032	County of Los Angeles	Aviation Project Areas	All	6,631,711	N	\$543,564	-	-	-	-	-	\$-	1	-	-	543,564	-	\$543,564
7	RDA Bonds	Fees	07/01/ 2021	06/30/2022	US Bank	Bond Trustee	All	-	N	\$-	-	-	1	1		\$-	ı	1	-	-	-	\$-
8	Administration Costs		07/01/ 2021		City of Redondo Beach	Annual amount estimated to be paid to the City for Agency administration services	All	250,000	N	\$250,000	-	-			125,000	\$125,000		-	1	-	125,000	\$125,000
9	County Deferral Loans	Third- Party Loans	11/15/ 1983	06/30/2027	County of Los Angeles	South Bay Center	All	6,229,974	N	\$767,299	-	-	-	-	-	\$-	-	-	-	767,299	-	\$767,299
12	RDA Bonds	Fees	07/01/ 2021			Bond arbitrage rebate calculations	All	2,250	N	\$2,250	-	-	-	2,250	-	\$2,250	-	-	-	-	-	\$-
	Supplemental Educational Revenue Augmentation Fund Loan	SERAF/ ERAF	06/15/ 2010	06/30/2022		local school districts	All	1,403,671	N	\$-	-	-	-	-	-	\$-	-	-	-	-	-	\$-
14	Supplemental Educational Revenue Augmentation Fund Loan	SERAF/ ERAF	05/03/ 2011			local school districts	All	288,991	N	\$-	-	-	-	-	-	\$-	-	-	-	-	-	\$-

# Redondo Beach Recognized Obligation Payment Schedule (ROPS 21-22) - Report of Cash Balances July 1, 2018 through June 30, 2019

(Report Amounts in Whole Dollars)

Pursuant to Health and Safety Code section 34177 (I), Redevelopment Property Tax Trust Fund (RPTTF) may be listed as a source of payment on the ROPS, but only to the extent no other funding source is available or when payment from property tax revenues is required by an enforceable obligation.

Α	В	С	D	Е	F	G	Н
		Bond P	roceeds	Reserve Balance	Other Funds	RPTTF	
	ROPS 18-19 Cash Balances (07/01/18 - 06/30/19)	Bonds issued on or before 12/31/10	Bonds issued on or after 01/01/11	Prior ROPS RPTTF and Reserve Balances retained for future period(s)	Rent, grants, interest, etc.	Non-Admin and Admin	Comments
				,			
1	Beginning Available Cash Balance (Actual 07/01/18) RPTTF amount should exclude "A" period distribution amount.			-	473,971	2,250	
2	Revenue/Income (Actual 06/30/19) RPTTF amount should tie to the ROPS 18-19 total distribution from the County Auditor-Controller				245,854	1,195,069	
3	Expenditures for ROPS 18-19 Enforceable Obligations (Actual 06/30/19)				-	1,192,803	
4	Retention of Available Cash Balance (Actual 06/30/19) RPTTF amount retained should only include the amounts distributed as reserve for future period(s)						
5	ROPS 18-19 RPTTF Prior Period Adjustment RPTTF amount should tie to the Agency's ROPS 18-19 PPA form submitted to the CAC		No entry required			2,266	
6	Ending Actual Available Cash Balance (06/30/19) C to F = (1 + 2 - 3 - 4), G = (1 + 2 - 3 - 4 - 5)	\$-	\$-	\$-	\$719,825	\$2,250	

# Redondo Beach Recognized Obligation Payment Schedule (ROPS 21-22) - Notes July 1, 2021 through June 30, 2022

Item #	Notes/Comments
2	
4	
7	
8	
9	
12	
13	
14	



G.1., File # 21-1934 Meeting Date: 1/19/2021

**TITLE** 

For Blue Folder Documents Approved at the City Council Meeting



H.1., File # 21-1935 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: ELEANOR MANZANO, CITY CLERK

#### **TITLE**

APPROVE AFFIDAVIT OF POSTING FOR THE CITY COUNCIL REGULAR MEETING OF JANUARY 19, 2021

# **EXECUTIVE SUMMARY**

STATE OF CALIFORNIA	)	
COUNTY OF LOS ANGELES	)	SS
CITY OF REDONDO BEACH	)	

### **AFFIDAVIT OF POSTING**

In compliance with the Brown Act, the following materials have been posted at the locations indicated below.

Legislative Body City Council

Posting Type Adjourned Regular and Regular Agenda

Posting Locations 415 Diamond Street, Redondo Beach, CA 90277

✓ City Hall Kiosk

Meeting Date & Time JANUARY 19, 2021 6:00 p.m. Open Session

As City Clerk of the City of Redondo Beach, I declare, under penalty of perjury, the document noted above was posted at the date displayed below.

Eleanor Manzano, City Clerk

Date: January 14, 2021



H.2., File # 21-1936 Meeting Date: 1/19/2021

# **TITLE**

APPROVE MOTION TO READ BY TITLE ONLY AND WAIVE FURTHER READING OF ALL ORDINANCES AND RESOLUTIONS LISTED ON THE AGENDA.



H.3., File # 20-1853 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

#### **TITLE**

PAYROLL DEMANDS

CHECKS 27101-27101 IN THE AMOUNT OF \$3,568.63, PD.12/24/2020 DIRECT DEPOSIT 230684-230687 IN THE AMOUNT OF \$1,151.63, PD. 12/24/2020 CHECKS 27102-27124 IN THE AMOUNT OF \$36,463.47, PD. 01/08/2021 DIRECT DEPOSIT 230688-231119 IN THE AMOUNT OF \$1,864,951.06, PD. 01/08/2021 CHECKS 27125-27126 IN THE AMOUNT OF \$221.79, PD. 01/08/2021 DIRECT DEPOSIT 231128-231133, \$30,233.89, PD. 01/08/2021 EFT/ACH \$7,476.79, PD. 12/24/2020 (PP2026) EFT/ACH \$6,674.32, PD. 01/08/2021 (PP2101) EFT/ACH \$407,780.31, PD. 01/12/2021 (PP2026)

EFT/ACH \$344,893.79, PD. 01/13/2021 (PP2101)

REPLACEMENT DEMANDS 231120-231127

ACCOUNTS PAYABLE DEMANDS CHECKS 97337-97531 IN THE AMOUNT OF \$1,565,371.12

REPLACEMENT DEMANDS 97336

#### **EXECUTIVE SUMMARY**

Approval of Payroll and Accounts Payable

#### **ATTACHMENTS**

01192021\_RECOMMENDATION\_TO\_APPROVE 01192021\_VENDOR\_INVOICE\_LIST

# RECOMMENDATION TO APPROVE PAYROLL AND ACCOUNTS PAYABLE COUNCIL MEETING JANUARY 19, 2021

#### a. Payroll Demands

- Checks 27101-27101, \$3,568.63, Pd.12/24/2020
- Direct Deposit 230684-230687, \$1,151.63, Pd.12/24/2020
- Checks 27102-27124, \$36,463.47, Pd.01/08/2021
- Direct Deposit 230688-231119, \$1,864,951.06, Pd.01/08/2021
- Checks 27125-27126, \$221.79, Pd.01/08/2021
- Direct Deposit 231128-231133, \$30,233.89, Pd.01/08/2021
- EFT/ACH \$7,476.79 12/24/2020 (PP2026)
- EFT/ACH \$6,674.32 01/08/2021 (PP2101)
- EFT/ACH \$407,780.31, Pd. 01/12/2021 (PP2026)
- EFT/ACH \$344,893.79 01/13/2021 (PP2101)

#### **Replacement Demands**

231120-231127 Replaced 230767, 230770,

230783, 230802, 230805, 230810,

\$51,584.30

230886, 230844

# b. Accounts Payable Demands

• Checks 97337-97531, \$1,565,371.12

#### **Replacement Demands**

97336 Onward Engineering \$7,420.00

(Replaced ck #97278-Correction)

I hereby approve and authorize for payment the above demands.

Joe Hoefgen City Manager



## **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	STS	INVOICE DESCRIPTION
8892 3V SIGNS & GRAPHIC	CS, LLC.				
11812 CHECK DATE: 01/19/2021 11813 CHECK DATE: 01/19/2021	12/29/2020 10254147 01192021 12/29/2020 10254148 01192021	97337 97337	, ,		11/2020 CONSTRUCTION SIGN 12/2020 CONSTRUCTION SITE
19 A & A READY MIXED	CONCRETE INC		886.95		
2134430 CHECK DATE: 01/19/2021	01/07/2021 10254109 01192021	97338	1,311.07 01/07/2021 INV	PD	STREET CONCRETE MIX
5820 ADMINSURE					
13812 CHECK DATE: 01/19/2021	12/15/2020 10254280 01192021	97339	12,200.00 01/11/2021 INV	PD	WC & GL CLAIMS ADMIN JANU
12200 AGA ENGINEERS, INC	ī.				
20181-IN 4977 CHECK DATE: 01/19/2021	12/31/2020 10254292 01192021	97340	8,325.00 01/19/2021 INV	PD	On-CallContract.BicycleTr
7118 AKM CONSULTING ENG	GINEERS INC				
0010847 2159 CHECK DATE: 01/19/2021	12/16/2020 10254039 01192021	97341	15,227.00 01/19/2021 INV	PD	C13-10-121 SEWER SRVCS-50
11750 ALLIED UNIVERSAL S	SECURITY SERVICES				
10846752 5037 CHECK DATE: 01/19/2021	01/09/2021 10254259 01192021	97342	5,646.88 01/09/2021 INV	PD	SECURITY SERVICES DECEMBE
10846751 5037 CHECK DATE: 01/19/2021	01/09/2021 10254260 01192021	97342		PD	HELIAUS MOBILE DECEMBER 2
144 AMERICAN CITY PEST	CONTROL INC.		5,796.88		
517193	12/18/2020 10253793 01192021	97343	100.00 12/18/2020 INV	PD	MONTHLY PEST CONTROL W/BA
CHECK DATE: 01/19/2021 515871	01/07/2021 10254126 01192021	97343	47.50 01/07/2021 INV	PD	LOC1026702 200 PORTOFINO
CHECK DATE: 01/19/2021 515872	01/07/2021 10254127 01192021	97343	47.50 01/07/2021 INV	PD	LOC1011223 280 MARINA WAY
CHECK DATE: 01/19/2021 516959	01/07/2021 10254128 01192021	97343	96.50 01/07/2021 INV	PD	LOC102712 RBPAC BAIT STAT
CHECK DATE: 01/19/2021 517404 01/19/2021	01/07/2021 10254129 01192021	97343	47.50 01/07/2021 INV	PD	LOC1011223 280 MAIRNA PES
CHECK DATE: 01/19/2021 517334 01/10/2021	01/07/2021 10254130 01192021	97343	58.50 01/07/2021 INV	PD	LOC107452 SCOUT HOUSES PE
CHECK DATE: 01/19/2021 517335	01/07/2021 10254131 01192021	97343	53.00 01/07/2021 INV	PD	LOC106266 ANDERSON SC PES
CHECK DATE: 01/19/2021 517355 CHECK DATE: 01/19/2021	01/07/2021 10254132 01192021	97343	42.50 01/07/2021 INV	PD	LOC107452 SCOUT HOUSES BA

Report generated: 01/14/2021 18:17 User: ngarcia Program ID: apinvlst



## **VENDOR INVOICE LIST**

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517356 CHECK DATE: (	01/19/2021	01/07/2021 10254133 01192021	97343	34.00 01/07/2021 INV PD LOC106266 BAIT STATION AN
176 AMERICA	AN TEXTILE MA	AINTENANCE COMPANY		527.00
20285459 CHECK DATE: (	01/19/2021	09/29/2020 10253990 01192021	97344	405.59 01/06/2021 INV PD inmate linen service
20324681 CHECK DATE: (		12/11/2020 10253992 01192021	97344	403.37 01/06/2021 INV PD inmate linen service
20326487 CHECK DATE: (		12/15/2020 10253994 01192021	97344	409.12 01/06/2021 INV PD inmate linen service
20328398 CHECK DATE: (		12/18/2020 10253995 01192021	97344	403.37 01/06/2021 INV PD inmate linen service
20330219 CHECK DATE: (	, ,	12/22/2020 10253996 01192021	97344	398.50 01/06/2021 INV PD inmate linen service
20332064 CHECK DATE: (		12/24/2020 10253997 01192021	97344	410.46 01/06/2021 INV PD inmate linen service
20333821 CHECK DATE: (		12/29/2020 10253998 01192021	97344	398.50 01/06/2021 INV PD inmate linen service
20335767 CHECK DATE: (		12/31/2020 10253999 01192021	97344	403.37 01/06/2021 INV PD inmate linen service
20337567 CHECK DATE: (		01/05/2021 10254000 01192021	97344	398.50 01/06/2021 INV PD inmate linen service
	0			3,630.78
45997	U & ASSUCIATE	01/05/2021 10253941 01192021	97345	57.95 01/11/2021 INV PD 11/20 Audit Reponses Lett
CHECK DATE: (	01/19/2021	01/03/2021 10233941 01192021	97 343	37.33 01/11/2021 INV PD 11/20 Audit Repolises Lett
2825 AT&T				
01052021-9299 CHECK DATE: (	01/19/2021	12/15/2020 10253604 01192021	97346	1,460.16 12/15/2020 INV PD MONTHLY SERVICE
291 BAKER &				
н52706130		12/17/2020 10254009 01192021	97347	24.62 01/06/2021 INV PD AUDIOVISUAL MATERIAL
CHECK DATE: (2035670839		12/16/2020 10254011 01192021	97347	23.27 01/06/2021 INV PD BOOKS
CHECK DATE: ( H52646900	01/19/2021	12/15/2020 10254012 01192021	97347	16.39 01/06/2021 INV PD AUDIOVISUAL MATERIAL
CHECK DATE: ( C59746150	01/19/2021	12/14/2020 10254013 01192021	97347	25.44 01/06/2021 INV PD AUDIOVISUAL MATERIAL
CHECK DATE: 0 2035667415		12/10/2020 10254014 01192021	97347	56.53 01/06/2021 INV PD BOOKS
CHECK DATE: 0 2035679320	, ,	12/22/2020 10254083 01192021	97347	511.09 01/07/2021 INV PD BOOKS
CHECK DATE: 0 2035679452		12/17/2020 10254085 01192021	97347	6.61 01/07/2021 INV PD books
CHECK DATE: (2035660464		12/17/2020 10254089 01192021	97347	619.47 01/07/2021 INV PD BOOKS
CHECK DATE: ( H52677320	01/19/2021	12/16/2020 10254091 01192021	97347	56.58 01/07/2021 INV PD AUDIOVISUAL MATERIAL



## **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN (	CHECK #	INVOICE NET DUE DATE	TYPE S	TS	INVOICE DESCRIPTION
CHECK DATE: 2035672328	01/19/2021	12/14/2020	10254092	01192021	97347	64.90 01/07/2021	TNV PI	חי	ROOKS
CHECK DATE:	01/19/2021					, ,			
H52511580 CHECK DATE:	01/19/2021	12/09/2020	10254015	01192021	97347	24.60 01/06/2021	INV PI	D	AUDIOVISUAL MATERIAL
5016612680	, ,	12/09/2020	10254016	01192021	97347	87.28 01/06/2021	INV P	D	BOOKS
CHECK DATE: H52474930	01/19/2021	12/08/2020	10254017	01192021	97347	70.57 01/06/2021	INV PI	D	AUDIOVISUAL MATERIAL
CHECK DATE: H52393440	01/19/2021	12/08/2020	1025/018	01102021	97347	61 57 01/06/2021	TNI\/ DI	חפ	AUDIOVISUAL MATERIAL
CHECK DATE:	01/19/2021	, ,				, ,			
2035660914 CHECK DATE:	01/19/2021	12/08/2020	10254019	01192021	97347	91.18 01/06/2021	INV P	D	BOOKS
5016642539		12/23/2020	10254082	01192021	97347	46.21 01/07/2021	INV P	D	BOOKS
CHECK DATE: 5016627435	, ,	12/18/2020	10254084	01192021	97347	323.82 01/07/2021	INV PI	D	BOOKS
CHECK DATE:	01/19/2021				_	2 440 42			
6328 BAYSI	DE MEDICAL CEN	ITER				2,110.13			
00115952		12 /09 /2020	10254002	01102021	97348	FFF 00 01/06/2021	TNV/ DI	ıD.	inmate ok to book
CHECK DATE:	01/19/2021	12/08/2020	10234003	01192021	37340	333.00 01/00/2021	INV PI	עי	Timate or to book
5439 RFAR	CONTRACTORS IN	ıc							
	CONTRACTORS IN		40054440	04400004	07240	425 00 04 (07 (2024		_	202
48289 CHECK DATE:	01/19/2021	01/07/2021	10254113	01192021	97349	135.00 01/07/2021	INV PI	D	302 FLAGLER ALARM MONITOR
48262 CHECK DATE:		01/07/2021	10254114	01192021	97349	135.00 01/07/2021	INV P	D	101 W TORR BLVD ALARM MON
48220		01/07/2021	10254115	01192021	97349	135.00 01/07/2021	INV P	D	303 PCH ALARM MONITOR JAN
CHECK DATE: 48256	01/19/2021	01/07/2021	10254116	01192021	97349	135 00 01/07/2021	TNV PI	חי	415 DIAMOND ALARM MONITOR
CHECK DATE:	01/19/2021								
48243 CHECK DATE:	01/19/2021	01/07/2021	10254117	01192021	97349	135.00 01/07/2021	INV PI	טי	1922 ARTESIA ALARM MONITO
48269 CHECK DATE:	01/10/2021	01/07/2021	10254118	01192021	97349	135.00 01/07/2021	INV P	D	FIRE STATION 3 ALARM MOIN
48509	, ,	01/07/2021	10254119	01192021	97349	195.00 01/07/2021	INV P	D	2000 ARTESIA BLVD ALARM M
CHECK DATE:	01/19/2021					1 005 00			
10448 BEARC	OM					1,005.00			
5008150		01/05/2021	10253943	01192021	97350	1 059 97 01/05/2021	TNV DI	חי	monthly service contract
CHECK DATE:	01/19/2021	, ,							·
5073072 CHECK DATE:	01/19/2021	01/05/2021	10253946	01192021	97350	1,059.97 01/05/2021	INV PI	D	service contract for sept
5118828		01/05/2021	10253948	01192021	97350	1,059.97 01/05/2021	INV P	D	monthly service contract
CHECK DATE: 5133154	, ,	01/04/2021	10254159	01192021	97350	1,164.02 01/19/2021	INV PI	D	01/21 RADIO MAINT
CHECK DATE: 5133175	01/19/2021	01/04/2021			97350	210 7/ 01/10/2021	TNV D	ח	01/21 HARBOR RADIO MAINT
CHECK DATE:	01/19/2021	01/04/2021	10734100	01132021	31330	213.74 01/19/2021	TINV PI	U	OT/ TI HWYDON WADTO MATMI

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## **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN (	CHECK #	INVOICE NET DUE DATE TYPE	E STS	5 INVOICE DESCRIPTION				
4,563.67									
10879 BH SUNRISE LLC	12 (45 (2042) 4025 4054 04455555	07254	444 00 04 (40 (000		- C   L -   '   #- CT22 -				
PERMIT # E-6732 CHECK DATE: 01/19/2021	12/16/2019 10254251 01192021	97351	, ,		Refund Permit #E-6732,Rec				
PERMIT # E-6742 CHECK DATE: 01/19/2021	12/19/2019 10254252 01192021	97351	861.00 01/19/2021 INV	PD	Refund Permit #E-6742,Rec				
385 BISHOP COMPANY			1,305.00						
INV-566138 CHECK DATE: 01/19/2021	01/11/2021 10254314 01192021	97352	1,424.53 01/11/2021 INV	PD	PARKS SUPPLIES				
11059 BLACKSTONE PUBLISHING									
1195544	12/15/2020 10254020 01192021	97353	70.00 01/06/2021 INV	PD	AUDIOVISUAL MATERIAL				
CHECK DATE: 01/19/2021 1195160	12/11/2020 10254021 01192021	97353	324.19 01/06/2021 INV	PD	AUDIOVISUAL MATERIAL				
CHECK DATE: 01/19/2021 268534	12/04/2020 10254022 01192021	97353	-91.95 01/06/2021 CRM	PD	CREDIT- AUDIOVISUAL MATER				
CHECK DATE: 01/19/2021 1197500	12/30/2020 10254094 01192021	97353	105.00 01/07/2021 INV	PD	AUDIOVISUAL MATERIAL				
CHECK DATE: 01/19/2021 407.24									
3121 BLUE DIAMOND			107.21						
2093155 CHECK DATE: 01/19/2021	01/07/2021 10254086 01192021	97354	287.34 01/07/2021 INV	PD	SHEET ASPHALT				
11112 BLUE360 MEDIA, LLC									
INV-201008-SF-05771 CHECK DATE: 01/19/2021	01/04/2021 10253940 01192021	97355	60.75 01/19/2021 INV	PD	California Vehicle Code B				
12131 BPS TACTICAL									
20042943 CHECK DATE: 01/19/2021	01/05/2021 10253949 01192021	97356	2,115.50 01/05/2021 INV	PD	4 EXTERNAL VESTS FOR SPRY				
531 CALIFORNIA DEPARTMENT OF FOOD & AGRICULT									
THIRDLATEFEE CHECK DATE: 01/19/2021	01/07/2021 10254154 01192021	97357	12.75 01/07/2021 INV	PD	REDONDOBEACH THIRD QUARTE				
11850 CANNON									
74870 5066 CHECK DATE: 01/19/2021	12/15/2020 10254001 01192021	97358	561.00 01/19/2021 INV	PD	MBBlvdResurf.DesignSvcs				
594 CANON FINANCIAL SER	RVICES, INC.								
22251070	01/04/2021 10253921 01192021	97359	1,202.89 01/04/2021 INV	PD	COPIER LEASE PAYMENT				

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## **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN	CHECK #	INVOICE NET D	UE DATE TYPI	E STS	INVOICE DESCRIPTION
CHECK DATE:	01/19/2021								
615 CARTE	615 CARTER SERVICES, INC.								
524849 CHECK DATE:	01/19/2021	05/14/2020	10254182	01192021	97360	89.90 0	1/19/2021 INV	PD	FS2 WASHER REPAIRS
524990 CHECK DATE:		05/21/2020	10254183	01192021	97360	675.36 0	1/19/2021 INV	PD	FS2 WASHER REPAIRS
535963 CHECK DATE:		12/31/2020	10254184	01192021	97360	208.90 0	1/19/2021 INV	PD	FS2 WASHER REPAIRS
110252525		09/17/2018	10254185	01192021	97360	348.03 0	1/19/2021 INV	PD	FS2 REFRIG. REPAIRS
CHECK DATE:	, ,					1,322.19			
660 CHARL	ES ABBOTT ASSO	CIATES INC							
61929 CHECK DATE:	5147 01/19/2021	11/30/2020	10254041	01192021	97361	6,435.00 0	1/19/2021 INV	PD	FOG.NPDES Service for Nov
709 CITY	OF TORRANCE								
KINGSDALENOV202		01/09/2021	10254262	01192021	97362	414.12 0	1/09/2021 INV	PD	WATER 10 5 20 TO 12 7 20
CHECK DATE: TRANSITCENTER12	1520	01/09/2021	10254263	01192021	97362	216.30 0	1/09/2021 INV	PD	WATER 10 5 20 TO 12 7 20
CHECK DATE: 0002-00000-0960	1-12-	01/11/2021	10254318	01192021	97362	54.08 0	1/11/2021 INV	PD	METER 70123677-1850195667
CHECK DATE:	01/19/2021					684.50			
9381 CIVIL	IVIL SOURCE, INC								
179128 CHECK DATE:	3736 01/19/2021	09/17/2020	10254296	01192021	97363	2,000.00 0	1/19/2021 INV	PD	PCH Anita-PV Arterial.Imp
183486 CHECK DATE:	3736	10/20/2020	10254298	01192021	97363	2,760.00 0	1/19/2021 INV	PD	PCH Anita-PV Arterial.Imp
189102 CHECK DATE:	3736	11/28/2020	10254301	01192021	97363	2,536.00 0	1/19/2021 INV	PD	PCH Anita-PV Arterial.Imp
	, ,					7,296.00			
725 CLEAN	ENERGY								
CE12356595 CHECK DATE:	01/19/2021	01/08/2021	10254195	01192021	97364	4,079.70 0	1/08/2021 INV	PD	CNG O&M NOVEMBER 2020
729 CLEAR	Y, DIANE								
7098 CHECK DATE:	01/19/2021	12/31/2020	10254352	01192021	97365	1,207.50 0	1/11/2021 INV	PD	CITY COUNCIL MEETING; 12/
751 COFFE	751 COFFELT, KEVIN								
12/29/2020 CHECK DATE:	01/19/2021	12/29/2020	10254282	01192021	97366	165.00 0	1/11/2021 INV	PD	SERVICE RETIREMENT STIPEN
4079 COMCA	TE, INC.								

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## **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	E STS	INVOICE DESCRIPTION	
7449 CHECK DATE:	01/19/2021	01/11/2021	10254306 01192021	97367	1,615.75 01/11/2021 INV	PD	COMCATE MONTHLY RENEWAL	
10780 COMPANY NURSE, LLC								
29929 CHECK DATE:	01/19/2021	12/31/2020	10254278 01192021	97368	157.50 01/11/2021 INV	PD	TRIAGE SVCS 12/2020 BRETT	
784 COMPLETES PLUS								
01AP8582 CHECK DATE:	01/10/2021	01/08/2021	10254215 01192021	97369	39.37 01/08/2021 INV	PD	WO688-18 BRAKE PADS	
01AP6522 CHECK DATE:		01/08/2021	10254225 01192021	97369	62.92 01/08/2021 INV	PD	WO408 BRAKE PADS	
O1AP5847 CHECK DATE:	, ,	01/08/2021	10254229 01192021	97369	67.51 01/08/2021 INV	PD	WO407 BRAKE PADS	
01AP5722	, ,	01/08/2021	10254230 01192021	97369	116.60 01/08/2021 INV	PD	WO407 BRAKE PADS	
CHECK DATE: 01/19/2021  286.40  3648 COUNTY OF L.A. DEPT. OF PUBLIC WORKS								
RE-PW20120703268		01/07/2021	10254136 01192021	97370	2,871.44 01/07/2021 INV	PD	NOV 2020 SHARE OF TRAFFIC	
CHECK DATE: RE-PW-2012070297 CHECK DATE:	72 ' '	12/07/2020	10254203 01192021	97370	11,255.58 01/19/2021 INV	PD	PURCHASE JANITORIAL SUPPL	
12043 CREAT	IVE INDULGENCE	. INC.			14,127.02			
230447 CHECK DATE:			10254222 01192021	97371	1,741.05 01/07/2021 INV	PD	RB City Banner	
887 CUES								
575784 CHECK DATE:	01/19/2021	01/07/2021	10254120 01192021	97372	1,250.00 01/07/2021 INV	PD	STREETS SOFTWARE	
8372 CULLIGAN OF SANTA ANA								
1199921	01 /10 /2021	12/31/2020	10254046 01192021	97373	28.58 01/11/2021 INV	PD	ST3 WATER COOLER	
CHECK DATE: 1200229	, ,	01/07/2021	10254178 01192021	97373	64.94 01/07/2021 INV	PD	Water Equipment	
CHECK DATE: 1199970	, ,	01/07/2021	10254181 01192021	97373	57.79 01/07/2021 INV	PD	Water Equipment	
CHECK DATE: 1199919		01/08/2021	10254198 01192021	97373	55.64 01/08/2021 INV	PD	P.D. DRINKING WATER-CITY	
CHECK DATE: 1199917		01/08/2021	10254199 01192021	97373	37.10 01/08/2021 INV	PD	ACCOUNT 1254507 DRINKING	
CHECK DATE: 1199946 CHECK DATE:		01/08/2021	10254200 01192021	97373	76.48 01/08/2021 INV	PD	ACCT. 1530476-DRINKING WA	

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#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE	TYPE STS	S INVOICE DESCRIPTION
4440 5	CL THTON				320.53		
4448 DANIE	L, CLINION						
12/29/2020 CHECK DATE:	01/19/2021	12/29/2020	10254283 01192021	97374	50.00 01/11/2021	INV PD	SERVICE RETIREMENT STIPEN
919 DANIE	LS TIRE SERVIC	E					
200406394 CHECK DATE:	01 /10 /2021	01/08/2021	10254235 01192021	97375	304.43 01/08/2021	INV PD	STOCK TRUCK TIRES
200406131 CHECK DATE:	, ,	01/08/2021	10254236 01192021	97375	418.27 01/08/2021	INV PD	STOCK CAR TIRES
12277 DAVIS	ON, BRETT				722.70		
2 CHECK DATE:	01/19/2021	01/05/2021	10253950 01192021	97376	2,140.00 01/11/2021	INV PD	12/20 Services Rendered F
7470 DE PA	OLI, MELISSA						
12/29/2020 CHECK DATE:	01/19/2021	12/29/2020	10254284 01192021	97377	65.00 01/11/2021	INV PD	SERVICE RETIREMENT STIPEN
940 DEARR	EADER.COM						
INV-33907 CHECK DATE:	01/19/2021	12/15/2020	10254023 01192021	97378	375.00 01/06/2021	INV PD	ONLINE BOOK CLUBS
953 DELL	GOVERNMENT LEA	SING & LEAS	E ADMINIST				
80658424 CHECK DATE:	5148 01/19/2021	12/22/2020	10253914 01192021	97379	156,314.60 12/22/2020 1	INV PD	DELL COMPUTER LEASE QUOTE
11884 DIAMO	ND ENVIRONMENT	AL SERVICES	LP				
0002972189		01/07/2021	10254093 01192021	97380	30.00 01/07/2021	INV PD	TEMP FENCING TRANSIT YARD
CHECK DATE: 0002971664 CHECK DATE:		01/07/2021	10254096 01192021	97380	236.28 01/07/2021	INV PD	SANI UNI TRANSIT YARD 12/
	INDUSTRIAL, I	NC.			266.28		
33407 CHECK DATE:	01/19/2021	12/17/2020	10254038 01192021	97381	375.17 01/19/2021	INV PD	NewsRack Permit Labels 20
1088 EMBRO	IDME - REDONDO	1					
e80424		01/05/2021	10253951 01192021	97382	162.02 01/05/2021 1	INV PD	shirts for aranda
CHECK DATE: e80510	01/19/2021	01/05/2021	10253952 01192021	97382	48.18 01/05/2021	INV PD	shirt delery
CHECK DATE: e80241	01/19/2021		10253953 01192021	97382			two polo shirts wolfinger



INVOICE P.O.	INV DATE VOUCHER CHECK RUN (	CHECK #	INVOICE NET DUE DATE TYPE	E STS	INVOICE DESCRIPTION
CHECK DATE: 01/19/2021 e79823	01/05/2021 10253954 01192021	97382	115.33 01/05/2021 INV	PD	polo shirts torres
CHECK DATE: 01/19/2021 e79532	01/05/2021 10253955 01192021	97382	193.82 01/05/2021 INV	PD	polo shirts sapien
CHECK DATE: 01/19/2021 e79523	01/05/2021 10253956 01192021	97382	151.07 01/05/2021 INV	PD	polo shirts dyberg
CHECK DATE: 01/19/2021 e79518	01/05/2021 10253957 01192021	97382	45.17 01/05/2021 INV	PD	beare fix shirts
CHECK DATE: 01/19/2021			811.95		
6730 EMERGENCY RESPONSE	CRIME SCENE CLEANING				
T2020-763 CHECK DATE: 01/19/2021	12/02/2020 10254002 01192021	97383	900.00 01/06/2021 INV	PD	cleaning and disinfecting
10248 EPAX SYSTEMS, INC.					
27012 5009 CHECK DATE: 01/19/2021	01/07/2021 10254104 01192021	97384	1,001.93 01/07/2021 INV	PD	PROVIDE AND SERVICE SOLID
3655 EQUIFAX INFORMATION	ON SERVICES, LLC				
6135900 CHECK DATE: 01/19/2021	01/07/2021 10254227 01192021	97385	129.44 01/07/2021 INV	PD	Background Services
1127 ESCALANTE, SALVADO	DR .				
12/29/2020 CHECK DATE: 01/19/2021	12/29/2020 10254285 01192021	97386	170.00 01/11/2021 INV	PD	SERVICE RETIREMENT STIPEN
11367 ESO SOLUTIONS, INC	<b>.</b> .				
ESO-47298 CHECK DATE: 01/19/2021	01/02/2021 10254161 01192021	97387	2,811.90 01/19/2021 INV	PD	FIREHOUSE ANNUAL MAINT FE
9987 EXCELSIOR ELEVATOR	8				
26489 5106 CHECK DATE: 01/19/2021	01/07/2021 10254124 01192021	97388	1,095.00 01/07/2021 INV	PD	PROVIDE ELEVATOR MAINTENA
9304 EXTREME SAFETY, IN	NC.				
00098805 CHECK DATE: 01/19/2021	01/07/2021 10254100 01192021	97389	284.64 01/07/2021 INV	PD	PIER LEATHER GLOVES
1176 FEDERAL EXPRESS CO	DRPORATION				
7-226-22107	01/07/2021 10254192 01192021	97390	14.88 01/07/2021 INV	PD	FedEx Delivery Services
CHECK DATE: 01/19/2021 7-217-82571	01/07/2021 10254193 01192021	97390	248.65 01/07/2021 INV	PD	Fedex Delivery Services
CHECK DATE: 01/19/2021			263.53		
5752 FEHR AND PEERS					



INVOICE	P.O.	INV DATE VOUCHER CHE	ECK RUN CHECK #	INVOICE NET DUE DATE TYP	PE STS	INVOICE DESCRIPTION
142199 CHECK DATE:	4955	12/09/2020 10254081 011	192021 97391	6,915.00 01/19/2021 INV	/ PD	11/2020 SB743 VMT ANALYSI
	G LION, INC.					
	d LION, INC.					
1176 CHECK DATE:	01/19/2021	01/07/2021 10254188 011	192021 97392	249.99 01/07/2021 INV	/ PD	UAV Program BCHD Covid Co
1177 CHECK DATE:	, ,	01/07/2021 10254189 011	192021 97392	4,890.00 01/07/2021 INV	/ PD	UAV Monthly Equipment
11966 FRANC	, ,			5,139.99		
8/19/2020	,	08/19/2020 10254289 011	192021 97393	176.00 01/11/2021 INV	/ PD	TEAM ANTHOLOGY 2020
CHECK DATE:	01/19/2021	00, 13, 1010 1013 1103 011	3,333	1.0.00 01, 11, 1011 1		12.11.71.11.10253. 2020
10191 FRONT	IER					
12222020-4212 CHECK DATE:	01/19/2021	01/04/2021 10253925 011	192021 97394	87.52 01/04/2021 INV	/ PD	2 SAL 4 WIRE
01042021-3640 CHECK DATE:	01/19/2021	01/04/2021 10253926 011	192021 97394	118.33 01/04/2021 INV	/ PD	2 DDS SPECIAL ACCESS LINE
12312020-8273 CHECK DATE:	01/19/2021	01/04/2021 011	192021 97394	240.43 01/04/2021 INV	/ PD	3 CENTRANET FEATURE
01062021-4213	, ,	01/04/2021 10254295 011	192021 97394	94.16 01/04/2021 INV	/ PD	2 PRIVATE LINE VOICE COND
CHECK DATE: 01212021-7167	01/19/2021	01/04/2021 10254297 011	192021 97394	154.80 01/04/2021 INV	/ PD	2 DDS SPECIAL ACCESS LINE
CHECK DATE: 01252021-0830	01/19/2021	01/04/2021 10254299 011	192021 97394	109.28 01/04/2021 INV	/ PD	2 DDS SPECIAL ACCESS LINE
CHECK DATE: 01212021-2361	01/19/2021	01/04/2021 10254300 011	192021 97394	229.77 01/04/2021 INV	/ PD	4 BUSINESS LINE-MEASURED
CHECK DATE: 01212021-4212	01/19/2021	01/04/2021 10254302 011	192021 97394	88.17 01/04/2021 INV	/ PD	2 SAL 4 WIRE
CHECK DATE: 01212021-3990	01/19/2021	01/04/2021 10254303 011	192021 97394	50.72 01/04/2021 INV	/ PD	REMOTE CALL FRWD MEAS
CHECK DATE:	01/19/2021			1,173.18		
3202 GALE			_	, and the second		
72740401	01 /10 /2021	12/15/2020 10254024 011	192021 97395	55.83 01/06/2021 INV	/ PD	BOOKS
CHECK DATE: 72717118		12/08/2020 10254025 011	192021 97395	77.20 01/06/2021 INV	/ PD	BOOKS
CHECK DATE: 72709933	, ,	12/07/2020 10254026 011	192021 97395	154.35 01/06/2021 INV	/ PD	BOOKS
CHECK DATE: 72710372	, ,	12/07/2020 10254028 011	192021 97395	91.13 01/06/2021 INV	/ PD	BOOKS
CHECK DATE: 72740637	, ,	12/15/2020 10254095 011	192021 97395	80.45 01/07/2021 INV	/ PD	BOOKS
CHECK DATE:	01/19/2021			458.96		
1289 GALLS	INCORPORATED					



#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE STS INVOICE DESCRIPTION
017128250 CHECK DATE: 01/19/2021	01/05/2021 10253959 01192021	97396	59.49 01/05/2021 INV PD police equipment
017139598	01/05/2021 10253962 01192021	97396	919.33 01/05/2021 INV PD 7060 flashlights
CHECK DATE: 01/19/2021 017144008	01/05/2021 10253963 01192021	97396	138.06 01/05/2021 INV PD swat pants dos santos
CHECK DATE: 01/19/2021 017155951	01/05/2021 10253964 01192021	97396	285.10 01/05/2021 INV PD police equipment
CHECK DATE: 01/19/2021 BC1262502	12/29/2020 10254162 01192021	97396	393.47 01/19/2021 INV PD TACTICAL UNIFORM PANTS
CHECK DATE: 01/19/2021		ı	1,795.45
1300 GAS COMPANY, THE			
16503508778-12-7-20 CHECK DATE: 01/19/2021	12/29/2020 10253918 01192021	97397	9,075.70 12/29/2020 INV PD CNG FUEL 11/1-12/1/20
165-035-0877 8- 1-18 CHECK DATE: 01/19/2021	01/08/2021 10254208 01192021	97397	8,211.16 01/08/2021 INV PD CNG FUEL 12/1/20-01/01/21
, ,		1	17,286.86
1309 GEERTS-LYMAN, LORI	12/20/2020 10254205 01102021	07300	05 00 01/11/2021
12/29/2020 CHECK DATE: 01/19/2021	12/29/2020 10254286 01192021	97398	85.00 01/11/2021 INV PD SERVICE RETIREMENT STIPEN
9598 GENERAL INDUSTRIAL	TOOL AND SUPPLY		
1182617-01	01/07/2021 10254105 01192021	97399	571.55 01/07/2021 INV PD SEWER SUPPLIES
CHECK DATE: 01/19/2021 1182617-02	01/07/2021 10254106 01192021	97399	162.30 01/07/2021 INV PD SEWER SUPPLIES SAW
CHECK DATE: 01/19/2021 1182923-01	01/07/2021 10254107 01192021	97399	1,172.75 01/07/2021 INV PD STREET AND SWER SUPPLIES
CHECK DATE: 01/19/2021			1,906.60
12285 GEOTECHNIQUES			
1037.001.01 5142 CHECK DATE: 01/19/2021	11/16/2020 10254040 01192021	97400	7,480.75 01/19/2021 INV PD Kingsdale.TransitCntr.Geo
	N ARCHITECTS, INCORPORATED		
107841] 4258	01/01/2021 10254077 01192021	97401	1,940.00 01/19/2021 INV PD Engr&DesignSvcs.CC Chambe
CHECK DATE: 01/19/2021 107841J-A 5072	01/01/2021 10254078 01192021	97401	1,145.00 01/19/2021 INV PD CO3.CCChamberImpvmnts.Ref
CHECK DATE: 01/19/2021	,,		
1351 GOLDEN BELL PRODUCT	TS, INC	l	3,085.00
17339 5145	01/08/2021 10254197 01192021	97402	9,200.00 01/08/2021 INV PD INSECTA INSECTICIDAL COAT
CHECK DATE: 01/19/2021			
3706 GOLDEN STATE WATER			

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#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN CHE	CK #	INVOICE NET DUE DATE TYPE STS INVOICE DESCRIPTION
48470300004-12-31 CHECK DATE: 01/19/2021		97403	230.55 01/11/2021 INV PD INGLEWD PARKWAY LAWNDALE
54719000009-12-29 CHECK DATE: 01/19/2021	01/11/2021 10254317 01192021	97403	270.78 01/11/2021 INV PD RBB AND ARTESIA BILL DATE
. ,			501.33
1416 HAAKER EQUIPMENT C	DMPANY		
C67155 CHECK DATE: 01/19/2021	01/11/2021 10254315 01192021	97404	965.08 01/11/2021 INV PD WATER TANK STRAPS FOR VAC
C67159 CHECK DATE: 01/19/2021	01/11/2021 10254316 01192021	97404	321.03 01/11/2021 INV PD PIER SWEEPER UNIT 806 PAN
, ,			1,286.11
1428 HARBOR & PIER ASSN			
3174 CHECK DATE: 01/19/2021	01/01/2021 10253922 01192021	97405	3,016.46 01/11/2021 INV PD KHA DUES JANUARY 2021
3178 CHECK DATE: 01/19/2021	01/01/2021 10253924 01192021	97406	239.38 01/11/2021 INV PD KHA DUES JANUARY 2021 JCS
, ,			3,255.84
12296 HERO-INDUSTRIES, I	NC		
9952 CHECK DATE: 01/19/2021	11/16/2020 10254008 01192021	97407	1,065.00 01/06/2021 INV PD K9 PLUSHIES FOR COMMUNITY
12294 HESTER, SHEREDA A.			
4457	01/27/2020 10254197 01102021	97408	169.00 01/19/2021 INV PD REFUND FLAME PERMIT FEE
CHECK DATE: 01/19/2021	01/27/2020 10254187 01192021	97400	109.00 01/19/2021 INV PD REFUND FLAME PERMIT FEE
8637 HI-WAY SAFETY, INC			
110789	01/08/2021 10254217 01192021	97409	658.56 01/08/2021 INV PD W0367 LETTER PANEL
CHECK DATE: 01/19/2021	, ,		
6288 HINDERLITER, DE LL	AMAS & ASSOCIATES		
S1N005349	01/12/2021 10254355 01192021	97410	3,957.36 01/12/2021 INV PD AUDIT SERVICES, CONTRACT
CHECK DATE: 01/19/2021			
1494 HITECH SYSTEMS INC			
7355D 5146 CHECK DATE: 01/19/2021	06/10/2019 10254060 01192021	97411	38,379.19 06/10/2019 INV PD Pulisam Software Maint. 7
1518 HOUSING RIGHTS CEN	ΓFR		
092020		97412	756.13 01/05/2021 INV PD CDBG HOUSING DISBURSEMENT
CHECK DATE: 01/19/2021			
206570 CHECK DATE: 01/19/2021	. , ,	97412	772.90 01/05/2021 INV PD CDBG HOUSING DISBURSEMENT
206571 CHECK DATE: 01/19/2021	01/05/2021 10253985 01192021	97412	863.75 01/05/2021 INV PD CDBG HOUSING DISBURSEMENT
. , .,			

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#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN CI	HECK #	INVOICE NET DUE DATE	TYPE STS	INVOICE DESCRIPTION
3519 HUNTI	NGTON BEACH HO	NDA				2,392.78		
1044042020 CHECK DATE:	01 /10 /2021	01/07/2021	10254157	01192021	97413	2,500.00 01/07/2021	INV PD	Traffic Training Motorcyc
103918 CHECK DATE:	, ,	01/07/2021	10254190	01192021	97413	1,347.94 01/07/2021	INV PD	Traffic 12K Mile Service
104126 CHECK DATE:	, ,	01/07/2021	10254191	01192021	97413	551.59 01/07/2021	INV PD	Traffic 4K Mile Service
12059 IDS G						4,399.53		
19X016.01-3 CHECK DATE:	4898 01/19/2021	12/22/2020	10253944	01192021	97414	1,020.20 01/19/2021	INV PD	On-Call.HVACPropAssess.Rp
1560 INDIA	N CANYON LAND	CORPORATION						
2104 CHECK DATE:	01/19/2021	01/07/2021	10254219	01192021	97415	500.00 01/07/2021	INV PD	Range Rental December 202
11952 INSIG	HT DIRECT USA,	INC.						
1100793104 CHECK DATE:	5132 01/19/2021	01/04/2021	10253923	01192021	97416	9,971.92 01/04/2021	INV PD	VMWARE SUPPORT AND SUBSCR
8090 INTEG	RATED MEDIA SY	STEMS						
46270 CHECK DATE:	4502 01/19/2021	01/11/2021	10254307	01192021	97417	21,496.38 01/11/2021	INV PD	CITY COUNCIL CHAMBER AND
46267 CHECK DATE:	4490	01/11/2021	10254308	01192021	97417	719.56 01/11/2021	INV PD	BID#1819-002 AUDIO-VISUAL
	STATE BATTERIE	S OF CALIF	COAST. INC			22,215.94		
130097090		01/08/2021	•		97418	2,313.35 01/08/2021	INV PD	STOCK CAR BATTERIES
CHECK DATE: 130096867		01/08/2021	10254238	01192021	97418	580.63 01/08/2021	INV PD	STOCK CAR BATTERIES
CHECK DATE:		ATTONE				2,893.98		
022020 CHECK DATE:	01/19/2021	01/05/2021	10254329	01192021	97419	1,950.00 01/11/2021	INV PD	2/20 Summons Service Pros
11281 IZONE	IMAGING							
51125 CHECK DATE:	01/19/2021	01/11/2021	10254322	01192021	97420	6,540.94 01/11/2021	INV PD	REGULATORY PIER & HARBOR
11296 JOE M	AR POLYGRAPH &	INVESTIGAT:	ION					

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#### **VENDOR INVOICE LIST**

TAIN (OT CE	TAIN DATE MONGHED CHECK DIN	CUECK #	THEOREM NET BUT DATE. TYPE STC THEOREM DESCRIPTION
INVOICE P.O. 2020-12-009	INV DATE VOUCHER CHECK RUN 12/18/2020 10253790 01192021	97421	INVOICE NET DUE DATE TYPE STS INVOICE DESCRIPTION  200.00 01/11/2021 INV PD APPLICANT: MENDEZ, ELIZAB
CHECK DATE: 01/19/2021 2020-12-001	12/18/2020 10253791 01192021	97421	200.00 01/11/2021 INV PD APPLICANT: DECKERS KELL
CHECK DATE: 01/19/2021 2020-11-020 CHECK DATE: 01/19/2021	12/18/2020 10253795 01192021	97421	200.00 01/11/2021 INV PD APPLICANT: FERNANEZ-DAVIL
CHECK DATE: 01/13/2021			600.00
11433 JOHNSON CONTROLS SI	ECURITY SOLUTIONS		
35104247 CHECK DATE: 01/19/2021	11/23/2020 10254035 01192021	97422	900.87 11/23/2020 INV PD REPLACED BATTERY IN MAIN
3585 JONES, NANCY			
DECEMBER2020 CHECK DATE: 01/19/2021	01/07/2021 10254150 01192021	97423	1,717.00 01/07/2021 INV PD FARMERSMARKET MANAGER DEC
1748 KING HARBOR MARINA	, INC.		
147 CHECK DATE: 01/19/2021	01/07/2021 10254156 01192021	97424	3,684.09 01/07/2021 INV PD SAILING SLIPRENT JANFEBMA
1718 KOA CORPORATION			
JC06144-3 4781 CHECK DATE: 01/19/2021	12/28/2020 10254069 01192021	97425	3,910.00 01/19/2021 INV PD VariousCIPs.ConstrMgmt&In
8444 KRONOS			
11702096 CHECK DATE: 01/19/2021	12/23/2020 10254163 01192021	97426	1,418.00 01/19/2021 INV PD WF TELESTAFF 11/23-12/22/
1797 KUSSMAUL ELECTRONIO	CS CO INC.		
0000181657 CHECK DATE: 01/19/2021	01/08/2021 10254218 01192021	97427	607.76 01/08/2021 INV PD W0121 AUTO PUMP
10899 LA UNIFORMS			
7367	01/05/2021 10253966 01192021	97428	163.75 01/05/2021 INV PD uniforms aranda
CHECK DATE: 01/19/2021 7372	01/05/2021 10253967 01192021	97428	241.34 01/05/2021 INV PD uniforms banach
CHECK DATE: 01/19/2021 7374	01/05/2021 10253968 01192021	97428	677.01 01/05/2021 INV PD uniforms and equipment lo
CHECK DATE: 01/19/2021 7385	01/05/2021 10253969 01192021	97428	1,128.36 01/05/2021 INV PD uniforms and equipment
CHECK DATE: 01/19/2021 7447	01/05/2021 10253970 01192021	97428	178.49 01/05/2021 INV PD csi uniform pirsaheli
CHECK DATE: 01/19/2021	• •		· · · · · · · · · · · · · · · · · · ·
7464 CHECK DATE: 01/19/2021	01/05/2021 10253971 01192021	97428	137.76 01/05/2021 INV PD uniform jacket grace
7475 CHECK DATE: 01/19/2021	01/05/2021 10253972 01192021	97428	774.93 01/05/2021 INV PD uniforms sprenkel
7484	01/05/2021 10253973 01192021	97428	1,142.19 01/05/2021 INV PD name tapes for platoon un

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#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN C	HECK #	INVOICE NET DUE DA	ATE TYPE	STS	INVOICE DESCRIPTION		
CHECK DATE: 01/1	19/2021					4,443.83					
9936 LARRY WALK	KER ASSOCIA	ATES				4,445.65					
00531.03-20 CHECK DATE: 01/1		12/15/2020	10254043	01192021	97429	20,282.19 01/19/	/2021 INV	PD	NPDES Permit Compliance C		
9073 LESLIE SCO	OTT CONSULT	TING									
RB 12 - 2020		01/09/2021	10254264	01192021	97430	1,375.00 01/09/	/2021 INV	PD	TRANSIT TECHNICAL ASSISTA		
CHECK DATE: 01/1 RB 12 - 2020A CHECK DATE: 01/1	5035	01/09/2021	10254265	01192021	97430	4,085.00 01/09/	/2021 INV	PD	TRANSIT TECHNICAL ASSISTA		
5953 LEXISNEXIS	5					5,460.00					
3093012253 CHECK DATE: 01/1		01/05/2021	10253947	01192021	97431	767.00 01/11/	/2021 INV	PD	12/20 Monthly Charges		
8803 LEXISNEXIS	8803 LEXISNEXIS RISK DATA MANAGEMENT										
1359145-20201231		01/07/2021	10254174	01192021	97432	50.00 01/07/	/2021 INV	PD	Background Services		
CHECK DATE: 01/1 1359145-20191231 CHECK DATE: 01/1	•	01/07/2021	10254176	01192021	97432	50.00 01/07/	/2021 INV	PD	Background Services		
1884 LIEBERT CASSIDY WHITMORE											
1511031 CHECK DATE: 01/1	19/2021	11/30/2020	10254279	01192021	97433	1,961.00 01/11/	/2021 INV	PD	PROF SVC THRU 10/30/2020		
1938 LOS ANGELE	ES COUNTY A	ASSESSOR									
21ASRE115 CHECK DATE: 01/1		12/22/2020	10254080	01192021	97434	79.55 01/19/	/2021 INV	PD	ASSESSOR MAP BOOK UPDATES		
1947 LOS ANGELE	ES COUNTY P	POLICE CHIEF	FS ASSN								
2021 CHECK DATE: 01/1		12/18/2020	10253788	01192021	97435	500.00 01/11/	/2021 INV	PD	2021 ANNUAL DUES		
1951 LOS ANGELE	ES COUNTY S	SHERIFF'S DE	EPT								
210947BL CHECK DATE: 01/1	5074 19/2021	12/11/2020	10254005	01192021	97436	587.96 01/06/	/2021 INV	PD	LA County Food Service In		
1956 LOS ANGELE	ES COUNTY-D	DEPT ANIMAL	CONTROL								
12/25/2020 CHECK DATE: 01/1	19/2021	12/25/2020	10253993	01192021	97437	457.65 01/25/	/2021 INV	PD	SHELTER FEES		
12201 LOS ANGELE	ES SUPERIOR	R COURT									

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#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	E STS	S INVOICE DESCRIPTION
011121 CHECK DATE: 01/19/2021	01/05/2021 10253933 01192021	97438	2,404.80 01/11/2021 INV	PD	Jan-Mar '21 RB Homeless C
1985 LYNN PEAVEY COMPANY	,				
375316	01/05/2021 10253974 01192021	97439	64.25 01/05/2021 INV	DD.	SWARS FOR WILLTRY
CHECK DATE: 01/19/2021	01/03/2021 10233374 01132021	37433	04.23 01/03/2021 INV	PD	SWADS FOR WILLIET
12150 M.S. CONSTRUCTION M	IANAGEMENT GROUP				
Invoice #4 4973 CHECK DATE: 01/19/2021	01/07/2021 10254209 01192021	97440	481,914.26 01/19/2021 INV	PD	RB TRANIST CENTER CONSTRU
8440 MAHONEY, CURT					
12/10/2020 CHECK DATE: 01/19/2021	12/10/2020 10254290 01192021	97441	167.88 01/11/2021 INV	PD	FIRE LEADERSHIP CONSULTIN
12205 MAL ERNEST LLC					
PERMIT # E-6840 CHECK DATE: 01/19/2021	03/06/2020 10254079 01192021	97442	1,722.00 01/19/2021 INV	PD	Refund Permit #E-6840,Rec
7847 MANNING & KASS, ELL	ROD, RAMIREZ, TRESTER LLP				
692238B	01/05/2021 10254332 01192021	97443	2,038.68 01/11/2021 INV	PD	11/20 D. Smith Legal Fees
CHECK DATE: 01/19/2021 692235B	01/05/2021 10254333 01192021	97443	10,810.12 01/11/2021 INV	PD	11/20 Carlson Legal Fees
CHECK DATE: 01/19/2021 692234	01/05/2021 10254334 01192021	97443	1,542.70 01/11/2021 INV	PD	11/20 Piar Legal Fees
CHECK DATE: 01/19/2021 692236	01/05/2021 10254335 01192021	97443	1,661.80 01/11/2021 INV	PD	11/20 Pyle Legal Fees
CHECK DATE: 01/19/2021 692237	01/05/2021 10254336 01192021	97443	20.00 01/11/2021 INV	PD	11/20 Palenciaarchila Leg
CHECK DATE: 01/19/2021			16,073.30		
2038 MARINE TECH ENGINEE	RING, INC.				
3572 CHECK DATE: 01/19/2021	01/07/2021 10254097 01192021	97444	2,046.60 01/07/2021 INV	PD	RIGGER INSTALL REBUILT EA
3573 5108 CHECK DATE: 01/19/2021	01/07/2021 10254099 01192021	97444	2,977.14 01/07/2021 INV	PD	VESSEL MOORING MAINTENANC
4387 MARTIN CHEVROLET		- 1	5,023.74		
798310 CHECK DATE: 01/19/2021	01/08/2021 10254234 01192021	97445	290.82 01/08/2021 INV	PD	WO342 COOLANT HOSES
12297 MAYHEW, JEAN					
PERMIT # E-6335 CHECK DATE: 01/19/2021	06/24/2019 10254210 01192021	97446	1,722.00 01/19/2021 INV	PD	Refund Permit E-6335,Rece

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#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN C	HECK #	INVOICE NET DUE DATE TY	YPE STS	INVOICE DESCRIPTION
11513 MEDASI	END BIOMEDICAL							
89830 CHECK DATE:	01/19/2021	12/31/2020	10254164	01192021	97447	125.00 01/19/2021 IN	NV PD	BIOHAZARD MEDICAL WASTE D
9908 MICHAI	EL BAKER INTER	NATIONAL						
1101520 CHECK DATE:	5149	12/21/2020	10253907	01192021	97448	17,975.00 12/21/2020 IN	NV PD	ADMIN OF CITY 2020-21 CDB
1102239 CHECK DATE:	5149	12/21/2020	10253908	01192021	97448	6,495.00 12/21/2020 IN	NV PD	ADMIN OF CITY 2020-21 CDB
	EL J ARNOLD &	ASSOCIATES I	INC			24,470.00		
13918	4842	01/07/2021	10254140	01192021	97449	84.00 01/07/2021 IN	NV PD	STATE LEGISLATIVE ADVOCAC
CHECK DATE: 13908 CHECK DATE:	5139	01/07/2021	10254141	01192021	97449	3,500.00 01/07/2021 IN	NV PD	STATE ADVOCACY SERVICES J
	, ,					3,584.00		
2144 MIDWES	ST TAPE	04 (05 (2024	10054000	04400004	07450	25, 202, 22, 24 (25 (2224		
99852245 CHECK DATE:	01/19/2021	01/05/2021	10254029	01192021	97450	25,000.00 01/06/2021 IN	NV PD	DIGITAL RESOURCES
11365 MINTZ	LEVIN							
9121131	01 /10 /2021	01/05/2021	10254330	01192021	97451	561.00 01/11/2021 IN	NV PD	11/20 General Legal Fees
CHECK DATE: 9115622 CHECK DATE:		01/05/2021	10254331	01192021	97451	7,016.50 01/11/2021 IN	NV PD	10/20 Measure C Legal Fee
						7,577.50		
	ON LINEN & UNI		10254240	01102021	07452	2 452 45 01/00/2021		2020
295433123120 CHECK DATE:	01/19/2021	01/08/2021	10254240	01192021	97452	2,452.15 01/08/2021 IN	NV PD	PW UNIFORMS DEC 2020
2172 MOBILI	E MINI LLC							
9009678797	01 /10 /2021	01/07/2021	10254102	01192021	97453	152.91 01/07/2021 IN	NV PD	STREETS FENCING
CHECK DATE: 9009655562		01/07/2021	10254108	01192021	97453	139.12 01/07/2021 IN	NV PD	HOMELESS CT RENTAL 12/16/
CHECK DATE:						292.03		
	OLA SOLUTIONS,							
1162320222 CHECK DATE:	4429 01/19/2021	01/07/2021	10254212	01192021	97454	1,992.63 01/07/2021 IN	NV PD	Mototola Chargers and Mic
Q155 MUNTS	ERVICES, LLC							

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INVOICE	P.O.	INV DATE	VOUCHE <u>R</u>	CHECK RUN (	CHECK #	INVOICE NET DUE DATE	TYPE_S	STŞ	INVOICE DESCRIPTION		
INV06-010570 CHECK DATE:	4830	12/17/2020			97455				UUT COMPLIANCE SERVICES		
2232 NATIO	2232 NATIONAL EMBLEM, INC.										
390871 CHECK DATE:	01/19/2021	01/05/2021	10253976	01192021	97456	969.08 01/05/2021	INV I	PD	SHOULDER PATCHES		
12159 NATIONAL MEDIA, INC.											
0011422974	5007	11/05/2020	10254323	01192021	97457	67.04 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011422975	5007	11/05/2020	10254324	01192021	97457	64.64 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011422977	5007	11/05/2020	10254325	01192021	97457	66.56 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011422978	5007	11/05/2020	10254326	01192021	97457	113.12 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011422981	5007	11/05/2020	10254343	01192021	97457	56.32 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011425855	5007	11/19/2020	10254345	01192021	97457	452.16 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011425857	5007	11/19/2020	10254346	01192021	97457	98.24 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011426989 CHECK DATE:	5007	11/26/2020	10254347	01192021	97457	123.20 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
0011426990	5007	11/26/2020	10254348	01192021	97457	110.40 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE: 0011426995	5007	11/26/2020	10254349	01192021	97457	258.40 01/11/2021	INV I	PD	LEGAL PUBLICATIONS FY20-2		
CHECK DATE:						1,410.08					
6445 NOBLE	CONSULTANTS,	INC.									
2020206 CHECK DATE:	2856 01/19/2021	01/04/2021	10254006	01192021	97458	8,305.30 01/19/2021	INV I	PD	C-1411-131 SSLagoon/BoatL		
12232 NV5,	INC.										
192254 CHECK DATE:	5087 01/19/2021	12/14/2020	10254070	01192021	97459	15,630.00 01/19/2021	INV I	PD	BerylStDrainage&St.Imprvm		
2320 OCLC,	INC.										
1000093868 CHECK DATE:	01/19/2021	01/01/2021	10254030	01192021	97460	1,467.81 01/06/2021	INV I	PD	CATALOGING/ILL SUBSCRIPTI		
2324 OFFIC	E DEPOT										
136249899001	01 /10 /2021	01/05/2021	10253934	01192021	97461	86.02 01/11/2021	INV I	PD	11/20 Office Supplies		
CHECK DATE: 136167838001		01/05/2021	10253936	01192021	97461	37.78 01/11/2021	INV I	PD	11/20 Office Supplies		
CHECK DATE: 142464780001	, ,	01/05/2021	10253979	01192021	97461	144.06 01/05/2021	INV I	PD	ENVELOPES		
CHECK DATE:	01/19/2021										



INVOICE	P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	STS	INVOICE DESCRIPTION
142464780002 CHECK DATE:	01/10/2021	01/05/2021 10253980 01192021	97461	72.03 01/05/2021 INV	PD	ENVELOPES
136463843001	, ,	11/12/2020 10253986 01192021	97461	188.99 01/06/2021 INV	PD	CBO Office Supplies
CHECK DATE: 136479018001	, ,	11/12/2020 10253987 01192021	97461	13.97 01/06/2021 INV	PD	CBO OFFICE SUPPLIES
CHECK DATE: 143531124001		01/07/2021 10254142 01192021	97461	18.39 01/07/2021 INV	PD	OFFICE SUPPLIES
CHECK DATE: 1441022690001	01/19/2021	01/08/2021 10254213 01192021	97461	656.67 01/08/2021 INV	PD	OFFICE SUPPLIES CALENDERS
CHECK DATE: 138628653001	01/19/2021	11/24/2020 10254058 01192021	97461	37.89 12/25/2020 INV	PD	DB GENERAL OFFICE SUPPLIE
CHECK DATE: 129646589001	01/19/2021	10/08/2020 10254063 01192021	97461	9.18 11/13/2020 INV		
CHECK DATE: 143912118001	01/19/2021	01/12/2021 10254361 01192021	97461			CALENDARS, HIGHLIGHTERS,
CHECK DATE:	01/19/2021	• •		• •		,
145523151001 CHECK DATE:	01/19/2021	01/12/2021 10254362 01192021	97461	281.73 01/12/2021 INV		
142894249001 CHECK DATE:	01/19/2021	01/07/2021 10254122 01192021	97461	174.24 01/07/2021 INV	PD	OFFICE SUPPLIES
143122776001 CHECK DATE:	01/19/2021	01/07/2021 10254123 01192021	97461	5.20 01/07/2021 INV	PD	OFFICE SUPPLIES
138627666001 CHECK DATE:	, ,	11/25/2020 10254051 01192021	97461	35.25 12/25/2020 INV	PD	DB GENERAL OFFICE SUPPLIE
138666396001 CHECK DATE:	01/19/2021	12/01/2020 10254052 01192021	97461	158.63 01/01/2021 INV	PD	DB SPECIAL DEPARTMENT SUP
143913829001	, ,	01/12/2021 10254359 01192021	97461	12.80 01/12/2021 INV	PD	PENCILS, ERASERS
CHECK DATE: 143912118002	, ,	01/12/2021 10254360 01192021	97461	9.52 01/12/2021 INV	PD	COLORED PENCILS
CHECK DATE: 137724216001	, ,	11/18/2020 10254056 01192021	97461	120.99 12/18/2020 INV	PD	DB GENERAL OFFICE SUPPLIE
CHECK DATE: 138611151001	01/19/2021	11/19/2020 10254057 01192021	97461	68.04 12/25/2020 INV	PD	DB GENERAL OFFICE SUPPLIE
CHECK DATE: 143631448001	01/19/2021	12/11/2020 10254031 01192021	97461	54.74 01/06/2021 INV	PD	SUPPLIES
CHECK DATE: 143630536001	01/19/2021	12/10/2020 10254032 01192021	97461	25.03 01/06/2021 INV		
CHECK DATE: 129645489001	01/19/2021	10/09/2020 10254064 01192021	97461	4.10 11/13/2020 INV		
CHECK DATE:	01/19/2021					
144821562001 CHECK DATE:	01/19/2021	01/07/2021 10254121 01192021	97461	67.28 01/07/2021 INV		
139658658001 CHECK DATE:	01/19/2021	11/30/2020 10254049 01192021	97461	65.61 01/01/2021 INV	PD	DB GENERAL OFFICE SUPPLIE
138668175001 CHECK DATE:	01/19/2021	11/25/2020 10254050 01192021	97461	3.24 12/25/2020 INV	PD	DB GENERAL OFFICE SUPPLIE
140927210001 CHECK DATE:		12/03/2020 10254036 01192021	97461	65.67 01/08/2021 INV	PD	OFFICE SUPPLIES FOR PARKI
139658657001 CHECK DATE:		12/01/2020 10254045 01192021	97461	51.83 01/01/2021 INV	PD	DB GENERAL OFFICE SUPPLIE
138668172001		11/30/2020 10254053 01192021	97461	11.80 01/01/2021 INV	PD	DB GENERAL OFFICE SUPPLIE
CHECK DATE: 139656099001		11/30/2020 10254054 01192021	97461	56.36 01/01/2021 INV	PD	DB GENERAL OFFICE SUPPLIE
CHECK DATE: 136822450001	01/19/2021	11/13/2020 10253988 01192021	97461	43.19 01/06/2021 INV	PD	CBO OFFICE SUPPLIES



INVOICE	P.O.	INV DATE	VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	E STS	INVOICE DESCRIPTION	
CHECK DATE: 136828511002		11/18/2020	10253989 01192021	97461	67.21 01/06/2021 INV	PD	CBO NITRILE GLOVE HOLDERS	
CHECK DATE:	01/19/2021				2,743.15			
9316 ONWAR	D ENGINEERING			_	<del></del>			
5541-A CHECK DATE:	5036 01/19/2021	12/07/2020	10254075 01192021	97462	380.00 01/19/2021 INV	PD	TorranceResurf-PCHtoProsp	
10315 PACIFIC ADVANCED CIVIL ENGINEERING, INC.								
4511 CHECK DATE:	3606 01/19/2021	12/31/2020	10254007 01192021	97463	2,000.00 01/19/2021 INV	PD	P&S.SewerPumpStations.Rin	
9648 PACIF	IC ARCHITECTUR	E AND ENGINE	EERING					
10082-04a CHECK DATE:	5042	12/31/2020	10253942 01192021	97464	2,469.75 01/19/2021 INV	PD	ArchConstrAdmSvcs.Transit	
10080-71 CHECK DATE:	5067	12/20/2020	10254004 01192021	97464	4,035.00 01/19/2021 INV	PD	CO6.TransitCenter.Ref.PO2	
2398 PACIF	IC TRUCK EQUIP	MENT CO.			6,504.75			
72234 CHECK DATE:	01/19/2021	01/08/2021	10254220 01192021	97465	1,648.50 01/08/2021 INV	PD	WO202 INSTALL SECUIRTY SY	
2408 PV VILLAGE PET HOSPITAL								
708760 CHECK DATE:	01/19/2021	12/14/2020	10254037 01192021	97466	10.00 01/14/2021 INV	PD	EUTHANIZATION OF SMALL AN	
12012 PAPE	MATERIAL HANDL	ING, INC.						
8491476 CHECK DATE:	01/19/2021	01/08/2021	10254224 01192021	97467	93.35 01/08/2021 INV	PD	WO855 BAL BEARINGS	
12236 PERFO	RMANCE TRUCK R	EPAIR INC.						
15386 CHECK DATE:	01 /10 /2021	01/07/2021	10254101 01192021	97468	1,996.02 01/07/2021 INV	PD	FIRE ENGINE E-64 VAVLE RE	
15215 CHECK DATE:		08/31/2020	10254165 01192021	97468	4,968.69 01/19/2021 INV	PD	E61 REPAIRS	
15344 CHECK DATE:		11/24/2020	10254166 01192021	97468	1,989.60 01/19/2021 INV	PD	T62 REPAIRS	
15347 CHECK DATE:		11/24/2020	10254167 01192021	97468	600.00 01/19/2021 INV	PD	T62 STORAGE	
15354 CHECK DATE:		12/01/2020	10254168 01192021	97468	600.00 01/19/2021 INV	PD	12/20 T62 STORAGE	
15359 CHECK DATE:		11/30/2020	10254169 01192021	97468	817.79 01/19/2021 INV	PD	E64 REPAIRS	
15360 CHECK DATE:		11/30/2020	10254170 01192021	97468	1,707.67 01/19/2021 INV	PD	E64 REPAIRS	
15387	01/13/2021	12/17/2020	10254172 01192021	97468	1,463.72 01/19/2021 INV	PD	E64 REPAIRS	



#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER (	CHECK RUN C	HECK #	INVOICE NET DUE DATE	TYPE STS	S INVOICE DESCRIPTION
CHECK DATE:	01/19/2021					14,143.49		
2512 PRAXA	IR					21,213113		
60758000 CHECK DATE:	01/19/2021	12/22/2020	10254173	01192021	97469	145.25 01/19/2023	1 INV PD	SCBA CYLINDER RENTAL
60768741 CHECK DATE:		12/22/2020	10254175 (	01192021	97469	205.95 01/19/2023	1 INV PD	SCBA CYLINDER RENTAL
	NTIAL OVERALL	SIIDDI V				351.20		
425824106	WITAL OVERALL	12/22/2020	10254047 (	01102021	97470	26	1 TNV DD	MATS/ACCT 2-04-17-032 FD
CHECK DATE:	01/19/2021	, ,				• •		
42583600 CHECK DATE:	01/19/2021	12/29/2020			97470	• •		FS1/DEL#20419018 MATS
42584483 CHECK DATE:	01/19/2021	12/31/2020	10254179 (	01192021	97470	37.84 01/19/2023	1 INV PD	FS2/DEL#40419014 MATS
10446 PSYCH	OLOGICAL CONSU	LTING ASSOC	IATES, INC			88.89		
52400		12/18/2020	10253789	01192021	97471	2,400.00 01/11/202	1 INV PD	APPLICANTS- PSYCH
CHECK DATE:	01/19/2021							
12257 RACE	COMMUNICATIONS	•						
RC445505 CHECK DATE:	01/19/2021	01/11/2021	10254304 (	01192021	97472	3,196.50 01/11/202	1 INV PD	2GB DEDICATED INTERNET AC
8230 RAYNE	WATER SYSTEMS	;						
5407 CHECK DATE:	01/19/2021	01/08/2021	10254241	01192021	97473	128.00 01/08/202	1 INV PD	FS2 WATER SOFTENER 01/01-
2615 RECOR	DED BOOKS LLC							
76717232		12/18/2020	10254033 (	01192021	97474	77.74 01/06/202	1 INV PD	ELECTRONIC RESOURCES
CHECK DATE:	01/19/2021							
11255 RED S	ECURITY GROUP,	LLC						
69147 CHECK DATE:	01/19/2021	12/19/2020	10254059 (	01192021	97475	990.00 01/19/202	1 INV PD	SIU SPECIAL SAFE OPENING
2631 REDON	DO BEACH POLIC	E OFFICER'S	ASSOC					
564199 CHECK DATE:	01/19/2021	01/08/2021	10254254	01192021	97476	121.50 01/11/202	1 INV PD	REDONDO RESERVES REIMBUR
11539 REDON	IDO BEACH TRAVE	L AND TOURI	SM					
11/20DISB CHECK DATE:	01/19/2021	01/13/2021	10254377	01192021	97477	5,607.29 01/13/202	1 INV PD	11/20 RBTMD DISB

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#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	E STS	INVOICE DESCRIPTION				
12289 REDONDO PIER AS	SOCIATION								
12-11-2020 CHECK DATE: 01/19/202	12/11/2020 10254281 01192021	97478	1,767.64 01/11/2021 INV	PD	REFUND FOR 2020 EVENT INS				
9637 REGIONAL TAP CENTER									
121520 CHECK DATE: 01/19/202	12/18/2020 10253794 01192021 1	97479	207.69 12/18/2020 INV	PD	MOBILE VALIDATAORS MONTH				
12192 RIVIERA VILLAGE	ASSOCIATION								
10-12/20BID CHECK DATE: 01/19/202	01/12/2021 10254354 01192021	97480	12,634.00 01/12/2021 INV	PD	OCT - DEC 2020 BID REVENU				
4755 ROSS, RICHARD									
10/15/2020 CHECK DATE: 01/19/202	10/15/2020 10254291 01192021	97481	364.00 01/11/2021 INV	PD	TEAM CMX ESTIMATION 2020				
11552 SABERI & ASSOCI	ATES, INC.								
J20-9-547B 4837 CHECK DATE: 01/19/202		97482	3,390.00 01/19/2021 INV	PD	TransitCntr.Design&Constr				
7912 SAFE & SECURE									
12-2020 CHECK DATE: 01/19/202	01/04/2021 10254277 01192021	97483	60.00 01/11/2021 INV	PD	LIVESCANS DEC 2020				
3031 SC FUELS									
4500770 5150 CHECK DATE: 01/19/202	01/07/2021 10254152 01192021	97484	12,207.22 01/07/2021 INV	PD	5,000 GALLONS UNLEADED FU				
11648 SCHARFENBERGER,	GEMMA								
DOMINGUEZPK.2021 CHECK DATE: 01/19/202	01/11/2021 10254319 01192021	97485	120.00 01/11/2021 INV	PD	BOUGHT ROSES FOR DOMINGUE				
12291 SCHMALZRIED, RI	CHARD W.								
328673REF CHECK DATE: 01/19/202	01/08/2021 10254257 01192021	97486	100.00 01/08/2021 INV	PD	BUSINESS LICENSE REFUND				
4861 SECTRAN SECURIT	Y, INC.								
20121269 CHECK DATE: 01/19/202	01/07/2021 10254158 01192021	97487	314.53 01/07/2021 INV	PD	SECTRAN SERVICE FOR DECEM				
11774 SHAFER, MARIA									
2020-052 GPAC CHECK DATE: 01/19/202	12/30/2020 10254350 01192021	97488	403.75 01/11/2021 INV	PD	PREPARATION OF MINUTES -G				

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#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE	ST <u>S</u>	INVOICE DESCRIPTION
2020-051 Library CHECK DATE: 01/19/2021	12/14/2020 10254351 01192021	97488		PD	PREPARATION OF MINUTES- L
8622 SHOETERIA			531.25		
0014308-IN CHECK DATE: 01/19/2021	01/07/2021 10254090 01192021	97489	349.82 01/07/2021 INV	PD	WORK BOOT VOUCHER PHILIP
2887 SHULTZ, NORM					
12/29/2020 CHECK DATE: 01/19/2021	12/29/2020 10254287 01192021	97490	130.00 01/11/2021 INV	PD	SERVICE RETIREMENT STIPEN
10361 SHUTE, MIHALY & WE	INBERGER LLP				
271234 CHECK DATE: 01/19/2021	01/05/2021 10254328 01192021	97491	3,690.00 01/11/2021 INV	PD	11/20 Accessory Dwelling
270781 CHECK DATE: 01/19/2021	01/05/2021 10253938 01192021	97491		PD	10/20 Accessory Dwelling
11796 SIEMENS MOBILITY			9,620.00		
5610243138 5090 CHECK DATE: 01/19/2021	01/08/2021 10254196 01192021	97492	1,830.00 01/08/2021 INV	PD	SIGNALIZED INTERSECTIONS/
8931 SIGNAL ATTORNEY SER	RVICE, INC.				
121520 CHECK DATE: 01/19/2021	01/05/2021 10253937 01192021	97493	161.50 01/11/2021 INV	PD	Services Rendered From 12
10629 SITEONE LANDSCAPE S	SUPPLY				
103774924-001 CHECK DATE: 01/19/2021	01/07/2021 10254087 01192021	97494	1,494.61 01/07/2021 INV	PD	PLANTING MIX AND MULCH HE
104500674-001 CHECK DATE: 01/19/2021	01/07/2021 10254088 01192021	97494	383.32 01/07/2021 INV	PD	TOPPER
12292 SO CAL MOBILE MAIN	TENANCE		1,877.93		
317884REF CHECK DATE: 01/19/2021	01/08/2021 10254256 01192021	97495	213.40 01/08/2021 INV	PD	BUSINESS LICENSE REFUND
11214 SOUTH BAY CENTER SI	PE, LLC				
1/4/20 CHECK DATE: 01/19/2021	01/09/2021 10254261 01192021	97496	3,083.53 01/09/2021 INV	PD	COMMON AREA CLEANING FEES
2990 SOUTH BAY FORD					
313660 CHECK DATE: 01/19/2021	01/08/2021 10254216 01192021	97497	129.81 01/08/2021 INV	PD	WO673-11 BLINKER SWITCH
311658	01/08/2021 10254231 01192021	97497	179.86 01/08/2021 INV	PD	WO649-18



#### **VENDOR INVOICE LIST**

INVOICE P.O.	INV DATE VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE TYPE STS INVOICE DESCRIPTION
CHECK DATE: 01/19/2021 309824	01/08/2021 10254232 01192021	97497	95.59 01/08/2021 INV PD W0404 MOTOR MOUNT
CHECK DATE: 01/19/2021 311395	01/08/2021 10254233 01192021	97497	107.23 01/08/2021 INV PD W0667-16 MOTOR MOUNT
CHECK DATE: 01/19/2021			512.49
9634 SOUTH BAY LANDSCAP	ING, INC.		
19878 CHECK DATE: 01/19/2021	01/07/2021 10254110 01192021	97498	1,740.00 01/07/2021 INV PD PIER LANDSCAPE OCT 2020
19962 CHECK DATE: 01/19/2021	01/07/2021 10254111 01192021	97498	1,392.00 01/07/2021 INV PD PIER LANDSCAPE DEC 2020
19928 CHECK DATE: 01/19/2021	01/07/2021 10254112 01192021	97498	1,392.00 01/07/2021 INV PD PIER LANDSCAPE NOV 2020
			4,524.00
5759 SOUTH COAST EMERGE	NCY VEHICLE SERVICE		
501872 CHECK DATE: 01/19/2021	01/08/2021 10254221 01192021	97499	154.21 01/08/2021 INV PD W0114-18 DOOR HANDLE
3016 SOUTHERN CALIFORNIA	A EDISON		
2-39-052-5343-12-5 CHECK DATE: 01/19/2021	01/10/2021 10254272 01192021	97500	2,445.16 01/10/2021 INV PD MORGAN-RINDGE-BLOSSOM 10
2-39-052-5293-12-5 CHECK DATE: 01/19/2021	01/10/2021 10254273 01192021	97500	2,195.85 01/10/2021 INV PD HARBOR DR, FISH'S WHARF,
2-39-052-5392-12-5 CHECK DATE: 01/19/2021	01/10/2021 10254275 01192021	97500	51,238.32 01/10/2021 INV PD 182ND, BERYL, ARTESIA 10-
CHECK DATE: 01/13/2021			55,879.33
3043 SPARKLETTS		_	
14518385120920 CHECK DATE: 01/19/2021	01/07/2021 10254138 01192021	97501	476.68 01/07/2021 INV PD DRINKING WATER VARIOUS SI
14518385 010621 CHECK DATE: 01/19/2021	01/08/2021 10254205 01192021	97501	469.50 01/08/2021 INV PD DRINKING WATER VARIOUS LO
10201 SPORTBALL			946.18
56167 CHECK DATE: 01/19/2021	01/07/2021 10254153 01192021	97502	507.50 01/07/2021 INV PD FALL2020 56167
12290 SPRENGEL, MICHAEL			
109 CHECK DATE: 01/19/2021	01/07/2021 10254155 01192021	97503	1,000.00 01/07/2021 INV PD K9 Training Video
10365 T-MOBILE			
12212020 CHECK DATE: 01/19/2021	12/21/2020 10254061 01192021	97504	18.28 01/13/2021 INV PD FUME ALERT MONTHLY SERVIC



#### **VENDOR INVOICE LIST**

INVOICE	P.O.		VOUCHER CHECK I	RUN CHECK #	INVOICE NET DUE DATE T	YPE STS	S INVOICE DESCRIPTION		
6806 TALX	UCM SERVICES,	INC.							
2050185034 CHECK DATE:	01/19/2021	01/08/2021	10254276 0119202	21 97505	1,887.00 01/11/2021 I	NV PD	QTRLY MGMT FEE 01-03/2021		
9290 TELECOM LAW FIRM, P.C.									
9716 CHECK DATE:	4289	01/07/2021	10254143 0119202	97506	2,350.00 01/07/2021 I	NV PD	TELECOM CONSULTING SERVIC		
9686 CHECK DATE:	4289	01/07/2021	10254144 0119202	97506	2,350.00 01/07/2021 I	NV PD	TELECOM CONSULTING SERVIC		
9688 CHECK DATE:	4289	01/07/2021	10254145 0119202	97506	2,350.00 01/07/2021 I	NV PD	TELECOM CONSULTING SERVIC		
					7,050.00				
9570 THALE	S CONSULTING I	NC.							
2364 CHECK DATE:	5162 01/19/2021	12/31/2020	10254255 0119202	21 97507	4,000.00 01/08/2021 I	NV PD	CAFR ONLINE SOFTWARE & RE		
11764 THE C	HUKA FAMILY TR	UST							
12222020 CHECK DATE:	01/19/2021	12/22/2020	10253913 0119202	21 97508	20,798.27 12/22/2020 II	NV PD	1922 ARTESIA BLVD. RENT P		
7589 THE P	IN CENTER								
1220056 CHECK DATE:	01/19/2021	01/07/2021	10254146 0119202	21 97509	540.00 01/07/2021 II	NV PD	CRB OVAL LOGO PINS		
71 TIME	WARNER CABLE								
0060500122520	01 /10 /2021	01/07/2021	10254194 0119202	21 97510	133.39 01/07/2021 I	NV PD	DB Spectrum		
CHECK DATE: 0711235010121	, ,	01/07/2021	10254310 0119202	21 97510	420.00 01/07/2021 I	NV PD	Dark Fiber 200N PCH		
CHECK DATE: 0106477121320 CHECK DATE:	01/19/2021	01/07/2021	10254135 0119202	21 97511	121.05 01/07/2021 I	NV PD	PW CABLE TV SERVICE 12/13		
					674.44				
11361 TIREH	UB, LLC								
17783378 CHECK DATE:	01/19/2021	01/08/2021	10254239 0119202	21 97512	808.12 01/08/2021 II	NV PD	STOCK CAR TIRES		
3216 TODDC	O SWEEPING CO								
32471 CHECK DATE:	01/19/2021	01/01/2021	10254034 0119202	21 97513	432.00 01/06/2021 II	NV PD	PARKING STRUCTURE CLEANIN		
3225 TORRA	NCE AUTO PARTS								
2280112020 CHECK DATE:	5143 01/19/2021	01/07/2021	10254134 0119202	21 97514	5,112.87 01/07/2021 I	NV PD	AUTO PARTS-CITY GARAGE		

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INVOICE	P.O.		VOUCHER CHECK RUN	CHECK #	INVOICE NET DUE DATE	TYPE STS	S INVOICE DESCRIPTION
7361 TRANS	PORTATION CONC	EPTS					
516-12-2020 CHECK DATE:	5038 01/19/2021	01/09/2021	10254258 01192021	97515	230,009.11 01/09/20	21 INV PD	SERVICES RENDERED DECEMBE
9342 TRANS	UNION RISK AND						
01012021 CHECK DATE:	01/19/2021	01/01/2021	10254062 01192021	97516	273.00 02/15/20	21 INV PD	TLO ACCESS MONTHLY CHARGE
3261 TURF	STAR INC						
7140422-00 CHECK DATE:	01/19/2021	01/07/2021	10254137 01192021	97517	904.79 01/07/20	21 INV PD	PARKS MOWER CLADES
3273 U.S.	ARMOR CORPORAT	ION					
30888 CHECK DATE:	01/19/2021	01/05/2021	10253982 01192021	97518	851.95 01/05/20	21 INV PD	VEST CHAIRES
4827 U.S.	POSTMASTER						
01142021 CHECK DATE:	01/19/2021	01/14/2021	10254460 01192021	97531	25,000.00 01/14/20	21 INV PD	PERMIT #248- 1ST CLASS PR
3281 UC RE	GENTS						
2782 CHECK DATE:	01/19/2021	01/01/2021	10254180 01192021	97519	3,037.67 01/19/20	21 INV PD	01/21 RBFD CE/QI SERVICES
3283 ULINE							
127335154 CHECK DATE:	01/19/2021	01/05/2021	10253981 01192021	97520	327.27 01/05/20	21 INV PD	HAND TRUCK
3285 UNDER	GROUND SERVICE	ALERT					
1220200567	01 /10 /2021	01/04/2021	10253935 01192021	97521	132.10 01/19/20	21 INV PD	RBCH New Ticket Charges
CHECK DATE: dsb20197392 CHECK DATE:		01/04/2021	10253939 01192021	97521	73.66 01/19/20	21 INV PD	Calif. State Fee for Regu
3300 UNITE	D PARCEL SERVI	CE			205.76		
0000889114490		01/12/2021	10254357 01192021	97522	124.00 01/12/20	21 INV PD	WEEKLY SERVICE CHARGE
CHECK DATE: 0000889114510			10254358 01192021	97522	74.33 01/12/20		
CHECK DATE:	01/19/2021				198.33		
5332 UNITE	D RENTALS NORT	HWEST, INC.					
185398016-005 CHECK DATE:	01/19/2021	01/08/2021	10254242 01192021	97523	164.25 01/08/20	21 INV PD	PD HOMELESS PORTABLE REST



#### **VENDOR INVOICE LIST**

INVOICE	P.O.	INV DATE	VOUCHER	CHECK RUN (	CHECK #	INVOICE NET DUE DATE	TYPE ST	S INVOICE DESCRIPTION
6443 URBAN	GRAFFITI ENT	ERPRISES, IN	c.					
RED22012 CHECK DATE:	5026 01/19/2021	01/07/2021	10254250	01192021	97524	4,050.00 01/07/2021	INV PD	Urban Grafitti Annual
12293 VALLI	N, MAURO							
12/29/2020 CHECK DATE:	01/19/2021	12/29/2020	10254288	01192021	97525	100.00 01/11/2021	INV PD	SERVICE RETIREMENT STI
3621 VERIZ	ON WIRELESS							
9869384603	01 /10 /2021	01/04/2021	10253919	01192021	97526	1,448.30 01/04/2021	INV PD	IPADS FOR FIRE
CHECK DATE: 9869954272 CHECK DATE:	, ,	01/07/2021	10254068	01192021	97526	86.66 01/07/2021	INV PD	PW EMERGENCY CELL PHON
9869063063	, ,	01/07/2021	10254202	01192021	97526	38.01 01/07/2021 1	INV PD	PD Phone Charges
CHECK DATE: 9868142154	, ,	01/07/2021	10254204	01192021	97526	3,108.70 01/07/2021	INV PD	PD Phone Charges
CHECK DATE: 9869063061 CHECK DATE:		01/07/2021	10254211	01192021	97526	257.95 01/07/2021	INV PD	PD Phone Charges
3421 WEST	COAST ARBORIS	TS INC				4,939.62		
165813	5070	01/08/2021	10254248	01192021	97527	7,402.00 01/08/2021	INV PD	PROVIDE TREE TRIMMING
CHECK DATE: 167443 CHECK DATE:	5070	01/08/2021	10254249	01192021	97527	2,378.00 01/08/2021	INV PD	PROVIDE TREE TRIMMING
	COAST CIVIL,	INC.				9,780.00		
2012-204 CHECK DATE:	5046	01/01/2021	10254072	01192021	97528	1,680.00 01/19/2021	INV PD	TransitCntr.CivilEngr&
10426 WEST	MARINE PRO							
3206 CHECK DATE:	01/19/2021	11/12/2020	10254048	01192021	97529	65.80 01/11/2021	INV PD	TOOLS/EQUIP #801
10518 WESTE	RN NRG, INC.							
125211 CHECK DATE:	01/19/2021	01/11/2021	10254305	01192021	97530	2,457.00 01/11/2021	INV PD	GLOBAL MANAGEMENT SYST
	. ,,					2,457.00		
		389 INVOICES				1,565,371.12		

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#### **VENDOR INVOICE LIST**

INVOICE P.O. INV DATE VOUCHER CHECK RUN CHECK # INVOICE NET DUE DATE TYPE STS INVOICE DESCRIPTION

\*\* END OF REPORT - Generated by Nicholette Garcia \*\*

Report generated: 01/14/2021 18:17 User: ngarcia Program ID: apinvlst



# Administrative Report

H.4., File # 21-1927 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

#### TITLE

APPROVE CONTRACTS UNDER \$35,000:

- 1. APPROVE AGREEMENT WITH DIANE CLEARY FOR MINUTES SECRETARY SERVICES IN AN AMOUNT NOT TO EXCEED \$35.00 PER HOUR FOR THE TERM OF JANUARY 1, 2021 TO DECEMBER 31, 2021.
- 2. APPROVE AGREEMENT WITH GLICKSMAN CONSULTING LLC FOR ACTUARIAL SERVICES IN AN AMOUNT NOT TO EXCEED \$34,999 FOR THE TERM JULY 2, 2020 TO JULY 31, 2021.

#### **EXECUTIVE SUMMARY**

Approve Contracts Under \$35,000

#### **APPROVED BY:**

Joe Hoefgen, City Manager

#### **ATTACHMENTS**

Contracts, Signatures and Insurance

# AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND DIANE CLEARY

THIS AGREEMENT FOR CONSULTING SERVICES (this "Agreement") is made between the City of Redondo Beach, a Chartered Municipal Corporation ("City") and Diane Cleary, an individual ("Consultant" or "Contractor").

The parties hereby agree as follows:

- Description of Project or Scope of Services. The project description or scope of services to be provided by Consultant, and any corresponding responsibilities of City, or services required to be performed by City are set forth in Exhibit "A."
- 2. <u>Term and Time of Completion</u>. Consultant shall commence and complete the project or services described in Exhibit "A" in accordance with the schedule set forth in Exhibit "B".
- 3. <u>Compensation</u>. City agrees to pay Consultant for work performed in accordance with Exhibit "C".

\* \* \* \* \*

#### **GENERAL PROVISIONS**

- 1. <u>Independent Contractor</u>. Consultant acknowledges, represents and warrants that Consultant is not a regular or temporary employee, officer, agent, joint venturer or partner of the City, but rather an independent contractor. This Agreement shall not be construed as a contract of employment. Consultant shall have no rights to any benefits which accrue to City employees unless otherwise expressly provided in this Agreement. Due to the independent contractor relationship created by this Agreement, the City shall not withhold state or federal income taxes, the reporting of which shall be Consultant's sole responsibility.
- 2. <u>Brokers</u>. Consultant acknowledges, represents and warrants that Consultant has not hired, retained or agreed to pay any entity or person any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement.
- 3. <u>City Property</u>. All plans, drawings, reports, calculations, data, specifications, videos, graphics or other materials prepared for or obtained pursuant to this Agreement shall upon request be delivered to the City within a reasonable time, and the rights thereto shall be deemed assigned to the City. If applicable, Consultant shall prepare check prints upon request. Said plans, drawings, reports, calculations, data, specifications, videos, graphics or other materials,

shall be specific for the project herein and shall not be used by the City for any other project without Consultant's consent. Notwithstanding the foregoing, Consultant shall not be obligated to assign any proprietary software or data developed by or at the direction of Consultant for Consultant's own use; provided, however, that Consultant shall, pursuant to Paragraph 14 below, indemnify, defend and hold the City harmless from and against any discovery or Public Records Act request seeking the disclosure of any such proprietary software or data.

- 4. <u>Inspection</u>. If the services set forth in Exhibit "A" shall be performed on City or other public property, the City shall have the right to inspect such work without notice. If such services shall not be performed on City or other public property, the City shall have the right to inspect such work upon reasonable notice. Inspections by the City shall not relieve or minimize the responsibility of Consultant to conduct any inspections Consultant has agreed to perform pursuant to the terms of this Agreement. Consultant shall be solely liable for said inspections performed by Consultant. Consultant shall certify in writing to the City as to the completeness and accuracy of each inspection required to be conducted by Consultant hereunder.
- 5. Services. The project or services set forth in Exhibit "A" shall be performed to the full satisfaction and approval of the City. In the event that the project or services set forth in Exhibit "A" are itemized by price in Exhibit "C", the City in its sole discretion may, upon notice to Consultant, delete certain items or services set forth in Exhibit "A", in which case there shall be a corresponding reduction in the amount of compensation paid to Consultant. City shall furnish Consultant to the extent available, with any City standards, details, specifications and regulations applicable to the Project and necessary for the performance of Consultant's services hereunder. Notwithstanding the foregoing, any and all additional data necessary for design shall be the responsibility of Consultant.
- 6. Records. Consultant, including any of its subcontractors shall maintain full and complete documents and records, including accounting records, employee time sheets, work papers, and correspondence pertaining to the project or services set forth in Exhibit "A". Consultant, including any of its subcontractors shall make such documents and records available for City review or audit upon request and reasonable notice, and shall keep such documents and records, for at least four (4) years after Consultant's completion of performance of this Agreement. Copies of all pertinent reports and correspondence shall be furnished to the City for its files.
- 7. <u>Changes and Extra Work</u>. All changes and/or extra work under this Agreement shall be provided for by a subsequent written amendment executed by City and Consultant.

- 8. <u>Additional Assistance</u>. If this Agreement requires Consultant to prepare plans and specifications, Consultant shall provide assistance as necessary to resolve any questions regarding such plans and specifications that may arise during the period of advertising for bids, and Consultant shall issue any necessary addenda to the plans and specifications as requested. In the event Consultant is of the opinion that City's requests for addenda and assistance is outside the scope of normal services, the parties shall proceed in accordance with the changes and extra work provisions of this Agreement.
- 9. <u>Professional Ability</u>. Consultant acknowledges, represents and warrants that Consultant is skilled and able to competently provide the services hereunder, and possesses all professional licenses, certifications, and approvals necessary to engage in its occupation. City has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. Consultant shall perform in accordance with generally accepted professional practices and standards of Consultant's profession.
- 10. <u>Business License</u>. Consultant shall obtain a Redondo Beach Business License before performing any services required under this Agreement. The failure to so obtain such license shall be a material breach of this Agreement and grounds for immediate termination by City; provided, however, that City may waive the business license requirement in writing under unusual circumstances without necessitating any modification of this Agreement to reflect such waiver.
- 11. Termination Without Default. Notwithstanding any provision herein to the contrary, the City may, in its sole and absolute discretion and without cause, terminate this Agreement at any time prior to completion by Consultant of the project or services hereunder, immediately upon written notice to Consultant. In the event of any such termination, Consultant shall be compensated for: (1) all authorized work satisfactorily performed prior to the effective date of termination; and (2) necessary materials or services of others ordered by Consultant for this Agreement, prior to Consultant's receipt of notice of termination, irrespective of whether such materials or services of others have actually been delivered, and further provided that Consultant is not able to cancel such orders. Compensation for Consultant in such event shall be determined by the City in accordance with the percentage of the project or services completed by Consultant; and all of Consultant's finished or unfinished work product through the time of the City's last payment shall be transferred and assigned to the City. In conjunction with any termination of this Agreement, the City may, at its own expense, make copies or extract information from any notes, sketches, computations, drawings, and specifications or other data, whether complete or not.
- 12. <u>Termination in the Event of Default</u>. Should Consultant fail to perform any of its obligations hereunder, within the time and in the manner provided or otherwise violate any of the terms of this Agreement, the City may immediately terminate this Agreement by giving written notice of such termination, stating the reasons

for such termination. Consultant shall be compensated as provided immediately above, provided, however, there shall be deducted from such amount the amount of damages if any, sustained by the City by virtue of Consultant's breach of this Agreement.

- 13. Conflict of Interest. Consultant acknowledges, represents and warrants that Consultant shall avoid all conflicts of interest (as defined under any federal, state or local statute, rule or regulation, or at common law) with respect to this Agreement. Consultant further acknowledges, represents and warrants that Consultant has no business relationship or arrangement of any kind with any City official or employee with respect to this Agreement. Consultant acknowledges that in the event that Consultant shall be found by any judicial or administrative body to have any conflict of interest (as defined above) with respect to this Agreement, all consideration received under this Agreement shall be forfeited and returned to City forthwith. This provision shall survive the termination of this Agreement for one (1) year.
- 14. Indemnity. To the maximum extent permitted by law, Consultant hereby agrees, at its sole cost and expense, to defend protect, indemnify, and hold harmless the City, its elected and appointed officials, officers, employees, volunteers, attorneys, and agents (collectively "Indemnitees") from and against any and all claims, including, without limitation, claims for bodily injury, death or damage to property, demands, charges, obligations, damages, causes of action, proceedings, suits, losses, stop payment notices, judgments, fines, liens, penalties, liabilities, costs and expenses of every kind and nature whatsoever, in any manner arising out of, incident to, related to, in connection with or arising from any act, failure to act, error or omission of Consultant's performance or work hereunder (including any of its officers, agents, employees, Subcontractors) or its failure to comply with any of its obligations contained in the Agreement, or its failure to comply with any current or prospective law, except for such loss or damage which was caused by the sole negligence or willful misconduct of the City. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant or Indemnitees. This indemnification obligation shall survive this Agreement and shall not be limited by any term of any insurance policy required under this Agreement.
  - a. <u>Nonwaiver of Rights</u>. Indemnitees do not and shall not waive any rights that they may possess against Consultant because the acceptance by City, or the deposit with City, of any insurance policy or certificate required pursuant to this Agreement.
  - b. <u>Waiver of Right of Subrogation</u>. Consultant, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees.

- 15. <u>Insurance</u>. Consultant shall comply with the requirements set forth in Exhibit "D." Insurance requirements that are waived by the City's Risk Manager do not require amendments or revisions to this Agreement.
- 16. <u>Non-Liability of Officials and Employees of the City</u>. No official or employee of the City shall be personally liable for any default or liability under this Agreement.
- 17. <u>Compliance with Laws</u>. Consultant shall comply with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals, with respect to this Agreement, including without limitation all environmental laws, employment laws, and non-discrimination laws.
- 18. <u>Limitations upon Subcontracting and Assignment</u>. Consultant acknowledges that the services which Consultant shall provide under this Agreement are unique, personal services which, except as otherwise provided herein, Consultant shall not assign or sublet to any other party without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion. In the event that the City, in writing, approves any assignment or subletting of this Agreement or the retention of subcontractors by Consultant, Consultant shall provide to the City upon request copies of each and every subcontract prior to the execution thereof by Consultant and subcontractor. Any attempt by Consultant to assign any or all of its rights under this Agreement without first obtaining the City's prior written consent shall constitute a material default under this Agreement.

The sale, assignment, transfer or other disposition, on a cumulative basis, of twenty-five percent (25%) or more of the ownership interest in Consultant or twenty-five percent (25%) or more the voting control of Consultant (whether Consultant is a corporation, limited liability company, partnership, joint venture or otherwise) shall constitute an assignment for purposes of this Agreement. Further, the involvement of Consultant or its assets in any transaction or series of transactions (by way of merger, sale, acquisition, financing, transfer, leveraged buyout or otherwise), whether or not a formal assignment or hypothecation of this Agreement or Consultant's assets occurs, which reduces Consultant's assets or net worth by twenty-five percent (25%) or more shall also constitute an assignment for purposes of this Agreement.

- 19. <u>Subcontractors</u>. Consultant shall provide properly skilled professional and technical personnel to perform any approved subcontracting duties. Consultant shall not engage the services of any person or persons now employed by the City without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion.
- 20. <u>Integration</u>. This Agreement constitutes the entire agreement between the parties concerning the subject matter hereof and supersedes any previous oral or written agreement; provided, however, that correspondence or documents

- exchanged between Consultant and City may be used to assist in the interpretation of the exhibits to this Agreement.
- 21. <u>Amendment</u>. This Agreement may be amended or modified only by a subsequent written amendment executed by both parties.
- 22. <u>Conflicting Provisions</u>. In the event of a conflict between the terms and conditions of this Agreement and those of any exhibit or attachment hereto, this Agreement proper shall prevail. In the event of a conflict between the terms and conditions of any two or more exhibits or attachments hereto, those prepared by the City shall prevail over those prepared by Consultant.
- 23. <u>Non-Exclusivity</u>. Notwithstanding any provision herein to the contrary, the services provided by Consultant hereunder shall be non-exclusive, and City reserves the right to employ other contractors in connection with the project.
- 24. <u>Exhibits</u>. All exhibits hereto are made a part hereof and incorporated herein by reference; provided, however, that any language in Exhibit "A" which does not pertain to the project description, proposal, or scope of services (as applicable) to be provided by Consultant, or any corresponding responsibilities of City, shall be deemed extraneous to, and not a part of, this Agreement.
- 25. <u>Time of Essence</u>. Time is of the essence of this Agreement.
- 26. <u>Confidentiality</u>. To the extent permissible under law, Consultant shall keep confidential its obligations hereunder and the information acquired during the performance of the project or services hereunder.
- 27. <u>Third Parties</u>. Nothing herein shall be interpreted as creating any rights or benefits in any third parties. For purposes hereof, transferees or assignees as permitted under this Agreement shall not be considered "third parties."
- 28. <u>Governing Law and Venue</u>. This Agreement shall be construed in accordance with the laws of the State of California without regard to principles of conflicts of law. Venue for any litigation or other action arising hereunder shall reside exclusively in the Superior Court of the County of Los Angeles, Southwest Judicial District.
- 29. <u>Attorneys' Fees</u>. In the event either party to this Agreement brings any action to enforce or interpret this Agreement, the prevailing party in such action shall be entitled to reasonable attorneys' fees (including expert witness fees) and costs. This provision shall survive the termination of this Agreement.
- 30. <u>Claims</u>. Any claim by Consultant against City hereunder shall be subject to Government Code §§ 800 *et seq*. The claims presentation provisions of said Act are hereby modified such that the presentation of all claims hereunder to the City

- shall be waived if not made within six (6) months after accrual of the cause of action.
- 31. <u>Interpretation</u>. Consultant acknowledges that it has had ample opportunity to seek legal advice with respect to the negotiation of this Agreement. This Agreement shall be interpreted as if drafted by both parties.
- 32. Warranty. In the event that any product shall be provided to the City as part of this Agreement, Consultant warrants as follows: Consultant possesses good title to the product and the right to transfer the product to City; the product shall be delivered to the City free from any security interest or other lien; the product meets all specifications contained herein; the product shall be free from material defects in materials and workmanship under normal use for a period of one (1) year from the date of delivery; and the product shall be fit for its intended purpose(s). Notwithstanding the foregoing, consumable and maintenance items (such as light bulbs and batteries) shall be warranted for a period of thirty (30) days from the date of delivery. All repairs during the warranty period shall be promptly performed by Consultant, at Consultant's expense, including shipping. Consultant shall not be liable under this warranty for an amount greater than the amount set forth in Exhibit "C" hereto.
- 33. <u>Severance</u>. Any provision of this Agreement that is found invalid or unenforceable shall be deemed severed, and all remaining provisions of this Agreement shall remain enforceable to the fullest extent permitted by law.
- 34. <u>Authority</u>. City warrants and represents that upon City Council approval, the Mayor of the City of Redondo Beach is duly authorized to enter into and execute this Agreement on behalf of City. The party signing on behalf of Consultant warrants and represents that he or she is duly authorized to enter into and execute this Agreement on behalf of Consultant, and shall be personally liable to City if he or she is not duly authorized to enter into and execute this Agreement on behalf of Consultant.
- 35. <u>Waiver</u>. The waiver by the City of any breach of any term or provision of this Agreement shall not be construed as a waiver of any subsequent breach.

SIGNATURES FOLLOW ON NEXT PAGE

IN WITNESS WHEREOF, the parties have executed this Agreement in Redondo Beach, California, as of this 19<sup>th</sup> day of January, 2021.

CITY OF REDONDO BEACH	DIANE CLEARY
William C. Brand, Mayor	By: Name:    Display to the content of the content
ATTEST:	APPROVED:
Eleanor Manzano, City Clerk	Diane Strickfaden, Risk Manager
APPROVED AS TO FORM:	
Michael W. Webb, City Attorney	

#### **EXHIBIT "A"**

#### **SCOPE OF SERVICES**

#### **CONSULTANT'S DUTIES**

Consultant shall perform the following duties.

- 1. As assigned by the City Clerk, attend and take minutes of all City meetings and administrative hearings.
- 2. Read back motions for agency consideration and decision.
- 3. Tape record meetings to prepare written minutes accurately.
- 4. Transcribe the minutes from those tape recordings or a copy thereof.
- 5. After the completion of the meeting, series of meetings, or administrative hearing submit the written minutes within fifteen (15) days of the meeting, unless the City Clerk provides a written extension.
- 6. Submit the minutes in a format approved by the City Clerk via e-mail and/or computer disk.
- 7. Upon City Clerk's request, provide excerpts from any meeting within one day of the request.

#### **CITY'S DUTIES**

- 1. City will provide notice of any cancelled meeting within two (2) hours of the scheduled meeting.
- 2. City will verify the billings against the minutes of the meeting to ensure the accuracy of the invoices.

#### **EXHIBIT "B"**

#### **SCHEDULE FOR COMPLETION**

**TERM**. The term of this Agreement shall commence on January 1, 2021 and expire December 31, 2021 ("Term"), unless otherwise terminated herein.

#### **EXHIBIT "C"**

#### **COMPENSATION**

Provided Consultant is not in default under this Agreement, Consultant shall be compensated as provided below.

- 1. **AMOUNT**. Consultant shall be paid an hourly rate of \$35.00. Consultant shall bill to the nearest hour for transcription services. In no event shall Consultant bill for transcription that exceeds three (3) hours per one hour of meeting time.
- 2. METHOD OF PAYMENT. Consultant shall provide monthly invoices to City for approval and payment. Invoices must indicate the name of agency, dates of service, meeting hours, services performed, and transcription hours worked. Invoices must also be itemized, adequately detailed, based on accurate records, and in a form reasonably satisfactory to City. Consultant may be required to provide back-up material upon request.
- 3. **SCHEDULE FOR PAYMENT**. City agrees to pay Consultant within thirty (30) days of receipt of the invoice; provided, however, that the services are performed to the City's full satisfaction.
- 4. **NOTICE.** Written notices to City and Consultant shall be given by registered or certified mail, postage prepaid and addressed to or personally served on the following parties.

Consultant. Diane Cleary

4009 Mesa Street Torrance, CA 90505

Email: diane@dianecleary.com

Fax: (310) 424-7111

<u>City</u>. City of Redondo Beach

The City Clerk's Office 415 Diamond Street

Redondo Beach, CA 90277 Email: CityClerk@redondo.org Attn: Eleanor Manzano, City Clerk

All notices, including notices of address changes, provided under this Agreement are deemed received on the third day after mailing if sent by registered or certified mail. Changes in the respective address set forth above may be made from time to time by any party upon written notice to the other party.

#### **EXHIBIT "D"**

#### INSURANCE REQUIREMENTS FOR CONSULTANTS

Without limiting Consultant's indemnification obligations under this Agreement, Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

#### Minimum Scope of Insurance

Coverage shall be at least as broad as:

Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).

Workers' Compensation insurance as required by the State of California.

Employer's Liability Insurance.

#### Minimum Limits of Insurance

Consultant shall maintain limits no less than:

General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. The general aggregate limit shall apply separately to this project.

Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.

Employer's Liability: \$1,000,000 per accident for bodily injury or disease.

#### **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers or (2) the Consultant shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

#### Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

#### <u>Additional Insured Endorsement:</u>

General Liability: The City, its officers, elected and appointed officials, employees, and volunteers shall be covered as insureds with respect to liability arising out of work performed by or on behalf of the Consultant. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance, or as a separate owner's policy.

Automobile Liability: The City, its officers, elected and appointed officials, employees, and volunteers shall be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Consultant.

For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, elected and appointed officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

Each insurance policy shall be endorsed to state that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured.

Each insurance policy shall be in effect prior to awarding the contract and each insurance policy or a successor policy shall be in effect for the duration of the project. The maintenance of proper insurance coverage is a material element of the contract and failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract on the Consultant's part.

#### Acceptability of Insurers

Insurance shall be placed with insurers with a current A.M. Best's rating of no less than A:VII and which are authorized to transact insurance business in the State of California by the Department of Insurance.

#### Verification of Coverage

Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on the City authorized forms provided with the contract specifications. Standard ISO forms which shall be subject to City approval and amended to conform to the City's requirements may be acceptable in lieu of City authorized forms. All certificates and endorsements shall be received and approved by the City before the contract is awarded. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

#### Subcontractors

Consultant shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

#### Risk Management

Consultant acknowledges that insurance underwriting standards and practices are subject to change, and the City reserves the right to make changes to these provisions in the reasonable discretion of its Risk Manager.



### **Policy Number** 648833305

#### COMMON POLICY DECLARATIONS

# **Allstate Insurance Company**

2775 Sandare Boad Marthbrook II 60062

A STOCK INSURANCE COMPANY								
Item 1.	Named Insured and Mailing A	Address	Agent Name and Address					
4009	CLEARY MESA ST NCE CA 90505-6309		PALMER AGENCY 5000 E SPRING ST STE 390 LONG BEACH CA 90815					
Item 2.	Policy Period From:	11-07-2020	To: 11-07-2021					
	at 12:01	A.M., Standard Time	at your mailing address shown above.					
Item 3.	Business Description: TAX	PREPARATION	AND TRANSCRIPTION SERVICES					
	Form of Business: IND	IVIDUAL						
Item 4.	In return for the payment of the provide the insurance as state		bject to all the terms of this policy, we agree with you to					
	icy consists of the following coverage. This premium may be s		ch a premium is indicated. Where no premium is shown, the nt.	re				
	Coverage Part(s)		Premium					
Comme	rcial Property Coverage Part							
Comme	rcial General Liability Coverage	Part						
Crime and Fidelity Coverage Part								
	nd Fidelity Coverage Part							
	nd Fidelity Coverage Part rcial Inland Marine Coverage Pa	art						
Comme								
Comme	rcial Inland Marine Coverage Pa							
Comme	rcial Inland Marine Coverage Pa							
Comme Comme	rcial Inland Marine Coverage Parcial Auto (Business or Truckers		\$ 988.00					
Comme Comme Comme BUSIN	rcial Inland Marine Coverage Parcial Auto (Business or Truckers	s) Coverage Part	\$ 988.00					
Comme Comme Comme BUSIN	rcial Inland Marine Coverage Parcial Auto (Business or Truckers rcial Garage Coverage Part RESSOWNERS POLICY	s) Coverage Part	\$ 988.00					
Comme Comme Comme BUSIN	rcial Inland Marine Coverage Parcial Auto (Business or Truckers rcial Garage Coverage Part RESSOWNERS POLICY	s) Coverage Part	\$ 988.00  Total Policy Premium \$ 988.00					
Comme Comme Comme BUSIN	rcial Inland Marine Coverage Parcial Auto (Business or Truckers rcial Garage Coverage Part RESSOWNERS POLICY	s) Coverage Part						
Comme Comme BUSIN Terroris	rcial Inland Marine Coverage Parcial Auto (Business or Truckers rcial Garage Coverage Part IESSOWNERS POLICY m Risk Insurance Act Coverage	s) Coverage Part	Total Policy Premium \$ 988.00					
Comme Comme BUSIN Terroris	rcial Inland Marine Coverage Parcial Auto (Business or Truckers rcial Garage Coverage Part IESSOWNERS POLICY m Risk Insurance Act Coverage Forms and Endorsements	s) Coverage Part	Total Policy Premium \$ 988.00					

## SEE THE **IMPORTANT PAYMENT INFORMATION** FORM FOR DETAILS ABOUT PAYMENT OPTIONS

Countersigned:			
Date: 08-24-20	Ву:	PALMER AGENCY	
		Authorized Representative	



THIS COMMON POLICY DECLARATION AND THE SUPPLEMENTAL DECLARATION(S), TOGETHER WITH THE COMMON POLICY CONDITIONS, COVERAGE PART(S), COVERAGE FORM(S) AND FORMS AND ENDORSEMENTS, IF ANY, COMPLETE THE ABOVE NUMBERED POLICY.



Policy Number: 648833305

# BUSINESSOWNERS POLICY DECLARATIONS Allstate Insurance Company

Named Insured: DIANE CLEARY

**Effective Date:** 11-07-2020

12:01 A.M., Standard Time

Agent Name: PALMER AGENCY

**Described Premises:** 

See Schedule of Locations

Mortgage Holder Name and Address:

See Schedule Of Mortgagees

Blanket Insurance		
Blanket #	Type of Property	Limit of Insurance

Prem. No.	Property Deductible			Optional Coverage (Other Than Equipment reakdown Protection Coverage) Deductible	Windstorm or Hail Percenta Deductible		
001	\$	250	\$	500			

Additional Coverages - Optional Higher Limits / Extended Numb	er Of Days (Per Polic	ey)
	Additional	Limit of Insurance /
Coverage	Premium	Extended Number of Days
Forgery or Alteration		
Business Income – Extended Number of Days for Ordinary Payroll Expense		Days
Extended Business Income - Extended Number of Days		Days
Electronic Data - Increased Limit (Section I Property)		
Interruption of Computer Operations - Increased Limit		

Additional Coverages - Optional Higher (Per Premis	dditional Coverages - Optional Higher (Per Premises)								
Coverage	Prem No.	Additional Premium	Limit of Insurance						
Other: See Schedule of Additional Coverages - Per	Premises								

		Optional	Optional Revised Time
	Prem No.	Deductible	Deductible
Equipment Breakdown Protection Coverage			



THESE DECLARATIONS ARE PART OF THE POLICY DECLARATIONS CONTAINING THE NAME OF THE INSURED AND THE POLICY PERIOD.



#### SECTION II - LIABILITY AND MEDICAL EXPENSES

Each paid claim for the following coverages reduces the amount of insurance we provide during the applicable annual period. Please refer to **Section II - Liability** in the Businessowners Coverage Form and any attached endorsements.

Coverage	Limit of Insurance				
Liability And Medical Expenses	\$ 1,000,000	Per Occurrence			
Medical Expenses	\$ 5,000	Per person			
Damage To Premises Rented To You	\$ 50,000	Any One Premises			
Other Than Products / Completed Operations Aggregate	\$ 2,000,000				
Products/Completed Operations Aggregate	\$ 2,000,000				

Optional Coverages - Applicable only if an "X" is shown in the boxes below:								
	Coverage	Limit of Insurance						
	Broadened Coverage For Damage to Premises Rented to You			Per Occurrence				
	Self-storage Facilities – Customer Goods Legal Liability (Optional Increased Limits)			Per Occurrence				
	Motels – Liability for Guests' Property (Optional Limits)			Per Occurrence Per Guest				
	Motels – Liability for Guests' Property In Safe Deposit Boxes			Per Occurrence				
Deductib	le							
Optional	Property Damage Liability Deductible:							
	Per Claim		Per Occurrence					
				I S SOUTH AND PORT TO THE PORT PORT OF THE PORT OF THE SOUTH AND THE SOU				
Forms a	and Endorsements: See Schedule of Forms and End	dorsements						
Premiun	n for this Businessowners Policy: \$988.00							





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# AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND GLICKSMAN CONSULTING LLC

THIS AGREEMENT FOR CONSULTING SERVICES (this "Agreement") is made between the City of Redondo Beach, a Chartered Municipal Corporation ("City") and Glicksman Consulting LLC, a Florida Limited Liability Company ("Consultant" or "Contractor").

The parties hereby agree as follows:

- Description of Project or Scope of Services. The project description or scope of services to be provided by Consultant, and any corresponding responsibilities of City, or services required to be performed by City are set forth in Exhibit "A."
- 2. <u>Term and Time of Completion</u>. Consultant shall commence and complete the project or services described in Exhibit "A" in accordance with the schedule set forth in Exhibit "B".
- 3. <u>Compensation</u>. City agrees to pay Consultant for work performed in accordance with Exhibit "C".

\* \* \* \* \*

#### **GENERAL PROVISIONS**

- 1. <u>Independent Contractor</u>. Consultant acknowledges, represents and warrants that Consultant is not a regular or temporary employee, officer, agent, joint venturer or partner of the City, but rather an independent contractor. This Agreement shall not be construed as a contract of employment. Consultant shall have no rights to any benefits which accrue to City employees unless otherwise expressly provided in this Agreement. Due to the independent contractor relationship created by this Agreement, the City shall not withhold state or federal income taxes, the reporting of which shall be Consultant's sole responsibility.
- 2. <u>Brokers</u>. Consultant acknowledges, represents and warrants that Consultant has not hired, retained or agreed to pay any entity or person any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement.
- 3. <u>City Property</u>. All plans, drawings, reports, calculations, data, specifications, videos, graphics or other materials prepared for or obtained pursuant to this Agreement shall upon request be delivered to the City within a reasonable time, and the rights thereto shall be deemed assigned to the City. If applicable, Consultant shall prepare check prints upon request. Said plans, drawings,

reports, calculations, data, specifications, videos, graphics or other materials, shall be specific for the project herein and shall not be used by the City for any other project without Consultant's consent. Notwithstanding the foregoing, Consultant shall not be obligated to assign any proprietary software or data developed by or at the direction of Consultant for Consultant's own use; provided, however, that Consultant shall, pursuant to Paragraph 14 below, indemnify, defend and hold the City harmless from and against any discovery or Public Records Act request seeking the disclosure of any such proprietary software or data.

- 4. <u>Inspection</u>. If the services set forth in Exhibit "A" shall be performed on City or other public property, the City shall have the right to inspect such work without notice. If such services shall not be performed on City or other public property, the City shall have the right to inspect such work upon reasonable notice. Inspections by the City shall not relieve or minimize the responsibility of Consultant to conduct any inspections Consultant has agreed to perform pursuant to the terms of this Agreement. Consultant shall be solely liable for said inspections performed by Consultant. Consultant shall certify in writing to the City as to the completeness and accuracy of each inspection required to be conducted by Consultant hereunder.
- 5. Services. The project or services set forth in Exhibit "A" shall be performed to the full satisfaction and approval of the City. In the event that the project or services set forth in Exhibit "A" are itemized by price in Exhibit "C", the City in its sole discretion may, upon notice to Consultant, delete certain items or services set forth in Exhibit "A", in which case there shall be a corresponding reduction in the amount of compensation paid to Consultant. City shall furnish Consultant to the extent available, with any City standards, details, specifications and regulations applicable to the Project and necessary for the performance of Consultant's services hereunder. Notwithstanding the foregoing, any and all additional data necessary for design shall be the responsibility of Consultant.
- 6. Records. Consultant, including any of its subcontractors shall maintain full and complete documents and records, including accounting records, employee time sheets, work papers, and correspondence pertaining to the project or services set forth in Exhibit "A". Consultant, including any of its subcontractors shall make such documents and records available for City review or audit upon request and reasonable notice, and shall keep such documents and records, for at least four (4) years after Consultant's completion of performance of this Agreement. Copies of all pertinent reports and correspondence shall be furnished to the City for its files.
- 7. <u>Changes and Extra Work</u>. All changes and/or extra work under this Agreement shall be provided for by a subsequent written amendment executed by City and Consultant.

- 8. <u>Additional Assistance</u>. If this Agreement requires Consultant to prepare plans and specifications, Consultant shall provide assistance as necessary to resolve any questions regarding such plans and specifications that may arise during the period of advertising for bids, and Consultant shall issue any necessary addenda to the plans and specifications as requested. In the event Consultant is of the opinion that City's requests for addenda and assistance is outside the scope of normal services, the parties shall proceed in accordance with the changes and extra work provisions of this Agreement.
- 9. <u>Professional Ability</u>. Consultant acknowledges, represents and warrants that Consultant is skilled and able to competently provide the services hereunder, and possesses all professional licenses, certifications, and approvals necessary to engage in its occupation. City has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. Consultant shall perform in accordance with generally accepted professional practices and standards of Consultant's profession.
- 10. <u>Business License</u>. Consultant shall obtain a Redondo Beach Business License before performing any services required under this Agreement. The failure to so obtain such license shall be a material breach of this Agreement and grounds for immediate termination by City; provided, however, that City may waive the business license requirement in writing under unusual circumstances without necessitating any modification of this Agreement to reflect such waiver.
- 11. Termination Without Default. Notwithstanding any provision herein to the contrary, the City may, in its sole and absolute discretion and without cause, terminate this Agreement at any time prior to completion by Consultant of the project or services hereunder, immediately upon written notice to Consultant. In the event of any such termination, Consultant shall be compensated for: (1) all authorized work satisfactorily performed prior to the effective date of termination; and (2) necessary materials or services of others ordered by Consultant for this Agreement, prior to Consultant's receipt of notice of termination, irrespective of whether such materials or services of others have actually been delivered, and further provided that Consultant is not able to cancel such orders. Compensation for Consultant in such event shall be determined by the City in accordance with the percentage of the project or services completed by Consultant; and all of Consultant's finished or unfinished work product through the time of the City's last payment shall be transferred and assigned to the City. In conjunction with any termination of this Agreement, the City may, at its own expense, make copies or extract information from any notes, sketches, computations, drawings, and specifications or other data, whether complete or not.
- 12. <u>Termination in the Event of Default</u>. Should Consultant fail to perform any of its obligations hereunder, within the time and in the manner provided or otherwise violate any of the terms of this Agreement, the City may immediately terminate this Agreement by giving written notice of such termination, stating the reasons

for such termination. Consultant shall be compensated as provided immediately above, provided, however, there shall be deducted from such amount the amount of damages if any, sustained by the City by virtue of Consultant's breach of this Agreement.

- 13. Conflict of Interest. Consultant acknowledges, represents and warrants that Consultant shall avoid all conflicts of interest (as defined under any federal, state or local statute, rule or regulation, or at common law) with respect to this Agreement. Consultant further acknowledges, represents and warrants that Consultant has no business relationship or arrangement of any kind with any City official or employee with respect to this Agreement. Consultant acknowledges that in the event that Consultant shall be found by any judicial or administrative body to have any conflict of interest (as defined above) with respect to this Agreement, all consideration received under this Agreement shall be forfeited and returned to City forthwith. This provision shall survive the termination of this Agreement for one (1) year.
- 14. Indemnity. To the maximum extent permitted by law, Consultant hereby agrees, at its sole cost and expense, to defend protect, indemnify, and hold harmless the City, its elected and appointed officials, officers, employees, volunteers, attorneys, and agents (collectively "Indemnitees") from and against any and all claims, including, without limitation, claims for bodily injury, death or damage to property, demands, charges, obligations, damages, causes of action, proceedings, suits, losses, stop payment notices, judgments, fines, liens, penalties, liabilities, costs and expenses of every kind and nature whatsoever, in any manner arising out of, incident to, related to, in connection with or arising from any act, failure to act, error or omission of Consultant's performance or work hereunder (including any of its officers, agents, employees, Subcontractors) or its failure to comply with any of its obligations contained in the Agreement, or its failure to comply with any current or prospective law, except for such loss or damage which was caused by the gross negligence or willful misconduct of the City. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant or Indemnitees. This indemnification obligation shall survive this Agreement and shall not be limited by any term of any insurance policy required under this Agreement.
  - a. <u>Nonwaiver of Rights</u>. Indemnitees do not and shall not waive any rights that they may possess against Consultant because the acceptance by City, or the deposit with City, of any insurance policy or certificate required pursuant to this Agreement.
  - b. <u>Waiver of Right of Subrogation</u>. Consultant, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees.

- 15. <u>Insurance</u>. Consultant shall comply with the requirements set forth in Exhibit "D." Insurance requirements that are waived by the City's Risk Manager do not require amendments or revisions to this Agreement.
- 16. <u>Non-Liability of Officials and Employees of the City</u>. No official or employee of the City shall be personally liable for any default or liability under this Agreement.
- 17. <u>Compliance with Laws</u>. Consultant shall comply with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals, with respect to this Agreement, including without limitation all environmental laws, employment laws, and non-discrimination laws.
- 18. <u>Limitations upon Subcontracting and Assignment</u>. Consultant acknowledges that the services which Consultant shall provide under this Agreement are unique, personal services which, except as otherwise provided herein, Consultant shall not assign or sublet to any other party without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion. In the event that the City, in writing, approves any assignment or subletting of this Agreement or the retention of subcontractors by Consultant, Consultant shall provide to the City upon request copies of each and every subcontract prior to the execution thereof by Consultant and subcontractor. Any attempt by Consultant to assign any or all of its rights under this Agreement without first obtaining the City's prior written consent shall constitute a material default under this Agreement.

The sale, assignment, transfer or other disposition, on a cumulative basis, of twenty-five percent (25%) or more of the ownership interest in Consultant or twenty-five percent (25%) or more the voting control of Consultant (whether Consultant is a corporation, limited liability company, partnership, joint venture or otherwise) shall constitute an assignment for purposes of this Agreement. Further, the involvement of Consultant or its assets in any transaction or series of transactions (by way of merger, sale, acquisition, financing, transfer, leveraged buyout or otherwise), whether or not a formal assignment or hypothecation of this Agreement or Consultant's assets occurs, which reduces Consultant's assets or net worth by twenty-five percent (25%) or more shall also constitute an assignment for purposes of this Agreement.

- 19. <u>Subcontractors</u>. Consultant shall provide properly skilled professional and technical personnel to perform any approved subcontracting duties. Consultant shall not engage the services of any person or persons now employed by the City without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion.
- 20. <u>Integration</u>. This Agreement constitutes the entire agreement between the parties concerning the subject matter hereof and supersedes any previous oral or written agreement; provided, however, that correspondence or documents

- exchanged between Consultant and City may be used to assist in the interpretation of the exhibits to this Agreement.
- 21. <u>Amendment</u>. This Agreement may be amended or modified only by a subsequent written amendment executed by both parties.
- 22. <u>Conflicting Provisions</u>. In the event of a conflict between the terms and conditions of this Agreement and those of any exhibit or attachment hereto, this Agreement proper shall prevail. In the event of a conflict between the terms and conditions of any two or more exhibits or attachments hereto, those prepared by the City shall prevail over those prepared by Consultant.
- 23. <u>Non-Exclusivity</u>. Notwithstanding any provision herein to the contrary, the services provided by Consultant hereunder shall be non-exclusive, and City reserves the right to employ other contractors in connection with the project.
- 24. <u>Exhibits</u>. All exhibits hereto are made a part hereof and incorporated herein by reference; provided, however, that any language in Exhibit "A" which does not pertain to the project description, proposal, or scope of services (as applicable) to be provided by Consultant, or any corresponding responsibilities of City, shall be deemed extraneous to, and not a part of, this Agreement.
- 25. <u>Time of Essence</u>. Time is of the essence of this Agreement.
- 26. <u>Confidentiality</u>. To the extent permissible under law, Consultant shall keep confidential its obligations hereunder and the information acquired during the performance of the project or services hereunder.
- 27. <u>Third Parties</u>. Nothing herein shall be interpreted as creating any rights or benefits in any third parties. For purposes hereof, transferees or assignees as permitted under this Agreement shall not be considered "third parties."
- 28. <u>Governing Law and Venue</u>. This Agreement shall be construed in accordance with the laws of the State of California without regard to principles of conflicts of law. Venue for any litigation or other action arising hereunder shall reside exclusively in the Superior Court of the County of Los Angeles, Southwest Judicial District.
- 29. <u>Attorneys' Fees</u>. In the event either party to this Agreement brings any action to enforce or interpret this Agreement, the prevailing party in such action shall be entitled to reasonable attorneys' fees (including expert witness fees) and costs. This provision shall survive the termination of this Agreement.
- 30. <u>Claims</u>. Any claim by Consultant against City hereunder shall be subject to Government Code §§ 800 *et seq*. The claims presentation provisions of said Act are hereby modified such that the presentation of all claims hereunder to the City

- shall be waived if not made within six (6) months after accrual of the cause of action.
- 31. <u>Interpretation</u>. Consultant acknowledges that it has had ample opportunity to seek legal advice with respect to the negotiation of this Agreement. This Agreement shall be interpreted as if drafted by both parties.
- 32. Warranty. In the event that any product shall be provided to the City as part of this Agreement, Consultant warrants as follows: Consultant possesses good title to the product and the right to transfer the product to City; the product shall be delivered to the City free from any security interest or other lien; the product meets all specifications contained herein; the product shall be free from material defects in materials and workmanship under normal use for a period of one (1) year from the date of delivery; and the product shall be fit for its intended purpose(s). Notwithstanding the foregoing, consumable and maintenance items (such as light bulbs and batteries) shall be warranted for a period of thirty (30) days from the date of delivery. All repairs during the warranty period shall be promptly performed by Consultant, at Consultant's expense, including shipping. Consultant shall not be liable under this warranty for an amount greater than the amount set forth in Exhibit "C" hereto.
- 33. <u>Severance</u>. Any provision of this Agreement that is found invalid or unenforceable shall be deemed severed, and all remaining provisions of this Agreement shall remain enforceable to the fullest extent permitted by law.
- 34. Authority. City warrants and represents that upon City Council approval, the Mayor of the City of Redondo Beach is duly authorized to enter into and execute this Agreement on behalf of City. The party signing on behalf of Consultant warrants and represents that he or she is duly authorized to enter into and execute this Agreement on behalf of Consultant, and shall be personally liable to City if he or she is not duly authorized to enter into and execute this Agreement on behalf of Consultant.
- 35. <u>Waiver</u>. The waiver by the City of any breach of any term or provision of this Agreement shall not be construed as a waiver of any subsequent breach.

SIGNATURES FOLLOW ON NEXT PAGE

IN WITNESS WHEREOF, the parties have executed this Agreement in Redondo Beach, California, as of this 19<sup>th</sup> day of January, 2021.

CITY OF REDONDO BEACH	GLICKSMAN CONSULTING LLC
	Steven Licksman  13CFFEBOD496444
William C. Brand, Mayor	Name: Steven Glicksman
	Title: Consulting Actuary
ATTEST:	APPROVED:
	Discussified by:
	Viane Strictaden ABEDBCF35EEF48C
Eleanor Manzano, City Clerk	Diane Strickfaden, Risk Manager
APPROVED AS TO FORM:	
Michael W. Webb, City Attorney	

#### **EXHIBIT "A"**

#### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

#### **CONSULTANT'S DUTIES**

Consultant shall perform the following duties.

- 1. Review all relevant documents between the City and Independent Cities Risk Management Association ("ICRMA") as provided by the City, including but not limited to, the agreements, Bylaws, Memorandums of Coverage, and actuarial assessment reports.
- 2. Perform an actuarial analysis of the reasonableness of the assessment calculations provided by ICRMA to the City.
- 3. Provide a report summarizing the findings and validity of the reasonableness of the assessment calculations provided by ICRMA to the City.
- 4. Upon City's request, Consultant shall perform any services related to the City's past and present insurance pools.

# **EXHIBIT "B"**

# **SCHEDULE FOR COMPLETION**

<u>Term</u>. This Agreement shall commence on July 2, 2020 and shall continue until July, 31, 2021, unless otherwise terminated as herein provided.

#### **EXHIBIT "C"**

#### **COMPENSATION**

Provided Consultant is not in default under this Agreement, Consultant shall be compensated as provided below.

- 1. **AMOUNT**. Consultant shall be paid an hourly rate of \$295. Consultant shall obtain City's written approval prior to performing services beyond five hours. In no event shall the Contractor's total compensation exceed \$34,999.
- 2. METHOD OF PAYMENT. Consultant shall provide monthly invoices to City for approval and payment. Invoices must be adequately detailed, based on accurate records, and in a form reasonably satisfactory to City. Invoice shall be based on services performed and hours worked in the prior month. Additional back-up material, if necessary, must be available upon City's request.
- SCHEDULE FOR PAYMENT. City agrees to pay Consultant within thirty (30) days
  of receipt of monthly invoices; provided services are completed to the City's full
  satisfaction.
- NOTICE. Written notices to City and Consultant shall be given by registered or certified mail, postage prepaid and addressed to or personally served on the following parties.

Consultant: Glicksman Consulting, LLC

3124 NW 59 Street, Suite 100 Boca Raton, Florida 33496

Attention: Steven Glicksman, FCAS, MAAA

<u>City</u>: City of Redondo Beach

415 Diamond Street

Redondo Beach, CA 90277

Attention: Cristine Shin, Senior Deputy City Attorney

All notices, including notices of address changes, provided under this Agreement are deemed received on the third day after mailing if sent by registered or certified mail. Changes in the respective address set forth above may be made from time to time by any party upon written notice to the other party.

#### **EXHIBIT "D"**

#### INSURANCE REQUIREMENTS FOR CONSULTANTS

Without limiting Consultant's indemnification obligations under this Agreement, Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

#### Minimum Scope of Insurance

Coverage shall be at least as broad as:

Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).

Workers' Compensation insurance as required by the State of California.

Employer's Liability Insurance.

#### Minimum Limits of Insurance

Consultant shall maintain limits no less than:

General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. The general aggregate limit shall apply separately to this project.

Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.

Employer's Liability: \$1,000,000 per accident for bodily injury or disease.

#### **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers or (2) the Consultant shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

#### Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

#### <u>Additional Insured Endorsement:</u>

General Liability: The City, its officers, elected and appointed officials, employees, and volunteers shall be covered as insureds with respect to liability arising out of work performed by or on behalf of the Consultant. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance, or as a separate owner's policy.

Automobile Liability: The City, its officers, elected and appointed officials, employees, and volunteers shall be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Consultant.

For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, elected and appointed officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

Each insurance policy shall be endorsed to state that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured.

Each insurance policy shall be in effect prior to awarding the contract and each insurance policy or a successor policy shall be in effect for the duration of the project. The maintenance of proper insurance coverage is a material element of the contract and failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract on the Consultant's part.

#### Acceptability of Insurers

Insurance shall be placed with insurers with a current A.M. Best's rating of no less than A:VII and which are authorized to transact insurance business in the State of California by the Department of Insurance.

#### Verification of Coverage

Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on the City authorized forms provided with the contract specifications. Standard ISO forms which shall be subject to City approval and amended to conform to the City's requirements may be acceptable in lieu of City authorized forms. All certificates and endorsements shall be received and approved by the City before the contract is awarded. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

#### Subcontractors

Consultant shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

#### Risk Management

Consultant acknowledges that insurance underwriting standards and practices are subject to change, and the City reserves the right to make changes to these provisions in the reasonable discretion of its Risk Manager.



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/29/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

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DES	DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  E&O Split Retro Date: 11/1/041,000,000 / 1,000,000; 11/1/111,000,000 / 2,000,000.									
CE	RTIFICATE HOLDER				CANC	ELLATION				
	City of Redondo Beach 415 Diamond Street				THE	EXPIRATION	DATE THE	ESCRIBED POLICIES BE CA REOF, NOTICE WILL E Y PROVISIONS.		
	Redondo Beach CA 90277				AUTHORIZED REPRESENTATIVE					

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# Administrative Report

H.5., File # 20-1487 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKSDIRECTOR

#### **TITLE**

APPROVE PLANS AND SPECIFICATIONS FOR THE ELECTRIC VEHICLE CHARGING INFRASTRUCTURE, JOB NO. 20770

#### **EXECUTIVE SUMMARY**

The Plans and Specifications for the Electric Vehicle Charging Infrastructure Project, Job No. 20770 (Project), have been reviewed by City staff and electrical permits approved by the City Building Division. The Project Plans and Specifications are now ready for City Council's approval and authorization for competitive bidding.

The Project will install eight (8) electric vehicle (EV) charging stations at six different locations-Riviera Village Triangle Parking Lot (1), Police Department Front Parking Lot (1), City Hall Staff Parking Lot (1), Main Library Parking Garage (1), North Branch Library (1), Performing Arts Center Parking Lot (3). All EV charging stations will be accessible to the public except for the EV charging station located in the City Hall staff parking lot. Staff will recommend a fee structure to utilize the EV charging stations and present those recommendations to City Council for consideration before they are activated. All publicly accessible EV charging stations will be dual port level II charging stations, except for one DC fast charge station located at the Performing Arts Center.

The total current funding for the equipment and installation is \$275,000. Funding for this project is available in the Capital Improvement Project (CIP) No. 20770 and is composed of grant funding from the MSRC and AB 2766 subvention funds. Furthermore, in November 2020 City staff was notified, by the Southern California Incentive Project (SCIP), that funds for a DC fast charge station has been reserved for the City in the amount of up to \$70,000 or 75% of the cost, whichever is less. Those funds are not yet reflected in the current budget since they have not yet been appropriated by the City Council. The installation of all EV charging stations is planned to be completed in May 2021.

#### **BACKGROUND**

The Public Works Department applied and received a grant in the amount of \$89,400 from the Mobile Source Air Pollution Reduction Review Committee (MSRC) in October 2018 for the purchase and installation of EV charging stations. In order to apply and receive the grant funds the City had to commit matching funds, which the City Council appropriated AB 2766 subvention funds in the amount of \$185,600 via resolution. The agreement between the City and the South Coast Air Quality Management District (SCAQMD), which funds the MSRC, was approved on December 18, 2018.

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Prior to the ratification of the agreement between the City and SCAQMD, City Staff conducted a walkthrough of potential City owned sites that would not require major electrical upgrades, in order to control for costs, and that served various areas of the City. The list of potential sites was presented and approved by City Council prior to the development of any plans and specifications.

City staff initially explored procuring the EV charging stations along with the installation through the utilization of a cooperative purchasing agreement via Sourcewell. Staff worked with ChargePoint, the EV charging station manufacturer, along with Sourcewell staff to determine the viability of this procurement approach. Unfortunately, this approach was not viable. As such, the services of the on-call electrical engineering consultant, Lucci and Associates, Inc., were attained in July 2020 to develop project plans and specifications.

Lucci and Associates worked with City Staff over the last several months to develop the plans and specifications for the EV charging infrastructure project. The initial plan was to present the plans and specifications for Council consideration in December 2020, however, in November 2020 City staff was notified, by the Southern California Incentive Project (SCIP), that funds for a DC fast charge station had been reserved for the City in the amount of up to \$70,000 or 75% of the cost, whichever is less. Staff applied for these funds in December 2019. Staff directed Lucci and Associates to update the plans and specifications for the Performing Arts Center to incorporate the DC fast charger. All the plans and specifications for the various approved locations have been reviewed by City Staff.

Development of the plans and specifications also required compliance with Americans with Disabilities Act (ADA). The designated parking spaces chosen as EV charging locations were not ADA van accessible spaces. In creating the van accessible parking space, the loss of one parking space at all publicly accessible locations was required to comply with current ADA requirements. Staff worked with Lucci and Associates in order to mitigate and minimize any further loss of parking.

#### COORDINATION

This project has been coordinated with the Public Works Engineering and Operations Divisions, the Police Department, Library Services Department, Community Services Department, and the City Attorney's Office.

#### FISCAL IMPACT

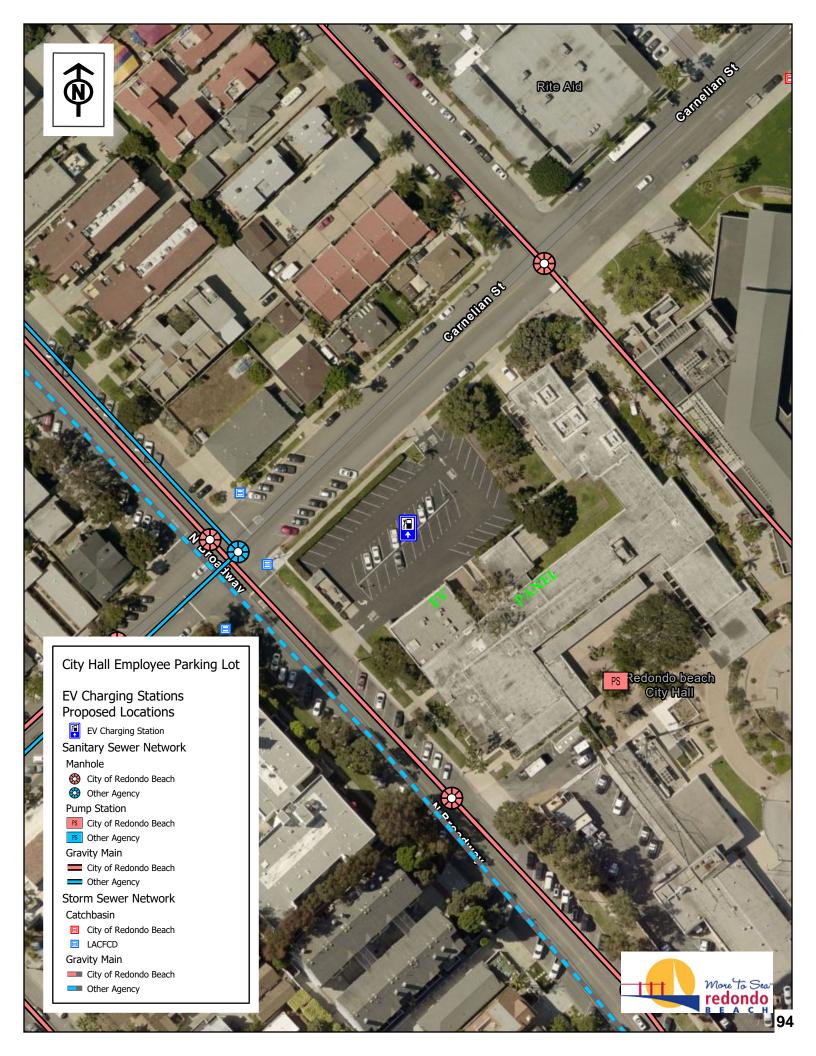
Funding for this project is available in the CIP Project No. 20770. There is currently \$275,000 appropriated to the project, including \$89,400 from the MSRC and \$185,600 from AB 2766 subvention funds. The funds from SCIP, up to \$70,000, is currently not reflected in the current available funding of \$275,000. The addition of the SCIP funds would bring the total potential available funding up to \$345,000.

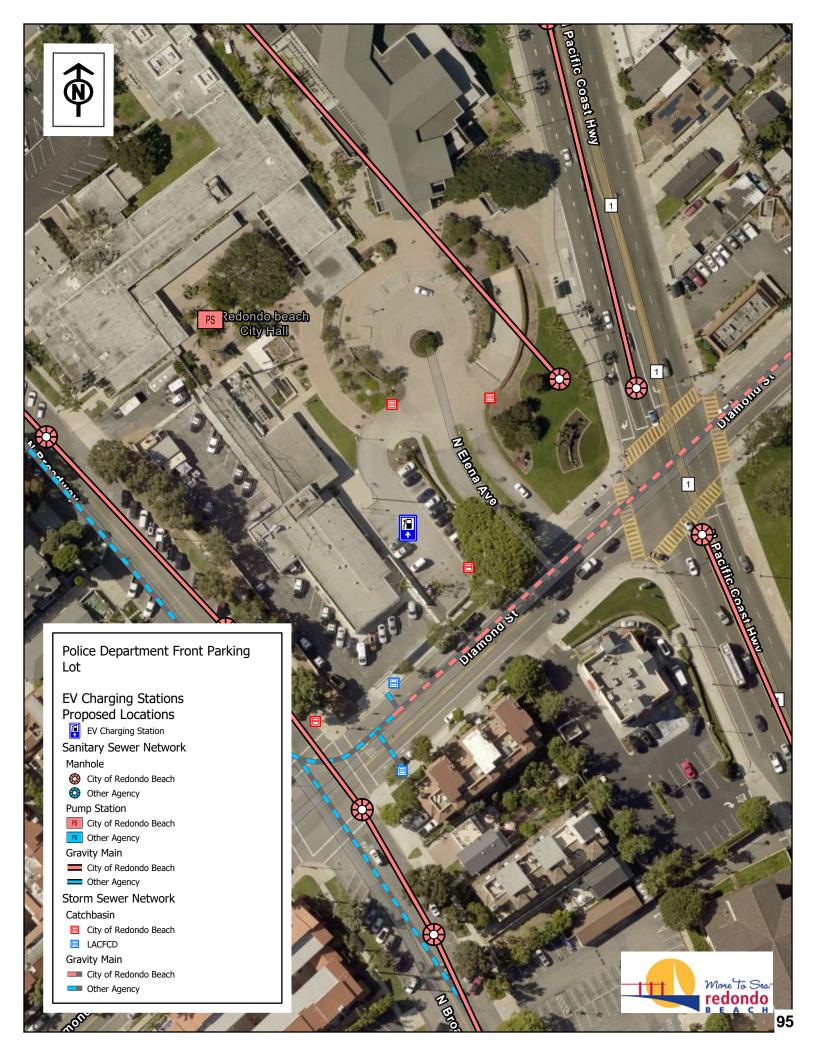
#### APPROVED BY:

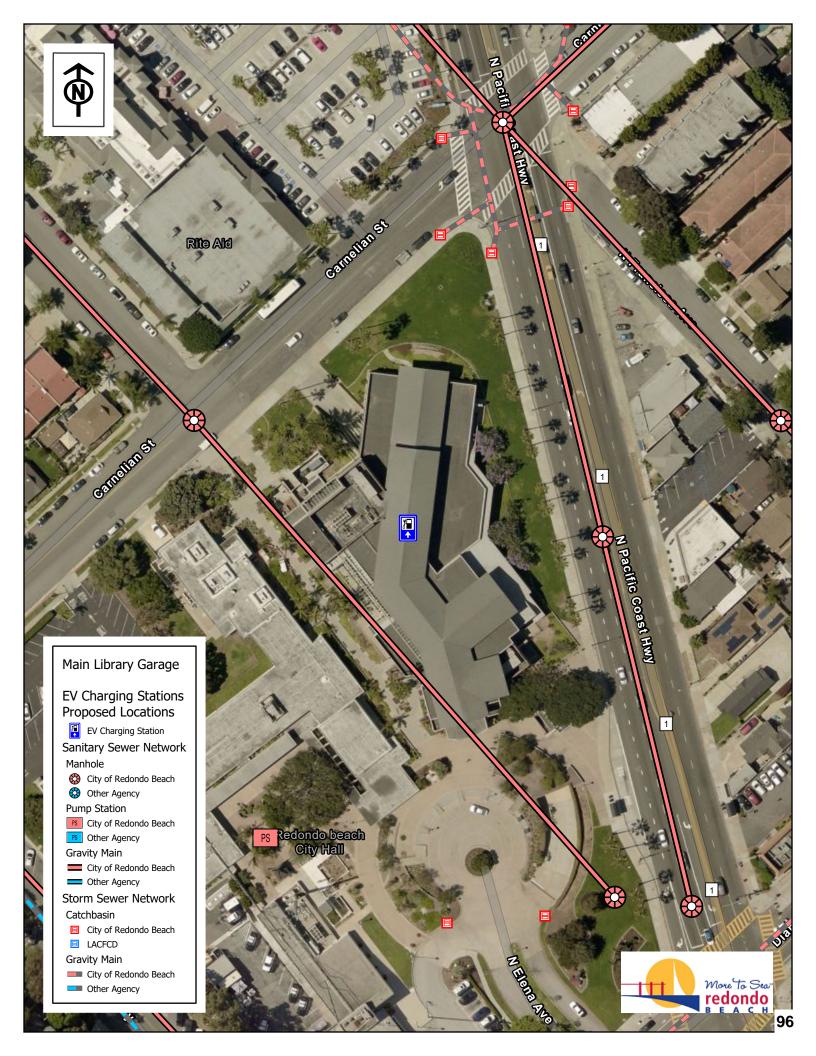
Joe Hoefgen, City Manager

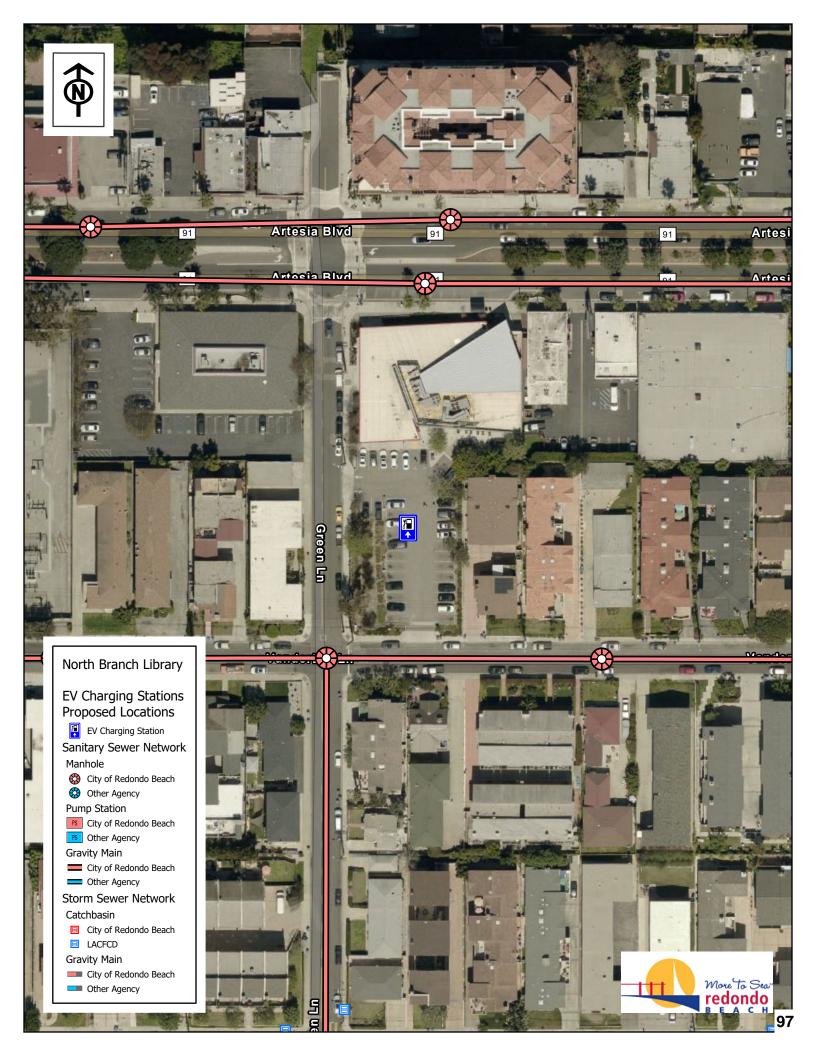
#### **ATTACHMENTS**

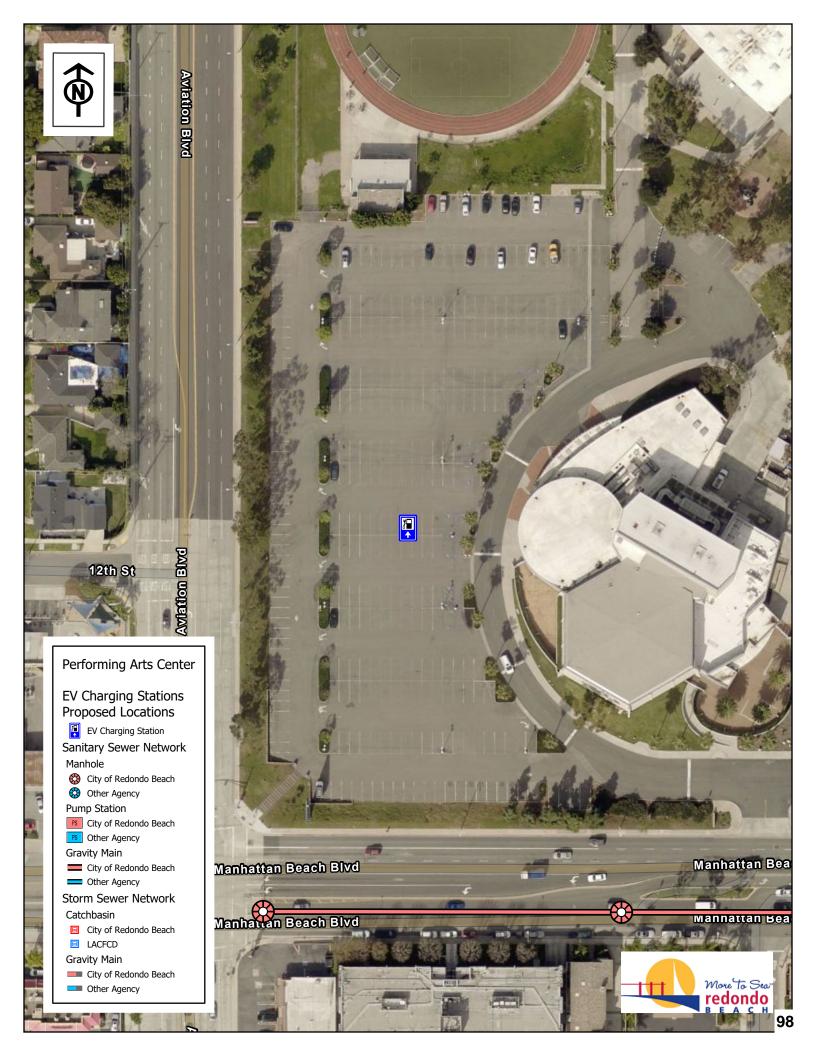
Map of Locations















# Administrative Report

H.6., File # 20-1657 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: STEPHEN PROUD, WATERFRONT AND ECONOMIC DEVELOPMENT

**DIRECTOR** 

#### TITLE

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-008, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, LEASING CERTAIN PROPERTY TO CANCER SUPPORT COMMUNITY REDONDO BEACH, A CALIFORNIA 501 (C)(3) NON-PROFIT CORPORATION

APPROVE A LEASE WITH CANCER SUPPORT COMMUNITY REDONDO BEACH FOR THE PREMISES AT 121 W. TORRANCE BOULEVARD, SUITE 201 FOR A MONTHLY AMOUNT OF \$2,467.76 FOR THE TERM JANUARY 19, 2021 - JANUARY 19, 2022

#### **EXECUTIVE SUMMARY**

The City purchased the former Pier Plaza leasehold in March 2012. The property includes several buildings totaling approximately 75,000 square feet of office and retail uses. The space at 121 W. Torrance Boulevard, Suite 201 (Premises) includes a total area of approximately 1,132 square feet.

Since 1987, Cancer Support Community Redondo Beach (CSC) has provided psychosocial and emotional support to over 24,000 cancer patients and their families. CSC offers over 250 programs, services classes, and workshops per month, all completely free of charge. CSC is currently on a month-to-month lease for 109 West Torrance Boulevard, Suite 100 and 102A, which totals approximately 4,305 square feet. Due to the financial loss caused by COVID-19 and the majority of their patients being high risk and immune compromised, CSC is requesting to downsize their office space. The proposed one-year lease is for 121 W. Torrance Boulevard, Suite 201, which totals approximately 1,132 square feet.

#### BACKGROUND

The Pier Plaza leasehold is comprised of buildings 103 to 131 West Torrance Boulevard (on the top level of the Pier Parking Structure) and totals approximately 75,000 square feet of pace. The property is prepared almost entirely for office uses; the long exception being a restaurant use of less than 4,000 square feet. The space at 121 W. Torrance Boulevard, Suite 201 (Premises) include a total area of approximately 1,132 square feet.

Cancer Support Community currently occupies 109 W. Torrance Boulevard, Suite 100 and 102A, which total approximately 4,305 square feet. The current lease commenced on February 19, 2013

H.6., File # 20-1657 Meeting Date: 1/19/2021

and expired on February 18, 2018. CSC has been on a month-to-month term since the lease expiration. The monthly rent is currently \$8,222.50, or \$98,670 annually, at \$1.91 per square foot.

With COVID-19, CSC has seen a 50% loss to their annual operating budget, mainly due to the cancellation of three in-person signature fundraising events and needs to downsize their office space. The proposed relocation is for space 121 W. Torrance Boulevard, Suite 201 for an approximate square footage of 1,132 square feet. The proposed lease is for a one-year term at a monthly rent of \$2,467.76 monthly or \$29,613.12 annually. The rental rate, at \$2.18 per square foot, is consistent with other similar office leases in the complex and broader market. Landlord will make standard building improvements to the space such as paint and carpet at a not-to-exceed amount of \$5,000.

#### COORDINATION

The Waterfront and Economic Development Department collaborated with the City Attorney's office on this report. The City Attorney's Office has approved the document as to form.

#### **FISCAL IMPACT**

Although there will be an annual loss of \$69,056 for Cancer Support Community's tenancy, the downsizing of their office space will allow them to remain at Pier Plaza to continue to provide service to the community. The two existing spaces will be actively marketed by BCUrban.

#### APPROVED BY:

Joe Hoefgen, City Manager

#### **ATTACHMENTS**

Lease - Cancer Community Support 2020 Resolution - Cancer Community Support

#### **OFFICE LEASE**

#### **BETWEEN**

#### CITY OF REDONDO BEACH, A CHARTERED MUNICIPAL CORPORATION

## **LANDLORD**

#### **AND**

CANCER SUPPORT COMMUNITY-REDONDO BEACH, A CALIFORNIA 501(C)(3) NONPROFIT CORPORATION

**TENANT** 

**DATED AS OF** 

**JANUARY 19, 2021** 

PIER PLAZA, REDONDO BEACH, CALIFORNIA 90277

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# **List of Exhibits**

Exhibit "A" - Premises Floor and Site Plans

Exhibit "B" - Lease Confirmation

Exhibit "C" - Rules and Regulations

Exhibit "D" - Parking Fee Schedule

Exhibit "E" – Guaranty

Exhibit "F" - Initial Leasehold Improvements

Exhibit "G" - Memorandum of Lease

#### **OFFICE LEASE**

#### 1. Parties

This Office Lease Agreement ("Lease") is made and entered into by and between the City of Redondo Beach, a Chartered Municipal Corporation ("Landlord" or "City"), and Cancer Support Community-Redondo Beach, A Califonia 501(C)(3) a Nonprofit Corporation ("Tenant") as of January 19, 2021.

- 2. <u>Summary of Basic Terms:</u> As used in this Lease, the following terms shall have the meanings set forth below, subject to the qualifications, adjustments and exceptions set forth elsewhere in this Lease. In the event of a conflict between the terms of this Summary and the Lease, the terms of the Lease shall prevail.
- (a) <u>Premises</u>: The space located at **121 W. Torrance Blvd., Suite 201**, Redondo Beach, CA 90277 consisting of approximately **1,132** rentable square feet.
- **(b)** <u>Building</u>: The office buildings located at 103-131 W. Torrance Blvd, Redondo Beach, CA 90277, including all plazas, lobbies, landscaped areas, office and commercial space.
- (c) <u>Land</u>: The parcel(s) of land upon which the Building is located, including common areas. Land is herein sometimes referred to as the "Real Property".
- (d) <u>Permitted Use</u>: For general Company offices and no other use without Landlord approval.
- (e) <u>Lease Term</u>: Twelve (12) Months, subject to Landlord's early termination right described below.
- (f) Commencement Date: January 19, 2021.
- (g) <u>Expiration Date</u>: January 19, 2022; subject to Landlord's Right to Terminate upon written notice or relocation as described in subsection (h).
- (h) <u>Right to Terminate</u>: Notwithstanding any other provision of this Lease, Landlord shall have the right to immediately terminate this Lease, upon prior written notice of the early termination date to Tenant.
- (i) Monthly Rent: \$2467.76 (Approximately \$2.18 per square foot).
- (j) Rentable Area of Premises: Approximately 1,132 gross square feet.
- (k) Parking: Parking shall be at such rates and terms set by Landlord from time to time in

accordance with Article 28 and Exhibit "D".

- (I) Operating Expense Base Year: 2021. See Section 8 of the Lease for definitions.
- (m) <u>Tenant's Share of Operating Expenses</u>: 1.66% per Article 8 of this Lease.
- (n) Tenant Improvements: N/A.
- (o) <u>Security Deposit</u>: Existing on file, \$2,562.00
- (p) <u>Tenant's Guarantor</u>: Corporate.
- **(q)** <u>Landlord's Address for Notices</u>: 107 W. Torrance Blvd, Suite #200, Redondo Beach, CA 90277, Attn: Property Manager
- (r) <u>Tenant's Addresses for Notices:</u> 121 W. Torrance Blvd., Suite 201 Redondo Beach, CA 90277, Attn:
- **Tenant's Affiliates**: All affiliates, directors, officers, shareholders, partners, agents, employees, invitees, customers, successors and assigns of Tenant.
- (t) <u>Landlord's Affiliates</u>: All officers, employees, elected and appointed officials, volunteers, invitees, successors, and assigns of the City.
- (u) <u>Liabilities</u>: All losses, damages, expenses, claims, demands, causes of action, lawsuits (whether at law, equity, or both), proceedings, injuries, liabilities, judgments, and costs (including, but not limited to, attorneys' fees and costs, and expert witness fees), and penalties, and liens of every nature (whether or not suit is commenced or judgment entered).
- (v) <u>Landlord's Broker</u>: BC Urban.
- (w) Tenant's Broker: N/A
- 3. <u>Demise and Term.</u> Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord, subject to all of the terms, covenants and conditions in this Lease. The Premises are leased for the Lease Term, which, subject to Article 4 below, shall commence on the Commencement Date and shall expire on the Expiration Date, unless sooner terminated pursuant to Landlord's Right to Terminate or otherwise under the provisions of this Lease.

#### 4. <u>Possession.</u>

4.1 <u>Delivery of Possession.</u> The Premises shall be delivered to Tenant in its current "AS-IS" condition with exception to items in Exhibit "F", if applicable. If Landlord cannot deliver possession of the Premises to Tenant by the Commencement Date this Lease will not be void or voidable, nor will Landlord be liable to Tenant for any loss or damage resulting from such delay. Notwithstanding anything to the contrary contained herein, Landlord will not be obligated to

deliver possession of the Premises to Tenant until Landlord has received from Tenant all of the following: (i) a copy of this Lease fully executed by Tenant and the guaranty of Tenant's obligations under this Lease, if any, executed by the Guarantor(s); (ii) the Security Deposit, if any, and the first installment of Monthly Basic Rent; and (iii) copies of policies of insurance or certificates thereof as required under Article 15 of this Lease.

4.2 <u>Delays Caused by Tenant</u>. Notwithstanding anything to the contrary in Article 4.1, if Landlord's failure to deliver possession of the Premises results from Tenant and/or Tenant's Affiliates' acts or omissions (including delays caused by Tenant's failure to supply the items referred to in Article 4.1), then the Commencement Date shall be the date stated in Article 2(f) of this Lease notwithstanding the Tenant and/or Tenant's Affiliates' delay. In no event shall the Lease Term be extended by any such delay. Tenant shall owe the amount of the Monthly Rent and Additional Rent from the Commencement Date.

#### 5. Condition of Premises.

5.1 <u>Condition of Premises.</u> Tenant hereby agrees and warrants that it has investigated and inspected the condition of the Premises, Building, and their suitability for Tenant's purposes, and Tenant does hereby waive and disclaim any objection to, cause of action based upon, or claim that its obligations hereunder should be reduced or limited because of the condition of the Premises, the Building, or the suitability of same for Tenant's purposes. Tenant acknowledges that neither Landlord nor Landlord's Affiliates has made any representations or warranty with respect to the Premises, the Building, their condition, or with respect to the suitability for Tenant's business. Tenant hereby agrees that the Premises shall be taken "AS-IS", "with all faults" and Landlord shall have no obligation to alter, remodel, improve, repair, decorate or paint the Premises or any part thereof, unless provided in Article 11 below. Tenant, at its sole expense, shall keep the Premises and every part thereof in good condition and repair and shall, upon the expiration or sooner termination of the Lease Term, surrender the Premises to Landlord in good condition.

#### 6. Rent.

- Monthly Rent. Tenant shall pay to Landlord as rent for the Premises the Monthly Rent as set forth in Article 2(i). The Monthly Rent shall be payable in advance on or before the first day of the first full calendar month of the Lease Term and on or before the first day of each successive calendar month thereafter during the Lease Term, except that the Monthly Rent for the first full calendar month of the Lease term and any prorated term shall be paid upon the execution of this Lease. The Monthly Rent for any period during the Lease Term which is for less than one (1) month shall be prorated based on a thirty (30)-day month. The Monthly Rent and all other rent hereunder shall be paid without prior notice or demand, without deduction or offset in lawful money of the United States of America which shall be legal tender at the time of payment, at the office of the Building or to another person or at another place as Landlord may from time to time designate in writing.
- 6.2 <u>Additional Rent</u>. The term "Additional Rent" means all other amounts payable by Tenant under this Lease (whether or not designated as Additional Rent), including without limitation Operating Expenses, taxes, insurance and repairs. The term "Rent" shall mean Monthly

Rent and Additional Rent. Landlord shall be entitled to exercise the same rights and remedies upon default in the Additional Rent payments as Landlord is entitled to exercise with respect to defaults in Monthly Rent payments.

Security Deposit. If required, upon the execution of this Lease, Tenant shall deposit the Security Deposit with Landlord as set forth in Article 2(o) above. The Security Deposit shall be held by Landlord as security for the performance of all of Tenant's obligations during the Lease Term. Upon any default by Tenant under this Lease, Landlord may, but shall not be obligated to, use, apply or retain all or any part of the Security Deposit for the payment of any Rent in default, or any other Liabilities which Landlord may incur as a result of or in connection with Tenant's default. If any portion of the Security Deposit is so used or applied, Tenant shall, within five (5) days after written demand therefore, deposit cash with Landlord in an amount sufficient to restore the Security Deposit to its previous amount. Landlord shall not be required to keep the Security Deposit separate from its general funds, and Tenant shall not be entitled to receive interest on the Security Deposit. If Tenant complies with all of the provisions of this Lease and is not then in default hereunder, the unused portion of the Security Deposit shall be returned to Tenant within thirty (30) days after the expiration or sooner termination of the Lease Term and surrender of the Premises to Landlord in the condition required hereunder.

## 8. **Operating Expenses.**

- 8.1 <u>Definitions</u>. As used in this Lease, the following terms have the meanings set forth below:
- (a) <u>Comparison Year</u>: Each calendar year after the Base Year, all or any portion of which falls within the Lease Term.
- (b) Operating Expenses: All costs and expenses of operating, maintaining and repairing the common areas, Building and the Land, including, but not limited to: water and sewer charges; insurance premiums for all insurance policies deemed necessary by Landlord; deductible amounts under insurance policies; janitorial services; wages of Landlord's employees engaged in the operation, maintenance or repair of the Building or the Land, including all customary employee benefits, Worker's Compensation and payroll taxes; reasonable management fees or, if no managing agent is retained for the Building, a reasonable sum in lieu thereof which is not in excess of the prevailing rate for management services charged by professional management companies for the operation of similar buildings; legal, accounting and other consulting fees; the cost of air conditioning, heating, ventilation, plumbing, electricity, water, sewer and other services and utilities serving common areas; elevator maintenance; capital improvements and replacements to all or any portion of the Building and the Land made after completion of the Building, appropriately amortized over the useful life of such improvements; all costs and expenses incurred by Landlord and interest on any funds borrowed to pay the cost of any capital improvements as a result of or in order to comply with any Laws, including, but not limited to, Laws pertaining to energy, natural resources conservation, safety, environmental protection; supplies, materials, equipment and tools; and maintenance and repair of all common areas. Operating Expenses do not include the depreciation on the existing Building and improvements, loan payments, executive salaries, real property and other taxes (see article 26 or real estate broker's commission.

- 8.2 <u>Payment for Increases in Operating Expenses</u>. The following shall be deemed increases in Operating Expenses.
- (a) <u>Increase from Base Year</u>. If the Operating Expenses paid or incurred by Landlord in any Comparison Year increase over the Operating Expenses paid or incurred for the Base Year, Tenant shall pay, as Additional Rent, commencing on the Commencement Date of this Lease, Tenant's Share of the increase in the manner set forth in this Article.
- (b) <u>Property at Less Than 95% Capacity</u>. If, during any period in a Comparison Year, less than ninety-five percent (95%) of the Building is rented the Operating Expenses for that Comparison Year shall be adjusted to what the Operating Expenses would have been if ninety-five percent (95%) of the Building had been rented throughout that Comparison Year.
- (c) <u>Prorated Operating Expenses</u>. Tenant's Share of increases in Operating Expenses shall be prorated for any partial Comparison Year which falls within the Lease Term.
- 8.3 Manner of Payment. Landlord shall deliver to Tenant a statement showing Landlord's reasonable estimate of the Operating Expenses for each Comparison Year and the amount of Tenant's Share of any increase in Operating Expenses based on such estimate. Commencing as of the first day of each Comparison Year, Tenant shall pay to Landlord, at the times and in the manner provided herein for the payment of Monthly Rent, the monthly portion(s) of Tenant's Share of any increases as shown by Landlord's statement. If Landlord's statement is furnished after January 1<sup>st</sup> of a Comparison Year, then on or before the first day of the first calendar month following Tenant's receipt of Landlord's statement, in addition to the monthly installment of Tenant's Share of any increases due on that date, Tenant shall pay the amount of Tenant's Share of any increases for each calendar month or fraction thereof that has already elapsed in such Comparison Year.
- 8.4 <u>Final Statement</u>. After the end of each Comparison Year (including the Comparison Year in which the Lease Term terminates), Landlord shall deliver to Tenant a reasonably detailed final statement of the actual Operating Expenses for such Comparison Year. Within ten (10) days of delivery of each final statement, Tenant shall pay Landlord the amount due for Tenant's Share of any increases in the Operating Expenses. Tenant shall have Sixty (60) days after delivery of Landlord's final statement to object in writing to the accuracy of the statement. If Tenant does not object within such Sixty (60)-day period, Landlord's final statement shall be conclusive and binding on Tenant. Objections by Tenant shall not excuse or abate Tenant's obligation to make the payments required under this Article pending the resolution of Tenant's objection. Any credit due Tenant for overpayment of Tenant's Share of any increases in the Operating Expenses shall be credited against the installments of Monthly Rent next coming due. However, overpayments for the Comparison Year in which the Lease Term terminates shall be refunded to Tenant within Sixty (60) days after the expiration of the Lease Term.

## 9. <u>Use of Premises.</u>

- 9.1 <u>Permitted Use</u>. Tenant shall use the Premises only for the Permitted Use set forth in Article 2(d) (the "Permitted Use") and for no other use or purpose, unless first approved in writing by Landlord, which approval Landlord may withhold in its sole discretion.
- 9.2 <u>Restrictions on Use</u>. Tenant agrees that it shall not cause or permit any of the following in or about the Premises
- (a) Increase the existing rate of, cause the cancellation of or otherwise adversely affect any casualty or other insurance for the Building or any part thereof or any of its contents;
- (b) Impair the proper and economic maintenance, operation and repair of the Building or any portion thereof;
- (c) Obstruct or interfere with the rights of other tenants or occupants of the Building or injure or annoy them;
  - (d) Cause any nuisance in or about the Premises or the Building;
  - (e) Commit or allow any waste to be committed to the Premises or the Building.

Tenant shall not use or allow any part of the Premises to be used for the storage, manufacturing or sale of food or beverages, or for the manufacture or auction or merchandise of goods or property of any kind, or as a school or classroom, or for any unlawful or objectionable purpose.

9.3 <u>Prohibited Uses.</u> Notwithstanding Articles 2(d) and 9, in no event shall the Premises be used for any exclusive use granted by Landlord to other tenants of the Premises prior to the date of this Lease, or any prohibited use in effect for the Premises prior to or subsequent to the date of this Lease.

### 10. Compliance with Laws.

- done in or about the Premises, the Building or the Land which will in any way conflict with any law, statute, ordinance, code, rule, regulation, requirement, license, permit, certificate, judgment, decree, order or direction of any governmental or quasi-governmental authority, agency, department, board, panel or court now in force or which may hereafter be enacted or promulgated (singularly and collectively "Laws"). Tenant shall also comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any governmental agency. Tenant shall, at its sole expense and cost, promptly comply with all Laws and with the requirements of any board of fire insurance underwriters or other similar bodies now or hereafter constituted, relating to or affecting the condition, use or occupancy of the Premises.
- 10.2 Tenant shall not be required to make structural changes to the Premises unless they arise or are required because of or in connection with Tenant's specific use of the Premises, or the

type of business conducted by Tenant in the Premises, or Tenant's Alterations or Tenant's acts or omissions. Tenant shall obtain and maintain in effect during the Lease Term all licenses and permits required for the proper and lawful conduct of Tenant's business in the Premises, and shall at all times comply with such licenses and permits. The judgment of any court of competent jurisdiction or the admission of Tenant in any action or proceeding (whether Landlord is a party or not) that Tenant has violated any Laws shall be conclusive of that fact as between Landlord and Tenant.

- 10.3 <u>Nondiscrimination</u>. Tenant hereby certifies and agrees that, in all matters affecting this Lease, it will comply with all applicable federal, State, and local laws and regulations prohibiting discrimination of any kind, including but not limited to, the Federal Civil Rights Act of 1964, Unruh Civil Rights Act, Cartwright Act, State Fair Employment Practices Act, and Americans with Disabilities Act.
- 10.4 <u>Employment Records</u>. All employment records shall be open for inspection and reinspection by Landlord at any reasonable time during the term of this Lease for the purpose of verifying the practice of nondiscrimination by Tenant in the areas heretofore described.

#### 10.5 Hazardous Materials.

Tenant shall not cause or permit any Hazardous Material(s) (as defined in this (a) Article) to be brought, kept or used in or about the Building by Tenant, Tenant's Affiliates, contractors provided Tenant may use and store normal quantities of products used for office purposes (such as toner, cleaning solvents or the like) as long as the same are used in compliance with applicable Laws. Tenant indemnifies Landlord and Landlord's Affiliates from and against any breach by Tenant of the obligations stated in the preceding sentence, and agrees to defend and hold Landlord and Landlord's Affiliates harmless from and against any and all claims, judgments, damages, penalties, fines, costs, liabilities, or losses (including, without limitation, diminution in value of the Building, damages for the loss or restriction or use of rentable or usable space or of any amenity of the Building, damages arising from any adverse impact or marketing of space in the Building, and sums paid in settlement of claims, attorneys' fees, consultant fees, and expert fees) which arise or accrue during, or are attributable to, the term of this Lease as a result of such breach. This indemnification of Landlord and Landlord's Affiliates by Tenant includes without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any federal, state, or local governmental agency or political subdivision because of Hazardous Material(s) present in the soil or ground water on or under the Building. Without limiting the foregoing, if the presence of any Hazardous Material(s) on the Building caused or permitted by Tenant and/or Tenant's Affiliates results in any contamination of the Building, Tenant shall promptly take all actions at its sole expense as are necessary to return the Building to the condition existing prior to the introduction of any such Hazardous Material(s) and the contractors to be used by Tenant must be approved by the Landlord, which approval shall not be unreasonably withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Building and so long as such actions do not materially interfere with the use and enjoyment of the Building by the other tenants thereof; provided however, Landlord shall also have the right, by notice to Tenant, to directly undertake such mitigation efforts with regard to Hazardous Material(s) in or about the Building

due to Tenant's breach of its obligations pursuant to this Section, and to charge Tenant, as Additional Rent, for the costs thereof.

- (b) Landlord covenants and agrees that in the event any unlawful levels of Hazardous Material(s) exist or are introduced in, on or about the Building, due to other than the actions or inaction of Tenant or Tenant's Affiliates, assignees, sublessees, licensees, or contractors, and any such Hazardous Material(s) are reasonably potentially injurious to Tenant's health, safety or welfare, or if any such unlawful levels of Hazardous Material(s) substantially interfere with Tenant's use of the Premises, Landlord shall, if required by applicable Laws, diligently commence to remove, restore, remediate or otherwise abate such Hazardous Material(s) in compliance with all Laws pertaining to Hazardous Material(s).
- (c) It shall not be unreasonable for Landlord to withhold its consent to any proposed transfer under Article 17 if (i) the proposed transferee's anticipated use of the Premises involves the generation, storage, use, treatment, or disposal of Hazardous Material(s); (ii) the proposed transferee has been required by any prior landlord, lender, or governmental authority to take remedial action in connection with Hazardous Material(s) contaminating a property if the contamination resulted from such transferee's actions or use of the Property in question; or (iii) the proposed transferee is subject to an enforcement order issued by any governmental authority in connection with the use, disposal, or storage of a Hazardous Material(s).
- As used herein, the term "Hazardous Material(s)" mean any hazardous or toxic substance, material, or waste which is or becomes regulated by any local governmental authority, the State of California or the United States Government. The term "Hazardous Material(s)" include, without limitation, any material or substance which is (i) defined as "Hazardous Waste," "Extremely Hazardous Waste," or "Restricted Hazardous Waste" under Sections 25115, 25117 or 25122.7, or listed pursuant to Section 25140, of the California Health and Safety Code, Division 20, Chapter 6.5 (Hazardous Waste Control Law), (ii) defined as a "Hazardous Substance" under Section 25316 of the California Health and Safety Code, Division 20, Chapter 6.8 (Carpenter-Presley-Tanner Hazardous Substance Account Act), (iii) defined as a "Hazardous Material," "Hazardous Substance," or "Hazardous Waste" under Section 25501 of the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory), (iv) defined as "Hazardous Substance" under Section 25281 of the California Health and Safety Code, Division 20, Chapter 6.7 (Underground Storage of Hazardous Substances), (v) petroleum, (vi) asbestos, (vii) regulated by Section 26100 et seq. of the California Health and Safety Code, Division 20, Chapter 18 (Toxic Mold Protection Act of 2001), (viii) listed under Article 9 or defined as Hazardous or extremely hazardous pursuant to Article 11 of Title 22 of the California Administrative Code, Division 4, Chapter 20, (ix) designated as a "Hazardous Substance" pursuant to Section 311 of the Federal Water Pollution Control Act (33 U.S.C. § 1317), or (x) defined as a "Hazardous Waste" pursuant to Section 1004 of the Federal Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. (42 U.S.C. § 6903), (xi) defined as a "Hazardous Substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq. (42 U.S.C. § 9601).

(e) As used herein, the term "Laws" mean any applicable federal, state or local laws, ordinances, or regulation relating to any Hazardous Material affecting the Building, including, without limitation, the laws, ordinances, and regulations referred to in Article 10.4 (d) above.

## 11. Alterations and Additions.

#### 11.1 Landlord's Consent.

- (a) Tenant shall not make or permit to be made any alterations, additions or improvements (singularly and collectively "Alterations") to the Building or the Premises or any part thereof without the prior written consent of Landlord in each instance.
- Landlord will not unreasonably withhold its consent to any Alterations provided and upon the condition that all of the following conditions shall be satisfied: (i) the Alterations do not affect the outside appearance of the Building; (ii) the Alterations are nonstructural and do not impair the strength of the Building or any part thereof; (iii) the Alterations are to the interior of the Premises and do not affect any part of the Building outside of the Premises; (iv) the Alterations do not affect the proper functioning of the heating, ventilating and air conditioning ("HVAC"), mechanical, electrical, sanitary or other utilities, systems and services of the Building, or increase the usage thereof by Tenant; (v) Landlord shall have approved the final plans and specifications for the Alterations and all contractors who will perform them; (vi) Tenant pays to Landlord (A) a fee in connection with the Alterations equal to five percent (5%) of the estimated cost of the work and the fee is sufficient to compensate Landlord for all overhead, general conditions, fees and other costs and expenses arising from Landlord's involvement with such work, and (B) the reasonable costs and expenses actually incurred by Landlord in reviewing Tenant's plans and specifications and inspecting the Alterations to determine whether they are being performed in accordance with the approved plans and specifications and in compliance with Laws, including, without limitation, the fees of any architect or engineer employed by Landlord for such purpose; (vii) before proceeding with any Alteration which will cost more than \$10,000 (exclusive of the costs of items constituting Tenant's Property, as defined in Article 11.2), Tenant obtains and delivers to Landlord, at Landlord's option, either: (C) a performance bond and a labor and materials payment bond for the benefit of Landlord, issued by a corporate surety licensed to do business in California, each in an amount equal to one hundred twenty five percent (125%) of the estimated cost of the Alterations and in form satisfactory to Landlord, or (D) such other security as shall be reasonably satisfactory to Landlord. Unless all of the foregoing conditions are satisfied, Landlord shall have the right to withhold its consent to the Alterations in Landlord's sole and absolute discretion.
- (c) Not less than twenty (20) days nor more than thirty (30) days prior to commencement of any Alterations, Tenant shall notify Landlord of the work commencement date so that Landlord may post notices of non responsibility about the Premises. All Alterations must comply with all Laws, the other terms of this Lease, and the final plans and specifications approved by Landlord, and Tenant shall fully and promptly comply with and observe the rules and regulations of Landlord then in force with respect to the making of Alterations. Landlord's review and approval of Tenant's plans and specifications are solely for Landlord's benefit. Landlord shall have no duty toward Tenant, nor shall Landlord be deemed to have made any representation or warranty to Tenant, with respect to the safety, adequacy, correctness, efficiency or compliance

with Laws of the design of the Alterations, the plans and specifications therefore, or any other matter regarding the Alterations.

- 11.2 Ownership and Surrender of Alterations. Upon their installation, all Alterations, including, but not limited to, wall covering, paneling and built-in cabinetry, but excluding movable furniture, trade fixtures and office equipment ("Tenant's Property"), shall become a part of the realty and belong to Landlord and shall be surrendered with the Premises. However, upon the expiration or sooner termination of the Lease Term, Tenant shall, upon written demand by Landlord, at Tenant's expense, immediately remove any Alterations made by Tenant which are designated by Landlord to be removed and repair any damage to the Premises caused by such removal.
- Liens. Tenant shall pay when due all claims for labor, materials and services 11.3 furnished by or at the request of Tenant or Tenant's Affiliates. Tenant shall keep the Premises, the Building and the Land free from all liens, security interests and encumbrances (including, without limitation, all mechanic's liens and stop notices) created as a result of or arising in connection with the Alterations or any other labor, services or materials provided for or at the request of Tenant or Tenant's Affiliates, or any other act or omission of Tenant or Tenant's Affiliates, or persons claiming through or under them. (Such liens, security interests and encumbrances singularly and collectively are herein called "Liens.") Tenant shall not use materials in connection with the Alterations that are subject to any Liens. Tenant shall indemnify Landlord and Landlord's Affiliates for, and hold Landlord and Landlord's Affiliates harmless from and against: (a) all Liens; (b) the removal of all Liens and any actions or proceedings related thereto; and (c) all Liabilities incurred by Landlord or Landlord's Affiliates in connection with the foregoing. If Tenant fails to keep the Premises, the Building and the Land free from Liens, then, in addition to any other rights and remedies available to Landlord, Landlord may immediately take any action necessary to discharge such Liens, including, but not limited to, payment to the claimant on whose behalf the Lien was filed, without any duty to investigate the validity thereof, and all sums, costs and expenses, including reasonable attorneys' fees and costs, incurred by Landlord in connection with such lien shall be deemed Additional Rent under this Lease and shall immediately be due and payable by Tenant. Tenant shall indemnify Landlord and Landlord's Affiliates for, and hold Landlord and Landlord's Affiliates harmless from and against, all Liabilities so incurred by Landlord, without regard to any defense or offset that Tenant may have had against the claimant. Neither Landlord's curative action nor the reimbursement of Landlord by Tenant shall cure Tenant's default in failing to keep the Premises, the Building and the Land free from Liens.
- 11.4 <u>Additional Requirements</u>. Alterations shall comply with all Laws. Tenant, at its sole expense, shall obtain and provide to Landlord all necessary permits and certificates for the commencement and performance of Alterations and for final approval thereof upon completion, and shall cause the Alterations to be performed in compliance therewith and with all applicable insurance requirements, and in a good, first-class and workmanlike manner. Landlord shall have all rights to review and approve or disapprove all required submittals in accordance with the Laws, and nothing set forth in this Lease shall be construed as the Landlord's approval of any or all of the applications or plans for the Alterations. Tenant, at its sole expense, shall diligently cause the cancellation or discharge of all notices of violation arising from or otherwise connected with Alterations, or any other work, labor, services or materials done for or supplied to Tenant or

Tenant's Affiliates, or by any person claiming through or under Tenant or Tenant's Affiliates. Alterations shall be performed so as not to interfere with any other tenant in the Building, cause labor disharmony therein, or delay or impose any additional expense on Landlord in the construction, maintenance, repair or operation of the Building. Throughout the performance of the Alterations, Tenant, at its expense, shall carry, or cause to be carried the Workers' Compensation insurance described in Article 15. Tenant shall furnish Landlord with satisfactory evidence that such insurance is in effect at or before the commencement of the Alterations and, upon request, at reasonable intervals thereafter until completion of the Alterations.

## 11.5 Compliance with Applicable Prevailing Wage Requirements.

Landlord intends to contribute an amount not to exceed \$2,500 toward the standard paint and building standard carpet installation TI project. Landlord and Tenant acknowledge that this particular TI project is a public work to which prevailing wages apply. Landlord acknowledges that this particular TI work is a "public work," and the following requirements apply to this TI work:

To the maximum extent permitted by law, Tenant shall defend (at Tenant's expense with counsel reasonably acceptable to the Landlord), indemnify and hold harmless the Landlord and its officers, employees, elected or appointed officials, volunteers, contractors and agents from and against any and all loss, demand, liability, damage, claim, cost, expense and/or "increased costs" (including reasonable attorneys' fees, court and litigation costs, and fees of expert witnesses) which, in connection with the construction of the Alterations, including, without limitation, any and all public works (as defined by applicable law), results or arises in any way from any of the following: (1) the noncompliance by Tenant or any of his subcontractors of any applicable local, state and/or federal law, including, without limitation, any applicable federal and/or state labor laws (including, without limitation, if applicable, the requirement to pay state prevailing wages); (2) the implementation of Section 1781 of the Labor Code, as the same may be amended from time to time, or any other similar law; and/or (3) failure by Tenant or any of his subcontractors to provide any required disclosure or identification as required by Labor Code Section 1781, as the same may be amended from time to time, or any other similar law. It is agreed by the parties that, in connection with the construction of the Alterations, including, without limitation, any and all public works (as defined by applicable law), Tenant shall bear all risks of his and his subcontractors' payment or non-payment of prevailing wages under California law and the implementation of Labor Code Section 1781, as the same may be amended from time to time, and any other similar law. "Increased costs," as used in this Section, shall have the meaning ascribed to it in Labor Code Section 1781, as the same may be amended from time to time. The foregoing indemnity shall survive termination of this Lease.

## 12. Repairs.

12.1 <u>Condition of Premises</u>. As provided in Article 5, the Premises shall be delivered to Tenant in an "AS IS" and "ALL FAULTS" condition and Landlord shall have no obligation whatsoever to alter, remodel, improve, repair, decorate, or paint the Premises or any part thereof either prior to or during the Lease Term except to the extent expressly provided in Section 12.3 below. By accepting possession of the Premises, Tenant shall be deemed to have acknowledged

that the Premises are suitable for its purposes and in good condition and repair. Subject to Section 12.2, Tenant, at its expense, shall keep the Premises and every part thereof in good condition and repair and shall, upon the expiration or sooner termination of the Lease Term, surrender the Premises to Landlord and in good condition and repair. Tenant acknowledges and agrees that it has inspected, or prior to the Commencement Date will inspect, the Premises and that Tenant is not relying on any representations or warranties made by Landlord or Landlord's Affiliates regarding the Premises, the Building, or the Land except as may be expressly set forth herein.

12.2 <u>Landlord's Obligation to Repair</u>. Subject to Article 16, Landlord shall repair and maintain the common areas and the structural portions of the Building, including, but not limited to, the structural portions of the roof, the foundations, exterior load-bearing walls, and the basic HVAC, mechanical, electrical and plumbing systems installed by Landlord in the Building. However, if the repair or maintenance is caused in whole or in part by the act, neglect, fault or omission of Tenant or Tenant's Affiliates, or by Tenant's Alterations, Tenant immediately shall pay for such repair or maintenance as Additional Rent within fifteen (15) days of Tenant's receipt of invoice. Tenant shall indemnify Landlord for and hold Landlord and Landlord's Affiliates harmless from and against all other Liabilities incurred by Landlord and Landlord's Affiliates in connection therewith. Landlord shall have a reasonable time after written notice from Tenant to perform necessary repairs or maintenance. Tenant waives all rights granted under Law to make repairs at Landlord's expense.

## 13. <u>Services and Utilities</u>.

13.1 <u>Landlord's Services</u>. Subject to the rules and regulations of the Building, Landlord shall furnish the required water, plumbing, electrical and HVAC required in Landlord's judgment for the comfortable use and occupancy of the Premises, and janitorial services, as hereinafter provided. Landlord shall also maintain the common stairs, entries and rest rooms in the Building lighted. If Landlord shall determine, in the exercise of Landlord's sole but good faith discretion, that the Tenant's use of the utilities is in excess of that normally used by a tenant occupying similar space, then Tenant shall pay Landlord upon demand, as Additional Rent hereunder, the cost of such excess utility usage in addition to any other Rent or charge due from Tenant under this Lease.

#### 13.2 Utility Charges.

(a) Tenant shall be solely responsible for obtaining and shall promptly pay directly to the utility supplier all fees, deposits and charges including use and/or connection fees, hookup fees, standby fees and/or penalties for discontinued or interrupted service, and the like, for electricity, gas and water used in or upon or furnished to the Premises, irrespective of whether any of the foregoing are initially paid or advanced by Landlord, or otherwise. If electricity, gas or water service is billed to Landlord and is not specifically metered to the Premises, the amount thereof shall be equitably prorated by Landlord and Tenant shall pay to Landlord within ten (10) days after Landlord's demand, as Additional Rent hereunder, an amount equal to that proportion of the total charges therefore which the number of square feet of gross floor area in the Premises bears to the total number of square feet of gross floor area covered by such combined charges. Additionally, if the Premises are not separately metered, Landlord shall have the right to install

separate meters. Since the Premises are not separately metered, Tenant shall pay the above described utilities as part of the base year component of the modified gross rent.

- (b) In no event shall Landlord be liable for damages or otherwise for any interruption, reduction, disruption, curtailment or failure in the supply, quality or character of electricity, centrally conditioned cold air or any other utility or other service, or if either the quantity, quality or character thereof supplied to or by Landlord is changed or is no longer available or suitable for Tenant's requirements, nor shall any such interruption, reduction, disruption, curtailment, failure or change in quantity, quality or character constitute or be deemed to constitute constructive eviction of Tenant, or excuse or relieve Tenant from its obligations pursuant to this Lease.
- 13.3 <u>Janitorial Services</u>. The janitorial services to be provided by Landlord to Tenant shall be provided five (5) days a week, Monday through Friday (except for nationally and locally recognized holidays). Janitorial services shall be those customarily furnished for similar buildings in the general vicinity of the Building.
- 13.4 <u>Hours of Operation</u>. HVAC for the Premises shall be provided five (5) days a week, Monday through Friday, from 7:00 a.m. to 6:00 p.m. and Saturdays from 9:00 a.m. to 1:00 p.m. (excluding nationally and locally recognized holidays). Tenant shall not be entitled to any abatement of Rent or have any right to terminate this Lease in the event Landlord is unable to provide the services set forth herein.
- 13.5 Extra Hours. If during any hours or any days other than those specified in Article 13.4, Tenant desires to have any services or utilities supplied to the Premises which are not separately metered, and provided Landlord receives reasonable advance notice thereof, and if Landlord is able to provide the same, Tenant shall pay Landlord such charge as Landlord shall establish from time to time for providing such services and utilities, at a cost currently estimated at \$35.00 per hour, which are not separately metered to the Premises. Any such charges which Tenant is obligated to pay shall be deemed to be Additional Rent hereunder.
- 14. Entry by Landlord. Landlord shall have the right to enter the Premises during regular business hours in order to: inspect the Premises; post notices of non-responsibility; show the Premises to prospective purchasers, lenders or tenants; perform its obligations and exercise its rights hereunder; and make repairs, improvements, alterations or additions to the Premises or the Building or any portion thereof as Landlord deems necessary or desirable and to do all things necessary in connection therewith, including, but not limited to, erecting scaffolding and other necessary structures. Landlord shall retain (or be given by Tenant) keys to unlock all of the doors to or within the Premises, excluding doors to Tenant's vaults and files. Landlord shall have the right to use any and all means necessary to obtain entry to the Premises in an emergency. Landlord's entry to the Premises shall not, under any circumstances, be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an eviction of Tenant from the Premises or any portion thereof.

## 15. Tenant's Insurance.

- 15.1 <u>Property Insurance</u>. At all times during the Lease Term, Tenant, at its expense, shall maintain in effect policies of casualty insurance covering: (a) all alterations made by Tenant and all leasehold improvements; and (b) all of Tenant's Property and other Personal Property from time to time in, on or about the Premises, in an amount not less than their full replacement cost (without deduction for depreciation) from time to time during the term of this Lease. Such policies shall provide for protection against any perils normally included within the classification of "All Risks", and shall cover demolition and changes in Laws. Such insurance shall contain an endorsement naming the Landlord and Landlord's Mortgagee as loss payee and an endorsement waiving the insurer's right to subrogate against the Landlord or Landlord's Mortgagee.
- 15.2 <u>Commercial General Liability Insurance</u>. At all times during the Lease Term, Tenant, at its sole expense, shall maintain Commercial General Liability Insurance with respect to the ownership, maintenance, use, operation and condition of the Premises and the business conducted therein. Such insurance shall at all times have limits of not less than One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) in the aggregate. At Landlord's request, these limits shall be increased from time to time during the Lease Term to such higher limits as Landlord or its insurance consultant believe are necessary to protect Landlord. Such insurance shall be primary and not contribute with any self-insurance or insurance maintained by the Landlord or Landlord's Mortgagee, and shall contain an endorsement naming Landlord and Landlord's Mortgagee, their elected and appointed officials and employees as additional insureds.
- 15.3 <u>Workers' Compensation Insurance</u>. At all times during the Lease Term, Tenant shall maintain Workers' Compensation insurance as required by California law and Employer's Liability insurance with limits not less than \$1 million (\$1,000,000) each accident. Such insurance shall contain an endorsement waiving the insurer's right to subrogate against the Landlord, the Landlord's Mortgagee or their elected or appointed officials and employees.
- 15.4 <u>Policy Requirements</u>. All insurance required to be carried by Tenant hereunder shall be issued by insurers with a current A.M. Best's rating of no less that A-VII and qualified to do business in the State of California, approved by Landlord and, if required, by Landlord's Mortgagee. Copies of all certificates and required endorsements shall be delivered to Landlord at least ten (10) days prior to Tenant's occupancy of the Premises. Each policy shall provide that it may not be canceled except after thirty (30) days' prior written notice to Landlord and Landlord's Mortgagee. Tenant shall furnish Landlord with renewal certificates or binders of each policy evidencing compliance with those requirements at least thirty (30) days prior to expiration. Tenant shall have the right to provide insurance coverage pursuant to blanket policies obtained by Tenant if the blanket policies expressly afford coverage as required by this Lease.
- 15.5 Tenant's Failure to Deliver Policies. Upon Landlord's request, Tenant shall deliver certified copies of all required insurance policies to the Landlord. If Tenant fails to deliver required certificates of insurance, required endorsements or requested copies of the insurance policies within the time required pursuant to Article 15.4, Landlord may, but shall not be obligated to, obtain the required insurance, and the cost thereof, shall be payable by Tenant to Landlord on demand. Nothing in this Article shall be deemed to be a waiver of any rights or remedies available to Landlord under this Lease or at law or in equity if Tenant fails to obtain and deliver the required insurance policies and evidence of payment.

### 16. Damage or Destruction; Eminent Domain.

- 16.1 <u>Landlord's Restoration</u>. If the Building or the Premises are partially damaged or totally destroyed by fire or other casualty, Tenant shall assign to Landlord (or to any party designated by Landlord) all insurance proceeds payable to Tenant under Tenant's insurance carried under Article 15 of this Lease. Upon Landlord's receipt of notice of the damage or destruction and substantially all of the insurance proceeds receivable, Landlord shall repair the damage and restore or rebuild the Building or the Premises (except for Tenant's Property and leasehold improvements which are above the standard of the Building). However, Landlord shall not be required to spend amounts in excess of the insurance proceeds actually received for such repair, restoration or rebuilding. Subject to Article 22, Landlord shall attempt to make any required repairs or restoration promptly and so as not to interfere unreasonably with Tenant's use and occupancy of the Premises, but Landlord shall not be obligated to perform such work on an overtime or premium-pay basis.
- 16.2 Rent Abatement. Subject to Article 16.3, if, in Landlord's reasonable judgment, all or part of the Premises are rendered completely or partially untenantable on account of fire or other casualty, the Monthly Rent shall be abated (to the extent of Landlord's rental loss insurance carried hereunder) in the proportion that the rentable area of the untenantable portion of the Premises bears to the total Area of the Premises. Such abatement shall commence on the date of the damage or destruction and shall continue until the Premises have been substantially repaired and Tenant has reasonable access to the Premises. However, if Tenant reoccupies the damaged portion of the Premises prior to the date that the Premises are substantially repaired, the Monthly Rent allocable to the reoccupied portion shall be payable by Tenant from the date of such occupancy in the proportion that the rentable area of the reoccupied portion of the Premises bears to the total Area of the Premises.
- 16.3 Exception to Abatement. Notwithstanding Article 16.2, if the damage is due to the fault or neglect of, including, without limitation, Tenant, Tenant's Affiliates, contractors, and guests, or Landlord is unable to collect all of the insurance proceeds (including, without limitation, rent insurance proceeds) for damage or destruction of the Premises or the Building, there shall be no abatement of Monthly Rent to Landlord (or any Landlord's Mortgagee). Provided Tenant is able to reoccupy the damaged portion of the Premises under applicable Laws and reoccupies the damaged portion of the Premises prior to the date that the Premises are substantially repaired, the Monthly Rent allocable to the reoccupied portion shall be payable by Tenant from the date of such occupancy. Landlord's collection of Monthly Rent shall not preclude Landlord from seeking damages from Tenant or exercising any other rights and remedies it under this Lease or at law or in equity.
- 16.4 <u>Election to Terminate</u>. Landlord or Tenant may terminate this Lease upon written notice to the other party if: (a) the Building or the Premises are substantially or totally destroyed or, in Landlord's sole judgment, rendered untenantable by fire or other casualty or any other cause; or (b) the Building is damaged or rendered untenantable (whether or not the Premises are damaged or destroyed or rendered untenantable) so that its repair or restoration requires the expenditure (as estimated by a contractor or architect designated by Landlord) of more than twenty percent (20%)

of the full insurable value of the Building immediately prior to the casualty; or (c) less than two (2) years remains in the Lease Term at the time of the damage or destruction or events which render the Building or the Premises untenantable and the time necessary to repair or restore the Building or the Premises would exceed ninety (90) days (as estimated by a contractor or architect designated by Landlord); or (d) Landlord would be required under Article 16.2 to abate or reduce the Monthly Rent for a period in excess of four (4) months if repairs or restoration were undertaken. If Landlord or Tenant elects to terminate this Lease, its notice of termination shall be given within sixty (60) days after the date of the damage, destruction or events causing untenantability. Such notice shall include a termination date giving Tenant ninety (90) days to vacate the Premises.

- 16.5 Eminent Domain. Landlord may terminate this Lease upon written notice to Tenant if twenty-five percent (25%) or more of either the Premises, the Building or the Land is condemned, taken or appropriated by any public or quasi-public authority (collectively "Taking or Appropriation") under the power of eminent domain, police power or otherwise (or in the event of a sale in lieu thereof). Whether or not this Lease is so terminated, Landlord shall be entitled to any and all income, Rent, award, or interest thereon which may be paid or made in connection with the Taking or Appropriation, and Tenant shall have no claim against Landlord for the value of any unexpired term of this Lease. If Landlord elects to terminate this Lease, its notice of termination shall be given within sixty (60) days after the Taking or Appropriation. If such notice is not given or if Landlord notifies Tenant of Landlord's election not to terminate, this Lease shall continue in full force and effect, except that the Monthly Rent shall be reduced in the proportion that the Premises which is taken bears to the total Area of the Premises. Nothing contained in this Article shall prevent Tenant from bringing a separate action or proceeding for compensation for any of Tenant's Property taken and Tenant's moving expenses. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of the California Code of Civil Procedure.
- 16.6 <u>Business Interruption</u>. Landlord shall not incur any Liabilities of any type to Tenant, Tenant's Affiliates, contractors, or guests arising from or in connection with any damage or destruction of the Premises, the Building or the Land, or any Taking or Appropriation thereof, or any repairs or restoration in connection therewith, nor shall Tenant have any right to terminate this Lease as a result thereof. However, in such event, Monthly Rent shall be abated if and to the extent that abatement is allowed pursuant to this Article.
- 16.7 <u>Waiver</u>. To the extent permitted under law, Tenant waives the application of any Laws now or hereafter in effect which are contrary to the provisions of this Article in connection with any damage, destruction, Taking or Appropriation (or grant deed or other instrument in lieu) of all or any portion of the Premises, the Building, or the Land.

### 17. Assignment and Subletting.

17.1 <u>Landlord's Consent Required</u>. Tenant shall not voluntarily, involuntarily or by operation of any Laws sell, convey, mortgage, assign, sublet or otherwise transfer or encumber (collectively "Transfer") all or any part of Tenant's interest in this Lease or the Premises without Landlord's prior written consent in each instance, which consent shall not be unreasonably withheld, conditioned or delayed except as otherwise provided in this Article, and any attempt to do so without this consent shall be null and void. If Tenant desires to Transfer its interest in this

Lease to all or any part of the Premises, Tenant shall notify Landlord in writing. This notice shall state and/or be accompanied by: (a) the proposed effective date of the Transfer, which shall not be less than 45 days after the date of delivery of the notice, (b) a description of the portion of the Premises to be transferred; (c) a statement setting forth the name and business of the proposed Transferee; (d) a copy of the proposed Transfer agreement (and any collateral agreements) setting forth all of the terms and the financial details of the Transfer (including, without limitation, the term, the Rent and any security deposit, "key money", calculation of "Transfer Premium" as defined in Article 17.5, and amounts payable for Tenant's Property and the common use of any personnel or equipment); (e) current financial statements of the proposed Transferee certified by an independent certified public accountant and other information requested by Landlord relating to the proposed Transferee; and (f) any other information concerning the proposed Transfer which Landlord may reasonably request. Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void, and of no effect, and constitute a default by Tenant under this Lease.

- 17.2 <u>Consent by Landlord</u>. Tenant agrees that the withholding of Landlord's consent shall be deemed reasonable if any of the following conditions are not satisfied:
- (a) The proposed Transferee shall use the Premises only for the Permitted Use, and the business of the proposed Transferee is consistent with the other uses and the standards of the Building, in Landlord's reasonable judgment.
- (b) On the date consent is requested, the proposed Transferee is reputable and has a net worth not less than the net worth of Tenant on the execution of this Lease, has a credit rating reasonably acceptable to Landlord, and otherwise has sufficient financial capabilities to perform all of its obligations under this Lease or the proposed sublease, in Landlord's reasonable judgment.
- (c) Neither the proposed Transferee nor any person or entity that directly or indirectly controls, is controlled by, or is under common control with the proposed Transferee is an occupant of any part of the Building or has negotiated for space in the Building within a six (6) month period prior to the delivery of Tenant's written notice.
- (d) The proposed Transfer would not cause Landlord to be in violation of another lease or agreement to which Landlord is a party, or would not give an occupant of the Building a right to cancel its lease.
- (e) The terms of the proposed Transfer will not allow the Transferee to exercise a right of renewal, right of expansion, right of first offer, or other similar right held by Tenant, or occupy space leased by Tenant pursuant to any such right.
- (f) Tenant is not in default and has not committed acts or omissions which with the running of time or the giving of notice or both would constitute a default under this Lease.
  - (g) Tenant has complied with the terms of this Article.

The conditions described above are not exclusive and shall not limit or prevent Landlord from considering additional factors in determining if it should reasonably withhold its consent.

- 17.3 Corporate and Partnership Transactions. If Tenant is a corporation, dissolution of the corporation or a transfer (by one or more transactions) of a majority of the voting stock of Tenant shall be deemed to be Transfer of this Lease subject to the provisions of this Article. However, these provisions shall not apply to transactions with a corporation into or with which Tenant is merged or consolidated or to which substantially all of Tenant's stock or assets are transferred or which controls, is controlled by, or is under common control with, Tenant, if a principal purpose of the merger or transfer is not the assignment of this Lease and Tenant's successor has a net worth not less than the net worth of Tenant on the execution of this Lease. Tenant shall cause reasonably satisfactory proof of such net worth to be delivered at least thirty (30) days prior to the effective date of the transaction. If Tenant is a partnership, a dissolution of the partnership (including a "technical" dissolution) or a transfer of the partnership interests to one or more partners which reduces the net worth of the partners shall be deemed an assignment of this Lease subject to the provisions of this Article, regardless of whether the transfer is made by one or more transactions.
- 17.4 No Release of Tenant. Notwithstanding the granting of Landlord's consent, no Transfer of this Lease or the Premises shall release or alter Tenant's primary liability to pay Rent and perform all of its other obligations hereunder. The acceptance of Rent by Landlord from any person other than Tenant shall not be a waiver by Landlord of any provision hereof. Consent to one Transfer shall not be deemed to be consent to any subsequent Transfer. If any Transferee of Tenant defaults in the performance of any of the terms hereof, Landlord may proceed directly against Tenant without proceeding against or exhausting its remedies against the Transferee. After any Transfer, Landlord may consent to subsequent Transfers, or amendments to this Lease, without notifying Tenant or any other person, without obtaining consent thereto, and without relieving Tenant of liability under this Lease.
- 17.5 <u>Transfer Premium</u>. If Landlord consents to any Transfer, Tenant shall pay the following to Landlord as Additional Rent:
- (a) Tenant shall pay to Landlord 50% of any "Transfer Premium" as defined in this Article. Transfer Premium shall mean all Rent or other consideration payable by such Transferee in excess of the Monthly Rent and Additional Rent payable by Tenant under this Lease and/or collateral agreements on a per rentable square foot basis if less than all of the Premises is transferred. Transfer Premium shall also include, but not be limited to, key money, and bonus money paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services rendered by Tenant to Transferee, or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. The Monthly Rent used to calculate the Transfer Premium for a sublease shall be the Rent hereunder allocable to the subleased space for any period and shall be equal to the (Total Rent accruing during such period, multiplied by rentable area of the subleased space) / Total Area of the Premises.
- (b) This Transfer Premium shall be paid by Tenant to Landlord as and when received by Tenant or, at Landlord's option, on written notice to the Transferee, Landlord may collect all or

any portion of this Transfer Premium directly from the Transferee. Landlord's acceptance or collection of this Additional Rent will not be deemed to be consent to any Transfer or a cure of any default under this Article or the rest of the Lease.

- 17.6 <u>Additional Terms</u>. Within ten (10) days of written demand, Tenant shall pay the reasonable attorney's fees and other costs and expenses of Landlord in connection with any request for Landlord's consent to any Transfer.
- (a) A sublease will be null and void unless it complies with the rest of this Lease and provides that: (i) it is subject and subordinate to this Lease and that if there is any conflict or inconsistency between the sublease and this Lease, this Lease will prevail; (ii) Landlord may enforce all the provisions of the sublease, including the collection of Rent; (iii) it may not be modified without Landlord's prior written consent and that any modification without this consent shall be null and void; (iv) if this Lease is terminated or Landlord re-enters or repossesses the Premises, Landlord may, at its option, take over all of Tenant's right, title and interest as sublessor and, at Landlord's option, the subtenant shall attorn to Landlord, but Landlord shall not be (x) liable for any previous act or omission of Tenant under the sublease, (y) subject to any existing defense or offset against Tenant, or (z) bound by any previous modification of the sublease made without Landlord's prior written consent or by any prepayment of more than one month's Rent; and (v) it is ineffective until Landlord gives its written consent thereto.
- (b) An assignment will be null and void unless it complies with the terms of this Lease and provides that: (i) the assignee assumes all of Tenant's obligations under this Lease and agrees to be bound by all of the terms of this Lease; and (ii) it is ineffective until Landlord gives its written consent thereto.
- (c) The sublease or assignment otherwise must exactly match the proposed sublease or assignment initially submitted by Tenant. A sublease or assignment will not be effective until a fully executed counterpart is delivered to Landlord and Landlord delivers its written consent thereto.
- (d) This Article is binding on and shall apply to any purchaser, mortgagee, pledgee, assignee, subtenant or other transferee or encumbrancer, at every level.
- (e) Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee of Tenant claims that Landlord has unreasonably withheld or delayed its consent under this Article or otherwise has breached or acted unreasonably under this Article, their sole remedy shall be a declaratory judgment and an injunction for the relief sought without any monetary damages, and Tenant waives all other remedies on its own behalf and, to the extent permitted under all Laws, on behalf of Tenant's proposed Transferee.
- 18. Quiet Enjoyment. So long as Tenant pays all Rent and performs all of its other obligations as required hereunder, Tenant shall during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof, and the terms of any Superior Leases and Mortgages (as defined in Article 19.1), and all other agreements or matters of record or to which this Lease is subordinate without interference by any

persons lawfully claiming by or through Landlord. The foregoing covenants are in lieu of any other covenant express or implied.

### 19. Mortgagee Protection.

- Subordination. Unless provided otherwise herein, this Lease is subject and subordinate to all present and future ground leases, lease-leaseback financing, underlying leases, mortgages, deeds of trust, or other encumbrances, renewals, modifications, consolidations, replacements, extensions thereof, or advances made thereunder, affecting all or any portion of the Premises, the Building, or the Land ("Superior Leases and Mortgages") . However, in confirmation of such subordination, Tenant shall execute, acknowledge and deliver any instrument that Landlord or the lessor, mortgagee or beneficiary under any of the Superior Leases and Mortgages may request, within ten (10) days after request. (Each of these lessors, mortgagees or beneficiaries is called a "Landlord's Mortgagee.") However, if Landlord, Landlord's Mortgagee or any other successor to Landlord elects in writing, this Lease shall be deemed superior to the Superior Leases and Mortgages specified, regardless of the date of recording, and Tenant will execute an agreement confirming this election on request. If Landlord's Mortgagee or its successor or any successor to Landlord succeeds to Landlord's interests under this Lease, whether voluntarily or involuntarily, Tenant shall attorn to such person and recognize such person as Landlord under this Lease. To the extent permitted under law, Tenant waives the provisions of any current or future statute, rule, or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.
- 19.2 Mortgagee's Liability. The obligations and liabilities of each of Landlord or Landlord's Mortgagees, or their successors, under this Lease shall exist only if and for so long as each of these respective parties owns fee title to the Land and the Building or is the lessee under a ground lease therefore. No Monthly Rent or Additional Rent shall be paid more than thirty (30) days prior to the due date thereof and payments made in violation of this provision shall (except to the extent that such payments are actually received by a Landlord's Mortgagee) be a nullity as against Landlord's Mortgagees or their successors and Tenant shall be liable for the amount of such payments to Landlord's Mortgagees or their successors.
- 19.3 Mortgagee's Right to Cure. No act or omission by Landlord which would entitle Tenant under the terms of this Lease or any Laws to be relieved of Tenant's obligations hereunder, or to terminate this Lease, shall result in a release or termination of such obligations or this Lease unless: (a) Tenant first shall have given written notice of Landlord's act or omission to Landlord and all Landlord's Mortgagees whose names and addresses shall have been furnished to Tenant; and (b) Landlord's Mortgagees, after receipt of such notice, fail to correct or cure the act or omission within a reasonable time thereafter (but in no event less than sixty (60) days). However, nothing contained in this Section shall impose any obligation on Landlord's Mortgagees to correct or cure any act or omission.
- **20.** Estoppel Certificates. Tenant shall from time to time, within ten (10) days after request by Landlord, execute and deliver to Landlord or any other person designated by Landlord an Estoppel certificate, in form satisfactory to Landlord, which certifies: (a) that this Lease is

unmodified and in full force and effect (or, if there have been modifications, describes them); (b) the expiration date of the Lease Term and that there are no agreements with Landlord to extend or renew the Lease Term or to permit any holding over (or if there are any such agreements, describes them and specifies the periods of extension or renewal); (c) the date through which the Monthly Rent and Additional Rent have been paid; (d) that Landlord is not in default in the performance of any of its obligations under this Lease (or, if there are any such defaults, describes them); (e) that Tenant is not entitled to any credits, offsets, defenses or deductions against payment of the Rent hereunder (or, if they exist, describes them); and (f) such other information concerning this Lease or Tenant as Landlord or any other person designated by Landlord reasonably shall request. An Estoppel certificate issued by Tenant pursuant to this Article shall be a representation and warranty by Tenant which may be relied on by Landlord and by others with whom Landlord may be dealing, regardless of independent investigation. If Tenant fails to execute and deliver an Estoppel certificate as required hereunder, Landlord's representations concerning the factual matters covered by such Estoppel certificate, as described above, shall be conclusively presumed to be correct and binding on Tenant.

- **21. Default.** The occurrence of any one or more of the following events shall be a default and breach under this Lease by Tenant:
- (a) The vacation or abandonment of all or any portion of the Premises by Tenant for ten (10) consecutive days.
- (b) The failure to accept tender of possession of the Premises or any significant portion thereof.
- (c) The failure by Tenant to make any payment of Rent or any other payment required to be made by Tenant hereunder for a period of Ten (10) days after such payment is due.
- (d) The failure by Tenant to observe or perform any of the covenants, conditions or provisions of this Lease to be observed or performed by Tenant, other than those described in subparagraphs (b), (d), (e), (f), (g), (h) and (i) of this Article, where such failure shall continue for a period of fifteen (15) days after written notice thereof by Landlord to Tenant. However, if the nature of these defaults is such that more than fifteen (15) days are reasonably required to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within the fifteen (15) day period and thereafter diligently completes the cure within sixty (60) days.
- (e) The making by Tenant or any guarantor of this Lease of any general assignment or general arrangement for the benefit of creditors; or the filing by or against Tenant or any guarantor of this Lease of a petition or order for relief under any Laws relating to bankruptcy or insolvency (unless, in the case of a petition filed against Tenant or any guarantor of this Lease, the petition is dismissed within sixty (60) days); or the appointment of a trustee, custodian or receiver to take possession of substantially all of Tenant's assets or the assets of any guarantor of this Lease or of Tenant's interest in this Lease where possession is not restored to Tenant within thirty (30) days; or the attachment, execution or judicial seizure of substantially all of Tenant's assets or of Tenant's interest in this Lease, unless discharged within thirty (30) days.

- (f) The service by Landlord of a three day notice under California Code of Civil Procedure Section 1161 on three or more occasions if the previous service of the three-day notices did not result in the termination of this Lease.
- (g) A sale, conveyance, mortgage, pledge, assignment, sublease or other transfer or encumbrance, or any attempt to do so, in violation of Article 17.
- (h) Tenant's failure to deliver the Estoppel certificate within the time required under Article 20, or any written instrument required under Article 19 within the time required.
- (i) A default under or the repudiation of any guaranty of Tenant's obligations under this Lease.
- (j) Tenant's failure to maintain the insurance policies required hereunder.
- (k) The death of Tenant or, if Tenant is comprised of more than one (1) individual, the death of any of the individuals comprising Tenant.
- (l) Tenant's failure to observe or perform according to the provisions of Articles 9, 10.4, and 11 within five (5) business days after notice from Landlord.

Except for the defaults specified in subparagraphs (c) and (d), all other defaults are not curable by Tenant.

## 22. Remedies for Default.

- 22.1 <u>General</u>. In the event of any default or breach by Tenant, Landlord may at any time thereafter, with or without notice or demand:
- Terminate Tenant's right to possession of the Premises by any lawful means, including but not limited to terminating this Lease, barring the Tenant from reentering the Premises, and removing all persons and property therefrom, which property may be stored by Landlord at a warehouse or elsewhere at risk, expense, and for the account of Tenant. If Landlord elects to terminate this Lease, Tenant shall immediately surrender possession of the Premises to Landlord. In such event Landlord shall be entitled to recover from Tenant all Liabilities incurred by Landlord or Landlord's Affiliates by reason of Tenant's default, including but not limited to: (i) the worth at the time of the award of the unpaid Monthly Rent and Additional Rent which had been earned or was payable at the time of termination; (ii) the worth at the time of the award of the amount by which the unpaid Monthly Rent and Additional Rent which would have been earned or payable after termination until the time of the award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; (iii) the worth at the time of the award of the amount by which the unpaid Monthly Rent and Additional Rent which would have been paid for the balance of the term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; and (iv) any other amount necessary to compensate Landlord for all Liabilities proximately caused by Tenant's failure to perform its obligations under the Lease or which in the ordinary course of things would be likely to result therefrom, including, but not limited to, any costs or expenses incurred by Landlord in maintaining or preserving the Premises, the Building and the Land after such default, the cost of recovering possession of the Premises, advertising expenses incurred, expenses of reletting, including necessary renovation or

alteration of the Premises or any portion thereof, whether for the same or different use, and any special concessions made to obtain the new tenant, Landlord's attorneys' fees and costs incurred in connection therewith, and any real estate commissions paid or payable. As used in subparts (i) and (ii) above, the "worth at the time of the award" is computed by allowing interest on unpaid amounts at the rate of eighteen percent (18%) per annum, or such lesser amount as may then be the maximum lawful rate. As used in subparagraph (iii) above, the "worth at the time of the award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of the award, plus one percent (1%). If Tenant abandons the Premises, Landlord shall have the option of (x) taking possession of the Premises and recovering from Tenant the amount specified in this subparagraph, or (y) proceeding under the provisions of subparagraph (b) below.

- (b) Maintain Tenant's right to possession, in which case this Lease shall continue in effect whether or not Tenant shall have abandoned the Premises. In such event Landlord shall be entitled to enforce all of Landlord's rights and remedies under this Lease and at law or in equity, including the right to recover the Rent and other sums and charges as they become due hereunder.
- (c) Nothing in this Article 22 shall be deemed to affect Landlord's right to indemnification for liability or liabilities arising prior to the termination of this Lease for personal injuries or property damage under the indemnification clause or clauses contained in this Lease.
- (d) All rights, powers and remedies of Landlord hereunder and under any other agreement now or hereafter in force between Landlord and Tenant shall be in addition to all rights, powers and remedies given to Landlord by law, and the exercise of one or more rights or remedies shall not impair Landlord's right to exercise any other right or remedy.
- 22.2 <u>Redemption</u>. Tenant waives any and all rights of redemption granted by or under any Laws if Tenant is evicted or dispossessed for any cause, or if Landlord obtains possession of the Premises by reason of the violation by Tenant of any of the terms, covenants or conditions of this Lease, or otherwise.
- 22.3 <u>Performance by Landlord</u>. If Tenant defaults under this Lease, Landlord, without waiving or curing the default, may, but shall not be obligated to, perform Tenant's obligations for the account and at the expense of Tenant. Notwithstanding Article 21(c), in the case of an emergency, Landlord need not give any notice prior to performing Tenant's obligations.
- 22.4 <u>Post-Judgment Interest</u>. The amount of any judgment obtained by Landlord against Tenant in any legal proceeding arising out of Tenant's default under this Lease shall bear interest until paid at the maximum rate allowed by law, or, if no maximum rate prevails, at the rate of twelve percent (12%) per annum. Notwithstanding anything to the contrary contained in any Laws, with respect to any damages that are certain or ascertainable by calculation, interest shall accrue from the day that the right to the damages vests in Landlord, and in the case of any unliquidated claim, interest shall accrue from the day the claim arose.
- 22.5 <u>Tenant's Waiver</u>. To the extent permitted under law, in the event of any default, breach or violation of Tenant's rights under this Lease by Landlord, Tenant's remedies shall be an

action for actual damages. Tenant hereby waives the benefit of any law granting it the right to perform Landlord's obligation.

23. **Holding Over.** Tenant shall not hold over in the Premises after the expiration or sooner termination of the Lease Term without the express prior written consent of Landlord. Tenant shall indemnify Landlord and Landlord's Affiliates for, and hold Landlord and Landlord's Affiliates harmless from and against, any and all Liabilities arising out of or in connection with any delay by Tenant in surrendering and vacating the Premises, including, without limitation, any claims made by any succeeding tenant based on any delay and any Liabilities arising out of or in connection with these claims. If possession of the Premises is not surrendered to Landlord on the expiration or sooner termination of the Lease Term, in addition to any other rights and remedies of Landlord hereunder or at law or in equity, Tenant shall pay to Landlord for each month or portion thereof during which Tenant holds over in the Premises a sum equal to one hundred fifty percent (150%) of the then-current Monthly Rent in addition to all other Rent payable under this Lease. If any tenancy is created by Tenant's holding over in the Premises, the tenancy shall be on all of the terms and conditions of this Lease, except that Rent shall be increased as set forth herein and the tenancy shall be a month-to-month tenancy. Nothing in this Article 23 shall be deemed to permit Tenant to retain possession of the Premises after the expiration or sooner termination of the Lease Term.

## 24. <u>Indemnification and Exculpation</u>.

- 24.1 <u>Indemnification</u>. In addition to any other indemnities required of Tenant hereunder, Tenant shall indemnify Landlord and Landlord's Affiliates for, and hold Landlord and Landlord's Affiliates harmless from, any and all Liabilities arising from or in connection with Tenant's (including Tenant's Affiliate or any person claiming under or through them), performance and obligations hereunder, or its failure to comply with any current or prospective law, except for such loss or damage caused by the sole negligence or willful misconduct of Landlord, including but not limited to, (a) the use and occupancy of the Premises by Tenant or Tenant's Affiliates; (b) the conduct of Tenant's business; (c) any breach or default by Tenant under this Lease; (d) claims by any assignee, subtenant, broker or other person if Landlord declines to consent to any assignment, sublease or other transfer or encumbrance or terminates this Lease pursuant to Article 17; and (e) any other acts or omissions of Tenant or Tenant's Affiliates or persons claiming through or under them. This indemnification obligation shall survive this Agreement and shall not be limited by any term of any insurance policy required under this Agreement.
- 24.2 <u>Damage to Persons or Property</u>. Tenant assumes the risk of all Liabilities it may incur, including, but not limited to, damage or injury to persons, property and the conduct of Tenant's business (and any loss of revenue therefrom), the loss of use or occupancy of the Premises, and the items enumerated below in this Section, and waives all claims against Landlord and Landlord's Affiliates in connection therewith. Landlord and Landlord's Affiliates shall not be liable for any Liabilities incurred by Tenant or Tenant's Affiliates (including, but not limited to, the Liabilities described above in this Section) arising from or in connection with: (a) acts or omissions of any tenant of the Building or any other persons (including, but not limited to, any parking garage operators or their employees); (b) explosion, fire, steam, electricity, water, gas or rain, pollution or contamination; (c) the breakage, leakage, obstruction or other defects of

plumbing, HVAC, electrical, sanitary, safety, elevator or other utilities and systems of the Building or the failure to furnish any of the foregoing; (d) any work, maintenance, repair, rebuilding or improvement performed by or at the request of Landlord or Landlord's Affiliates for the Premises, the Building or the Land; (e) any entry by Landlord or Landlord's Affiliates on the Premises; (f) any defects in the Premises, the Building, the Land or any portions thereof; (g) any interference with light or other incorporeal hereditaments; and (h) any other acts, omissions or causes. Nothing in this Section exempts Landlord for liability caused solely by its gross negligence or willful misconduct, but Landlord shall not be liable under any circumstances for consequential or punitive damages (including, but not limited to, damage or injury to persons, property and the conduct of Tenant's business [and any loss of revenue therefrom]). Tenant immediately shall notify Landlord of any defects in the Premises or the Building or any portion thereof and of any damage or injury thereto or to persons or property in or about the Premises or the Building.

- 24.3 <u>Satisfaction of Remedies</u>. Landlord and Landlord's Affiliates shall not be personally liable for the performance of Landlord's obligations under this Lease. If Tenant or Tenant's Affiliates acquire any rights or remedies against Landlord or Landlord's Affiliates (including, but not limited to, the right to satisfy a judgment), these rights and remedies shall be satisfied solely from Landlord's estate and interest in the Land and the Building (or the proceeds therefrom) and not from any other property or assets of Landlord or Landlord's Affiliates. This Section shall be enforceable by Landlord and Landlord's Affiliates.
- **25.** Rules and Regulations. Tenant shall faithfully observe and comply with the rules and regulations that Landlord shall from time to time promulgate. Landlord reserves the right from time to time in its sole discretion to make all reasonable additions and modifications to the rules and regulations. Any additions and modifications to the rules and regulations shall be binding on Tenant when delivered to Tenant. Landlord shall not incur any Liabilities to Tenant or Tenant's Affiliates arising from or in connection with the nonperformance of any rules and regulations by any other tenants or occupants of the Building. Landlord's current rules and regulations are attached hereto as Exhibit "C."

## 26. <u>Taxes</u>.

26.1 Tenant shall be solely responsible for payment of any and all "Real Property Taxes" levied or assessed against the Premises or Tenant's interest under this Lease, including without limitation Tenant's Share of any taxes levied against the common areas, Land or Building. "Real Property Taxes" include, but are not limited to: any fees, including license fee, license tax, business license fee, commercial rental tax, levy, charge, assessment, penalty or tax imposed by any taxing authority against the Premises, Land or the Building; any property taxes and assessments levied on Tenant's possessory interest in the Premises, Land or Building; any tax on Landlord's right to receive, or the receipt of, rent or income from the Premises, Land or Building; any tax or charge for fire protection, streets, sidewalks, road maintenance, refuse or other services provided to the Premises, Land or the Building; any tax imposed on this transaction or based on a reassessment of the Premises, Land or the Building due to a change in ownership or transfer of all or part of Landlord's interest in this Lease, the Premises, Land or the Building; and any charge or fee replacing any tax previously included within this definition. Real Property Taxes do not include Landlord's federal or state net income, franchise, inheritance, gift, or estate taxes.

- 26.2 In accordance with California Revenue and Taxation Code Section 107.6(a), Landlord hereby informs Tenant that by entering into this Lease a possessory interest in Tenant subject to property taxes may be created, and if so, Tenant or other party in whom the possessory interest is vested may be subject to the payment of property taxes levied on such interest. Tenant shall be solely responsible for payment of any possessory interest tax levied or assessed against the Premises, improvements on the Premises, this Lease, or Tenant's Share of the Land or Building. If at any time Tenant is not separately assessed for its possessory interest and/or improvements on the Premises, Tenant shall, as Additional Rent pay to Landlord that portion of any assessment levied against or upon the Premises, the improvements on the Premises, the Building or Landlord's interest therein that represents the value of the Tenant's leasehold interest and value of the improvements of the Premises that would have been assessed and levied upon the Premises had it been assessed as such possessory interest in the Premises.
- 26.3 The amount of any tax or excise payable by or assessed against Tenant or the Premises, including without limitation, Real Property Taxes shall be paid by Tennant before it becomes delinquent. Tenant shall pay, or cause to be paid, before delinquency, any and all other taxes levied or assessed against Tenant's Property, Tenant's possessory interest in the Premises, Land and Building, and any leasehold improvements in the Premises which were made for Tenant or at its request. If any or all of Tenant's Property or any of these leasehold improvements are assessed and taxed with the Building, Tenant shall pay to Landlord its share of such taxes within ten (10) days after delivery to Tenant by Landlord of a statement in writing setting forth the amount of such taxes.
- 27. Brokers. Landlord and Tenant represent and warrant to each other that they have had no dealings with any broker, finder, or similar person who is or might be entitled to a commission or other fee in connection with introducing Tenant to the Building or in connection with this Lease, except for Landlord's Broker and Tenant's Broker as may be named in Article 2. Landlord shall pay the commission due to Landlord's Broker and Tenant's Broker pursuant to a separate agreement between Landlord and such Brokers. Landlord and Tenant shall indemnify each other for, and hold the other harmless from and against, any and all claims that the indemnified party may have as a result of a breach of the foregoing representation.
- **Parking.** Tenant acknowledges that no parking is provided to Tenant pursuant to this Lease. Tenant may, on a space available basis, purchase parking spaces from the City per the terms of this lease agreement. Parking rates shall be determined by Landlord at its sole discretion. Landlord at all times shall have the right to designate the particular parking area and spaces, if any, to be used by any or all of such Tenant's employees, suppliers, customers, visitors, or the like, and any such designation may be changed from time to time. Attached hereto as Exhibit "D" is a copy of the City's Parking Fee Schedule, which schedule shall be subject to change from time to time by City and/or its parking facility operator.
- **29.** Authority to Enter into Lease. If Tenant is a corporation, each individual executing this Lease on behalf of the corporation represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of the corporation, in accordance with a duly adopted resolution of the board of directors of said corporation or in accordance with the by-laws of said corporation,

and that this Lease is binding on the corporation in accordance with its terms. If Tenant is a partnership, each individual executing this Lease on behalf of the partnership represents and warrants that he is duly authorized to execute and deliver this lease on behalf of the partnership, in accordance with the partnership agreement and any statements of partnership or certificates of limited partnership of the partnership, and that this Lease is binding on the partnership in accordance with its terms. Tenant shall, within thirty (30) days of the execution of this Lease, deliver to Landlord: (a) if Tenant is a corporation, a certified copy of a resolution of the board of directors of the corporation; or (b) if Tenant is a partnership, a copy of the Statement of Partnership or Certificate of Limited Partnership of Tenant; and (c) other evidence reasonably satisfactory to Landlord authorizing or ratifying the execution of this Lease.

30. Notwithstanding any contrary provision of this Lease, if due to excessive noise, Landlord requires the Tenant to relocate within the property or for other reasons related to Landlord's occupancy plans for the Building, then at any time during the Lease Term Landlord shall have the right, upon providing Tenant prior written notice (the "Relocation Notice"), to provide and furnish Tenant with space elsewhere in the Building or another building in the Redondo Beach Pier Plaza project comparable to the Premises and to move and place Tenant in such new space, at Landlord's sole cost and expense. Such space shall be approximately the same size as the existing Premises and shall be improved by Landlord prior to Tenant's relocation with leasehold improvements comparable to those in the existing Premises. However, if the new space does not meet with Tenant's approval, Tenant may cancel this Lease upon written notice to Landlord, which notice must be received by Landlord within ten (10) days after delivery to Tenant of the Relocation Notice, and this Lease shall terminate sixty (60) days thereafter (as if such date were the date originally provided herein for the expiration of the Lease Term) and neither party shall have any further rights or obligations hereunder. Tenant's failure to timely deliver notice to Landlord of Tenant's election to cancel this Lease shall be deemed an acceptance by Tenant of the new space set forth in the Relocation Notice, and Tenant shall vacate the Premises in accordance with said notice and/or the terms of any subsequent notice from Landlord to Tenant. Landlord shall reimburse Tenant, within thirty (30) days after Landlord's receipt of invoices and paid receipts, for the reasonable moving, telephone installation and stationery reprinting costs actually paid for by Tenant in connection with such relocation. If Landlord moves Tenant to such new space, then this Lease and each and all of the terms, covenants and conditions hereof shall remain in full force and effect and be deemed applicable to such new space except that revised Exhibit "A" showing the location of the new space shall become a part of this Lease and Landlord and Tenant shall promptly thereafter execute an amendment to this Lease containing such revised Exhibit "A" and with the Basic Terms of this Lease, as contained in Article 2, amended, if necessary, to include and state all correct data as to the new space. Notwithstanding the foregoing provisions of this Article to the contrary, if the new space contains more floor area than the original Premises, Tenant shall not be obligated to pay any more Monthly Rent or Operating Expenses than otherwise applicable to the original Premises. Landlord and Tenant agree to cooperate fully in order to minimize the inconvenience of Tenant resulting from such relocation.

Tenant understands and agrees that Tenant is not eligible to be a "displaced person" under the California Relocation Act, which provides that a "displaced person" shall not include any person whose right of possession at the time of moving arose after the date of the public entity's acquisition of the real property. Tenant understands that Tenant is a "post-acquisition tenant" pursuant to the Relocation Assistance and Real Property Acquisition Guidelines of the California Department of Housing and Community Development, 25 Cal. Code Regs. §6000, et seq. Tenant understands that pursuant to Section 6034(b) of the California Code of Regulations, Tenant shall not be entitled to any relocation benefits or assistance if Tenant is temporarily or permanently displaced from the Premises, other than the payment which is required in the following paragraph, whether the displacement is a result of the expiration of the Term, Landlord's termination of the Lease pursuant to this Section, Landlord's pursuit of an unlawful detainer proceeding against Tenant, or for any other reason. Tenant hereby knowingly and voluntarily waives any rights Tenant may have to claim or receive any relocation assistance or benefits under state or federal law, and agrees not to file any claim or take any other action to receive such assistance or benefits.

It is strictly understood, and Tenant hereby agrees, that the Landlord reserves the unilateral right at any time, in Landlord's sole and absolute discretion, to relocate Tenant or terminate this Lease immediately if it is the opinion of the City that the parking structure is unsafe for the Tenant or the public; or upon Ninety calendar days written notice if the City intends to replace or improve the parking structure to an extent that relocation of Tenant is necessary.

## 31. General Provisions

- 31.1 <u>Joint Obligation</u>. If Tenant consists of more than one person or entity, the obligations of such persons or entities as Tenant shall be joint and several.
- 31.2 <u>Marginal Headings</u>. The titles to the Articles and Sections of this Lease are not a part of this Lease and shall have no effect on the construction or interpretation.
- 31.3 <u>Time</u>. Time is of the essence for the performance of each and every provision of this Lease.
- 31.4 <u>Successors and Assigns</u>. Subject to the restrictions contained in Article 17 above, this Lease binds the heirs, executors, administrators, successors and assigns of the parties hereto.
- 31.5 <u>Recordation</u>. The parties agree to record this Lease or a short form memorandum hereof pursuant to California Government Code Section 37393.
- 31.6 <u>Late Charges</u>. Tenant acknowledges that late payment of Rent will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult to ascertain. These costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord by the terms of any Superior Leases and Mortgages. Accordingly, if any installment of Monthly Rent or payment of Additional Rent due from Tenant is not received by Landlord or Landlord's designee within ten (10) days after the amount is due, Tenant shall pay to Landlord a late charge equal to six percent (6%) of the overdue amount. Acceptance of late charges by Landlord shall not constitute a waiver of Tenant's default with respect to the overdue amount, nor prevent Landlord from exercising any of the other rights and remedies granted hereunder or at law or in equity.

- 31.7 Prior Agreements; Amendment, Waiver. This Lease contains all of the agreements of the parties hereto with respect to any matter covered or mentioned in this Lease, and no prior agreements or understanding pertaining to any such matters shall be effective for any purpose. No provision of this Lease may be amended or added to except by an agreement in writing signed by the parties hereto or their respective successors in interest. All waivers hereunder must be in writing and specify the breach, act, omission, term, covenant or condition waived, and acceptance of Rent or other acts or omissions by Landlord shall not be deemed to be a waiver. The waiver by Landlord of any breach, act, omission, term, covenant or condition of this Lease shall not be deemed to be a waiver of any other or subsequent breach, act, omission, term, covenant or condition.
- 31.8 <u>Inability to Perform</u>. Landlord shall not be in default hereunder nor shall Landlord be liable to Tenant or Tenant's Affiliates for any Liabilities if Landlord is unable to fulfill any of its obligations, or is delayed in doing so, if the inability or delay is caused by reason of accidents, breakage, strike, labor troubles, acts of God, or any other cause, whether similar or dissimilar, which is beyond the reasonable control of Landlord.
- Legal Proceedings. In any action or proceeding involving or relating in any way to this Lease, the court or other person or entity having jurisdiction in such action or proceeding shall award to the party in whose favor judgment is entered the reasonable attorneys' fees and costs incurred. The party in whose favor judgment is entered may, at its election submit proof of fees and costs as an element of damages before entry of judgment or after entry of judgment in a postjudgment cost bill. Tenant also shall indemnify Landlord for, and hold Landlord harmless from and against, all Liabilities incurred by Landlord if Landlord becomes or is made a party to any proceeding or action: (a) instituted by Tenant (except to the extent resulting from Landlord's breach or material default hereunder), or by any third party against Tenant, or by or against any person holding any interest under or using the Premises by license of or agreement with Tenant; (b) otherwise arising out of or resulting from any act or omission of Tenant or such other person; or (c) necessary to protect Landlord's interest under this Lease in a bankruptcy proceeding, or other proceeding under Title 11 of the United States Code, as amended. In any circumstance where Tenant is obligated to indemnify or hold harmless Landlord or Landlord's Affiliates under this Lease, Tenant also shall defend Landlord and Landlord's Affiliates with counsel acceptable to Landlord or, at Landlord's election, Landlord or Landlord's Affiliates may employ their own counsel and Tenant shall pay when due all attorneys' fees and costs therefore.
- 31.10 <u>Conveyance of Premises</u>. As used herein the term "**Landlord**" means only the current owner or owners of the fee title to the Building or the lessee under a ground lease of the Land. Upon each conveyance (whether voluntary or involuntary) of the Building, the conveying party shall be relieved of all liability under any and all of its covenants and obligations contained in or derived from this Lease or arising out of any act, occurrence or omission occurring after the date of such conveyance. Landlord may sell, assign, convey, encumber or otherwise transfer all or any portion of its interests in this Lease, the Premises, the Building or the Land.
- 31.11 Name. Tenant shall not use the name of the Building or of the development in which the Building is situated, if any, for any purpose other than as an address of the business to be conducted by Tenant in the Premises.

- 31.12 <u>Severability</u>. Any provision of this Lease which shall be held invalid, void or illegal shall in no way affect, impair or invalidate any of the other provisions hereof and such other provisions shall remain in full force and effect.
- 31.13 <u>Cumulative Remedies</u>. No right, remedy or election hereunder or at law or in equity shall be deemed exclusive but shall, wherever possible, be cumulative with all other rights, remedies or elections.
- 31.14 <u>Choice of Law</u>. This Lease shall be governed by the laws of the State of California applicable to transactions to be performed wholly therein.
- 31.15 <u>Signs</u>. Tenant shall not place any sign on the Premises or the Building or which is visible from anywhere outside of the Premises, without Landlord's prior written consent. Landlord shall, at Landlord's cost, install one exterior sign identifying Tenant's business in the Premises above the door of the Premises (which sign shall be subject to the Rules and Regulations for the Building and Landlord's sign criteria). In addition, Tenant shall have the right to use up to two (2) lines in the Building directory to identify Tenant's business. Upon the expiration or earlier termination of this Lease, Tenant shall, at Tenant's sole cost and expense, remove all of Tenant's signage and repair any damage to the Building caused by such removal.
- 31.16 <u>Landlord's Consent</u>. Whenever Landlord's consent or approval is required hereunder, Landlord shall not unreasonably delay the granting or withholding of its consent or approval. Except where it is expressly provided that Landlord will not unreasonably withhold its consent or approval, Landlord may withhold its consent or approval arbitrarily and in its sole and absolute discretion.
- 31.17 <u>Presumptions</u>. This Lease shall be construed without regard to any presumption or other rule requiring construction against the party drafting the document. It shall be construed neither for nor against Landlord or Tenant, but shall be given reasonable interpretation in accordance with the plain meaning of its terms and the intent of the parties.
- 31.18 Exhibits. All exhibits and any riders annexed to this Lease including, without limitation, Exhibits "A", "B", "C", "D", "E", "F", and "G," as applicable, are incorporated herein by this reference.
- 31.19 <u>Submission of Lease</u>. The submission of this Lease to Tenant or its broker, agent or attorney for review or signature does not constitute an offer to Tenant to lease the Premises or grant an option to lease the Premises. This document shall not be binding unless and until it is executed and delivered by both Landlord and Tenant.
- 31.20 <u>Meaning of Terms</u>. Whenever required by the context of this Lease, the singular shall include the plural and the plural shall include the singular, and the masculine, feminine and neuter genders shall each include the others, and the word "person" shall include corporations, partnerships or other entities.

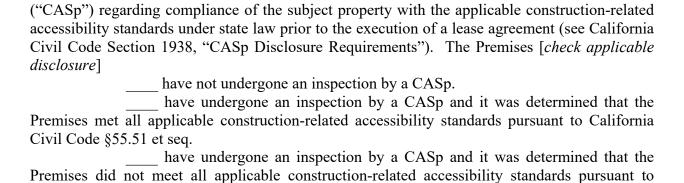
- 31.21 <u>Notices</u>. All notices, demands or communications required or permitted under this Lease (the "**Notices**") shall be in writing and shall be personally delivered, sent by overnight courier, or sent by certified mail, return receipt requested, postage prepaid. Notices to Tenant shall be delivered to the address set forth in Article 2. Notices to Landlord shall be delivered to the address set forth in Article 2, or such other address as Landlord may specify in writing to Tenant. Notices shall be effective upon receipt.
- 31.22 <u>Lease Guaranty</u>. This Lease is subject to and conditioned upon Tenant's delivery to Landlord, concurrently with Tenant's execution and delivery of this Lease, of a Lease Guaranty in the form of and upon the terms contained in Exhibit "E" attached hereto and incorporated herein by this reference, which shall be fully executed by the Guarantor(s) specified in Article 2 and Exhibit "E".

CASp Disclosure. It is acknowledged that California law requires building owners

# 32. ADA and CASp Disclosure Information.

California Civil Code §55.51 et seq.

32.1



to disclose to prospective tenants any inspection reports obtained from a certified access specialist

- 32.2 <u>Inspection Information</u>. If an inspection was performed by a CASp and a report provided, Tenant hereby acknowledges receipt of the documents required to be delivered by Landlord in order to comply with the CASp Disclosure Requirements applicable to the Premises (the "CASp Information"). Tenant acknowledges and agrees that the CASp Information is provided for the sole purpose of complying with the CASp Disclosure Requirements and shall not be deemed or construed as a representation or warranty under this Lease and may not be relied upon as a representation of current or future compliance with the applicable construction-related accessibility standards under state law. Tenant further covenants and agrees to keep the CASp Information strictly confidential and shall not disclose anything contained therein to any other parties, except (i) as necessary for Tenant to complete repairs and corrections of any violations of construction-related accessibility standards, and (ii) with the express written consent of Landlord
- 32.3 <u>No Inspection and Statutory Notice</u>. If no CASp inspection was done, or no disability access inspection certificate issued as described in Civil Code Section 55.53(e), or modifications/alterations have been performed since the date of the CASp Information, then Landlord hereby advises Tenant that the existing Premises have not undergone a CASp inspection, and except to the extent expressly set forth in this Lease, Landlord shall have no liability or

responsibility to make any repairs or modifications to the Premises in order to comply with accessibility standards. The following disclosure is hereby made pursuant to applicable California law:

"A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction related accessibility standards within the premises."

Tenant agrees that any CASp inspection shall be conducted in compliance with reasonable rules in effect at the Building with regard to such inspections and shall be subject to Landlord's prior written consent.

32.4 <u>ADA Compliance</u>. Landlord makes no warranty or representation as to whether or not the Premises comply with the Americans with Disabilities Act (ADA) or any similar legislation because compliance with the ADA is dependent upon Tenant's specific use of the Premises. In the event that Tenant's use of the Premises requires modifications or additions to the Premises in order to be in ADA compliance, Tenant agrees to make any such necessary modifications and/or additions at Tenant's sole expense subject to all approval and other requirements for improvements, including without limitation, Alterations, as set forth in this Lease.

## 33. Acknowledgement, Release and Waiver

TENANT HEREBY ACKNOWLEDGES that the subject Premises located at 121 W. Torrance Blvd., Suite 201 Redondo Beach, California 90277 is subject to pending lawsuits ("Pending Lawsuits") filed against the City that may invalidate or modify this Lease without advance notice. If the lease is invalidated or modified as the result of the Pending Lawsuits, Tenant shall not be entitled to seek damages, equitable relief, or any other type of relief from the City. Notwithstanding the above, Tenant agrees to enter into this Lease.

TENANT HEREBY RELEASES, WAIVES, DISCHARGES AND CONVENANTS NOT TO SUE the City of Redondo Beach, its officials, employees and agents with regard to any and all liability or potential liability to Tenant, its owners, directors, officers, employees, agents, assigns, heirs, and next of kin for any loss or damage, and any claims or demands of any kind resulting from the Pending Lawsuits or any impact or potential impact the lawsuits may have on Tenant or this Lease.

TENANT FURTHER EXPRESSLY AGREES THAT THE FOREGOING ACKNOWLEDGEMENT, RELEASE and WAIVER is intended to be as broad and inclusive as is permitted by the law of the State of California and that if any portion thereof

is held invalid, it is agreed that the remaining terms shall, notwithstanding, continue in full legal force and effect.

**IN WITNESS WHEREOF,** the parties hereto have executed this Lease in Redondo Beach, California, as of this 19th day of January, 2021.

LANDLORD	TENANT
CITY OF REDONDO BEACH	CANCER SUPPORT COMMUNITY-REDONDO BEACH
William C. Brand Mayor	By:
ATTEST:	APPROVED:
Eleanor Manzano City Clerk	Risk Manager
APPROVED AS TO FORM:	
Michael W. Webb City Attorney	

# EXHIBIT "A"

# LEGAL DESCRIPTION/PREMISES FLOOR PLAN

# EXHIBIT "B"

# LEASE CONFIRMATION

TO: Tenant	
DATED: January 19, 2021	
Re: Office Lease (the "Lease") dated January 19, BEACH, a Chartered Municipal Corporation COMMUNITY-REDONDO BEACH, A CORPORATION ("Tenant") as Tenant, for thos Torrance Blvd., Suite 201 Redondo Beach, Califorentable square feet.	as Landlord, and CANCER SUPPORT CALIFORNIA 501(C)(3) NONPROFIT se premises generally referred to as 121 W.
Please acknowledge that the Commencement Date Expiration Date of the Lease is January 18, 2022, su	
	Very truly yours,
	Agent for "Landlord"
Tenant hereby confirms the information set Landlord has fulfilled its obligations under the above	
	By: Name:
	Title:

#### **EXHIBIT "C"**

# **RULES AND REGULATIONS**

- 1. The sidewalks, halls, passages, exits, entrances, elevators, escalators and stairways of the Building shall not be obstructed by any of the tenants or used by them for any purpose other than for ingress to and egress from their respective premises. The halls, passages, exits, entrances, elevators, escalators and stairways are not for the general public and Landlord shall in all cases retain the right to control and prevent access thereto of all persons whose presence in the judgment of Landlord would be prejudicial to the safety, character, reputation and interests of the Building and its tenants, provided that nothing herein contained shall be construed to prevent such access to persons with whom any tenant normally deals in the ordinary course of its business, unless such persons are engaged in illegal activities. No tenant and no agent, employee, contractor, invitee or licensee of any tenant shall go upon the roof of the Building. Landlord shall have the right at any time, without the same constituting an actual or constructive eviction and without incurring any liability to any tenant therefore, to change the arrangement or location of entrances or passageways, doors or doorways, corridors, elevators, stairs, toilets and other common areas of the Building.
- 2. No sign, placard, picture, name, advertisement or notice visible from the exterior of any tenant's premises shall be inscribed, painted, affixed or otherwise displayed by any tenant on any part of the Building without the prior written consent of Landlord except that Tenant shall have the right, at its sole cost, to place its name on the door of the Premises. Landlord will adopt and furnish to tenants general guidelines relating to signs inside the Building. Tenants shall conform to such guidelines. All approved signs or lettering on doors shall be printed, painted, affixed or inscribed at the expense of any such tenant by a person approved by Landlord. Material visible from outside the Building will not be permitted.
- 3. The premises shall not be used for lodging. No cooking shall be done or permitted on the premises except that private use by any tenant of Underwriters' Laboratory approved equipment for brewing coffee, tea, hot chocolate and similar beverages, for preparation of meals by employees of any such tenant in a manner customary for an employee lounge or lunchroom, and for catering to serve food in connection with meetings or receptions will be permitted, provided that such use is in accordance with all applicable federal, state and municipal laws, codes, ordinances, rules and regulations.
- 4. No tenant shall employ any person or persons other than the janitor of Landlord for the purpose of cleaning its premises unless otherwise agreed to by Landlord in writing. Except with the written consent of Landlord, no person or persons other than those approved by Landlord shall be permitted to enter the Building for the purpose of cleaning the same. No tenant shall cause any unnecessary labor by reason of such tenant's carelessness or indifference in the preservation of good order and cleanliness. Landlord shall not be responsible to any tenant for any loss of property on the premises, however occurring, or for any damage done to the effects of any tenant by the janitor or any other employee or any other person. Tenant shall pay to Landlord the cost of removal of any of tenant's refuse and rubbish, to the extent that the same exceeds the refuse and rubbish usually attendant upon the use of tenant's premises as offices. Janitor service will not be furnished

on nights when rooms are occupied after 9:00 P.M. unless, by agreement in writing, service is extended to a later hour for specifically designated rooms.

- 5. Landlord will furnish each tenant without charge with two (2) keys to each door lock provided in the premises by Landlord. Landlord may make a reasonable charge for any additional keys. No tenant shall have any such keys copied or any keys made. No tenant shall alter any lock or install a new or additional lock or any bolt on any door of its premises. Each tenant, upon the termination of its lease, shall deliver to Landlord all keys to doors in the Building.
- 6. Landlord shall designate appropriate entrances and a freight elevator for deliveries or other movement to or from the premises of equipment, materials, supplies, furniture or other property, and tenants shall not use any other entrances or elevators for such purposes. The freight elevator shall be available for use by all tenants in the Building subject to such reasonable scheduling as Landlord in its discretion shall deem appropriate. All persons employed and means or methods used to move equipment, materials, supplies, furniture or other property in or out of the Building must be approved by Landlord prior to any such movement. Landlord shall have the right to prescribe the maximum weight, size and position of all equipment, materials, furniture or other property brought into the Building. Heavy objects shall, if considered necessary by Landlord, stand on a platform of such thickness as is necessary properly to distribute the weight. Landlord will not be responsible for loss of or damage to any such property from any cause, and all damage done to the Building by moving or maintaining such property shall be repaired at the expense of tenants.
- 7. No tenant shall use or keep in the premises or the Building any kerosene, gasoline or inflammable or combustible fluid or material other than limited quantities thereof reasonably necessary for the operation or maintenance of office equipment. No tenant shall use any method of heating or air conditioning other than that supplied by Landlord. No tenant shall use or keep or permit to be used or kept any foul or noxious gas or substance in the premises, or permit or suffer the premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Building by reason of noise, odors or vibrations, or interfere in any way with other tenants or those having business in the Building, nor shall any animals or birds be brought or kept in the premises or the Building. All materials stored in the Premises by Tenant shall be stored in compliance with all applicable laws and shall not exceed the maximum floor load for the Premises as reasonably determined by Landlord.
- **8.** Landlord shall have the right, exercisable without notice and without liability to any tenant, to change the name or street address of the Building.
- 9. Except as expressly set forth in the Lease, Landlord establishes the hours of 8 A.M. to 6 P.M. Monday through Friday, and Saturday 9:00 A.M. to 1:00 P.M., except legal holidays, as reasonable and usual business hours. If during any other hours or any other days, tenant desires to have any services or utilities supplied to tenant, and if Landlord is able to provide the same, tenant shall pay Landlord such charge as Landlord shall establish from time to time for providing such services or utilities during such hours. Any such charges which such tenant is obligated to pay shall be deemed to be Additional Rent under such tenant's lease.

- 10. The Building's air conditioning system achieves maximum cooling when the drapes and windows are closed. Landlord shall not be responsible for the room temperature if tenant does not keep all drapes and windows in the premises closed whenever the system is in operation. Tenant agrees to cooperate fully at all times with Landlord and to abide by all regulations and requirements which Landlord may prescribe for the proper functioning and protection of said air conditioning system. Tenant agrees not to connect any apparatus device, conduit or pipe to the Building chilled and hot water conditioning supply lines. Tenant further agrees that neither tenant nor its servants, employees, agents, visitors, licensees or contractors shall at any time enter mechanical installations or facilities of the Building or adjust, tamper with, touch or otherwise in any manner affect said installations or facilities.
- 11. Electric current is furnished as required by the Building standard office lighting and fractional horsepower office business machines in the amount of approximately four (4) watts per square foot. The tenant agrees, should its electrical installation or electrical consumption be in excess of the aforesaid quantity or extend beyond normal business hours, to reimburse Landlord monthly for the measured consumption under the terms, classifications and rates charged to similar consumers by said public utilities serving in the neighborhood in which the Building is located. If a separate meter is not installed at tenant's cost, such excess cost will be established by an estimate agreed upon by Landlord and tenant, and if the parties fail to agree, as established by an independent licensed engineer. Tenant agrees not to use any apparatus or device in, or upon, or about the premises which will in any way increase the amount of such services usually furnished or supplied to said premises, and tenant further agrees not to connect any apparatus or device or wires, conduits or pipes, or other means by which such services are supplied, for the purpose of using additional or unusual amounts of such services without written consent of Landlord. Should tenant use the same to excess, the refusal on the part of tenant to pay, upon demand of Landlord, the amount established by Landlord for such excess charge shall constitute a breach of the obligation to pay Rent current under tenant's lease and shall entitle Landlord to the rights therein granted for such breach. At all times tenant's use of electric current shall never exceed the capacity of the feeders to the Building or the risers or wiring installation.
- 12. Water will be available in public areas for drinking and lavatory purposes only, but if tenant requests, uses or consumes water for any purpose in addition to ordinary drinking and lavatory purposes, of which fact tenant constitutes Landlord to be the sole judge, Landlord may install a water meter and thereby measure tenant's water consumption for all purposes. Tenant shall pay Landlord for the cost of the meter and the cost of the installation thereof and throughout the duration of tenant's occupancy, tenant shall keep said meter installation equipment in good working order and repair at tenant's own cost and expense, in default of which Landlord may cause such meter and equipment to be replaced or repaired and collect the cost thereof from tenant. Tenant agrees to pay for water consumed, as shown on said meter, as and when bills are rendered, and on default in making such payment, Landlord may pay such charges and collect the same from tenant. Any such costs or expenses incurred, or payments made by Landlord for any of the reasons or purposes hereinabove stated shall be deemed to be Additional Rent, payable by tenant, and collectible by Landlord as such.
- 13. Landlord reserves the right to stop service of the elevator, plumbing, ventilating, air conditioning and electric systems, when necessary, by reason of accident or emergency or for

repairs, alterations or improvements, in the judgment of Landlord desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed, and shall further have no responsibility or liability for failure to support elevator facilities, plumbing, ventilating, air conditioning or electric service, when prevented from doing so by strike or accident or by any cause beyond Landlord's reasonable control or by laws, rules, orders, ordinances, directions, regulations or requirements of any federal, state, county or municipal authority or failure of gas, oil or other suitable fuel supplied or inability by exercise of reasonable diligence to obtain gas, oil or other suitable fuel. It is expressly understood and agreed that any covenants on Landlord's part to furnish any service pursuant to any of the terms, covenants, conditions, provisions or agreements of tenant's lease or to perform any act or thing for the benefit of tenant, shall not be deemed breached if Landlord is unable to furnish or perform the same by virtue of a strike or labor trouble or any other cause whatsoever beyond Landlord's control.

- 14. Landlord reserves the right to exclude from the Building between the hours of 6 P.M. and 8 A.M. Monday through Friday and at all hours on Saturdays, Sundays and legal holidays all persons who do not present identification acceptable to Landlord. Each tenant shall provide Landlord with a list of all persons authorized by such tenant to enter its premises and shall be liable to Landlord for all acts of such persons. Landlord shall in no case be liable for damages for any error with regard to the admission to or exclusion from the Building of any person. In the case of invasion, mob, riot, public excitement or other circumstances rendering such action advisable in Landlord's opinion, Landlord reserves the right to prevent access to the Building during the continuance of the same by such action as Landlord may deem appropriate, including closing doors.
- 15. The directory of the Building will be provided for the display of the name and location of tenants and the principal officers and employees of tenants (not to exceed two (2) names per one thousand (1,000) rentable feet in the Premises) at the expense of such tenant. Periodic revisions and updating shall be provided by Landlord without charge.
- 16. No curtains, draperies, blinds, shutters, shades, screens or other coverings, hangings or decorations shall be attached to, hung or placed in, or used in connection with any window of the Building without the prior written consent of Landlord. In any event, with the prior written consent of Landlord, such items shall be installed on the office side of Landlord's standard window covering and shall in no way be visible from the exterior of the Building. Tenants shall keep window coverings closed when the effect of sunlight (or the lack thereof) would impose unnecessary loads on the Building's heating or air conditioning system.
- 17. No tenant shall obtain for use in the premises ice, drinking water, food, beverage, towel or other similar services, except at such reasonable hours and under such reasonable regulations as may be established by Landlord.
- 18. Each tenant shall ensure that the doors of its premises are closed and locked and that all water faucets, water apparatus and utilities are shut off before such tenant or such tenant's employees leave the premises so as to prevent waste or damage, and for any default or carelessness in this regard, such tenant shall compensate for all injuries sustained by other tenants or occupants

of the Building or Landlord. On multiple-tenancy floors, all tenants shall keep the doors to the Building corridors closed at all times except for ingress and egress.

- 19. The toilet rooms, toilets, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed, no foreign substance of any kind whatsoever shall be thrown therein, and the expense of any breakage, stoppage or damage resulting from the violation of this rule shall be paid by the tenant who, or whose agent, employee, contractor, invitee or licensee, caused it.
- 20. Except with the prior written consent of Landlord, no tenant shall sell at retail newspapers, magazines, periodicals, theater or travel tickets or any other goods or merchandise to the general public in or on the premises, nor shall any tenant carry on or permit or allow any employee or other person to carry on the business of stenography, typewriting, printing or photocopying or any similar business in or from the premises for the service or accommodation of occupants of any other portion of the Building, nor shall the premises of any tenant be used for manufacturing of any kind, or any business activity other than that specifically provided for in the tenant's lease.
- 21. No tenant shall install any radio or television antenna, loudspeaker, or other device on the roof or exterior walls of the Building. No television or radio or recorder shall be played in such a manner as to cause a nuisance to any other tenant.
- 22. There shall not be used in any space, or in the public halls of the Building, either by any tenant or others, any hand trucks except those equipped with rubber tires and side guards or such other material handling equipment as Landlord approves. No other vehicles of any kind shall be brought by any tenant into the Building or kept in or about its premises.
- 23. Each tenant shall store all its trash and garbage within its premises. No material shall be placed in the trash boxes or receptacles if such material is of such nature that it may not be disposed of in the ordinary and customary manner of removing and disposing of office building trash and garbage in the vicinity of the Building, without being in violation of any law or ordinance governing such disposal. All garbage and refuse disposal shall be made only through entryways and elevators provided for such purposes and at such times as Landlord shall designate.
- **24.** Canvassing, soliciting, distribution of handbills or any other written material and peddling in the Building are prohibited, and each tenant shall cooperate to prevent the same.
- 25. The requirements of tenants will be attended to only upon application in writing at the office of the Building. Employees of Landlord shall not perform any work or do anything outside of their regular duties unless under special instructions from Landlord.
- 26. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenant or tenants, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of any other tenant or tenants, nor prevent Landlord from thereafter enforcing any such Rules and Regulations against any or all of the tenants of the Building.

- 27. These Rules and Regulations are in addition to, and shall not be construed to in any way modify or amend, in whole or in part, the agreements, covenants, conditions and provisions of any lease of premises in the Building.
- 28. Landlord reserves the right to make such other rules and regulations as in its judgment may from time to time be needed for the safety, care and cleanliness of the Building and for the preservation of good order therein.
- **29.** All construction projects and tenant improvement work must conform to the General Construction and Building Rules.
- **30.** Tenant agrees that all employees will park on the lower levels of the parking structure and that the surface level parking spaces are to be reserved for customers and service providers.

### **EXHIBIT "D"**

### PARKING FEE SCHEDULE

Public parking rates are set by Landlord and are subject to change from time to time. The current parking rates are as follows:

### **DAILY RATE**

\$2.00 each hour/24 hrs. per day/7 days per week

### PARKING FOR THE DISABLED

Free with approved placards or license plates.

### PIER/BOARDWALK EMPLOYEE MONTHLY AND YEARLY PASSES

Passes are to be purchased by business owners/managers to satisfy employment verification; parking spaces are occupied on a first-come, first-served basis; passes do not guarantee a parking space.

### <u>Annual Employee Passes (January 1 – December 31):</u>

- a. Full-Access Annual Pass 7 days/week in Pier Parking Structure or Plaza Parking Structure: \$280.00. (Purchases after January 31 will be prorated at the rate of \$35/month times the number of months remaining in the year.)
- b. Limited Access Annual Pass 7 days/week in the Plaza Parking Structure, also allowed in Pier Parking Structure on non-holiday weekdays: \$120.00 (Purchases after January 31 will be prorated at the rate of \$10/month times the number of months remaining in the year.)

### <u>Summer Season Employee Passes (May 1 – September 30)</u>:

- a. Full-Access Summer Pass 7 days/week in Pier Parking Structure or Plaza Parking Structure: \$120.00 (Purchases after May 31 will be prorated at the rate of \$35/month times the number of months remaining in the summer.)
- b. Limited Access Summer Pass 7 days/week in the Plaza Parking Structure, also allowed in Pier Parking Structure on non-holiday weekdays: \$50.00 (Purchases after May 31 will be prorated at the rate of \$10/month times the number of months remaining in the summer season.)

### **EXHIBIT "E"**

### **LEASE GUARANTY**

THIS LEASE GUARANTY ("Guaranty") is made by	(referred to as
"Guarantor"), in favor of the CITY OF REDONDO BEACH, a Ch	artered Municipal Corporation
("Landlord"), in connection with that certain lease dated as of Dece	ember 15, 2020 (the "Lease")
pursuant to which Landlord is to lease to CANCER SUPPPORT	<b>COMMUNITY-REDONDO</b>
BEACH, A CALIFORNIA 501(C)(3) NONPROFIT CORPOR	ATION ("Tenant") those
premises generally referred to as 121 W. Torrance Blvd., Suite 20	01, Redondo Beach, CA
90277 (the "Premises").	

- A. Landlord requires this Guaranty as a condition to its execution of the Lease and the performance of the obligations to be performed under the Lease by Landlord.
- B. Guarantor has agreed to provide this Guaranty to induce Landlord to enter into the Lease with Tenant and perform its obligations under the Lease.

In consideration of Landlord's agreement to execute the Lease and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor does hereby agree with Landlord as follows:

- 1. The Lease is hereby incorporated into and made a part of this Guaranty by this reference.
- 2. Guarantor hereby unconditionally guarantees, as a primary obligor and not as a surety, without deduction by reason of setoff, defense or counterclaim, the full and punctual payment of all sums of rent and other amounts payable under the Lease and the full and punctual performance of all terms, covenants and conditions in the Lease to be kept, performed and/or observed by Tenant. Guarantor's obligations under this Guaranty are continuing and unconditional.
- 3. Guarantor hereby agrees that, without the consent of or notice to Guarantor and without affecting any of the obligations of Guarantor hereunder: (a) the Lease may be extended and any other term, covenant or condition of the Lease may be amended, compromised, released or otherwise altered by Landlord and Tenant, and Guarantor does guarantee and promise to perform all the obligations of Tenant under the Lease as so extended, amended, compromised, released or altered; (b) any guarantor of or party to the Lease may be released, substituted or added; (c) any right or remedy under the Lease may be exercised, not exercised, impaired, modified, limited, destroyed, or suspended; (d) Landlord or any other person may deal in any manner with Tenant, any guarantor, any party to the Lease or any other person; (e) Landlord may permit Tenant to holdover the Premises beyond the Lease Term; and (f) all or any part of the Premises or of Tenant's rights or liabilities under the Lease may be sublet, assigned or assumed. Without in any way limiting the foregoing, Guarantor agrees not to unreasonably withhold its consent to any sublease, assignment of the Lease or other modification of the Lease which is agreed to by Landlord and Tenant.

- 4. Guarantor hereby waives and agrees not to assert or take advantage of: (a) any right to require Landlord to proceed against Tenant, or any other guarantor or person or to pursue any other security or remedy before proceeding against Guarantor; (b) any defense based on the genuineness, validity, regularity or enforceability of the Lease; (c) any right or defense that may arise by reason of the incapacity, lack of authority, death or disability of Tenant or any other person; and (d) any right or defense arising by reason of the absence, impairment, modification, limitation, destruction or cessation (in bankruptcy, by an election of remedies, or otherwise) of the liability of Tenant, of the subrogation rights of Guarantor or of the right of Guarantor to proceed against Tenant for reimbursement. Without limiting the generality of the foregoing, Guarantor hereby waives any and all benefits of the provisions of Sections 2809, 2810 and 2845 of the California Civil Code and any similar or analogous statutes of California or any other iurisdiction.
- 5. Guarantor hereby waives and agrees not to assert or take advantage of (a) any right or defense based on the absence of any or all presentments, demands (including demands for performance), notices (including notices of any adverse change in the financial status of Tenant, notices of any other facts which increase the risk to Guarantor, notices of non-performance and notices of acceptance of this Guaranty) and protests of each and every kind; (b) the defense of any statute of limitations in any action under or related to this Guaranty or the Lease; (c) any right or defense based on a lack of diligence or failure or delay by Landlord in enforcing its rights under this Guaranty or the Lease.
- 6. Guarantor hereby waives and agrees not to assert or take advantage of any right to (a) exoneration if Landlord's actions shall impair any security or collateral of Guarantor; (b) any security or collateral held by Landlord; (c) require Landlord to proceed against or exhaust any security or collateral before proceeding against Guarantor; (d) require Landlord to pursue any right or remedy for the benefit of Guarantor. Without limiting the generality of the foregoing, Guarantor hereby waives any and all benefits of the provisions of Sections 2819, 2849 and 2850 of the California Civil Code and any similar or analogous statutes of California or any other jurisdiction.
- 7. Guarantor shall not, without the prior written consent of Landlord, commence, or join with any other person in commencing, any bankruptcy, reorganization or insolvency proceeding against Tenant. Guarantor's obligations under this Guaranty shall in no way be affected by any bankruptcy, reorganization or insolvency of Tenant or any successor or assignee of Tenant or by any disaffirmance or abandonment of the Lease or any payment under this Guaranty by a trustee of Tenant in any bankruptcy proceeding including, without limitation, any impairment, limitation, or modification of the liability of Tenant or the estate of Tenant in bankruptcy, or of any remedy for the enforcement of Tenant's liability under the Lease resulting from the operation of any present or future provision of any federal or state bankruptcy or insolvency law or other statute or from the decision of any court. Guarantor shall file in any bankruptcy or other proceeding in which the filing of claims is required or permitted by law all claims which Guarantor may have against Tenant relating to any indebtedness of Tenant to Guarantor and will assign to Landlord all rights of Guarantor thereunder. Landlord shall have the sole right to accept or reject any plan proposed in such proceeding and to take any other action which a party filing a claim is entitled to do. In all such cases, whether in administration, bankruptcy or otherwise, the person or persons authorized to pay such claim shall pay to Landlord the amount payable on such claim and, to the full extent necessary for that purpose, Guarantor hereby

assigns to Landlord all of Guarantor's rights to any such payments or distributions to which Guarantor would otherwise be entitled; provided, however, that Guarantor's obligations hereunder shall not be satisfied except to the extent that Landlord receives cash by reason of any such payment or distribution. If Landlord receives anything hereunder other than cash, the same shall be held as collateral for amounts due under this Guaranty.

- 8. Until all the Tenant's obligations under the Lease are fully performed, Guarantor: (a) shall have no right of subrogation or reimbursement against the Tenant by reason of any payments or acts of performance by Guarantor under this Guaranty; (b) subordinates any liability or indebtedness of the Tenant now or hereafter held by Guarantor to the obligations of the Tenant under, arising out of or related to the Lease or Tenant's use of the Premises; and (c) acknowledges that the actions of Landlord may affect or eliminate any rights of subrogation or reimbursement of Guarantor as against Tenant without any liability or recourse against Landlord. Without limiting the generality of the foregoing, Guarantor hereby waives any and all benefits of the provisions of Section 2848 of the California Civil Code and any similar or analogous statutes of California or any other jurisdiction.
- 9. Prior to the execution of this Guaranty and at any time during the Term of the Lease upon ten (10) days prior written notice from Landlord, Guarantor agrees to provide Landlord with a current financial statement for Guarantor and financial statements for Guarantor for the two (2) years prior to the current financial statement year to the extent not previously delivered to Landlord. Guarantor's financial statements are to be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Guarantor, audited by an independent certified public accountant. Guarantor represents and warrants that all such financial statements shall be true and correct statements of Guarantor's financial condition.
- 10. The liability of Guarantor and all rights, powers and remedies of Landlord hereunder and under any other agreement now or at any time hereafter in force between Landlord and Guarantor relating to the Lease shall be cumulative and not alternative and such rights, powers and remedies shall be in addition to all rights, powers and remedies given to Landlord by law.
- 11. This Guaranty applies to, inures to the benefit of and binds all parties hereto, their heirs, devisees, legatees, executors, administrators, representatives, successors and assigns. This Guaranty may be assigned by Landlord voluntarily or by operation of law.
- 12. This Guaranty shall constitute the entire agreement between Guarantor and the Landlord with respect to the subject matter hereof. No provision of this Guaranty or right of Landlord hereunder may be waived nor may any guarantor be released from any obligation hereunder except by a writing duly executed by an authorized officer, director or trustee of Landlord. The waiver or failure to enforce any provision of this Guaranty shall not operate as a waiver of any other breach of such provision or any other provisions hereof. No course of dealing between Landlord and Tenant shall alter or affect the enforceability of this Guaranty or Guarantor's obligations hereunder.
- 13. Guarantor hereby agrees to indemnify, protect, defend and hold Landlord and Landlord's Affiliates harmless from and against, all losses, costs and expenses including, without limitation, all interest, default interest, post-petition bankruptcy interest and other post-petition obligations, late charges, court costs and attorneys' fees, which may be suffered or incurred by Landlord in

enforcing or compromising any rights under this Guaranty or in enforcing or compromising the performance of Tenant's obligations under the Lease.

- 14. The term "Landlord" whenever hereinabove used refers to and means the Landlord in the foregoing Lease specifically named and also any assignee of said Landlord, whether by outright assignment or by assignment for security, and also any successor to the interest of said Landlord or of any assignee of such Lease or any part thereof, whether by assignment or otherwise. The term "Tenant" whenever hereinabove used refers to and means the Tenant in the foregoing Lease specifically named and also any Transferee of said Lease and also any successor to the interests of said Tenant, assignee or sublessee of such Lease or any part thereof, whether by assignment, sublease or otherwise including, without limitation, any trustee in bankruptcy and any bankruptcy estate of Tenant, Tenant's assignee or sublessee.
- 15. If any or all Guarantors shall become bankrupt or insolvent, or any application shall be made to have any or all Guarantors declared bankrupt or insolvent, or any or all Guarantors shall make an assignment for the benefit of creditors, or any or all Guarantors shall enter into a proceeding for the dissolution of marriage, or in the event of death of any or all Guarantors, notice of such occurrence or event shall be promptly furnished to Landlord by such Guarantor or such Guarantor's fiduciary. This Guarantee shall extend to and be binding upon each Guarantor's successors and assigns, including, but not limited to, trustees in bankruptcy and Guarantor's estate.
- 16. Any notice, request, demand, instruction or other communication to be given to any party hereunder shall be in writing and sent by registered or certified mail, return receipt requested in accordance with the notice provisions of the Lease. The Tenant shall be deemed Guarantor's agent for service of process and notice to Guarantor delivered to the Tenant at the address set forth in the Lease shall constitute proper notice to Guarantor for all purposes. Notices to Landlord shall be delivered to Landlord's address set forth in the Lease. Landlord, at its election, may provide an additional notice to Guarantor at the address provided under Guarantor's signature below.
- 17. If either party hereto participates in an action against the other party arising out of or in connection with this Guaranty, the prevailing party shall be entitled to have and recover from the other party reasonable attorneys' fees, collection costs and other costs incurred in and in preparation for the action. Guarantor hereby waives any right to trial by jury and further waives and agrees not to assert or take advantage of any defense based on any claim that any arbitration decision binding upon Landlord and Tenant is not binding upon Guarantor.
- 18. Guarantor agrees that all questions with respect to this Guaranty shall be governed by, and decided in accordance with, the laws of the State of California.
- 19. Should any one or more provisions of this Guaranty be determined to be illegal or unenforceable, all other provisions shall nevertheless be effective.
- 20. Time is strictly of the essence under this Guaranty and any amendment, modification or revision hereof.
- 21. If more than one person signs this Guaranty, each such person shall be deemed a guarantor and the obligation of all such guarantors shall be joint and several. When the context and

construction so requires, all words used in the singular herein shall be deemed to have been used in the plural. The word "person" as used herein shall include an individual, company, firm, association, partnership, corporation, trust or other legal entity of any kind whatsoever.

22. If Guarantor is a corporation, each individual executing this Guaranty on behalf of said corporation represents and warrants that he is duly authorized to execute and deliver this Guaranty on behalf of said corporation, in accordance with a duly adopted resolution of the Board of Directors of said corporation or in accordance with the bylaws of said corporation, and that this Guaranty is binding upon said corporation in accordance with its terms. If Guarantor is a corporation, Landlord, at its option, may require Guarantor to concurrently, with the execution of this Guaranty, deliver to Landlord a certified copy of a resolution of the Board of Directors of said corporation authorizing or ratifying the execution of this Guaranty.

THE UNDERSIGNED HAS READ AND UNDERSTANDS THE TERMS AND CONDITIONS CONTAINED IN THIS GUARANTY INCLUDING, WITHOUT LIMITATION, ALL WAIVERS CONTAINED IN THIS GUARANTY.

Executed on this	day of	, 2021.
[If Guarantor is a mar	ried individual, Gu	arantor's spouse must sign this Guaranty
		Spouse (if applicable)
Address of Guarantor:		
	Attn	

\*A. If the person(s) signing this Lease on behalf of Tenant [is/are] [an] officers] of a corporation that is incorporated in California, then one of the following conditions must be satisfied: (i) This Lease must be signed by two officers, one being the Chairman of the Board, the Owner or a Vice Owner, and the other one being the Secretary, an Assistant Secretary, the Chief Financial Officer or an Assistant Treasurer; or (ii) if clause (i) above is not satisfied, or if this Lease is signed by one person acting in two capacities, then Tenant shall have delivered to Landlord a certified copy of a corporate resolution in form acceptable to Landlord authorizing the signatory(ies) to execute this Lease.

B. If the person(s) signing this Lease on behalf of Tenant [is/are] [an] officers] of a corporation that is incorporated in a state other than California, then Tenant shall have delivered to Landlord a certified copy of a corporate resolution in form acceptable to Landlord authorizing the signatory(ies) to execute this Lease.

### **EXHIBIT "F"**

### <u>INITIAL LEASEHOLD IMPROVEMENTS</u>

None. Tenant takes the Premises AS-IS.

### **EXHIBIT "G"**

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO:

CITY OF REDONDO BEACH 415 Diamond Street Redondo Beach, CA 90277 Attention: City Clerk

No Recording Fee Exempt pursuant to Government Code § 6103

### **MEMORANDUM OF LEASE**

This Memorandum of Lease ("Memorandum") is made and entered into as of January 19, 2021, by and between the CITY OF REDONDO BEACH, a Chartered Municipal Corporation, hereinafter referred to as "Landlord" and CANCER SUPPORT COMMUNITY REDONDO BEACH a California 501(3)(c) NonProfit Corporation hereinafter referred to as "Tenant."

- A. Landlord and Tenant have entered in a Lease (hereinafter, "Lease") dated as of January 19, 2021, for certain premises which are located on real property which is commonly described in **Exhibit A** of the Lease and incorporated herein by reference (the "Premises"). Copies of the Lease and Addendum are available for public inspection at Landlord's office at 415 Diamond Street, Redondo Beach, CA 90277.
- B. The Lease provides that a short form Memorandum shall be executed and recorded in the official Records of Los Angeles County, California.

NOW, THEREFORE, the parties hereto certify as follows:

- 1. Purpose of Memorandum of Lease. This Memorandum is prepared for recordation purposes only and it in no way modifies the terms, conditions, provisions and covenants of the Lease. In the event of any inconsistency between the terms, conditions, provisions and covenants of this Memorandum and the Lease, the terms, conditions, provisions, and covenants of the Lease shall prevail.
- 2. Term. This Lease commences **January 19, 2021 and expires January 18, 2022**, subject to Landlord's termination rights.
- 3. Counterparts. This Memorandum may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

	n, California, as of this day of January, 2021.
LANDLORD	TENANT
CITY OF REDONDO BEACH	
William C. Brand Mayor	By: Name: Title:
ATTEST:	
Eleanor Manzano City Clerk	
APPROVED AS TO FORM:	
Michael W. Webb City Attorney	

### **RESOLUTION NO. CC-2101-008**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, LEASING CERTAIN PROPERTY TO CANCER SUPPORT COMMUNITY R.B., A CALIFORNIA 501(C)(3) NONPROFIT CORPORATION

WHEREAS, Section 2-21.01, Chapter 21, Title 2, of the Redondo Beach Municipal Code provides that any lease of public land owned or controlled by the City of Redondo Beach, or by any department or subdivision of the City, shall be administratively approved by resolution; and

WHEREAS, the City Council shall approve the subject lease only upon the making of certain findings.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. That the City Council of the City of Redondo Beach approves the lease with Cancer Support Community R.B., a California 501(c)(3) Nonprofit Corporation ("Lease") for the property commonly located at 121 W. Torrance Blvd., Suite 201 Redondo Beach, CA 90277, consisting of approximately 1,132 rentable square feet, as further detailed in the Lease attached hereto as Exhibit "A" and incorporated herein as set forth in full.

SECTION 2. That the City Council of the City of Redondo Beach hereby finds:

- 1. The Lease will result in a net economic or other public benefit to the City of Redondo Beach or the general public; and
- 2. The granting of the Lease is consistent with and will further the fiscal, budgetary and applicable economic development, social, recreational, public safety or other applicable adopted policies of the City; and
- 3. The Lease, and all land uses and development authorized by the Lease, are consistent with all applicable provisions of the general plan, the Coastal Land Use Plan where applicable, and the applicable zoning ordinances of the City; and
- 4. The Lease and all land uses and development authorized by the Lease, are consistent with and will carry out the goals, standards and policies of any specific plan applicable to the Lease property; and
- 5. The Lease and its purposes are consistent with all other applicable provisions of law.

# William C. Brand, Mayor APPROVED AS TO FORM: ATTEST: Michael W. Webb, City Attorney Eleanor Manzano, CMC, City Clerk

PASSED, APPROVED AND ADOPTED this 19th day of January, 2021.

STATE OF CALIFORNIA	)
COUNTY OF LOS ANGELES	) ss
CITY OF REDONDO BEACH)	,

I, Eleanor Manzano, City Clerk of the City of Redondo Beach, California, do hereby certify that Resolution No. CC-2101-008 was passed and adopted by the City Council of the City of Redondo Beach, California, at a regular meeting of said City Council held on the 19<sup>th</sup> day of January, 2021, and there after signed and approved by the Mayor and attested by the City Clerk, and that said resolution was adopted by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:
Eleanor Manzano, CMC City Clerk

### **EXHIBIT "A"**



### Administrative Report

H.7., File # 20-1879 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: CHRISTOPHER BENSON, INFORMATION TECH DIRECTOR

### **TITLE**

APPROVE AGREEMENT WITH HITECH SYSTEMS INC. DBA PULSIAM FOR SAFETYNET REPORTING SERVER SOFTWARE AND DATA MIGRATION SERVICES FOR THE AMOUNT NOT TO EXCEED \$51,845.60 FOR THE TERM JANUARY 19, 2021 TO JANUARY 18, 2022.

### **EXECUTIVE SUMMARY**

On December 17, 2017, the Redondo Beach City Council approved a five-year agreement with Mark43 for a replacement Records Management System (RMS), with an option to purchase the Computer Assisted Dispatch (CAD). On July 2, 2019 the purchase of CAD was approved in addition to a first amendment to the master agreement to facilitate a complete RMS and CAD transition from the existing vendor Hitech Systems / Pulsiam (Pulsiam) to Mark43.

The Redondo Beach Police Department (RBPD) would like historical data migrated from the existing CAD/RMS to the new Mark43 system. Per the attached agreement, Pulsiam will install its SafetyNet Reporting Server and migrate ~28 years of public safety data from the existing proprietary database to a Microsoft SQL database. Mark43 can then migrate the exported data into their cloud solution. The SafetyNet Reporting Server will actively migrate data as the Pulsiam system is updated within the year-long agreement.

### **BACKGROUND**

RBPD has utilized a CAD/RMS system since the 1980's. Pulsiam CAD/RMS was selected in 1993 to replace a Command Data Systems CAD/RMS that had been in service since ~1986. Mark43 CAD/RMS was approved by City Council in 2017 to replace the current Pulsiam CAD/RMS.

Approximately 28 years of data exists within the current proprietary Pulsiam database. Both RBPD and Mark43 wish to migrate much of this historical data into the new Mark43 CAD/RMS system. This can only be accomplished if the historical data resides in a Microsoft SQL database. The only way to reliably migrate data out of the Pulsiam database in a way that makes it available for Mark43 to import is to use Pulsiam's SafetyNet Reporting Server product.

The most important of the historic records are the evidence records. In particular, the chain of custody for evidence that has been booked/stored - specifically for high profile crimes (Homicides, Rapes, etc.). The chain of custody for evidentiary items plays a key role in court proceedings. Other important historic data will be the records of actual contacts at certain locations/persons. This is

H.7., File # 20-1879 Meeting Date: 1/19/2021

used to identify problem locations, and locations that might have officer safety concerns. Included in the data migration are any associated file tables that contain codes and descriptions referenced in the data files and file indexes that connect the data together. The migrated historical data will also then be accessible via Mark43 reporting tools.

The SafetyNet Reporting Server will actively migrate RBPD historical data to a Microsoft SQL database and it will be supported by Pulsiam for as long as RBPD utilizes the Pulsiam CAD/RMS within the year-long agreement. Mark43 will begin the data migration process once the migrated data is tested and verified to be accurate. They estimate a six to nine-month time frame to migrate desired data into Mark43's CAD/RMS. A completed data migration is not required in order to go live on the Mark43 CAD/RMS solution.

### COORDINATION

Information Technology staff worked directly with Pulsiam, Mark43 and RBPD staff to structure the agreement. The agreement was approved as to form by the City Attorney's office.

### FISCAL IMPACT

The SafetyNet Reporting Server software, annual maintenance and associated services cost of \$51,845.60 is funded from the FY20-21 IT Internal Service Fund. Pricing reflects a 40% discount, or \$9,544 off of the SafetyNet Reporting Server software list price.

Funding		Expenditures	3
\$51,845.60	IT Internal Service Fund	\$23,861.00	SafetyNet Reporting Server
		(9,544.40)	Software Discount
		4,772.00	Annual Maintenance
		32,757.00	Installation, Configuration, Testing, Documentation, Project Management
\$51,845.60		\$51,845.60	Total

### APPROVED BY:

Joe Hoefgen, City Manager

### **ATTACHMENTS**

Pulsiam SafetyNet Reporting Server Agreement Pulsiam Certificate of Insurance



Client: Redondo Beach Police Department

Work Order For: SafetyNet Reporting Server

### **Description of Work:**

Redondo Beach Police Department (RBPD) currently utilizes SafetyNet Computer Aided Dispatch (CAD) and SafetyNet Records Management System (RMS).

RBPD is requesting that Hitech Systems, Inc. dba Pulsiam ("Pulsiam") replicate certain SafetyNet RMS and SafetyNet CAD data from the RBPD SafetyNet application server to a Microsoft SQL Server.

RBPD will provide and configure an instance of Microsoft SQL Server 2019 Standard Edition to receive the data from the RBPD SafetyNet application server. The minimum recommended hardware requirements include a quad core 3 GHz Xeon processor or equivalent, 16 GB of memory, and 4 TB of disk.

Pulsiam will replicate the following SafetyNet tables to a Microsoft SQL Server database:

- ACCIDENT (Traffic)
- AGENCY
- ALARM CO
- ALARM INVOICE
- ALARM PERMIT
- ARREST
- BEATS
- BOLO
- BOLO PERSON
- CALL HISTORY
- CALL NOTIFY
- CALL TYPE
- CASE CURRENT
- Cl (Case Investigations)

- CITATION
- COPS26
- COPSTAT
- COURT
- COURT ORDER
- CRIME CODE
- EVIDENCE
- FI
- INJURY\_TYPE
- LOC TYPE
- MODUS
- OFFICER
- PAWN
- PERSON
- PHONE BOOK
- PROPERTY

- PROP TYPE
- RACE
- RADIO
- REGISTRANT
- SOP
- UNIT HISTORY
- UNIT TYPE
- VEH TYPE
- VEH MAKE
- VEH MODEL
- VEHICLE
- WARRANT
- WEAPON

RBPD may elect to replicate SafetyNet tables in addition to those listed above, subject to certain technical limitations imposed by Microsoft SQL Server, including, but not limited to, the limitation that SQL Server cannot store heterogeneous data in the same table. If RBPD elects to replicate additional SafetyNet tables, and the SafetyNet Maintenance and Support Services Agreement is



still in full force and effect, Pulsiam will add the additional tables to be replicated. If not, RBPD can do so based on the documentation and training provided hereunder.

### Implementation Plan:

Pulsiam will perform the following steps to accomplish the work described above:

- Designate a project manager to work with the RBPD project manager and staff during the duration of the project
- Install SafetyNet Reporting Server on the RBPD SafetyNet application server
- Configure SafetyNet Reporting Server to replicate SafetyNet CAD and RMS data to the RBPD-provided Microsoft SQL Server

RBPD will have the following responsibilities:

- Designate a project manager to work with Pulsiam for the duration of the project
- Install and configure its Microsoft SQL Server to receive the data from the RBPD SafetyNet application server
- Configure the Microsoft SQL Server for TCP clients
- Configure the Microsoft SQL Server for SQL Server and Windows Authentication Mode
- Configure the Microsoft SQL Server to allow remote connections
- Ensure connectivity between its Microsoft SQL Server and the RBPD SafetyNet application server
- Provide login and password credentials for Pulsiam to access the database on its Microsoft SQL Server
- Create a database on its Microsoft SQL Server to contain the SafetyNet data
- Assign that database as the default database for the login provided
- Assign the provided login with full permissions to that database, e.g., as owner
- Work with Pulsiam to test and verify the receipt of data
- Notify and coordinate with users, including third parties, for installation and testing activities
- Document all issues on <a href="https://support.pulsiam.com">https://support.pulsiam.com</a>

The work shall commence within two weeks after the latter of 1) execution of the work order and receipt by Pulsiam of the associated payment, and 2) availability of and access to the SQL Server provided by RBPD, and shall be completed within 30 calendar days thereafter.

### Documentation:

Documentation will be provided on the Pulsiam Support Portal SafetyNet Wiki.

### Training:

One hour of training will be provided to teach RBPD personnel the theory of operation and demonstrate how to replicate additional SafetyNet tables.



### Testing:

RBPD shall validate the population of its SQL Server with the SafetyNet data. Pulsiam shall provide RBPD two hours of testing assistance. During RBPD's testing, any identified issues will be reported in the form of an Incident Report (IR) on https://support.pulsiam.com for resolution.

### Acceptance:

Demonstration of proper operation for a period of five (5) calendar days shall constitute acceptance.

### Terms:

RBPD will pay Pulsiam the sum of \$51,845.60 for the following:

Qty	Product Description	Unit Price	Discount	Total
	Software			
1	SafetyNet Reporting Server	\$23,861.00	40%	\$14,316.60
	Annual Maintenance			
1	SafetyNet Reporting Server	4,772.00		4,772.00
	Services			
1	Installation, Configuration, Testing, Documentation, and Project Management	32,757.00		32,757.00
		Gı	rand Total	\$51,845.60

RBPD shall make payments as follows:

- A payment in the sum of \$10,369.12 upon the execution of this work order
- A payment in the sum of \$31,107.36 upon installation of the SafetyNet Reporting Server
- A payment in the sum of \$10,369.12 upon acceptance

This work order is subject to the terms and conditions of the SafetyNet Software Agreement and the SafetyNet Maintenance and Support Services Agreement previously executed by the parties.

2020-12-04 CONFIDENTIAL Page 3 of 4



Pulsiam will not be held responsible for changes in specifications. RBPD will pay Pulsiam on a time and materials basis for any costs associated with changes in specifications. Additional time will be billed at \$337 per hour. This offer is valid until January 31, 2021.

Acknowledgment and Authorization:	
Hitech Systems, Inc. dba Pulsiam	City of Redondo Beach
Henry P. Unger President	Bill Brand Mayor
Date:	Date:
	Eleanor Manzano City Clerk
	Date:
	Michael W. Webb City Attorney
	Date:
	Diane Strickfaden Risk Manager
	Date:

2020-12-04 CONFIDENTIAL Page 4 of 4



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 8/13/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on

Lilia certificate does flot collier f	ights to the certificate holder in fled of s	ucii enuorseine	ະການ(ອ).		
PRODUCER SullivanCurtisMonroe	e Insurance Services (IRV)	CONTACT NAME:	RSPExpress		
1920 Main Street	,	PHONE (A/C, No. Ext):		FAX (A/C. No):	
Suite 600 Irvine, CA 92614		E-MAIL ADDRESS:	ExpressIX@sullicurt	, , , , ,	
			INSURER(S) AFFORDING CO	OVERAGE	NAIC#
www.SullivanCurtisMonroe.com	License # 0E83670	INSURER A: Fed	deral Insurance Company	1	20281
INSURED		INSURER B: Ha	rtford Casualty Insurance	Company	29424
Hitech Systems, Inc. DBA Pulsiam		INSURER C:			
16030 Ventura Blvd., #250		INSURER D:			
Encino, CA 91436		INSURER E :			
		INSURER F:			
COVERAGES	CERTIFICATE NUMBER: 57002670		REVIS	ION NUMBER:	

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

	CLC	DSIONS AND CONDITIONS OF SUCH						
INSR LTR			ADDL SUBF		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s
Α	1	COMMERCIAL GENERAL LIABILITY	1	35796052WCE	8/27/2020	8/27/2021	EACH OCCURRENCE	\$1,000,000
		CLAIMS-MADE ✓ OCCUR					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
							MED EXP (Any one person)	\$10,000
							PERSONAL & ADV INJURY	\$ Excluded
	GEN	N'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	\$2,000,000
	1	POLICY PRO- JECT LOC					PRODUCTS - COMP/OP AGG	\$ Excluded
		OTHER:						\$
Α	AUT	TOMOBILE LIABILITY		74970373	8/27/2020	8/27/2021	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
		ANY AUTO					BODILY INJURY (Per person)	\$
		OWNED SCHEDULED AUTOS ONLY					BODILY INJURY (Per accident)	\$
	1	HIRED AUTOS ONLY VON-OWNED AUTOS ONLY					PROPERTY DAMAGE (Per accident)	\$
	1	Phys Damage						\$
Α	1	UMBRELLA LIAB ✓ OCCUR		79806822	8/27/2020	8/27/2021	EACH OCCURRENCE	\$2,000,000
	1	EXCESS LIAB CLAIMS-MADE		Brodo/Comani One avaluded			AGGREGATE	\$2,000,000
		DED ✓ RETENTION \$0		Prods/Compl Ops excluded			Pers/Adv Injury	\$ Excluded
В		RKERS COMPENSATION EMPLOYERS' LIABILITY		72WBCRT9614	8/27/2020	8/27/2021	✓ PER OTH- STATUTE ER	
	ANY	PROPRIETOR/PARTNER/EXECUTIVE ICER/MEMBER EXCLUDED?	N/A				E.L. EACH ACCIDENT	\$1,000,000
	(Mar	ndatory in NH)					E.L. DISEASE - EA EMPLOYEE	\$1,000,000
	DES	s, describe under CRIPTION OF OPERATIONS below					E.L. DISEASE - POLICY LIMIT	\$1,000,000
				1				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Redondo Beach P.D. is named as Additional Insured with respect to General Liablity as per the attached endorsement.

CERTIFICATE HOLDER	CANCELLATION
Redondo Beach Police Department 401 Diamond St. Redondo Beach, CA 90277	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
1	Maja Peci  Maja Peci

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### CHUBB.

### Liability Insurance

### Endorsement

Policy Period

8/27/2020

8/27/2021

Effective Date

8/27/2020

Policy Number

35796052WCE

Insured

Hitech Systems, Inc.

Name of Company

Federal Insurance Company

Date Issued

8/13/2020

This Endorsement applies to the following forms:

PREMISES/OPERATIONS

Under Who Is An Insured, the following provision is added.

### Who is An Insured

Owners, Lessees Or Contractors - Ongoing Operations

- A. Persons or organizations shown in the Schedule below are insureds; but they are insureds only with respect to their liability for bodily injury, property damage, adverting injury or personal injury caused, in whole or in part, by:
  - 1. your acts or omissions; or
  - 2. the acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the person or organization shown in the Schedule at the applicable location described in the Schedule.

### However,

- the insurance afforded to such person or organization only applies to the extent permitted by law; and
- if coverage provided to the person or organization is required by a contract or agreement, the insurance afforded to the person or organization will not be broader than that which you are required by such contract or agreement to provide for the person or organization.

### Liability Endorsement (continued)

- B. However, no person or organization is an insured for bodily injury or property damage occurring after:
  - all work, including materials, parts or equipment furnished in connection with such
    work, on the project (other than service, maintenance or repairs) to be performed by or
    on behalf of the person or organization shown in the Schedule at the applicable location
    described in the Schedule has been completed; or
  - that portion of your work out of which the injury or damage arises has been put to its
    intended use by any person or organization other than another contractor or
    subcontractor engaged in performing operations for a principal as part of the same
    project.

Q. 1.10

### Schedule

Designated Owner, Lessee Or Contractor

Redondo Beach Police Department 401 Diamond St. Redondo Beach, CA 90277

All other terms and conditions remain unchanged.

Authorized Representative

last page



### Administrative Report

H.8., File # 21-1938 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: STEPHEN PROUD, WATERFRONT AND ECONOMIC DEVELOPMENT

**DIRECTOR** 

### TITLE

APPROVE THE NINTH AMENDMENT TO THE AGREEMENT WITH KOSMONT & ASSOCIATES, INC FOR REAL ESTATE CONSULTING SERVICES FOR AN ADDITIONAL AMOUNT OF \$50,000 FOR A NOT-TO-EXCEED TOTAL OF \$1.445M AND EXTENDING TERM TO DECEMBER 31, 2021

### **EXECUTIVE SUMMARY**

Kosmont & Associates, Inc. ("Kosmont") has served as the City's consultant on a variety of real estate matters and brings over 25 years of experience in public/private and economic development transactions. The firm's broad professional perspective is invaluable to the City given the scope and complexity of ongoing economic development activities. As part of the City's 2020-2021 Adopted Budget, the City Council appropriated approximately \$42,000 in the tidelands and uplands funds and more recently carried over approximately \$15,000 for as-needed professional services to support the City's efforts related to real estate transactions in the Waterfront, support for the redevelopment of the AES site, and general economic development projects throughout the City. The proposed Ninth Amendment would add an additional \$50,000 to the Kosmont Contract bringing the total not-to-exceed amount to \$1.445M and extend the term of the contract to December 31, 2021.

### **BACKGROUND**

The initial contract executed with Kosmont & Associates ("Kosmont") resulted in the preparation of two key documents that have served as the foundation for the real estate activities within King Harbor - the Pier & Harbor Asset Management Plan in 2007 and the Harbor Enterprise Business Plan in 2010. In implementing the recommendations set forth in those documents, Kosmont has served as the City's advisor during the reacquisition of several large leaseholds and advised the City on the waterfront revitalization effort. During that same time period, Kosmont has provided real estate advisory services on economic development activities within the City, including transaction support for the development of the Marine Avenue hotels. More recently, Kosmont's work with the City has focused on the reuse of the AES site, supporting real estate transactions in the Waterfront, and citywide economic development efforts.

As part of the City's 2020-2021 Adopted Budget, the City Council appropriated approximately \$42,000 in the tidelands and uplands funds and more recently carried over approximately \$15,000 for as-needed professional consulting services. The current value of the contract, including the eight previous Amendments is a not-to-exceed amount total of \$1.395M. Staff is recommending the City

H.8., File # 21-1938 Meeting Date: 1/19/2021

Council approve the proposed Ninth Contract Amendment which adds \$50,000 of value to the contract for a new not-to-exceed total of \$1.445M and extends the term of the contract to December 31, 2021.

### **COORDINATION**

The Waterfront and Economic Development Department collaborated with the City Attorney's Office to develop the Contract Amendment. The City Attorney's Office has approved the Amendment as to form.

### **FISCAL IMPACT**

Funding for the proposed Ninth Amendment was appropriated by the City Council as part of the 2020 -2021 Budget Adoption and is funded via the General Fund, and the Harbor Enterprise Uplands and Tidelands Funds.

### **APPROVED BY:**

Joe Hoefgen, City Manager

### **ATTACHMENTS**

Ninth Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

First Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Second Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Third Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Fourth Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Fifth Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

Sixth Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates. Inc.

Seventh Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

H.8., File # 21-1938 Meeting Date: 1/19/2021

Eighth Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

# NINTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS NINTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Ninth Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000; and

WHEREAS, on November 7, 2017, the parties entered into a Fourth Amendment ("Fourth Amendment") which extended the term to July 30, 2018 and increased the compensation to \$745,000; and

WHEREAS, on March 20, 2018, the parties entered into a Fifth Amendment ("Fifth Amendment") which extended the term to July 30, 2019 and increased the compensation to \$945,000; and

WHEREAS, on February 19, 2019, the parties entered into a Sixth Amendment ("Sixth Amendment") which extended the term to July 30, 2020 and increased the compensation to \$1,170,000; and

WHEREAS, on October 15, 2019, the parties entered into a Seventh Amendment ("Seventh Amendment") which extended the term to December 31, 2020 and increased the compensation to \$1,335,000; and

WHEREAS, on February 11, 2020, the parties entered into an Eighth Amendment ("Eighth Amendment") which increased the compensation to \$1,395,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- 1. <u>Scope of Services</u>: Exhibit A of the Agreement (as amended) is replaced in its entirety by the Scope of Services Attached to this Ninth Amendment.
- 2. <u>Term</u>: Exhibit B of the Agreement is amended to set the expiration of the Agreement to December 31, 2021.
- 3. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$50,000.00 thereby increasing the total not to exceed amount to \$1,445,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 4. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, the Sixth Amendment, the Seventh Amendment, and the Eighth Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment, Fifth Amendment, Sixth Amendment, Seventh Amendment, Eighth Amendment, together with this Ninth Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Ninth Amendment and the Eighth Amendment, Seventh Amendment, Sixth Amendment, Fifth Amendment, Fourth Amendment, Third Amendment, Second Amendment, First Amendment and the Agreement, the terms of this Ninth Amendment shall prevail. This Ninth Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this Ninth Amendment as of this  $19^{\text{th}}$  day of January, 2021.

CITY OF REDONDO BEACH A chartered municipality	KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES
	<del></del>
William C. Brand, Mayor	Name: Title:
APPROVED AS TO FORM:	
Michael W. Webb, City Attorney	
APPROVED:	
Risk Manager	
ATTEST:	
Fleanor Manzano CMC City Clerk	

### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

### Task 1: Continued Support on Existing Citywide Economic Development Projects

Consultant will provide continued support on existing projects including assistance related to the potential redevelopment of the AES powerplant site and the Redondo Beach Galleria, Artesia Corridor improvements, and various hotel projects.

### Task 2: Waterfront Real Estate Activities

Consultant will provide continued support on the harbor waterfront properties, including assistance with due diligence, and the evaluation and negotiation of agreements pertaining to existing and potential future leaseholds at the waterfront. These activities may include litigation support.

### Task 3: EIFD Formation and Ongoing Activities

Consultant will continue to provide ongoing project support for Enhanced Infrastructure Financing District ("EIFD") and Public Financing Authority ("PFA") activities as may be needed.

### Task 4: Other As-Needed Services

Consultant will provide other as-needed real estate advisory services as requested by Client, and mutually agreed upon by Consultant.

# EIGHTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS EIGHTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Eighth Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant" or "Kosmont").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000; and

WHEREAS, on November 7, 2017, the parties entered into a Fourth Amendment ("Fourth Amendment") which extended the term to July 30, 2018 and increased the compensation to \$745,000; and

WHEREAS, on March 20, 2018, the parties entered into a Fifth Amendment ("Fifth Amendment") which extended the term to July 30, 2019 and increased the compensation to \$945,000; and

WHEREAS, on February 19, 2019, the parties entered into a Sixth Amendment ("Sixth Amendment") which extended the term to July 30, 2020 and increased the compensation to \$1,170,000; and

WHEREAS, on October 15, 2019, the parties entered into a Seventh Amendment ("Seventh Amendment") which extended the term to December 31, 2020 and increased the compensation to \$1,335,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:



- 1. <u>Scope of Services</u>: Exhibit A of the Agreement (as amended) is replaced in its entirety by the Scope of Services attached hereto as Exhibit A-8, which is incorporated herein.
- 2. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$60,000.00 thereby increasing the total not to exceed amount to \$1,395,000.00. Except as expressly stated herein, Exhibit C of the Agreement (as amended) shall remain unchanged and in full force and effect.
- 3. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, the Sixth Amendment, and the Seventh Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment, Fifth Amendment, Sixth Amendment, Seventh Amendment together with this Eighth Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Eighth Amendment and the Seventh Amendment, Sixth Amendment, Fifth Amendment, Fourth Amendment, Third Amendment, Second Amendment, First Amendment and the Agreement, the terms of this Eighth Amendment shall prevail. This Eighth Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]



IN WITNESS WHEREOF, the parties have entered into this Eighth Amendment as of this 11<sup>th</sup> day of February, 2020.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES

William C. Brand, Mayor

Name LANKY MOS MONT

APPROVED AS TO FORM:

Michael W. Webb, City Attorney

APPROVED:

Risk Manager

ATTEST:

Eleanor Manzano, City Clerk

#### **EXHIBIT A-8**

#### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

Task 1: Continued Support on Existing Citywide Economic Development Projects Kosmont will provide continued support on existing projects including waterfront redevelopment activities, assistance with the evaluation of proposals related to the potential redevelopment of the AES powerplant site, and the evaluation and negotiation of agreements, due diligence as pertaining to existing and potential future leaseholds at the waterfront.

Task 2: Infrastructure Financing Plan, Fiscal Impact Analysis, Final EIFD Approval Based on the City's adopted resolution establishing the EIFD, Kosmont will continue to work with the City to draft an Infrastructure Financing Plan ("IFP"), draft supporting fiscal impact analyses, assist legal counsel in preparation of CEQA documentation, and attend Public Finance Authority ("PFA") meetings and hearings for final approval of IFP and EIFD.

Task 3: Stakeholder Meetings, PFA Board, EIFD Formation and Ongoing Activities Kosmont will continue to meet with the PFA board, EIFD property owners, and stakeholders (e.g. Southern California Edison, County Supervisors/CEO), including activities related to the expansion of Public Financing Authority membership to include the County, and ongoing project support for EIFD/PFA activities as may be needed.

#### Task 4: Waterfront Real Estate Activities

Kosmont shall provide continued support on the harbor waterfront properties, including assistance with the evaluation and negotiation of proposals related to the potential redevelopment of the properties. Certain of these activities may include litigation support.

#### Task 5: Other As-Needed Services

Kosmont will provide other as-needed real estate and economics advisory services as requested by Client, and mutually agreed upon by Consultant.

# SEVENTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS SEVENTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Seventh Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000; and

WHEREAS, on November 7, 2017, the parties entered into a Fourth Amendment ("Fourth Amendment") which extended the term to July 30, 2018 and increased the compensation to \$745,000; and

WHEREAS, on March 20, 2018, the parties entered into a Fifth Amendment ("Fifth Amendment") which extended the term to July 30, 2019 and increased the compensation to \$945,000; and

WHEREAS, on February 19, 2019, the parties entered into a Sixth Amendment ("Sixth Amendment") which extended the term to July 30, 2020 and increased the compensation to \$1,170,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

1. <u>Scope of Services</u>: Exhibit A of the Agreement (as amended) is replaced in its entirety by the Scope of Services Attached to this Seventh Amendment.

- 2. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to December 31, 2020.
- 3. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$165,000.00 thereby increasing the total not to exceed amount to \$1,335,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 4. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, and the Sixth Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment, Fifth Amendment, Sixth Amendment together with this Seventh Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Seventh Amendment and the Sixth Amendment, Fifth Amendment, Fourth Amendment, Third Amendment, Second Amendment, First Amendment and Agreement, the terms of this Seventh Amendment shall prevail. This Seventh Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this Seventh Amendment as of this 15th day of October, 2019.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES

William C. Brand, Mayor

Name HERY ROSMONT

APPROVED AS TO FORM:

Michael W. Webb, City Attorney

APPROVED:

Risk Manager

ATTEST:

Clean Manzano, City Clerk

#### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

Task 1: Continued Support on Existing Citywide Economic Development Projects Consultant will provide continued support on existing projects including waterfront redevelopment activities, assistance with the evaluation of proposals related to the potential redevelopment of the AES powerplant site, and the evaluation and negotiation of agreements, due diligence as pertaining to existing and potential future leaseholds at the waterfront.

#### Task 2: County EIFD Participation

Consultant will continue to work with Los Angeles County ("County") to pursue the County's approval of participation in the Redondo Beach Enhanced Infrastructure Financing District ("EIFD"), including updating the EIFD application and tax increment projections, attending public meetings and hearings, negotiation of tax increment contribution by the County, and assistance with the final Los Angeles County EIFD resolution for consideration by the Board of Supervisors.

Task 3: Infrastructure Financing Plan, Fiscal Impact Analysis, Final EIFD Approval Based on the City's adopted resolution establishing the EIFD, K will continue to work with the City to draft an Infrastructure Financing Plan ("IFP"), draft supporting fiscal impact analyses, assist legal counsel in preparation of CEQA documentation, and attend Public Finance Authority ("PFA") meetings and hearings for final approval of IFP and EIFD.

Task 4: Stakeholder Meetings, PFA Board, EIFD Formation and Ongoing Activities Consultant will continue to meet with the PFA board, EIFD property owners, and stakeholders (e.g. Southern California Edison, County Supervisors/CEO), including activities related to the expansion of Public Financing Authority membership to include the County, and ongoing project support for EIFD/PFA activities as may be needed.

#### **Task 5: Waterfront Real Estate Activities**

Consultant shall provide continued support on the harbor waterfront properties, including assistance with the evaluation and negotiation of proposals related to the potential redevelopment of the properties. Certain of these activities may include litigation support.

#### Task 6: Other As-Needed Services

Consultant will provide other as-needed real estate and economics advisory services as requested by Client, and mutually agreed upon by Consultant.



**BSTERNBERG** 

CORD

#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/10/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0C36891 Lyddy Martin Company 20300 Ventura Blvd. Suite 340 Woodland Hills, CA 91364

CONTACT Brett R Sternberg PHONE (A/C, No, Ext): (310) 478-2625 317

FAX (A/C, No):

E-MAIL ADDRESS: brett@lyddymartin.com

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A: Sentinel Insurance Company, Ltd

11000

INSURED

Kosmont & Associates, Inc. **Dba: Kosmont Companies** 1601 N. Sepulveda Blvd. #382 Manhattan Beach, CA 90266

INSURER B: INSURER C: INSURER D:

**INSURER E:** INSURER F:

**COVERAGES** 

**CERTIFICATE NUMBER:** 

**REVISION NUMBER:** 

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMIT	s	
Α	X COMMERCIAL GENERAL LIABILITY		1			EACH OCCURRENCE	\$	1,000,000
	CLAIMS-MADE X OCCUR	X	72SBABC3942	6/27/2019	6/27/2020	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
ı	1					MED EXP (Any one person)	\$	10,000
			,			PERSONAL & ADV INJURY	\$	1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:		ı			GENERAL AGGREGATE	\$	2,000,000
	X POLICY: PRO-		•			PRODUCTS - COMP/OP AGG	\$	2,000,000
	OTHER:						\$	
Α	AUTOMOBILE LIABILITY			•		COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
ı I	ANY AUTO OWNED SCHEDULED		72SBABC3942	6/27/2019	6/27/2020	BODILY INJURY (Per person)	\$	
ı	AUTOS ONLY AUTOS		,			BODILY INJURY (Per accident)	\$	
1	X HIRED NON-OWNED AUTOS ONLY					PROPERTY DAMAGE (Per accident)	\$	
			<del></del>				\$	
Α	X UMBRELLA LIAB X OCCUR		,			EACH OCCURRENCE	\$	3,000,000
i	EXCESS LIAB CLAIMS-MADE		72SBABC3942	6/27/2019	6/27/2020	AGGREGATE	\$	3,000,000
	DED X RETENTION \$ 10,000						\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		<b>}</b>			PER OTH- STATUTE ER		
	ANY PROPRIETOR/PARTNER/EXECUTIVE	N/A	•			E.L. EACH ACCIDENT	\$	
	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)		ı			E.L. DISEASE - EA EMPLOYEE	\$	
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - POLICY LIMIT	\$	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER** 

CANCELLATION

City of Redondo Beach Attn: Risk Manager 415 Diamond Street Redondo Beach, CA 90277 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS

AUTHORIZED REPRESENTATIVE

#### **BUSINESS LIABILITY COVERAGE FORM**

(b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

#### b. Real Estate Manager

Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

#### c. Temporary Custodians Of Your Property

Any person or organization having proper temporary custody of your property if you die, but only:

- (1) With respect to liability arising out of the maintenance or use of that property; and
- (2) Until your legal representative has been appointed.

#### d. Legal Representative If You Die

Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this insurance.

#### e. Unnamed Subsidiary

Any subsidiary and subsidiary thereof, of yours which is a legally incorporated entity of which you own a financial interest of more than 50% of the voting stock on the effective date of this Coverage Part.

The insurance afforded herein for any subsidiary not shown in the Declarations as a named insured does not apply to injury or damage with respect to which an insured under this insurance is also an insured under another policy or would be an insured under such policy but for its termination or upon the exhaustion of its limits of insurance.

#### 3. Newly Acquired Or Formed Organization

Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain financial interest of more than 50% of the voting stock, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier; and

- **b.** Coverage under this provision does not apply to:
  - (1) "Bodily injury" or "property damage" that occurred; or
  - (2) "Personal and advertising injury" arising out of an offense committed

before you acquired or formed the organization.

#### 4. Operator Of Mobile Equipment

With respect to "mobile equipment" registered in your name under any motor vehicle registration law, any person is an insured while driving such equipment along a public highway with your permission. Any other person or organization responsible for the conduct of such person is also an insured, but only with respect to liability arising out of the operation of the equipment, and only if no other insurance of any kind is available to that person or organization for this liability. However, no person or organization is an insured with respect to:

- a. "Bodily injury" to a co-"employee" of the person driving the equipment; or
- **b.** "Property damage" to property owned by, rented to, in the charge of or occupied by you or the employer of any person who is an insured under this provision.

#### 5. Operator of Nonowned Watercraft

With respect to watercraft you do not own that is less than 51 feet long and is not being used to carry persons for a charge, any person is an insured while operating such watercraft with your permission. Any other person or organization responsible for the conduct of such person is also an insured, but only with respect to liability arising out of the operation of the watercraft, and only if no other insurance of any kind is available to that person or organization for this liability.

However, no person or organization is an insured with respect to:

- a. "Bodily injury" to a co-"employee" of the person operating the watercraft; or
- b. "Property damage" to property owned by, rented to, in the charge of or occupied by you or the employer of any person who is an insured under this provision.

### 6. Additional insureds When Required By Written Contract, Written Agreement Or Permit

The person(s) or organization(s) identified in Paragraphs a. through f. below are additional insureds when you have agreed in a written

#### **BUSINESS LIABILITY COVERAGE FORM**

contract, written agreement or because of a permit issued by a state or political subdivision, that such person or organization be added as an additional insured on your policy, provided the injury or damage occurs subsequent to the execution of the contract or agreement, or the issuance of the permit.

A person or organization is an additional insured under this provision only for that period of time required by the contract, agreement or permit.

However, no such person or organization is an additional insured under this provision if such person or organization is included as an additional insured by an endorsement issued by us and made a part of this Coverage Part, including all persons or organizations added as additional insureds under the specific additional insured coverage grants in Section F. — Optional Additional Insured Coverages.

#### a. Vendors

Any person(s) or organization(s) (referred to below as vendor), but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the vendor's business and only if this Coverage Part provides coverage for "bodily injury" or "property damage" included within the "products-completed operations hazard".

(1) The insurance afforded to the vendor is subject to the following additional exclusions:

This insurance does not apply to:

- (a) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
- (b) Any express warranty unauthorized by you;
- (c) Any physical or chemical change in the product made intentionally by the vendor;
- (d) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;

- (e) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;
- (f) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
- (g) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
- (h) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
  - (i) The exceptions contained in Subparagraphs (d) or (f); or
  - (ii) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.
- (2) This insurance does not apply to any insured person or organization from whom you have acquired such products, or any ingredient, part or container, entering into, accompanying or containing such products.

#### b. Lessors Of Equipment

(1) Any person or organization from whom you lease equipment; but only with respect to their liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person or organization.

### (6) When You Are Added As An Additional Insured To Other Insurance

That is other insurance available to you covering liability for damages arising out of the premises or operations, or products and completed operations, for which you have been added as an additional insured by that insurance; or

#### (7) When You Add Others As An Additional Insured To This Insurance

That is other insurance available to an additional insured.

However, the following provisions apply to other insurance available to any person or organization who is an additional insured under this Coverage Part:

#### (a) Primary Insurance When Required By Contract

This insurance is primary if you have agreed in a written contract, written agreement or permit that this insurance be primary. If other insurance is also primary, we will share with all that other insurance by the method described in **c**. below.

### (b) Primary And Non-Contributory To Other Insurance When Required By Contract

If you have agreed in a written contract, written agreement or permit that this insurance is primary and non-contributory with the additional insured's own insurance, this insurance is primary and we will not seek contribution from that other insurance.

Paragraphs (a) and (b) do not apply to other insurance to which the additional insured has been added as an additional insured.

When this insurance is excess, we will have no duty under this Coverage Part to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

#### **BUSINESS LIABILITY COVERAGE FORM**

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and selfinsured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

#### c. Method Of Sharing

If all the other insurance permits contribution by equal shares, we will follow this method also. Under this approach, each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

#### 8. Transfer Of Rights Of Recovery Against Others To Us

#### a. Transfer Of Rights Of Recovery

If the insured has rights to recover all or part of any payment, including Supplementary Payments, we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them. This condition does not apply to Medical Expenses Coverage.

#### b. Walver Of Rights Of Recovery (Walver Of Subrogation)

If the insured has waived any rights of recovery against any person or organization for all or part of any payment; including Supplementary Payments, we have made under this Coverage Part, we also waive that right, provided the insured waived their rights of recovery against such person or organization in a contract, agreement or permit that was executed prior to the injury or damage.



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/10/2019

10/10/2019 THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT NAME: Rick Powell PHONE (A/C, No, Ext): E-MAIL ADDRESS: Rick Powell Insurance Agency, Lic FAX (A/C, No): (818) 861-7440 (760) 804-9710 3500 West Olive Ave. Suite 300 rick@insurance4ca.com Burbank, CA 91505 **INSURER(S) AFFORDING COVERAGE** NAIC # Phone (818) 861-7440 Fax (760) 804-9710 HISCOX INSURANCE COMPANY INC. 10200 INSURER A INSURED INSURER B Kosmont & Associates, Inc. dba Kosmont Companies INSURER C: INSURER D 1601 N Sepulveda Blvd #382 INSURER E Manhattan Beach CA 90266 INSURER F COVERAGES **CERTIFICATE NUMBER: REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDLSUBR POLICY EFF POLICY EXP TYPE OF INSURANCE LIMITS POLICY NUMBER COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE \$ DAMAGE TO RENTED CLAIMS-MADE OCCUR PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GEN'L AGGREGATE LIMIT APPLIES PER: **GENERAL AGGREGATE** \$ POLICY PRO-PRODUCTS - COMP/OP AGG \$ OTHER COMBINED SINGLE LIMIT (Ea accident) **AUTOMOBILE LIABILITY** BODILY INJURY (Per person) ANY AUTO \$ SCHEDULED AUTOS NON-OWNED ALL OWNED AUTOS BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) HIRED AUTOS \$ AUTOS **UMBRELLA LIAB** OCCUR EACH OCCURRENCE \$ **EXCESS LIAB** CLAIMS-MADE **AGGREGATE** \$ RETENTION \$ \$ WORKERS COMPENSATION PER STATUTE AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE E.L. EACH ACCIDENT N/A OFFICER/MEMBER EXCLUDED? (Mandatory in NH) E.L. DISEASE - EA EMPLOYEE \$ f ves. describe unde E.L. DISEASE - POLICY LIMIT DESCRIPTION OF OPERATIONS below Υ Errors & Omissions Coverage MPL1425837.19 03/15/2019 | 03/15/2020 \$2,000,000/\$2,000,000 Per Claim/Aggregate DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required) City of Redondo Beach, its officers, elected and appointed officials employees and volunteers are Additional Insured as respects operations performed by the named insured, per form PLPMPL P0002 CW (06/14) attached. **CERTIFICATE HOLDER** CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN City of Redondo Beach ACCORDANCE WITH THE POLICY PROVISIONS. Attn: Risk Manager 415 Diamond Street AUTHORIZED REPRESENTATIVE Redondo Beach, CA 90277

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# SIXTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS SIXTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Sixth Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000; and

WHEREAS, on November 7, 2017, the parties entered into a Fourth Amendment ("Fourth Amendment") which extended the term to July 30, 2018 and increased the compensation to \$745,000; and

WHEREAS, on March 20, 2018, the parties entered into a Fifth Amendment ("Fifth Amendment") which extended the term to July 30, 2019 and increased the compensation to \$945,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- Scope of Services: Exhibit A of the Agreement (as amended) is replaced in its entirety by the Scope of Services Attached to this Sixth Amendment.
- 2. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to July 30, 2020.



- 3. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$225,000.00 thereby increasing the total not to exceed amount to \$1,170,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 4. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment and the Fifth Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment, Fifth Amendment together with this Sixth Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Sixth Amendment and the Fifth Amendment, Fourth Amendment, Third Amendment, Second Amendment, First Amendment and Agreement, the terms of this Sixth Amendment shall prevail. This Sixth Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this Sixth Amendment as of this 19<sup>th</sup> day of February, 2019.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES

William C. Brand, Mayor

Mame Arry Kosmont

Title: CEO

APPROVED AS TO FORM.

Michael W. Webb, City Attorney

APPROVED:

Risk Manager

ATTEST:

Eleanor Manzano, City Clerk

#### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

Task 1: Continued Support on Existing Citywide Economic Development Projects
Consultant shall provide continued support on existing projects, assistance with the
evaluation of proposals related to the potential redevelopment of the AES powerplant site,
redevelopment of the Redondo Beach Galleria and other projects as assigned.

#### Task 2: Refine Tax Increment Analysis, Update County EIFD Application

Consultant shall continue to refine EIFD boundaries, parameters, and development scenarios to update tax increment projections for EIFD and prepare final Los Angeles County EIFD application to the CEO's office for consideration by the Board of Supervisors.

#### Task 3: Stakeholder Meetings, PFA Board, EIFD Formation

Consultant shall continue to meet with EIFD property owners and stakeholders (e.g. Southern California Edison, LA County Supervisors/CEO), propose Public Financing Authority membership, and prepare documentation for EIFD formation resolution by Redondo Beach City Council and LA County Board of Supervisors.

#### Task 4: EIFD City/County Resolutions

Consultant shall prepare final EIFD formation resolutions for City/County, attend meetings with staff to review, and publicly-noticed meetings for approval.

Task 5: Infrastructure Financing Plan, Fiscal Impact Analysis, Final EIFD Approval Upon approval of EIFD City/County resolutions, Consultant shall work with City to draft an Infrastructure Financing Plan and supporting fiscal impact analysis. Consultant shall assist legal counsel in preparation of CEQA documentation and attend public hearing for final approval of EIFD.

#### **Task 6: Waterfront Real Estate Activities**

Consultant shall provide continued support on the harbor waterfront properties, including assistance with the evaluation and negotiation of proposals related to the potential redevelopment of the properties. Certain of these activities may include litigation support.

#### Task 7: Other As-Needed Services

Consultant shall provide other as-needed real estate advisory services as requested by Client, and mutually agreed upon by Consultant.



# FIFTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS FIFTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("FIFTH Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000;

WHEREAS, on November 7, 2017, the parties entered into a Fourth Amendment ("Fourth Amendment") which extended the term to July 30, 2018 and increased the compensation to \$745,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

1. Scope of Services: Exhibit A of the Agreement is hereby amended to add the following duties to the Scope of Services: Consultant shall assist the City with real estate advisory services related to the potential acquisition of the AES powerplant site within the City. Consultant's services shall include property due diligence, the evaluation of potential acquisition funding mechanisms, and evaluation of potential acquisition partners. As part of this task, Consultant will retain subcontractors to provide general site planning services and due diligence on physical site conditions. Consultant shall provide real estate advisory services as part of the City's consideration and review of the potential redevelopment of the Redondo

- Beach Galleria. Consultant shall provide real estate advisory services as part of the City's potential efforts for enhancing Artesia Boulevard.
- 2. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to July 30, 2019.
- Compensation: Exhibit C of the Agreement is hereby amended to increase the compensation by \$200,000.00 thereby increasing the total not to exceed amount to \$945,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 4. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, the Third Amendment and the Fourth Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment, Fourth Amendment together with this Fifth Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Fifth Amendment and the Fourth Amendment, Third Amendment, Second Amendment, First Amendment and Agreement, the terms of this Fifth Amendment shall prevail. This Fifth Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this Fifth Amendment as of this 20th day of March, 2018.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES

William C. Brand, Mayor

QUC. Re

Name: Larry Kosmont

Title: CEO

APPROVED AS TO FORM:

Michael Webb, City Attorney

APPROVED:

Jill Buchholz, Risk Manager

ATTEST:

Eleanor Manzano, City Clerk

# FOURTH AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS FOURTH AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Fourth Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30,2017 and increased the compensation to \$430,000; and

WHEREAS, on March 21, 2017, the parties entered into a Third Amendment ("Third Amendment") which extended the term to December 6, 2017 and increased the compensation to \$570,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- Term: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to July 30, 2018.
- Compensation: Exhibit C of the Agreement is hereby amended to increase the compensation by \$175,000.00 thereby increasing the total not to exceed amount to \$745,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 3. Modification. Except as expressly set forth herein, the Agreement, the First Amendment, the Second Amendment, and the Third Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment, Third Amendment together with this Fourth Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Fourth Amendment and the Third

Amendment, Second Amendment, First Amendment and Agreement, the terms of this Fourth Amendment shall prevail. This Fourth Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this Fourth Amendment as of this 14<sup>th</sup> day of November, 2017.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC a California Corporation dba KOSMONT COMPANIES

William C. Brand, Mayor

Name Parry T. Kosmon

Title:

APPROVED AS TO FORM:

Michael Webb, City Attorney

APPROVED:

Jill Buchholz, Risk Manager

ATTEST:

Eleanor Manzano, City Glerk

BSTERNBERG

#### ACORD

#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/08/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in the certificate does not confer rights to the certificate holder in the certificate does not confer rights to the certificate holder in the certificate does not confer rights to the certificate holder.

PRODUCER License # 0C36891	CONTACT Brett R Sternberg				
Lyddy Martin Company 20300 Ventura Blvd. Suite 340	PHONE (A/C, No, Ext): (310) 478-2625 317 FAX (A/C, No):				
Woodland Hills, CA 91364	E-MAIL ADDRESS: brett@lyddymartin.com				
	INSURER(S) AFFORDING COVERAGE	NAIC#			
	INSURER A : Foremost Signature Insurance Company	41513			
INSURED	INSURER B:				
Kosmont & Associates, Inc. Dba: Kosmont Companies	INSURER C:				
1601 N. Sepulveda Blvd. #382	INSURER D:				
Manhattan Beach, CA 90266	INSURER E:				
	INSURER F:				

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS,

NSR LTR		TYPE OF INSURANCE	ADDI	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMIT	S
A	X	CLAIMS-MADE X OCCUR Contractual Liab			PAS040846504	06/27/2017	06/27/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 1,000,0 \$ 1,000,0
	^	Contractual Liab						MED EXP (Any one person)	\$ 10,0
				179				PERSONAL & ADV INJURY	\$ Exclud
	7	LAGGREGATE LIMIT APPLIES PER						GENERAL AGGREGATE	\$ 2,000,0
	X	POLICY PRO- JECT LOC						PRODUCTS - COMP/OP AGG	\$ 2,000,0
A	AUT	OMOBILE LIABILITY					a Infant	COMBINED SINGLE LIMIT (Ea accident)	\$ \$ 1,000,0
		ANY AUTO OWNED SCHEDULE	X	188	PAS040846504	06/27/2017	06/27/2018	BODILY INJURY (Per person)	\$
		AUTOS ONLY AUTOS						BODILY INJURY (Per accident)	\$
	X	AUTOS ONLY X NON-OWNE	P					PROPERTY DAMAGE (Per accident)	\$
A	Х	UMBRELLA LIAB X OCCUR				06/27/2017	06/27/2018	EACH OCCURRENCE	s 3,000,0
		EXCESS LIAB CLAIMS	-MADE		PAS040846504			AGGREGATE	\$ 3,000,0
		DED   RETENTION \$							\$
	AND	RKERS COMPENSATION EMPLOYERS' LIABILITY	Y/N	1				PER OTH- STATUTE ER	
	OFFI	PROPRIETOR/PARTNER/EXECUTIVE CER/MEMBER EXCLUDED?	N/A					E.L. EACH ACCIDENT	\$
3.7	If ves	describe under		96				E.L. DISEASE - EA EMPLOYEE	\$
	DÉSC	CRIPTION OF OPERATIONS below		193				E.L. DISEASE - POLICY LIMIT	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
The City, its officers, elected and appointed officials, employees, and volunteers are named additional insured. The insurance is primary and non-contributory

Other named insureds under the policy: Kosmont Realty Corporation

C	۲.	111	ICA	IE	н	Οl	_D	ΕR
					_	-		

City of Redondo Beach Attn: Risk Manager 415 Diamond Street Redondo Beach, CA 90277 CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

**AUTHORIZED REPRESENTATIVE** 

Broth Stenty



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/07/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). PRODUCER License # 0C36891 CONTACT Brett R Sternberg Lyddy Martin Company 20300 Ventura Blvd. Suite 340 PHONE (A/C, No, Ext): (310) 478-2625 317 FAX (A/C, No): Woodland Hills, CA 91364 E-MAIL ADDRESS: brett@lyddymartin.com INSURER(S) AFFORDING COVERAGE NAIC # INSURER A: Foremost Signature Insurance Company 41513 INSURED INSURER 8 Kosmont & Associates, Inc. INSURER C **Dba: Kosmont Companies** 1601 N. Sepulveda Blvd. #382 INSURER D Manhattan Beach, CA 90266 INSURER E INSURER F **COVERAGES CERTIFICATE NUMBER: REVISION NUMBER** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS INDICATED. CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS ADDL SUBR POLICY EFF POLICY EXP TYPE OF INSURANCE POLICY NUMBER LIMITS Α Х COMMERCIAL GENERAL LIABILITY 1,000,000 EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) CLAIMS-MADE | X | OCCUR 1,000,000 X PAS040846504 06/27/2018 | 06/27/2019 10,000 MED EXP (Any one person) \$ PERSONAL & ADV INJURY 2.000.000 GEN'L AGGREGATE LIMIT APPLIES PER GENERAL AGGREGATE POLICY PRO-JECT 2,000,000 PRODUCTS - COMP/OP AGG COMBINED SINGLE LIMIT AUTOMOBILE LIABILITY 1.000.000 ANY ALITO PAS040846504 06/27/2018 06/27/2019 X BODILY INJURY (Per person) OWNED AUTOS ONLY SCHEDULED AUTOS BODILY INJURY (Per accident)
PROPERTY DAMAGE
(Per accident) X HIRED ONLY X NON-SWNED Α UMBRELLA LIAB 3.000,000 OCCUR EACH OCCURRENCE PAS040846504 06/27/2018 06/27/2019 **EXCESS LIAB** CLAIMS-MADE **AGGREGATE** DED **RETENTION \$** 3,000,000 WORKERS COMPENSATION AND EMPLOYERS' LIABILITY STATUTE ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? E.L. EACH ACCIDENT OFFICER/MEMBER (Mandatory in NH) N/A E.L. DISEASE - EA EMPLOYEE \$ If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) The City, its officers, elected and appointed officials, employees, and volunteers are named additional insured. The insurance is primary and non-contributory Other named insureds under the policy: Kosmont Realty Corporation, DBA, Kosmont Transaction Services CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. City of Redondo Beach Attn: Risk Manager 415 Diamond Street AUTHORIZED REPRESENTATIVE Redondo Beach, CA 90277

#### THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

### ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

#### **SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not sho	own above, will be shown in the Declarations.

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
  - 1. Your acts or omissions; or
  - The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.



DATE (MM/DD/YYYY)

CERTIFICATE OF LIABILITY INSURANCE 10/01/2018 THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT NAME: Lockton Companies, LLC PHONE (A/C, No, Ext): E-MAIL FAX (A/C, No) 888-828-8365 5847 San Felipe, Suite 320 Houston, TX 77057 ADDRESS INSURER(S) AFFORDING COVERAGE NAIC # INSURER A: Ace American Insurance Co. 22667 INSURER B Insperity, Inc. L/C/F KOSMONT & ASSOCIATES, INC. INSURER C : 19001 Crescent Springs Drive INSURER D Kingwood, TX 77339 INSURER E INSURER F COVERAGES **CERTIFICATE NUMBER: REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS. EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDL SUBA TYPE OF INSURANCE POLICY NUMBER. LIMITS **COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE** \$ DAMAGE TO RENTED CLAIMS-MADE OCCUR PREMISES (Ea occurrence) MED EXP (Any one person) \$ PERSONAL & ADV INJURY S GEN'L AGGREGATE LIMIT APPLIES PER GENERAL AGGREGATE PRO-JECT POLICY PRODUCTS - COMP/OP AGG \$ OTHER COMBINED SINGLE LIMIT **AUTOMOBILE LIABILITY** S (Ea accident) **BODILY INJURY (Per person)** \$ ANY AUTO SCHEDULED AUTOS NON-OWNED ALL OWNED BODILY INJURY (Per accident) 5 PROPERTY DAMAGE \$ HIRED AUTOS AUTOS (Per accident) s UMBRELLA LIAB OCCUR EACH OCCURRENCE \$ **EXCESS LIAB CLAIMS-MADE AGGREGATE** S DED RETENTIONS WORKERS COMPENSATION X STATUTE AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE 1,000,000 E.L. EACH ACCIDENT X C65746645 OFFICER/MEMBER EXCLUDED? 10/01/2018 10/01/2019 (Mandatory in NH) 1,000,000 E.L. DISEASE - EA EMPLOYEE S If yes, describe under DESCRIPTION OF OPERATIONS below 1,000,000 E.L. DISEASE - POLICY LIMIT DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) WAIVER OF SUBROGATION IN FAVOR OF CITY OF REDONDO BEACH, ITS OFFICERS, ELECTED AND APPOINTED OFFICIALS, EMPLOYEES, AND VOLUNTEERS WHEN REQUIRED BY WRITTEN CONTRACT. CERTIFICATE HOLDER **CANCELLATION** SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE IN ACCORDANCE WITH THE POLICY PROVISIONS. WILL BE DELIVERED AUTHORIZED REPRESENTATIVE

CITY OF REDONDO BEACH 415 DIAMOND STREET REDONDO BEACH, CA 90277

5->Kelly

Workers' Compensation and Employers' Liability Policy

Named Insured	Endorsement Number
Insperity, Inc. L/C/F	
KOSMONT & ASSOCIATES, INC.	Policy Number
19001 Crescent Springs Drive	Symbol: RWC Number: C65746645
Kingwood, TX,77339	in the second of
Policy Period	Effective Date of Endorsement
10/01/2018 <b>TO</b> 10/01/2019	10/01/2018
Issued By (Name of Insurance Company)	
Ace American Insurance Co.	
Insert the policy number. The remainder of the information is to be con-	releted only when this endorsement is issued subsequent to the preparation of the policy

#### CALIFORNIA WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because California is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the Schedule, where you are required by a written contract to obtain this waiver from us.

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

#### Schedule

1. (X) Specific Waiver

Name of person or organization:

City of Redondo Beach

415 Diamond Street

Redondo Beach, CA 90277

( ) Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations:

VOLUNTEERS.

3. Premium:

The premium charge for this endorsement shall be <u>INCLUDED</u> percent of the California premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Minimum Premium: INCLUDED

Authorized Representative

WC 99 03 22

#### Workers' Compensation and Employers' Liability Policy

	ASSOCIATES, INC. t Springs Drive		Endorsement Number				
Policy Symbol	Policy Number	Policy Period	Effective Date of Endorsement				
RWC	C65746645	10/01/2018 TO 10/01/2019	10/01/2018				
Issued By (Name	of Insurance Company)						
	Ace American Insurance Co.						

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### **NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES**

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- B. We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- C. The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy.
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- F. You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- G. This endorsement does not apply in the event that you cancel the Policy.

SCHEDULE

Name of Certificate Holder	E-Mail Address	Physical Address				
City of Redondo Beach		415 Diamond Street				
		Redondo Beach, CA 90277				

All other terms and conditions of the Policy remain unchanged.

Authorized Representative

Acct#: 1171322

#### THIS ENDORSEMENT CHANGES THE POLICY, PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

#### SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not sho	own above, will be shown in the Declarations.

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
  - 1. Your acts or omissions; or
  - The acts or omissions of those acting on your behalf:

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply: This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

## THIRD AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS THIRD AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Second Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000; and

WHEREAS, on July 5, 2016, the parties entered into a Second Amendment ("Second Amendment") which extended the term to June 30, 2017 and increased the compensation to \$430,000; and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- 1. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to December 6, 2017.
- Compensation: Exhibit C of the Agreement is hereby amended to increase the compensation by \$140,000.00 thereby increasing the total not to exceed amount to \$570,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 3. Modification. Except as expressly set forth herein, the Agreement, the First Amendment and Second Amendment shall continue in full force and effect. The Agreement, First Amendment, Second Amendment together with this Third Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Third Amendment, Second Amendment, First Amendment and Agreement the terms of this Third Amendment shall prevail. This Third Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]



IN WITNESS WHEREOF, the parties have entered into this Third Amendment as of this 21st day of March, 2017.					
CITY OF REDONDO BEACH A chartered municipality	KOSMONT & ASSOCIATES, INC. a California Corporation, dba KOSMONT COMPANIES				
Steve Aspel, Mayor	Name Title:				
APPROVED AS TO FORM:					
Michael Webb, City Attorney					
APPROVED:					
Risk Manager					
ATTEST:					
Eleanor Manzano, City Clerk					

IN WITNESS WHEREOF, the parties have entered into this Third Amendment as of this 21st day of March, 2017.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC. a California Corporation, dba KOSMONT COMPANIES

Steve Aspel Mayor

Title:

APPROVED AS TO FORM:

Michael Webb, City Attorney

APPROVED:

Risk Manager

ATTEST:

Eleanor Manzano, City Clerk





#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/22/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT Brett R Stemberg PRODUCER License # 0C36891 Lyddy Martin Company 20300 Ventura Blvd. Suite 340 Woodland Hills, CA 91364 PHONE (AC, No, Ext): (310) 478-2625 317 E-MAIL ADDRESS: brett@lyddymartin.com FAX (A/C, No): INSURER(S) AFFORDING COVERAGE NAIC # MAURER A : Foremost Signature Insurance Company 41513 INSURED PHSURER B: Kosmont & Associates, Inc. INSURER C : **Dba: Kosmont Companies** 

l	1601 N. Sepulveda Blvd. #382					MOUREN D:				1
			ach, CA 902 <del>66</del>			M\$URER E :				•
L						INSURER F :				
CC	VERAGES		CER	TIFICATI	E NUMBER:			REVISION NUMBER:		
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELC INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDI CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFF EXCLUSIONS AND CONDITIONS OF SUCH POLICIES LIMITS SHOWN MAY HA						N OF ANY CONTRA DED BY THE POLIC	CT OR OTHER IES DESCRIE	RED NAMED ABOVE FOR T R DOCUMENT WITH RESPE SED HEREIN IS SUBJECT 1	FOT TO	WHICH THIS
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	\ ~	CAMPS-MADE (*	- J OCCON	^		0072772070	032172011	PREMISES (Ea occurrence)	\$	
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								PERSONAL & ADVINJURY	\$	Excluded
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	City of Redondo Beach Attn: Risk Manager 415 Diamond Street Redondo Beach, CA 90277	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
		AUTHORIZED REPRESENTATIVE
		Broth Stender

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#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 07/01/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT NAME: PHONE (A/C, No. Ext): E-MAIL ADDRESS: Rick Powell Rick Powell Insurance Agency, Lic. (818) 861-7440 (760) 804-9710 3500 West Olive Ave, Suite 300 nck@insurence4ca.com Burbank, CA 91505 INSURER(S) AFFORDING COVERAGE NAIC # Phone (818) 861-7440 Fax (760) 804-9710 HISCOX INSURANCE COMPANY INC 10200 INSURER A : INSURED INSURER B Kosmont & Associates, Inc. dba Kosmont Companies INSURER C : INSURER D 1601 N Sepulveda Blvd #382 INSURER E Manhattan Beach CA 90266 INSURER F COVERAGES **CERTIFICATE NUMBER:** REVISION NUMBER: THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS. EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS ADDL SUBR POLICY EFF POLICY EXP TYPE OF INSURANCE POLICY NUMBER LIMITS COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) CLAIMS-MADE OCCUR MED EXP (Any one person) PERSONAL & ADV INJURY GENT AGGREGATE LIMIT APPLIES PER GENERAL AGGREGATE 5 POLICY PRO-PRODUCTS - COMP/OP AGG OTHER COMBINED SINGLE LIMIT (Ea accident) AUTOMOBILE LIABILITY ANY AUTO BODILY INJURY (Per person) SCHEDULFD AUTOS NON-OWNED AUTOS ALL OWNED BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) HIRED AUTOS 5 \$ VMBRELLA LIAB Loccur EACH OCCURRENCE **EXCESS LIAB** CLAIMS-MADE AGGREGATE DED RETENTION \$ WORKERS COMPENSATION PER STATUTE AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? E L. EACH ACCIDENT (Mandatory in NH)
If yes, describe under E L DISEASE - EA EMPLOYE EL DISEASE - POLICY LIMIT | 5 DESCRIPTION OF OPERATIONS below Errors & Omissions Coverage MPL1425837.16 03/15/2016 03/15/2017 \$2,000,000/\$2,000,000 Per Claim/Aggregate DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required) City of Redondo Beach, its officers, elected and appointed officials employees and volunteers are Additional Insured as respects operations performed by the named insured, per form PLPMPL P0002 CW (06/14) attached. CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN City of Redondo Beach ACCORDANCE WITH THE POLICY PROVISIONS. Attn: Risk Manager 415 Diamond Street **AUTHORIZED REPRESENTATIVE** Redondo Beach, CA 90277

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### Administrative Report

Council Action Date: July 5, 2016

To: MAYOR AND CITY COUNCIL

From: STEPHEN PROUD, WATERFRONT AND ECONOMIC DEVELOPMENT

**DIRECTOR** 

Subject: SECOND AMENDMENT TO AGREEMENT FOR REAL ESTATE

CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH

AND KOSMONT & ASSOCIATES, INC.

#### RECOMMENDATION

Approve the Second Amendment to Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc. to increase the amount of the contract by \$180,000 and extend the term to June 30, 2017 and authorize the Mayor to execute the Amendment.

#### **EXECUTIVE SUMMARY**

Kosmont & Associates, Inc. has assisted the City on a variety of real estate matters in recent years. Kosmont brings over 25 years of experience in structuring public/private partnerships and economic development transactions. The firm's broad professional perspective is crucial given the scope and complexity of the ongoing economic development activities within the City.

The proposed 2<sup>nd</sup> Contract Amendment provides a continuation of these services for projects that include the waterfront revitalization, financial strategies associated with the sale and reuse of the AES site, lease negotiations with master leaseholders, various feasibility analyses, and other real property matters. The amendment increases the compensation on the existing contract by \$180,000, pursuant to the budget adopted by the City Council on June 28, 2016, to an amount not-to-exceed \$430,000. In addition, it extends the term of the contract to June 30, 2017 to better align the contract with the City's fiscal cycle.

#### **BACKGROUND**

In 2007, the City initially contracted with Kosmont & Associates to explore the potential for revitalization of the City's Pier and Harbor area. Kosmont developed the Pier & Harbor Asset Management Plan in 2007 and the Harbor Enterprise Business Plan in 2010 which were adopted by the City and continue to serve as the basis for much of the waterfront revitalization underway today. In addition, Kosmont served as the City's

July 5, 2016

#### Page 2

advisor during the reacquisition of several large leaseholds by the City to support the waterfront revitalization and during the solicitation and selection of CenterCal as the City's private sector partner for the revitalization effort. In addition, Kosmont has provided real estate advisory services on other economic development activities within the City including transaction support for the development of the Marine Avenue hotels. In December 2014, the City executed a new contract with Kosmont that included funding for continued support of the waterfront revitalization effort, as well as funding to support other City-wide economic development activities.

The proposed 2<sup>nd</sup> Contract Amendment (attached) provides continued funding that allows Kosmont to extend their real estate advisory and financial consulting services to the City. Much of Kosmont's current work effort is focused on representing the City's financial interest in the significant and complex real estate transaction negotiations with CenterCal, which includes the preparation and review of the lease documentation necessary to complete the framework for this public-private partnership. In addition to Kosmont's work on the waterfront initiative, this contract amendment provides the funding necessary to support Kosmont's other real estate and planning efforts within the City, which includes a substantial allocation of time to evaluate the proposals for the disposition and reuse of the AES property, negotiations with master leaseholders, asset management strategies, and restructuring existing agreements to advance the financial and economic interests of the City.

The contract executed in December 2014 was for a not-to-exceed amount of \$175,000. The 1<sup>st</sup> Contract Amendment executed in December 2015 increased the value of the contract to a not-to-exceed amount of \$250,000. The proposed 2<sup>nd</sup> Contract Amendment would add \$180,000 to the value of the contract, pursuant to the budget adopted by the City Council on June 28, 2016, and extend the term of the contract to June 30, 2017 – to align with the City's fiscal year.

#### COORDINATION

The Waterfront and Economic Development Department collaborated with the City Attorney's Office to develop the agreement. The City Attorney's Office has approved the agreement as to form.

#### **FISCAL IMPACT**

The revitalization efforts at the waterfront and economic development efforts within the City have been instrumental in bringing new private sector investment to Redondo Beach and providing additional revenues to the General Fund and the Harbor Enterprise Fund. Kosmont Associates has been crucial in assisting the City in facilitating this investment and the 2<sup>nd</sup> Contract Amendment with Kosmont Associates will provide for an additional \$180,000 to continue this work. Funding for this effort will be provided via Uplands and Tidelands proceeds as follows:

Second Amendment to Agreement for Consulting Services Between the City of Redondo Beach and Kosmont & Associates, Inc. July 5, 2016

Page 3

Funding: Expenditures:

\$90,000 Harbor Uplands Fund \$90,000 Kosmont & Associates, Inc. \$90,000 Harbor Tidelands Fund \$90,000 Kosmont & Associates, Inc. \$180,000 Total \$180,000 Total

Submitted by: Approved for forwarding by:

Stephen Proud
Waterfront and Economic Development
Director

Office of the City Manager

#### Attachments:

- Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.
- First Amendment to Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.
- Second Amendment to Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

## SECOND AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS SECOND AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("Second Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, on December 1, 2015, the parties entered into a First Amendment ("First Amendment") which extended the term to December 31, 2016 and increased the compensation to \$250,000;

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- 1. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to June 30, 2017.
- 2. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$180,000.00 thereby increasing the total not to exceed amount to \$430,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- 3. Modification. Except as expressly set forth herein, the Agreement and First Amendment shall continue in full force and effect. The Agreement, First Amendment together with this Second Amendment constitute the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency among this Second Amendment, First Amendment and Agreement the terms of this Second Amendment shall prevail. This Second Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]

216

IN WITNESS WHEREOF, the parties have entered into this Second Amendment as of this 5th day of July, 2016.

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC. a California Corporation, dba KOSMONT COMPANIES

Steve Aspel Mayor

Name LARRY J. KOSMON

Title: PRESIDENT & CEO

APPROVED AS TO FORM:

Michael Webb, City Attorney

APPROVED:

Risk Manager

ATTEST:

Eleanor Manzano, City Cle k



KOSM&AS-01

**BSTERNBERG** 



#### **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY) 6/22/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

C	ertifi	cate holder in lieu of such endors	seme	nt(s)	,								
	PRODUCER License # 0C36891					CONTACT Brett R Sternberg							
Lyd	Idy M	lartin Company entura Blvd. Suite 340				PHONE (A/C, No, Ext): (310) 478-2625 317 FAX (A/C, No):							
Wo	odlar	nd Hills, CA 91364				E-MAIL ADDRESS: brett@lyddymartin.com							
						INSURER(S) AFFORDING COVERAGE NAIC #							
						INSURER A : Foremost Signature Insurance Company						41513	
INS	JRED					INSURER B:							
		Kosmont & Associates, Inc.											
	Dba: Kosmont Companies						INSURER C: INSURER D:						
1601 N. Sepulveda Blvd. #382 Manhattan Beach, CA 90266							INSURER D :						
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CERTIFICATE HOLDER  City of Redondo Beach Attn: Risk Manager 415 Diamond Street						SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.							
i	Redondo Beach, CA 90277						AUTHORIZED REPRESENTATIVE						



#### CERTIFICATE OF LIABILITY INSURANCE

Acct# 1171322

DATE (MM/DD/YYYY) 09/11/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). PRODUCER 888-828-8365 Lockton Companies, LLC PHONE (A/C, No, Ext): E-MAIL ADDRESS: FAX (A/C, No): 5847 San Felipe, Suite 320 Houston, TX 77057 INSURER(S) AFFORDING COVERAGE NAIC# INSURER A: Ace American Insurance Co 22667 INSURED **INSURER B:** Insperity, Inc. L/C/F **KOSMONT & ASSOCIATES, INC.** INSURER C : 19001 Crescent Springs Drive INSURER D Kingwood, TX 77339 INSURER E : INSURER F : **COVERAGES CERTIFICATE NUMBER:** REVISION NUMBER: THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS. EXCLUSIONS AND CONDITIONS OF SUCH POLICIES LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS ADDL SUBR POLICY EFF POLICY EXP TYPE OF INSURANCE POLICY NUMBER COMMERCIAL GENERAL LIABILITY SACH OCCURRENCE CLAIMS-MADE OCCUR PREMISES (Ea occurrence) MED EXP (Any one person) \$ PERSONAL & ADV INJURY GEN'L AGGREGATE LIMIT APPLIES PER GENERAL AGGREGATE \$ POLICY PRODUCTS - COMPIOP AGG s OTHER OMBINED SINGLE LIMIT AUTOMOBILE LIABILITY \$ ANY AUTO BODILY INJURY (Per person) \$ ALL OWNED AUTOS SCHEDULED BODILY INJURY (Per accident) AUTOS NON-OWNED AUTOS s PROPERTY DAMAGE HIRED AUTOS S UMBRELLA LIAB OCCUR EACH OCCURRENCE 5 **EXCESS LIAB** CLAIMS-MADE AGGREGATE DED RETENTION \$ \$ WORKERS COMPENSATION X PER STATUTE AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) 1.000.000 E L EACH ACCIDENT N/A C48647169 10/01/2015 10/01/2016 E L DISEASE - EA EMPLOYEE \$ 1,000,000 If yes, describe under DESCRIPTION OF OPERATIONS below EL DISEASE - POLICY LIMIT | \$ 1,000,000 DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) **CERTIFICATE HOLDER** CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. CITY OF REDONDO BEACH **AUTHORIZED REPRESENTATIVE** ATTN: RISK MANAGER 415 DIAMOND STREET O->Kelly **REDONDO BEACH, CA 90277** 

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#### Workers' Compensation and Employers' Liability Policy

Named Insured Insperity, Inc. KOSM 19001 Crescent Sprin Kingwood, TX 77339	Endorsement Number							
Policy Symbol	Policy Number	Policy Period	Effective Date of Endorsement					
RWC	C48647169	10/01/2015 TO 10/01/2016	10/01/2015					
Issued By (Name of Insurance Company)								
Ace American Insurance Co.								

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### **NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES**

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- **B.** We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- C. The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- F. You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- G. This endorsement does not apply in the event that you cancel the Policy.

#### **SCHEDULE**

Name of Certificate Holder	E-Mail Address	Physical Address
CITY OF REDONDO BEACH		415 DIAMOND STREET
		REDONDO BEACH, CA 90277

All other terms and conditions of the Policy remain unchanged

Authorized Representative

Acct#: 1171322

ALL-32688 (01/11) Page 1 of 1



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 07/01/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the

certificate holder in lieu of such endorsement(s). CONTACT NAME: Rick Powell PHONE (A/C, No. Ext): E-MAIL FAX (A/C, No): (760) 804-9710 Rick Powell Insurance Agency, Llc (818) 861-7440 3500 West Olive Ave, Suite 300 rick@insurance4ca.com ADDRESS Burbank, CA 91505 INSURER(S) AFFORDING COVERAGE NAIC# Phone (818) 861-7440 Fax (760) 804-9710 10200 HISCOX INSURANCE COMPANY INC INSURER A: INSURED INSURER B Kosmont & Associates, Inc. dba Kosmont Companies INSURER C: INSURER D : 1601 N Sepulveda Blvd #382 INSURER E Manhattan Beach  $C\Delta$ 90266 INSURER F COVERAGES **CERTIFICATE NUMBER: REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS ADDL SUBR POLICY EFF POLICY EXP (MM/DD/YYYY) (MM/DD/YYYY) TYPE OF INSURANCE LIMITS POLICY NUMBER COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE DAMAGE TO RENTED CLAIMS-MADE OCCUR PREMISES (Ea occurrence) MED EXP (Any one person) \$ PERSONAL & ADV INJURY S GEN'L AGGREGATE LIMIT APPLIES PER GENERAL AGGREGATE 5 POLICY PRO- Loc PRODUCTS - COMP/OP AGG \$ OTHER \$ COMBINED SINGLE LIMIT (Ea accident) AUTOMOBILE LIABILITY BODILY INJURY (Per person) ANY AUTO SCHEDULED ALL OWNED AUTOS BODILY INJURY (Per accident) \$ AUTOS NON-OWNED PROPERTY DAMAGE (Per accident) HIRED AUTOS 5 \$ UMBRELLA LIAB OCCUR EACH OCCURRENCE **EXCESS LIAB** CLAIMS-MADE AGGREGATE s DED RETENTION \$ WORKERS COMPENSATION STATUTE AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? E L EACH ACCIDENT (Mandatory in NH)
If yes, describe under
DESCRIPTION OF OPERATIONS below E L DISEASE - EA EMPLOYE \$ E L DISEASE - POLICY LIMIT | 5 Α Errors & Omissions Coverage MPL1425837.16 Υ 03/15/2016 03/15/2017 \$2,000,000/\$2,000,000 Per Claim/Aggregate DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required) City of Redondo Beach, its officers, elected and appointed officials employees and volunteers are Additional Insured as respects operations performed by the named insured, per form PLPMPL P0002 CW (06/14) attached. CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN City of Redondo Beach ACCORDANCE WITH THE POLICY PROVISIONS. Attn: Risk Manager 415 Diamond Street AUTHORIZED REPRESENTATIVE Redondo Beach, CA 90277

ACORD 25 (2014/01) QF

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#### **Consultants Professional Liability Coverage Part**

#### I. What is covered

We will pay up to the coverage part limit for damages and claim expenses in excess of the retention for covered claims against you alleging a negligent act, error, or omission in your consulting services performed on or after the retroactive date, including but not limited to

- breach of any duty of care.
- 2. negligent misstatement or negligent misrepresentation, or
- 3. personal and advertising injury,

provided the **claim** is first made against **you** during the **policy period** and is reported to **us** in accordance with Section V Your obligations.

### II. Coverage enhancements

We will also make the following payments:

Bodily injury/property damage A sublimit

We will pay damages and claim expenses up to the limit stated in the Declarations for any claim against you for bodily injury and/or property damage, provided the claim is first made against you during the policy period, it directly results from your consulting services performed on or after the retroactive date, and it is reported to us in accordance with Section V. Your obligations.

You must pay the **retention** stated in the Declarations in connection with any payment **we** make under this subsection A, and any payments **we** make will be a part of, and not in addition to, the **coverage part limit**.

### Defense of licensing proceedings

B. We will pay up to the limit stated in the Declarations for the reasonable and necessary fees, costs, and expenses incurred with our prior consent in the investigation, defense, or appeal of any state, federal, or other licensing board inquiry or proceeding concerning your eligibility or license to engage in your consulting services, provided you first receive notice of such inquiry or proceeding during the policy period, it relates to your consulting services performed on or after the retroactive date, and it is reported to us in accordance with Section V. Your obligations.

No retention will apply to amounts we pay under this subsection B, and such amounts will be in addition to, and not part of, the coverage part limit

#### Subpoena assistance

C. We will pay up to the limit stated in the Declarations for the reasonable and necessary fees, costs, and expenses incurred with our prior consent to respond to a subpoena arising from the performance of your consulting services, provided you first receive notice of such subpoena during the policy period, it relates to your consulting services performed on or after the retroactive date, and it is reported to us in accordance with Section V. Your obligations.

No **retention** will apply to amounts **we** pay under this subsection C, and such amounts will be in addition to, and not part of, the **coverage part limit**.

#### Supplemental payments

We will pay reasonable expenses, including loss of wages and a \$250 travel per diem, incurred by you if we require you to attend depositions, arbitration proceedings, or trials in connection with the defense of a covered claim, but we will not pay more than an aggregate of \$10,000 per claim for such expenses, regardless of the number of insureds.

No retention will apply to amounts we pay under this subsection D, and such amounts will be in addition to, and not part of, the coverage part limit

### III. Who is an insured

For purposes of this Coverage Part, you, your, or insured means a named insured, subsidiary, employee, independent contractor, joint venture, or additional insured, as defined below:

#### Named insured

means the individual, corporation, partnership, limited liability company, limited partnership, or other entity identified in Item 1 of the Declarations.



#### **Consultants Professional Liability Coverage Part**

#### Subsidiary

means any entity of which the **named insured** has majority ownership before or during the **policy period**.

#### **Employee**

means any past, present, or future.

- 1 person employed by the named insured or subsidiary as a permanent, part-time, seasonal, leased, or temporary employee, or any volunteer, or
- partner, director, officer, or board member (or equivalent position) of the named insured or subsidiary,

but only while in the course of their performance of **consulting services** on behalf of or at the direction of such **named insured** or **subsidiary** 

#### Independent contractor

means any person or entity contracted by the **named insured** or **subsidiary** to perform the same **consulting services** as the **named insured** or **subsidiary**, but only while in the course of their performance of **consulting services** on behalf of or at the direction of the **named insured** or **subsidiary**.

#### Joint venture

means a business enterprise in which the **named insured** or **subsidiary** participates pursuant to a written agreement, but only for:

- 1. consulting services performed by the named insured or subsidiary, and
- the same percentage of covered damages and claim expenses as the percentage of the named insured's or subsidiary's participation in the joint venture

#### Additional insured

(means any person or organization you have agreed in a written contract or agreement to add as an additional insured to a policy providing the type of coverage afforded by this Coverage Part, provided (the contract or agreement.)

- (1) (is currently in effect or becomes effective during the policy period; and)
- (was executed before the consulting services out of which the claim arises were performed.)

Coverage is available for additional insureds solely for their liability arising out of your negligence or of those acting on your behalf and not for any liability arising out of the sole negligence of the additional insured.

# IV. Defense and settlement of claims

#### Defense

We have the right and duty to defend any covered claim, even if such claim is groundless, false, or fraudulent

We have the right to select and appoint counsel to defend you against a covered claim. You may request in writing that we appoint defense counsel of your own choice, but whether to grant or deny such a request will be at our sole discretion

#### Settlement

We have the right to solicit and negotiate settlement of any claim but will not enter into a settlement without your consent, which you agree not to withhold unreasonably. If you withhold consent to a settlement recommended by us and acceptable to the party who made the claim, the most we will pay for that claim is the sum of:

- 1. the amount of our recommended settlement;
- 2 claim expenses incurred up to the date of our recommendation;
- 3. 50% of all claim expenses incurred after our recommendation; and
- 4. 50% of all damages in excess of the settlement amount recommended by us



## Administrative Report

Council Action Date: December 1, 2015

To: MAYOR AND CITY COUNCIL

From: STEPHEN PROUD, WATERFRONT AND ECONOMIC DEVELOPMENT

**DIRECTOR** 

Subject: FIRST AMENDMENT TO THE AGREEMENT FOR REAL ESTATE

CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH

AND KOSMONT & ASSOCIATES, INC.

AGREEMENT FOR FINANCIAL ADVISORY SERVICES BETWEEN THE

CITY OF REDONDO BEACH AND KOSMONT TRANSACTION

**SERVICES** 

#### RECOMMENDATION

Approve the First Amendment to the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc. to increase the amount of the contract to \$250,000 and extend the term to December 31, 2016 and authorize the Mayor to execute the Amendment.

Approve an Agreement for Consulting Services between the City of Redondo Beach and Kosmont Transaction Services for financial advisory services.

#### **EXECUTIVE SUMMARY**

Real estate consultant Kosmont & Associates, Inc. has assisted the City on a variety of real estate matters in recent years. The attached contract amendment provides a continuation of these services for projects that include the waterfront revitalization, financial strategies associated with the disposition and reuse of the AES site, lease negotiations, analyses associated with restructuring agreements to improve the City's financial position, and other real property matters. The amendment increases the compensation on the existing contract by \$75,000 from \$175,000 to an amount not to exceed \$250,000. In addition, it extends the term of the contract to December 31, 2016. Kosmont brings over 25 years of experience in public / private and economic development transactions. The firm's broad professional perspective is crucial given the scope and complexity of the ongoing economic development activities occurring within the City.

In addition to the Amendment to the base contract with Kosmont and Associates, a new contract is attached for financial advisory services with Kosmont Transaction Services ("KTS") to assist the City in the analysis of various public financing options and

First Amendment to Agreement for Consulting Services Between the City of Redondo Beach and Kosmont & Associates, Inc.

Agreement for Financial Advisory Services Between the City of Redondo Beach and Kosmont Transaction Services

#### Page 2

strategies associated with the provision of public infrastructure projects. The existing contract with Kosmont and Associates requires the creation of a separate contract and approval by the City Council for this scope of work. In addition, as a registered "Municpal Advisor" with the SEC and MSRB, Kosmont is required to contract separately for any work that may be deemed financial advisory services. This contract is set at a not to exceed value of \$35,000 and the term of the agreement runs through December 31, 2016.

The cost of the contract amendment and the contract with KTS, a total of \$110,000, will be funded by the Harbor Uplands and Tidelands Funds.

#### **BACKGROUND**

In 2007, the City entered into a contract with Kosmont & Associates to explore the potential for revitalization of the City's Pier and Harbor area. Kosmont developed the Pier & Harbor Asset Management Plan and the Harbor Enterprise Business Plan which continue to serve as the basis for much of the waterfront revitalization underway today. Kosmont's experience and expertise has also been crucial to support property acquisitions, lease negotiations, and in setting broader strategies for City-wide economic development efforts.

With regard to the Waterfront, many years of hard work and significant City resources have been dedicated to advancing the revitalization effort. One of the primary focuses of this work has been the pier area through a private sector partnership with CenterCal Properties. With the recent release of the Waterfront EIR, the upcoming work effort will focus on the significant and complex real estate transaction work necessary to develop the framework for this public-private partnership. While much of Kosmont's work will be dedicated to the Waterfront project, including lease documentation and infrastructure and entitlement planning, this contract amendment provides the funding necessary to support other real estate and planning efforts within the City, including the strategies associated with disposition and reuse of the AES property, negotiations with master leaseholders, asset management, and restructuring existing agreements to advance the financial and economic interests of the City.

The initial contract approved in December 2014 was for a not to exceed amount of \$175,000 and expires on December 1, 2015. To date, approximately \$85,000 of the contract has been expended, leaving a balance of approximately \$90,000. The proposed contract amendment would add \$75,000 to the value of the contract, for a not to exceed amount of \$250,000 – which would increase the remaining balance of the contract to \$165,000. In addition, the contract amendment would extend the term of the contract to December 31, 2016.

First Amendment to Agreement for Consulting Services
Between the City of Redondo Beach
and Kosmont & Associates, Inc.

Agreement for Financial Advisory Services Between the City of Redondo Beach and Kosmont Transaction Services

Page 3

When the City Council approved the Kosmont Contract in December 2014, a provision was included in the contract to address work related to financial advisory services. Based on concerns expressed by the City Council, at the time, that provision requires specific authorization from the City Council before a Kosmont & Associates related entity could perform any financial advisory services for the City.

Consequently, a separate contract has been prepared with Kosmont Transaction Services ("KTS") for Financial Advisory services. This contract will allow KTS to collaborate with KNN, the financial advisor recently selected by the City, on collateral financial advice as redevelopment efforts shift to the resolution of tax-exempt and/or taxable bond financing for various waterfront and infrastructure improvements. This work may include:

- Advising the City on financial evaluations completed to date and proposed transaction terms;
- Assisting the City with the evaluation and structuring of potential financing structures;
- Assisting the City with evaluation of various financing districts including but not limited to Enhanced Infrastructure Financing Districts (EIFDs), parking and tourism districts, and other such potential financing alternatives to fund public infrastructure and amenities as may be appropriate;
- Assisting the City with the preparation of credit rating packages and participating in meetings with rating agencies;
- Advising on the attainability and/or desirability of credit enhancements, such as bond insurance, letters of credit, etc.;
- Reviewing the text of official statements and disclosure documents for proposed financing(s); and
- Participating in public meetings to discuss the financing process and potential issuance of debt.

The contract with KTS is for a not to exceed amount of \$35,000 and has a term that lasts until December 31, 2016.

First Amendment to Agreement for Consulting Services
Between the City of Redondo Beach
and Kosmont & Associates, Inc.

Agreement for Financial Advisory Services Between the City of Redondo Beach and Kosmont Transaction Services

Page 4

#### COORDINATION

The Waterfront and Economic Development Department collaborated with the City Attorney's Office to develop the agreement. The City Attorney's Office has approved the agreement as to form.

#### **FISCAL IMPACT**

The revitalization efforts at the waterfront and economic development efforts within the City have been instrumental in bringing new private sector investment to Redondo Beach. Kosmont Companies has been crucial in assisting the City in facilitating this investment and the contract amendment with Kosmont Associates and contract with KTS – a Kosmont affiliate - will provide for an additional \$110,000 to continue this work. Funding for this effort will be provided via Uplands and Tidelands proceeds as follows:

Funding	Expenditures
Contract Amendment w/Kosmont Associates \$37,500 Harbor Uplands Fund \$37,500 Harbor Tidelands Fund \$75,000 Total	\$37,500 Kosmont & Associates, Inc. \$37,500 Kosmont & Associates, Inc. \$75,000 Total
Contract with Kosmont Transaction Services \$17,500 Harbor Uplands Fund \$17,500 Harbor Tidelands Fund \$35,000 Total	\$17,500 Kosmont Transaction Services \$17,500 Kosmont Transaction Services \$35,000 Total

Submitted by: Approved for forwarding by: Stephen Proud, Waterfront and Economic Joe Hoefgen, City Manager Development Director

#### Attachments:

- Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.
- First Amendment to Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.
- Agreement for Consulting Services between the City of Redondo Beach and Kosmont Transaction Services

# FIRST AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS FIRST AMENDMENT TO THE AGREEMENT FOR CONSULTING SERVICES ("First Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and Kosmont & Associates, Inc., a California corporation dba Kosmont Companies ("Consultant").

WHEREAS, on December 2, 2014, the parties hereto originally entered into that certain Agreement for Consulting Services between the City and Consultant ("Agreement"); and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- 1. <u>Term</u>: Exhibit B of the Agreement is hereby amended to extend the term of the Agreement to December 31, 2016.
- 2. <u>Compensation</u>: Exhibit C of the Agreement is hereby amended to increase the compensation by \$75,000.00 thereby increasing the total not to exceed amount to \$250,000.00. Except as expressly stated herein, Exhibit C of the Agreement shall remain unchanged and in full force and effect.
- Modification. Except as expressly set forth herein, the Agreement shall continue in full force and effect. The Agreement together with this First Amendment constitutes the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency between this First Amendment and Agreement the terms of this First Amendment shall prevail. This First Amendment may be modified or amended only by a subsequent writing executed by all of the parties and approval by the City Council.

[SIGNATURES ON FOLLOWING PAGE]



IN WITNESS WHEREOF, the parties have entered into this First Amendment as of this 1st day of December, 2015.

Title:

CITY OF REDONDO BEACH A chartered municipality

KOSMONT & ASSOCIATES, INC. a California Corporation, dba KOSMONT COMPANIES

President & CEO

Steve Aspel Mayor

APPROVED AS TO FORM:

Michael Webb, City Attorney

APPROVED:

ATTEST:

Eleanor Manzano, City Cle(k)



### Administrative Report

Council Action Date: December 2, 2014

To: MAYOR AND CITY COUNCIL

From: PETE CARMICHAEL, WATERFRONT AND ECONOMIC

**DEVELOPMENT DIRECTOR** 

Subject: AGREEMENT FOR REAL ESTATE CONSULTING SERVICES

BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT &

ASSOCIATES, INC.

#### RECOMMENDATION

Approve the Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc. in the amount of \$175,000 and authorize the Mayor to execute the Agreement.

#### **EXECUTIVE SUMMARY**

Real estate consultant Kosmont & Associates, Inc. has assisted the City on a variety of real estate matters in recent years. The attached contract provides a continuation of these services related to the Waterfront Revitalization and other real property matters in an amount not to exceed \$175,000. Kosmont brings over 25 years of experience in public / private and economic development transactions. The firm's broad professional perspective is crucial given the scope and complexity of the ongoing economic development activities in the City.

The cost of the new contract will be funded in part (\$125,000) by the Reimbursement Agreement with CenterCal Properties for work related to the Waterfront Project and in part (\$50,000) by the Harbor Uplands and Tidelands Fund for other advisory services not related to the Waterfront project. The contract also contains a provision requiring specific preauthorization by the City Council for any work related to brokerage or financial advisory services, beyond the scope of the hourly consulting agreement contained here.

#### **BACKGROUND**

In 2007, the City entered into a contract with Kosmont & Associates to explore the potential for revitalization of the City's Pier and Harbor area. Kosmont developed the Pier & Harbor Asset Management Plan, providing strategies for stewardship of the City's waterfront real property assets. The plan, along with the subsequent Harbor Enterprise Business Plan and strategic direction from the City Council, serves as the basis for much of the revitalization underway today. Kosmont's experience and

Agreement for Consulting Services Between the City of Redondo Beach and Kosmont & Associates, Inc. Page 2

expertise has also been crucial during recent lease negotiations and in setting broader economic development strategy. Kosmont brings broad expertise including economic development, strategic planning, financial analysis, and Redevelopment.

Based on the City's Strategic Plan, many years of hard work and significant City resources have been dedicated to advancing Waterfront Revitalization. One of the primary focuses of this work has been the revitalization of the pier area through a private sector partnership with CenterCal Properties. The next year will be a critical period with significant and complex revitalization and real estate transaction planning work ongoing in the City. The majority of Kosmont's work will be dedicated to the Waterfront project, including lease documentation and infrastructure and entitlement planning. Kosmont, with broad experience in public / private transactions and a deep understanding of the City's waterfront history, is uniquely positioned to assist with the diverse tasks involved in this process.

CenterCal Properties will reimburse \$125,000 of the \$175,000 contract amount for work related to the Waterfront Project funded through a Reimbursement Agreement previously approved by the City Council on October 21. The City has employed and will continue to employ other consultants to serve in an advisory capacity on this project as well, including an ongoing AECOM market study to be presented to the City Council after the first of the year and a separate financial advisor, expected to be engaged early next year.

In addition to work tied to the Waterfront project; Kosmont will assist the City on other asset management and economic development activities in the waterfront on an as needed basis. Waterfront asset management activities include leasing transactions and ground lease extensions as well as other other real estate transaction planning and documentation throughout the Harbor Enterprise, unrelated to the Waterfront project. Thus, \$50,000 of the \$175,000 is for this general economic development and asset management work and will be funded through the approved FY 2014/15 budget for contracts and professional services from the Harbor Uplands and Tidelands Funds, rather than the Reimbursement Agreement. In addition to the contract amount of \$175,000, the contract also provides for the payment of costs for Kosmont's hourly billing since expiration of the previous contract in early August. This cost is \$19,497.40, \$18,708.30 of which will funded through the Reimbursement Agreement with CenterCal Properties and \$789.10 of which will be funded through the Uplands and Tidelands budget for contracts and professional services.

An additional provision has been included in the contract to address work related to commission-based financial advisory services. Based on concerns expressed by the City Council, the new provision requires specific pre-authorization from the City Council before a Kosmont & Associates related entity could perform any commission-based brokerage or financial advisory services for the City.

Agreement for Consulting Services Between the City of Redondo Beach and Kosmont & Associates, Inc. Page 3

#### COORDINATION

The Waterfront and Economic Development Department collaborated with the City Attorney's Office to develop the agreement. The City Attorney's Office has approved the agreement as to form.

#### **FISCAL IMPACT**

The revitalization efforts at the Waterfront have been instrumental in bringing new private sector investment. Over \$50 million in new investment will be in place or under construction by 2015 with an additional \$250 to \$350 million possible through the proposed Waterfront Project.

Kosmont Companies has been crucial in assisting the City in facilitating this investment and this contract will provide for an additional \$175,000 to continue this work. \$125,000 of the \$175,000 will be funded through the Reimbursement Agreement with CenterCal Properties. This \$125,000 represents the remaining available money within the real estate advisory services budget line item in the Reimbursement Agreement. That budget was increased from \$100,000 to \$400,000 through the amendment approved by the City Council on October 21<sup>st</sup>. \$50,000 of the \$175,000 contract amount will be funded through the approved FY 14/15 Uplands and Tidelands budget for Contract and Professional Services.

Additionally, the contact provides for the payment of Kosmont's hourly billing since expiration of the previous contract, on August 5<sup>th</sup>, in the amount of \$19,947. The majority of this work was related to the Waterfront project (\$18,708.30) and will be paid for out of the Reimbursement Agreement with CenterCal Properties.

<u>Funding</u>		<u>Expenditure</u>	<u>s</u>
\$18,708.30 \$ 394.55	g since Aug. 5th Reimbursement Agmt. Harbor Uplands Harbor Tidelands Total	\$ 394.55	Kosmont & Associates, Inc. Kosmont & Associates, Inc. Kosmont & Associates, Inc. Total
Total Contra	ct Amount		
\$125,000	Reimbursement Agmt.	\$125,000	Kosmont & Associates, Inc.
\$ 25,000	Harbor Uplands Fund	\$ 25,000	Kosmont & Associates, Inc.
<u>\$ 25,000</u>	Harbor Tidelands Fund	<u>\$ 25,000</u>	Kosmont & Associates, Inc.
\$175,000	Total	\$175,000	Total

December 2, 2014

Agreement for Consulting Services Between the City of Redondo Beach and Kosmont & Associates, Inc. Page 4

Submitted by:

Approved for forwarding by:

Pete Carmichael Waterfront and Economic Development Director Office of the City Manager

#### Attachments:

• Agreement for Consulting Services between the City of Redondo Beach and Kosmont & Associates, Inc.

# AGREEMENT FOR CONSULTING SERVICES BETWEEN THE CITY OF REDONDO BEACH AND KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

THIS AGREEMENT FOR CONSULTING SERVICES (this "Agreement") is made between the City of Redondo Beach, a Chartered Municipal Corporation ("City") and KOSMONT & ASSOCIATES, INC., a California Corporation ("Consultant" or "Contractor") DBA KOSMONT COMPANIES.

The parties hereby agree as follows:

- Description of Project or Scope of Services. The project description or scope of services to be provided by Consultant, and any corresponding responsibilities of City, or services required to be performed by City are set forth in Exhibit "A."
- 2. <u>Term and Time of Completion</u>. Consultant shall commence and complete the project or services described in Exhibit "A" in accordance with the schedule set forth in Exhibit "B".
- 3. <u>Compensation</u>. City agrees to pay Consultant for work performed in accordance with Exhibit "C".

#### **GENERAL PROVISIONS**

- 1. <u>Independent Contractor</u>. Consultant acknowledges, represents and warrants that Consultant is not a regular or temporary employee, officer, agent, joint venturer or partner of the City, but rather an independent contractor. This Agreement shall not be construed as a contract of employment. Consultant shall have no rights to any benefits which accrue to City employees unless otherwise expressly provided in this Agreement. Due to the independent contractor relationship created by this Agreement, the City shall not withhold state or federal income taxes, the reporting of which shall be Consultant's sole responsibility.
- 2. <u>Brokers</u>. Consultant acknowledges, represents and warrants that Consultant has not hired, retained or agreed to pay any entity or person any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement.
- 3. <u>City Property</u>. All reports, calculations, data, graphics or other materials prepared for or obtained pursuant to this Agreement shall upon request be delivered to the City within a reasonable time, and the rights thereto shall be deemed assigned to the City. Said reports, calculations, data, graphics or other materials, shall be specific for the project herein and shall not be used by the City

for any other project without Consultant's consent. Notwithstanding the foregoing, Consultant shall not be obligated to assign any proprietary software or data developed by or at the direction of Consultant for Consultant's own use; provided, however, that Consultant shall, pursuant to Paragraph 14 below, indemnify, defend and hold the City harmless from and against any discovery or Public Records Act request seeking the disclosure of any such proprietary software or data.

- 4. Inspection. If the services set forth in Exhibit "A" shall be performed on City or other public property, the City shall have the right to inspect such work without notice. If such services shall not be performed on City or other public property, the City shall have the right to inspect such work upon reasonable notice. Inspections by the City shall not relieve or minimize the responsibility of Consultant to conduct any inspections Consultant has agreed to perform pursuant to the terms of this Agreement. Consultant shall be solely liable for said inspections performed by Consultant. Consultant shall certify in writing to the City as to the completeness and accuracy of each inspection required to be conducted by Consultant hereunder.
- 5. Services. The project or services set forth in Exhibit "A" shall be performed to the full satisfaction and approval of the City. In the event that the project or services set forth in Exhibit "A" are itemized by price in Exhibit "C", the City in its sole discretion may, upon notice to Consultant, delete certain items or services set forth in Exhibit "A", in which case there shall be a corresponding reduction in the amount of compensation paid to Consultant. City shall furnish Consultant to the extent available, with any City standards, details, specifications and regulations applicable to the Project and necessary for the performance of Consultant's services hereunder.
- 6. Records. Consultant, including any of its subcontractors shall maintain full and complete documents and records, including accounting records, employee time sheets, work papers, and correspondence pertaining to the project or services set forth in Exhibit "A". Consultant, including any of its subcontractors shall make such documents and records available for City review or audit upon request and reasonable notice, and shall keep such documents and records, for at least four (4) years after Consultant's completion of performance of this Agreement. Copies of all pertinent reports and correspondence shall be furnished to the City for its files.
- 7. <u>Changes and Extra Work</u>. All changes and/or extra work under this Agreement shall be agreed to by both parties and a written agreement shall be executed and approved by the City Council.
- 8. <u>Professional Ability</u>. Consultant acknowledges, represents and warrants that Consultant is skilled and able to competently provide the services hereunder, and possesses all professional licenses, certifications, and approvals necessary to

engage in its occupation. City has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. Consultant shall perform in accordance with generally accepted professional practices and standards of Consultant's profession.

- 9. <u>Business License</u>. Consultant shall obtain a Redondo Beach Business License before performing any services required under this Agreement. The failure to so obtain such license shall be a material breach of this Agreement and grounds for immediate termination by City; provided, however, that City may waive the business license requirement in writing under unusual circumstances without necessitating any modification of this Agreement to reflect such waiver.
- 10. Termination Without Default. Notwithstanding any provision herein to the contrary, the City may, in its sole and absolute discretion and without cause. terminate this Agreement at any time prior to completion by Consultant of the project or services hereunder, immediately upon written notice to Consultant. In the event of any such termination, Consultant shall be compensated for: (1) all authorized work satisfactorily performed prior to the effective date of termination; and (2) necessary materials or services of others ordered by Consultant for this Agreement, prior to Consultant's receipt of notice of termination, irrespective of whether such materials or services of others have actually been delivered, and further provided that Consultant is not able to cancel such orders. Compensation for Consultant in such event shall be determined by the City in accordance with the percentage of the project or services completed by Consultant; and all of Consultant's finished or unfinished work product through the time of the City's last payment shall be transferred and assigned to the City. In conjunction with any termination of this Agreement, the City may, at its own expense, make copies or extract information from any notes, computations, or other data, whether complete or not.

Consultant may terminate this Agreement by providing written notice to City at least thirty (30) calendar days in advance of date of termination. Compensation to Consultant in such event shall be determined by City in accordance with the services completed by Consultant and in conformity with Exhibit C of this Agreement.

11. <u>Termination in the Event of Default</u>. Should Consultant fail to perform any of its obligations hereunder, within the time and in the manner provided or otherwise violate any of the terms of this Agreement, the City may immediately terminate this Agreement by giving written notice of such termination, stating the reasons for such termination. Consultant shall be compensated as provided immediately above, provided, however, there shall be deducted from such amount the amount of damages if any, sustained by the City by virtue of Consultant's breach of this Agreement.

- 12. Conflict of Interest. Consultant acknowledges, represents and warrants that Consultant shall avoid all conflicts of interest (as defined under any federal, state or local statute, rule or regulation, or at common law) with respect to this Agreement. Consultant further acknowledges, represents and warrants that Consultant has no business relationship or arrangement of any kind with any City official or employee with respect to this Agreement. Consultant acknowledges that in the event that Consultant shall be found by any judicial or administrative body to have any conflict of interest (as defined above) with respect to this Agreement, all consideration received under this Agreement shall be forfeited and returned to City forthwith. This provision shall survive the termination of this Agreement for one (1) year.
- 13. Indemnity. To the maximum extent permitted by law, Consultant hereby agrees. at its sole cost and expense, to defend with competent defense counsel approved by the City Attorney, protect, indemnify, and hold harmless the City, its elected and appointed officials, officers, employees, volunteers, successors, and assigns (collectively "Indemnitees") from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, charges, obligations, damages, causes of action, proceedings, suits, losses, stop payment notices, judgments, fines, penalties, liabilities, costs and expenses of every kind and nature whatsoever, in any manner arising out of, incident to, related to, in connection with or resulting from any act, failure to act, error or omission of Consultant or any of its officers, agents, attorneys, servants, employees, Subcontractors, or any of their officers, agents, servants or employees, arising out of, this Agreement including without limitation, the payment of all consequential damages, attorneys' fees, experts' fees, and other related costs and expenses (individually, a "Claim," or collectively, "Claims"). Consultant shall promptly pay and satisfy any judgment, award or decree that may be rendered against Indemnitees in any such Claim. Consultant shall reimburse Indemnitees for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant or Indemnitees. This indemnity shall apply to all Claims regardless of whether any insurance policies are applicable or whether the Claim was cause in part or contributed to by an Indemnitees except for Claims which were caused by the sole negligence or willful misconduct of Indemnitees.
- b. Nonwaiver of Rights. Indemnitees do not and shall not waive any rights that they may possess against Consultant because the acceptance by City, or the deposit with City, of any insurance policy or certificate required pursuant to this Agreement. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence.

- c. Waiver of Right of Subrogation. Consultant, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all Claims arising out of or incident to the activities or operations performed by or on behalf of the Consultant regardless of any prior, concurrent or subsequent active or passive negligence by Indemnitees.
- d. <u>Survival</u>. The provisions of this Section 14 shall survive the term and termination of this Agreement, are intended to be as broad and inclusive as is permitted by the law of the State, and are in addition to any other rights or remedies that Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against a Consultant shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision.
- 14. <u>Insurance</u>. Consultant shall comply with the requirements set forth in Exhibit "D." Insurance requirements that are waived by the City's Risk Manager do not require amendments or revisions to this Agreement.

Notwithstanding the foregoing, California Labor Code Sections 1860 and 3700 provide that every contractor will be required to secure the payment of compensation to its employees. In accordance with the provisions of California Labor Code Section 1861, the Consultant hereby certifies as follows:

"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to under take self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

- 15. Non-Liability of Officials and Employees of the City. No official or employee of the City shall be personally liable for any default or liability under this Agreement.
- 16. Compliance with Laws. Consultant shall comply with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals, with respect to this Agreement, including without limitation all environmental laws, employment laws, and non-discrimination laws.
- 17. <u>Limitations upon Subcontracting and Assignment</u>. Consultant acknowledges that the services which Consultant shall provide under this Agreement are unique, personal services which, except as otherwise provided herein, Consultant shall not assign or sublet to any other party without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion. In the event that the City, in writing, approves any assignment or subletting of this Agreement or the retention of subcontractors by Consultant, Consultant shall

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provide to the City upon request copies of each and every subcontract prior to the execution thereof by Consultant and subcontractor. Any attempt by Consultant to assign any or all of its rights under this Agreement without first obtaining the City's prior written consent shall constitute a material default under this Agreement.

The sale, assignment, transfer or other disposition, on a cumulative basis, of twenty-five percent (25%) or more of the ownership interest in Consultant or twenty-five percent (25%) or more the voting control of Consultant (whether Consultant is a corporation, limited liability company, partnership, joint venture or otherwise) shall constitute an assignment for purposes of this Agreement. Further, the involvement of Consultant or its assets in any transaction or series of transactions (by way of merger, sale, acquisition, financing, transfer, leveraged buyout or otherwise), whether or not a formal assignment or hypothecation of this Agreement or Consultant's assets occurs, which reduces Consultant's assets or net worth by twenty-five percent (25%) or more shall also constitute an assignment for purposes of this Agreement.

- 18. <u>Subcontractors</u>. Consultant shall provide properly skilled professional and technical personnel to perform any approved subcontracting duties. Consultant shall not engage the services of any person or persons now employed by the City without the prior written approval of City, which approval may be withheld in the City's sole and absolute discretion.
- 19. <u>Integration</u>. This Agreement constitutes the entire agreement between the parties concerning the subject matter hereof and supersedes any previous oral or written agreement; provided, however, that correspondence or documents exchanged between Consultant and City may be used to assist in the interpretation of the exhibits to this Agreement.
- 20. <u>Amendment</u>. This Agreement may be amended or modified only by a subsequent written amendment executed by both parties and approved by the City Council.
- 21. <u>Conflicting Provisions</u>. In the event of a conflict between the terms and conditions of this Agreement and those of any exhibit or attachment hereto, this Agreement proper shall prevail. In the event of a conflict between the terms and conditions of any two or more exhibits or attachments hereto, those prepared by the City shall prevail over those prepared by Consultant.
- 22. <u>Non-Exclusivity</u>. Notwithstanding any provision herein to the contrary, the services provided by Consultant hereunder shall be non-exclusive, and City reserves the right to employ other contractors in connection with the project.
- 23. <u>Exhibits</u>. All exhibits hereto are made a part hereof and incorporated herein by reference; provided, however, that any language in Exhibit "A" which does not pertain to the project description, proposal, or scope of services (as applicable) to

- be provided by Consultant, or any corresponding responsibilities of City, shall be deemed extraneous to, and not a part of, this Agreement.
- 24. <u>Time of Essence</u>. Time is of the essence of this Agreement.
- 25. <u>Confidentiality</u>. To the extent permissible under law, Consultant shall keep confidential its obligations hereunder and the information acquired during the performance of the project or services hereunder.
- 26. <u>Third Parties</u>. Nothing herein shall be interpreted as creating any rights or benefits in any third parties. For purposes hereof, transferees or assignees as permitted under this Agreement shall not be considered "third parties."
- 27. Governing Law and Venue. This Agreement shall be construed in accordance with the laws of the State of California without regard to principles of conflicts of law. Venue for any litigation or other action arising hereunder shall reside exclusively in the Superior Court of the County of Los Angeles, Southwest Judicial District.
- 28. <u>Attorneys' Fees</u>. In the event either party to this Agreement brings any action to enforce or interpret this Agreement, the prevailing party in such action shall be entitled to reasonable attorneys' fees (including expert witness fees) and costs. This provision shall survive the termination of this Agreement.
- 29. <u>Claims</u>. Any claim by Consultant against City hereunder shall be subject to Government Code §§ 800 *et seq*. The claims presentation provisions of said Act are hereby modified such that the presentation of all claims hereunder to the City shall be waived if not made within six (6)months after accrual of the cause of action.
- 30. <u>Interpretation</u>. Consultant acknowledges that it has had ample opportunity to seek legal advice with respect to the negotiation of this Agreement. This Agreement shall be interpreted as if drafted by both parties.
- 31. Warranty. In the event that any product shall be provided to the City as part of this Agreement, Consultant warrants as follows: Consultant possesses good title to the product and the right to transfer the product to City.
- 32. <u>Severance</u>. Any provision of this Agreement that is found invalid or unenforceable shall be deemed severed, and all remaining provisions of this Agreement shall remain enforceable to the fullest extent permitted by law.
- 33. Authority. City warrants and represents that upon City Council approval, the Mayor of the City of Redondo Beach is duly authorized to enter into and execute this Agreement on behalf of City. The party signing on behalf of Consultant warrants and represents that he or she is duly authorized to enter into and

- execute this Agreement on behalf of Consultant, and shall be personally liable to City if he or she is not duly authorized to enter into and execute this Agreement on behalf of Consultant.
- 34. <u>Waiver</u>. The waiver by the City of any breach of any term or provision of this Agreement shall not be construed as a waiver of any subsequent breach.

SIGNATURES FOLLOW ON NEXT PAGE

IN WITNESS WHEREOF, the parties have executed this Agreement in Redondo Beach, California, as of this 2nd day of December, 2014.

CITY OF REDONDO BEACH

KOSMONT & ASSOCIATES, INC. DBA KOSMONT COMPANIES

Steve Asper, Mayor

Name:

Title:

ATTEST:

APPROVED:

Eleanor Manzano, City Clerk

Risk/Manager

APPROVED AS TO FORM:

Michael Webb, City Attorney

#### **EXHIBIT "A"**

#### PROJECT DESCRIPTION AND/OR SCOPE OF SERVICES

Consultant to provide economic development and real estate advisory services to the City regarding a variety of projects on an as needed basis, including but not limited to;

- Support for the negotiation, structuring, and drafting of multiple long term ground leases
- Assistance with the development and structuring of infrastructure and other public investment
- Property valuation and due diligence support
- CEQA process support related to economic and public benefit analysis

Consultant, nor any of its' related entities, shall provide any other services including but not limited to, real estate or financial brokerage services or any other commission-based services to the City without a written agreement executed by both parties and approved by the City Council. Related entities include Kosmont Realty Corporation. Exempt from this provision is the City's agreement with Kosmont Realty Corporation (contract no. C-1406-076) which has already been approved by City Council and wherein escrow has already closed.

#### **EXHIBIT "B"**

#### **SCHEDULE FOR COMPLETION**

<u>Term</u>. This Agreement shall commence on December 2, 2014 and shall continue until December 1, 2015, unless otherwise terminated as provided herein.

#### **EXHIBIT "C"**

#### **COMPENSATION**

Provided Consultant is not in default under this Agreement, Consultant shall be compensated as provided below.

1. <u>Amount</u>. See attached fee schedule for rates and reimbursable expenses. In no event shall the total cost under this Agreement exceed \$175,000.

Consultant provided services to the City from the period commencing on August 6, 2014 and ending on the commencement date of this Agreement in the amount of \$19,497.40. City shall pay for such services subject to the terms of this Agreement. The amount of \$19,497.40 is not included in the above not to exceed amount of \$175,000.

Reimbursable expenses shall include Consultant's travel and mileage; professional printing and delivery charges for messenger and overnight packages. These expenses shall be billed at cost. Copies of receipts shall be provided with the invoices.

- 2. <u>Method of Payment</u>. Consultant shall provide invoices to City for approval and payment. Invoices must be adequately detailed, based on accurate records, and in a form reasonably satisfactory to City. Consultant may be required to provide back-up material upon request.
- 3. <u>Schedule for Payment</u>. Monthly in arrears based upon the time spent during the previous month for which an invoice shall be submitted. City agrees to pay Consultant within thirty (30) days of receipt of monthly invoices; provided, however, that payments by City shall not exceed \$175,000.
- 4. <u>Consultant Address for Notice</u>. Kosmont & Associates, Inc. 865 South Figueroa Street 35<sup>th</sup> Floor Los Angeles, CA 90017

#### **EXHIBIT "D"**

#### **INSURANCE REQUIREMENTS FOR CONSULTANTS**

Without limiting Consultant's indemnification obligations under this Agreement, Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

#### Minimum Scope of Insurance

Coverage shall be at least as broad as:

Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).

Workers' Compensation insurance as required by the State of California.

Employer's Liability Insurance.

#### Minimum Limits of Insurance

Consultant shall maintain limits no less than:

General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. The general aggregate limit shall apply separately to this project.

Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.

Employer's Liability: \$1,000,000 per accident for bodily injury or disease.

#### Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers or (2) the Consultant shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

#### Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

#### Additional Insured Endorsement:

General Liability: The City, its officers, elected and appointed officials, employees, and volunteers are shall be covered as insureds with respect to liability arising out of work performed by or on behalf of the Consultant. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance, or as a separate owner's policy.

Automobile Liability: The City, its officers, elected and appointed officials, employees, and volunteers are shall be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Consultant.

For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, elected and appointed officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

Each insurance policy shall be endorsed to state that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured.

Each insurance policy shall be in effect prior to awarding the contract and each insurance policy or a successor policy shall be in effect for the duration of the project. The maintenance of proper insurance coverage is a material element of the contract and failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract on the Consultant's part.

#### Acceptability of Insurers

Insurance is shall be placed with insurers with a current A.M. Best's rating of no less than A:VII and which are authorized to transact insurance business in the State of California by the Department of Insurance.

#### Verification of Coverage

Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on the City authorized forms provided with the contract specifications. Standard ISO forms which shall be subject to City approval and amended to conform to the City's requirements may be acceptable in lieu of City authorized forms. All certificates and endorsements are shall be received and approved by the City before the contract is awarded. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

#### **Subcontractors**

Consultant shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

#### Risk Management

Consultant acknowledges that insurance underwriting standards and practices are subject to change, and the City reserves the right to make changes to these provisions in the reasonable discretion of its Risk Manager.



**BSTERNBERG** 



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/9/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRO	PRODUCER License # OC36891					CONTACT Brett R Sternberg						
Lyd	dy Martin Company 4 Cotner Avenue				PHONE (A/C, No, Ext): (800) 520-1040 FAX (A/C, No): (310) 473-5484							
	Floor				E-MAIL ADDRESS: brett@lyddymartin.com							
Los	Angeles, CA 90025				INSURER(S) AFFORDING COVERAGE					NAIC#		
					INCUE:							
INSL	RED				INSURER A: Zurich American Insurance Company of Illinois 27855							
	Kosmont & Associates, Inc.				INSURER B:							
	Dba: Kosmont Companies				INSURER C:							
	865 South Figueroa Street,	35Th	Floor	7	INSURE	RD:						
	Los Angeles, CA 90017				INSURE	RE:				<u></u>		
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	City of Redondo Beach Attn: Risk Manager 415 Diamond Street			SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.								
ı	Redondo Beach, CA 90277	AUTHORIZED REPRESENTATIVE  Routh Att. To.										

#### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

# ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

#### **SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not sho	own above, will be shown in the Declarations

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
  - 1. Your acts or omissions; or
  - The acts or omissions of those acting on your behalf:

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

DATE (MM/DD/YYYY) 01/08/2015

### **CERTIFICATE OF LIABILITY INSURANCE**

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER, THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to

the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).													
	DUCER					CONTACT							
Loc	kton Companies, LLC					NAME							
	7 San Felipe, Suite 320					PHONE (A/C No.E)	d): 888-82	8-8365		FA	X C, No):		
	ston, TX 77057					E-MAIL							
			ADDRESS:  INSURER(S) AFFORDING COVERAGE NAIC							NAIC			
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19001 Crescent Springs Drive							NSURER-D:						
Kingv	vood, TX 77339					INSURER-							
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A	ANY PROPRIETOR/PARTNER/EXECUTIVE DFFICER/MEMBER EXCLUDED?	N/A		C48183773	10/0	01/2014	10/01/2015	H-0	ATUE	DENT	ER	\$ 1,00	0 000
<del>                                     </del>	MANDATORY IN NH) f yes, describe under			10/1	10/0	10/01/2010	E.L. EACH ACCIDENT  E.L. DISEASE – EA EMPLOYEE				\$ 1,00		
	DESCRIPTION OF OPERATIONS below									\$ 1,00	0,000		
		:											
DESCR	RIPTION OF OPERATIONS /LOCATIONS / VEHIC	LES (Acc	rd 101, A	ı dditional Remarks S	chedul	e, may be	ı attached if more sı	pace is req	uired)				
CERT	CERTIFICATE HOLDER CANCELLATION												
	CITY OF REDONDO BEACH ATTN: RISK MANAGER 415 DIAMOND STREET					SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS							
	REDONDO BEACH, CA 90277				A	UTHORIZ	ZED REPRESEN	TATIVE					
							8-3/4						

Acct#: 1171322 ACORD 25 (2014/01) ©1988-2014 ACORD CORPORATION. All Rights Reserved.

#### Workers' Compensation and Employers' Liability Policy

Named Insured Insperity, Inc. I 19001 Crescent Kingwood, TX	. •	ES, INC.	Endorsement Number
Policy Symbol RWC	Policy Number C48183773	Policy Period 10/01/2014 TO 10/01/2015	Effective Date of Endorsement 1/08/2015
Issued By (Name of Ace American II	of Insurance Company) Insurance Co.		

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- **B.** We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- C. The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy.
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- **F.** You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- G. This endorsement does not apply in the event that you cancel the Policy.

	SCHEDULE	
Name of Certificate Holder	E-Mail Address	Physical Address
CITY OF REDONDO BEACH		415 DIAMOND STREET
		REDONDO BEACH, CA 90277

All other terms and conditions of the Policy remain unchanged.

Authorized Representative

ALL-32688 (01/11)

Acct#: 1171322





#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 03/26/14

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

	ELOW. THIS CERTIFICATE OF INSUI			CONT	RACT BETW	EEN THE ISS	SUING INSURER(S), AUT	HORIZ	IED .
IN th	MPORTANT: If the certificate holder is an A te terms and conditions of the policy, cert ertificate holder in lieu of such endorseme	ADDITION ain polici	NAL INSURED, the policy(ies) r	must be nt. A sta	endorsed. If satement on thi	SUBROGATION is certificate de	IS WAIVED, subject to bes not confer rights to the		
	DUCER	netoj.		CONTACT NAME: Rick Powell					
	Powell Insurance Agency, LLC			PHONE (040) 004 7440 FAX (760) 904 0746					
350	0 West Olive Ave, Suite 300			(A/C, No, Ext): (818) 861-7440- (A/C, No): (760) 604-971 E-MAIL ADDRESS: Rick@Insurance4CA.com PRODUCER					
Bur	bank, CA 91505				MER ID #:	Bell County	Maria de la companya de la companya de la companya de la companya de la companya de la companya de la companya		
F	hone (818) 861-7440 Fa	x (760)	804-9710	INSURER(S) AFFORDING COVERAGE					NAIC#
INS	JRED			INSURER A: Westchester Surplus Lines Insurance Co.					
Kos	smont & Associates, Inc. dba Kosmont C	ompanie	es.	INSUR	RB:				
865	S Figueroa St Ste 3500		INSUR		NAME OF THE REAL PROPERTY.				
Los	Angeles, CA 90017		INSURI	and the land to the second		Tarin and the second second			
				INSURI	Market Street	M///122			
-	VERAGES CER	TIEICA	TE NUMBER:	INSURE	RF:		REVISION NUMBER:	-12-695	and the same of th
II C	HIS IS TO CERTIFY THAT THE POLICIES ON NDICATED. NOTWITHSTANDING ANY REC ERTIFICATE MAY BE ISSUED OR MAY PER EXCLUSIONS AND CONDITIONS OF SUCHI	UIREME RTAIN, TH POLICIES	NT, TERM OR CONDITION OF HE INSURANCE AFFORDED BY S. LIMITS SHOWN MAY HAVE B	ANY CO	ONTRACT OR O DLICIES DESC DUCED BY PA	OTHER DOCUI RIBED HEREIN ID CLAIMS.	MENT WITH RESPECT TO I	NHICH	THIS
INSR	TYPE OF INSURANCE	ADDL SU	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	S	
	GENERAL LIABILITY  COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	
	CLAIMS-MADE OCCUR	4 18					MED EXP (Any one person)	\$	
	CEANING-WASE COCON						PERSONAL & ADV INJURY	\$	
	Page 18 August 1						GENERAL AGGREGATE	\$	
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	\$	
	POLICY PRO- JECT LOC			I. same		ENTAINE OF STREET	COMBINED SINGLE LIMIT (Ea accident)	\$	
	ANY AUTO						BODILY INJURY (Per person)	\$	enternal del Company
	ALL OWNED AUTOS						BODILY INJURY (Per accident)	\$	ar a a
	SCHEDULED AUTOS						PROPERTY DAMAGE	\$	
	HIRED AUTOS						(Per accident)	\$	
	NON-OWNED AUTOS					100		\$	The second second
	UMBRELLA LIAB OCCUR					all the	EACH OCCURRENCE	\$	Harris A
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$	Lander Street
	DEDUCTIBLE							\$	
	RETENTION \$							\$	
14.7	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				100		WC STATU- TORY LIMITS ER	NAME OF	
	ANY PROPRIETOR/PARTNER/EXECUTIVE	N/A					E.L. EACH ACCIDENT	\$	
	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. DISEASE - EA EMPLOYE	\$	William Street and Street and Street
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$	
A	Errors & Omissions Coverage	Y	G2419310A-004 \$10,000. Deductible		03/15/2014	03/15/2015	\$2,000,000/\$2,000,000	Per Cl	aim/Aggregate
DES	of Redondo Beach, its officers, elected led insured, per form PF-19806 (02/06) a	CLES (At	tach ACORD 101, Additional Remark				as respects operations pe	rformed	by the
CE	RTIFICATE HOLDER			CANO	CELLATION	**			The state of
	City of Redondo Beach Attn: Harbor Facilities Mana	ger		THE	EXPIRATION D	ATE THEREO	SCRIBED POLICIES BE CAI F, NOTICE WILL BE DELIVE PROVISIONS.		
	Attn: Harbor Facilities Manager 415 Diamond Street Redondo Beach, CA 90277 Holly.Short@redondo.org				AUTHORIZED REPRESENTATIVE				2

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#### CERTIFICATE OF LIABILITY INSURANCE

Acct#: 1171322

DATE (MM/DD/YYYY) 10/01/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s)

	ertificate noider in lieu of such endor	semer	nt(s).		CONTAC	`T			
	Ckton Companies, LLC				NAME:	888-828	-8365	FAV	
	47 San Felipe, Suite 320				(A/C, No	Ext):		FAX (A/C, No):	
	ouston, TX 77057				E-MAIL ADDRES	S:			
					INSURER(S) AFFORDING COVERAGE				
					INSURER A: Ace American Insurance Co.				
	URED sperity, Inc. L/C/F				INSURER B:				
	SMONT & ASSOCIATES, INC.				INSURER C:				
	001 Crescent Springs Drive ngwood, TX 77339				INSURE	RD:			
KII	ngwood, 1x 77339				INSUREI	RE:			
					INSUREI	RF:			
СО	VERAGES CEF	TIFIC	ATE NUMBE	R:				REVISION NUMBER:	
IN C E	HIS IS TO CERTIFY THAT THE POLICIES NDICATED. NOTWITHSTANDING ANY RICERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH	PERTA POLIC	EMENT, TERM AIN, THE INSUI DIES. LIMITS SH	OR CONDITION RANCE AFFORDS	OF ANY	CONTRACT THE POLICIES EDUCED BY I	OR OTHER IS DESCRIBED PAID CLAIMS.	DOCUMENT WITH RESPE D HEREIN IS SUBJECT TO	CT TO WHICH THIS
NSR LTR	TYPE OF INSURANCE	ADDL S		POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	(MM/DD/YYYY)	LIMIT	S
	COMMERCIAL GENERAL LIABILITY							EACH OCCURRENCE	\$
	CLAIMS-MADE OCCUR							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
								MED EXP (Any one person)	\$
								PERSONAL & ADV INJURY	\$
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$
	POLICY PRO- JECT LOC							PRODUCTS - COMP/OP AGG	\$
	OTHER:								\$
	AUTOMOBILE LIABILITY	100						COMBINED SINGLE LIMIT (Ea accident)	\$
	ANY AUTO							BODILY INJURY (Per person)	\$
	ALL OWNED SCHEDULED AUTOS							BODILY INJURY (Per accident)	\$
	HIRED AUTOS NON-OWNED AUTOS							PROPERTY DAMAGE (Per accident)	\$
						Miller			\$
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE	\$
	EXCESS LIAB CLAIMS-MADE				B S E			AGGREGATE	\$
	DED RETENTION\$								\$
	WORKERS COMPENSATION	199						X PER STATUTE OTH-	
	AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE			001710000				E.L. EACH ACCIDENT	\$ 1,000,000
A	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A		C64742280		10/01/2017	10/01/2018	E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
DES	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC	LES (A	CORD 101, Additio	nal Remarks Schedu	le, may be	attached if more	e space is requir	ed)	
CEI	RTIFICATE HOLDER	78-21				CANCE	ELLATION		
						THE EX	XPIRATION DA	BOVE DESCRIBED POLICIES IN ATE THEREOF, NOTICE IN THE POLICY PROVISIONS.	

O-FKelly

**AUTHORIZED REPRESENTATIVE** 

CITY OF REDONDO BEACH

ATTN: RISK MANAGER

415 DIAMOND STREET REDONDO BEACH, CA 90277

#### Workers' Compensation and Employers' Liability Policy

Named Insured Insperity, Inc. L KOSMONT & A 19001 Crescen Kingwood, TX	ASSOCIATES, INC. at Springs Drive		Endorsement Number
Policy Symbol	Policy Number	Policy Period	Effective Date of Endorsement
RWC	C64742280	10/01/2017 TO 10/01/2018	10/01/2017
Issued By (Name	of Insurance Company)		
Ace American II	nsurance Co.		

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- **B.** We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- C. The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy.
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- F. You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- G. This endorsement does not apply in the event that you cancel the Policy.

#### SCHEDULE

Name of Certificate Holder	E-Mail Address	Physical Address
CITY OF REDONDO BEACH		415 DIAMOND STREET REDONDO BEACH, CA 90277

All other terms and conditions of the Policy remain unchanged.

Authorized Representative

Acct#: 1171322



#### CERTIFICATE OF LIABILITY INSURANCE

Acct#: 1171322

DATE (MM/DD/YYYY) 10/01/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

SI	PORTANT: If the certificate holder is JBROGATION IS WAIVED, subject to rtificate does not confer rights to the	the t	terms	s and conditions of the p	olicy, c ndorsei	ertain polic ment(s).	e ADDITIONA ies may requ	AL INSURED provisions of the control	or be e statem	endorsed. If ent on this
	DUCER kton Companies, LLC				CONTACT NAME: PHONE (A/C No. Even. 888-828-8365 (A/C No.):					
584	7 San Felipe, Suite 320				(A/C, No, Ext): 888-828-8365 (A/C, No):					
Ηοι	uston, TX 77057				ADDRES		URER(S) AFFOR	DING COVERAGE		NAIC #
									22667	
INSU					INSURER					
Insp	oerity, Inc. L/C/F SMONT & ASSOCIATES, INC.			ļ	INSURER					
190	01 Crescent Springs Drive				INSUREF					
Kin	gwood, TX 77339				INSUREF	RE:				
					INSURE	RF:				
CO				NUMBER:				REVISION NUMBER:	E DO: :	OV DEDIOD
IN CE EX	IIS IS TO CERTIFY THAT THE POLICIES DICATED. NOTWITHSTANDING ANY RE ERTIFICATE MAY BE ISSUED OR MAY I CLUSIONS AND CONDITIONS OF SUCH	QUIF PERT POLIC	REMEI AIN, CIES.	NT, TERM OR CONDITION THE INSURANCE AFFORDE LIMITS SHOWN MAY HAVE	OF ANY ED BY T BEEN R	CONTRACT THE POLICIE EDUCED BY	OR OTHER E S DESCRIBEE PAID CLAIMS.	OCUMENT WITH RESPEC  HEREIN IS SUBJECT TO	ALL T	VHICH THIS
INSR LTR	TYPE OF INSURANCE	INSD	SUBR WVD	POLICY NUMBER		(MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
	COMMERCIAL GENERAL LIABILITY							DAMAGE TO RENTED	\$	
	CLAIMS-MADE OCCUR							1112111020 (2000110110)	\$ \$	
									\$ \$	
	OFNII ACCRECATE LIMIT APPLIES DED.								\$	
	POLICY PROJECT LOC							PRODUCTS - COMP/OP AGG	\$ \$	
	OTHER: AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT	\$	
								(Ea accident)	\$	· · · · · · · · · · · · · · · · · · ·
	ANY AUTO ALL OWNED SCHEDULED								\$	
	AUTOS AUTOS NON-OWNED AUTOS							PROPERTY DAMAGE (Per accident)	\$	
	HIRED AUTOS AUTOS								\$	
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE	\$	
	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$	
	DED RETENTION\$								\$	
	WORKERS COMPENSATION							X PER OTH- STATUTE ER		
A	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N/A	х	C65746645		10/01/2018	10/01/2019		\$ 1,000	
_ ^	(Mandatory in NH)		'					E.L. DISEASE - EA EMPLOYEE		
	If yes, describe under DESCRIPTION OF OPERATIONS below		-					E.L. DISEASE - POLICY LIMIT	\$ 1,000	0,000
WA	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC IVER OF SUBROGATION IN FAVOR OF CITY OF F LUNTEERS WHEN REQUIRED BY WRITTEN CONT	REDON	IDO BE	D 101, Additional Remarks Schedu EACH, ITS OFFICERS, ELECTED A	ule, may b	e attached if mo	re space is requi LS, EMPLOYEES	red) , AND		
CE	RTIFICATE HOLDER					CANC	ELLATION			
						THE	EXPIRATION D	ABOVE DESCRIBED POLICIES E NATE THEREOF, NOTICE V H THE POLICY PROVISIONS.		
	CITY OF REDONDO BEACH					AUTHO	ORIZED REPRESE	_		
	415 DIAMOND STREET REDONDO BEACH, CA 90277							3-7Kelly		

#### Workers' Compensation and Employers' Liability Policy

Named Insured	Endorsement Number
Insperity, Inc. L/C/F	
KOSMONT & ASSOCIATES, INC.	Policy Number
19001 Crescent Springs Drive	Symbol: RWC Number: C65746645
Kingwood, TX 77339	
Policy Period	Effective Date of Endorsement
10/01/2018 <b>TO</b> 10/01/2019	10/01/2018
Issued By (Name of Insurance Company)	
Ace American Insurance Co.	
Insert the policy number. The remainder of the information is t	o be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### CALIFORNIA WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because California is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the Schedule, where you are required by a written contract to obtain this waiver from us.

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

#### Schedule

- 1. (X) Specific Waiver
  - Name of person or organization:

City of Redondo Beach

415 Diamond Street

Redondo Beach, CA 90277

( ) Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations:

VOLUNTEERS.

3. Premium:

The premium charge for this endorsement shall be <u>INCLUDED</u> percent of the California premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Minimum Premium: INCLUDED

Authorized Representative

WC 99 03 22

#### Workers' Compensation and Employers' Liability Policy

Named Insured Insperity, Inc. L/C/F KOSMONT & ASSOCIATES, INC. 19001 Crescent Springs Drive Kingwood, TX 77339							
9							
Policy Number	Policy Period	Effective Date of Endorsement					
<u>C65746645</u>	10/01/2018 TO 10/01/2019	10/01/2018					
RWC   C65746645   10/01/2018 TO 10/01/2019   10/01/2018   Issued By (Name of Insurance Company)							
Ace American Insurance Co.							
	Policy Number  C65746645  urance Company)	DCIATES, INC.           rings Drive           19           Policy Number         Policy Period           C65746645         10/01/2018 TO 10/01/2019           surrance Company)					

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### **NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES**

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- **B.** We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- **C.** The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy.
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- **F.** You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- **G.** This endorsement does not apply in the event that you cancel the Policy.

#### **SCHEDULE**

***************************************						
Name of Certificate Holder	E-Mail Address	Physical Address				
City of Redondo Beach		415 Diamond Street				
		Redondo Beach, CA 90277				

All other terms and conditions of the Policy remain unchanged.

Authorized Representative

Acct#: 1171322



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/07/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. If the certificate holder is an ADDITIONAL INSURED, the policy(les) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). PRODUCER License # 0C36891 CONTACT Brett R Sternberg Lyddy Martin Company 20300 Ventura Blvd. Suite 340 PHONE (A/C; No, Ext): (310) 478-2625 317 FAX (A/C, No): Woodland Hills, CA 91364 E-MAIL ADDRESS: brett@lyddymartin.com INSURER(S) AFFORDING COVERAGE NAIC# INSURER A : Foremost Signature Insurance Company 41513 INSURED INSURER B Kosmont & Associates, Inc. INSURER C **Dba: Kosmont Companies** 1601 N. Sepulveda Blvd. #382 INSURER D Manhattan Beach, CA 90266 INSURER E INSURER F **COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. INSR LTR ADDL SUBR POLICY EXP (MM/DD/YYYY) (MM/DD/YYYY) TYPE OF INSURANCE POLICY NUMBER LIMITS X COMMERCIAL GENERAL LIABILITY Α 1,000,000 EACH OCCURRENCE CLAIMS-MADE | X | OCCUR PAS040846504 1,000,000 X 06/27/2018 06/27/2019 10,000 MED EXP (Any one person) PERSONAL & ADV INJURY 2.000,000 GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE PRO-2,000,000 POLICY PRODUCTS - COMP/OP AGG OTHER: A COMBINED SINGLE LIMIT 1.000.000 AUTOMOBILE LIABILITY ANY AUTO X PAS040846504 06/27/2018 06/27/2019 BODILY INJURY (Per person) OWNED AUTOS ONLY SCHEDULED AUTOS BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) HIRED ONLY NON-OWNED AUTOS ONLY A 3,000,000 UMBRELLA LIAB OCCUR EACH OCCURRENCE **EXCESS LIAB** PAS040846504 06/27/2018 06/27/2019 CLAIMS-MADE AGGREGATE 3.000,000 DED RETENTION \$ WORKERS COMPENSATION AND EMPLOYERS' LIABILITY OTH-ER PER STATUTE ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) É.L. EÄCH ACCIDENT NIA E.L. DISEASE - ÉA EMPLOYEE \$ If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) The City, its officers, elected and appointed officials, employees, and volunteers are named additional insured. The insurance is primary and non-contributory Other named insureds under the policy: Kosmont Realty Corporation, DBA, Kosmont Transaction Services CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. City of Redondo Beach

ACORD 25 (2016/03)

Attn: Risk Manager 415 Diamond Street

Redondo Beach, CA 90277

AUTHORIZED REPRESENTATIVE

#### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

#### SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
- 2.	
Information required to complete this Schedule, if not sho	wn above, will be shown in the Declarations.

- A. Section II Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
  - 1. Your acts or omissions; or
  - The acts or omissions of those acting on your behalf:

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/01/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES THIS CERTIFICATE OF INSTIDANCE DOES NOT CONSTITUTE A CONTRACT RETWEEN THE ISSUING INSTIDED'S) ATTHORIZED

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOL	Wat programmer and the control of th	isobiid iiioniziga	
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED SUBROGATION IS WAIVED, subject to the terms and conditions certificate does not confer rights to the certificate holder in lieu of	of the policy, certain policies may require		•
RODUCER Lockton Companies, LLC 5847 San Felipe, Suite 320 Houston, TX 77057	CONTACT NAME: PHONE (AC. No. Ext): 888-828-8365 E-MAIL ADDRESS:	FAX (A/C, No):	
	INSURER(S) AFFORDING	G COVERAGE NAIC #	
	INSURER A : Ace American Insurance Co.	22667	

INSURER B Insperity, Inc. L/C/F KOSMONT & ASSOCIATES, INC. INSURER C : 19001 Crescent Springs Drive INSURER D Kingwood, TX 77339 INSURER E INSURER F COVERAGES **CERTIFICATE NUMBER: REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS.

	CLUSIONS AND CONDITIONS OF SUCH						
INSP	TYPE OF INSURANCE	ADDL SUB	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	\$
	COMMERCIAL GENERAL LIABILITY  CLAIMS-MADE OCCUR					EACH OCCURRENCE DAMAGE TO RENTED	s s
						PREMISES (Ea occurrence) MED EXP (Any one person)	5
		' i				PERSONAL & ADV INJURY	\$
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	\$
1	POLICY PRO- LOC					PRODUCTS - COMP/OP AGG	s
	OTHER:		1				\$
	AUTOMOBILE LIABILITY				•	COMBINED SINGLE LIMIT (Ea accident)	.\$
	AÑY ÄŬTO			!		BODILY INJURY (Per person)	\$
	ALL OWNED SCHEDULED AUTOS					BODILY INJURY (Per accident)	\$
	HIRED AUTOS NON-OWNED					PROPERTY DAMAGE (Per accident)	\$
				1			\$
	UMBRELLA LIAB OCCUR			"		EACH OCCURRENCE	\$.
	EXCESS LIAB CLAIMS-MADE	]				AGGREGATE	\$
	DED RETENTIONS					L.	\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			İ		X PER OTH-	
Α	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N/A X	C65746645	10/01/2018	10/01/2019	E.L. EACH ACCIDENT	\$ 1,000,000
	(Mandatory in NH)		1	,	. 5.0 20 10	E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - POLICY.LIMIT	
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DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) WAIVER OF SUBROGATION IN FAVOR OF CITY OF REDONDO BEACH, ITS OFFICERS, ELECTED AND APPOINTED OFFICIALS, EMPLOYEES, AND VOLUNTEERS WHEN REQUIRED BY WRITTEN CONTRACT.

CERTIFIC	ATF HOL	DER

CITY OF REDONDO BEACH 415 DIAMOND STREET

REDONDO BEACH, CA 90277

#### CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

O->Kelly

Workers' Compensation and Employers' Liability Policy

Named Insured	Endorsement Number
Insperity, Inc. L/C/F	
KOSMONT & ASSOCIATES, INC.	Policy Number
19001 Crescent Springs Drive	Symbol: RWC Number: C65746645
Kingwood, TX 77339	
Policy Period	Effective Date of Endorsement
10/01/2018 <b>TO</b> 10/01/2019	10/01/2018
Issued By (Name of Insurance Company)	
Ace American Insurance Co.	and the second control of the second control
Insert the policy number. The remainder of the information is to be	completed only when this endorsement is issued subsequent to the preparation of the policy.

#### CALIFORNIA WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because California is shown in Item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the Schedule, where you are required by a written contract to obtain this waiver from us.

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

#### Schedule

1. (X) Specific Waiver

Name of person or organization:

City of Redondo Beach

415 Diamond Street

Redondo Beach, CA 90277

( ) Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations:

VOLUNTEERS.

3. Premium:

The premium charge for this endorsement shall be <u>INCLUDED</u> percent of the California premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Minimum Premium : INCLUDED

Authorized Representative

WC 99 03 22

#### Workers' Compensation and Employers' Liability Policy

Named insured Insperity, Inc. L KOSMONT & A 19001 Crescen Kingwood, TX 7	/C/F SSOCIATES, INC. t Springs Drive		Endorsement Number
Policy Symbol	Policy Number	Policy Period	Effective Date of Endorsement
RWC	C65746645	10/01/2018 TO 10/01/2019	10/01/2018
Ace American I	of Insurance Company)		

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

#### NOTICE TO OTHERS ENDORSEMENT - SPECIFIC PARTIES

- A. If we cancel the Policy prior to its expiration date by notice to you or the first Named Insured for any reason other than nonpayment of premium, we will endeavor, as set out below, to send written notice of cancellation, via such electronic or other form of notification as we determine, to the persons or organizations listed in the schedule set out below (the "Schedule"). You or your representative must provide us with both the physical and e-mail address of such persons or organizations, and we will utilize such e-mail address or physical address that you or your representative provided to us on such Schedule.
- B. We will endeavor to send or deliver such notice to the e-mail address or physical address corresponding to each person or organization indicated in the Schedule at least 30 days prior to the cancellation date applicable to the Policy.
- C. The notice referenced in this endorsement is intended only to be a courtesy notification to the person(s) or organization(s) named in the Schedule in the event of a pending cancellation of coverage. We have no legal obligation of any kind to any such person(s) or organization(s). Our failure to provide advance notification of cancellation to the person(s) or organization(s) shown in the Schedule shall impose no obligation or liability of any kind upon us, our agents or representatives, will not extend any Policy cancellation date and will not negate any cancellation of the Policy.
- D. We are not responsible for verifying any information provided to us in any Schedule, nor are we responsible for any incorrect information that you or your representative provide to us. If you or your representative does not provide us with the information necessary to complete the Schedule, we have no responsibility for taking any action under this endorsement. In addition, if neither you nor your representative provides us with e-mail and physical address information with respect to a particular person or organization, then we shall have no responsibility for taking action with regard to such person or entity under this endorsement.
- E. We may arrange with your representative to send such notice in the event of any such cancellation.
- F. You will cooperate with us in providing, or in causing your representative to provide, the e-mail address and physical address of the persons or organizations listed in the Schedule.
- G. This endorsement does not apply in the event that you cancel the Policy.

Name of Certificate Holder E-Mail Address Physical Address
City of Redondo Beach

City of Redondo Beach, CA 90277

All other terms and conditions of the Policy remain unchanged.

Authorized Representative

Acct#: 1171322



# Administrative Report

H.9., File # 21-1939 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKS DIRECTOR

#### **TITLE**

APPROVE PURCHASE AGREEMENT FOR A PORTION OF THE PROPERTY AT 3615 INGLEWOOD AVENUE, REDONDO BEACH (PARTIAL FEE ACQUISITION) AND TEMPORARY CONSTRUCTION EASEMENT FOR SOUTHBOUND INGLEWOOD AVENUE RIGHT TURN AT MANHATTAN BEACH BOULEVARD PROJECT, JOB NO. 40960

#### **EXECUTIVE SUMMARY**

A portion of private property at the northwest corner of Inglewood Avenue and Manhattan Beach Boulevard needs to be acquired for right of way in order to implement construction of the City's Southbound Inglewood Avenue Right Turn at Manhattan Beach Boulevard Project, Job No. 40960. Staff is seeking approval of a purchase agreement with the Redondo Beach Shopping Center, a Joint Venture (Fee Owner) and K & L Redondo Beach Partnership (Ground Lessee) to acquire a portion of the property at 3615 Inglewood Avenue, Redondo Beach, and for a temporary construction easement (TCE), for a price in the amount of \$131,200 (One hundred thirty-one thousand two hundred dollars) for the City's Southbound Inglewood Avenue Right Turn at Manhattan Beach Boulevard Project, Job No. 40960. The City received \$5,175,000 in Measure R South Bay Highway Program Grant Funds for this project from the Los Angeles County Metropolitan Transportation Authority (LACMTA). The purchase amount is to be divided between the Fee Owner and Ground Lessee per the purchase agreement and paid to each, respectively, through an escrow account.

Approval of this item will allow the City to purchase a piece of land from the owner of the property at 3615 Inglewood Avenue, Redondo Beach, having the parcel number 4149-006-026. The size of the land being purchased here is 552 sq. ft. and is required for the construction of a transition lane to a new right turn lane on southbound Inglewood Avenue at Manhattan Beach Boulevard. The City previously obtained a twelve-foot wide strip of land from the adjacent parcel for construction of the right turn lane through exercising City's rights on the right-of-way per stipulated conditions in the permit for development of the land.

Negotiations for the purchase of this additional piece of property have been going on for several months. The City previously submitted an offer for this piece of land and the owner came up with a counter offer. The current purchase price of \$131,200 and the other temporary construction easement conditions are acceptable to both buyer and the seller. The purchase price covers the use of the temporary construction easement (TCE) area for a six months period. For an extended use of the TCE area, the City will compensate the property owner on a month-to-month basis.

H.9., File # 21-1939 Meeting Date: 1/19/2021

#### **BACKGROUND**

Effective January 16, 2015, the City of Redondo Beach entered into an agreement with the Los Angeles County Metropolitan Transportation Authority (LACMTA) to design, obtain right-of-way, and construct a right turn lane on southbound Inglewood Avenue at Manhattan Beach Boulevard. Per that agreement, the City obtained \$5,175,000 in Measure R Grant Funds for the Inglewood Avenue Southbound Right Turn Lane at Manhattan Beach Boulevard Project, Job No. 40960.

On July 20, 2017, the Planning Commission of the City of Redondo Beach adopted a Conditional Use Permit for the Gasoline Station located at the northwest corner of the Inglewood Avenue and Manhattan Beach Boulevard intersection to dedicate a 12-foot strip of the property along the Inglewood Avenue to the City for construction of its right turn lane project.

Accordingly, the City obtained and recorded the twelve-foot wide land from the adjacent parcel for the construction of its right turn lane project by way of an easement dedication. As the development of the project proceeded, it became clear that the additional right of way acquisition was necessary to accommodate the design.

Approval of this item will allow the City to purchase the additional right of way from the owner of the property at 3615 Inglewood Avenue, Redondo Beach, having the parcel number 4149-006-026. The size of the land being purchased here is 552 sq. ft. and is required for the construction of a transition lane to a new right turn lane on southbound Inglewood Avenue at Manhattan Beach Boulevard.

In addition to the land purchase, a Temporary Construction Easement is necessary during construction to allow the City to occupy a portion of the adjacent private property for the duration of construction. This is necessary to have access to and complete the work safely.

Recently, the Metropolitan Water District (MWD) completed relocation of its utility cabinet, water meter, air vents and appurtenances in order to make room for the right turn lane project. MWD's utility relocation was delayed by several months due to Covid-19. The City's design consultant anticipates completion of Plans, Specifications, and Estimates (PS&E) by February 2021. Upon finalization and recordation of the property purchase, and with Council's approval of the PS&E's, the project should out go for bid in early March with construction to begin in late Spring 2021.

#### COORDINATION

The Purchase Agreement was prepared by the City Attorney's Office. The Property Appraisal Report was prepared by R. P. Laurain & Associates. The Title Report was prepared by First American Title Company of Los Angeles.

#### FISCAL IMPACT

This project is funded entirely with METRO South Bay Highway Program Measure R funding, including the purchase of the property, associated closing costs, and any follow-up inspection expenditures.

H.9., <b>File #</b> 21-1939		<b>Meeting Date:</b> 1/19/2021	
Funding Measure R Funds	\$5,175,000	Estimated Expenditures Design/Project Management Utility Relocation ROW Acquisition Construction Management Construction + Contingency Remaining Project Funds	\$ 525,000 \$ 300,000 \$ 157,000 \$ 140,000 \$1,270,000 \$2,783,000
TOTAL	\$5,175,000	TOTAL	\$5,175,000

#### **APPROVED BY:**

Joe Hoefgen, City Manager

#### **ATTACHMENT**

Partial Fee Acquisition Agreement for 3615 Inglewood Ave, Redondo Beach

ASSESSOR PARCEL NUMBER: 4149-006-026

**PROJECT**: Inglewood Avenue at Manhattan Beach Boulevard Southbound Right-Hand Turn Lane Project

### AGREEMENT FOR ACQUISITION OF REAL PROPERTY (ESCROW INSTRUCTIONS)

THIS AGREEMENT ("Agreement") is entered into this 19<sup>th</sup> day of January, 2021 by and between the **City of Redondo Beach**, a municipal corporation of Los Angeles County, (hereinafter called "Buyer"), and **Redondo Beach Shopping Center**, A Joint Venture and **K & L Redondo Beach Partnership** (hereinafter collectively called "Seller") for acquisition by Buyer of a portion of that certain real property identified as 3615 Inglewood Avenue, Redondo Beach, CA 90278 (APN: 4149-006-026). Buyer and Seller may collectively be referred to as the "Parties."

#### IT IS HEREBY MUTUALLY AGREED BETWEEN THE PARTIES AS FOLLOWS

- 1. <u>AGREEMENT TO SELL AND PURCHASE</u>. Seller agrees to sell to Buyer, and Buyer agrees to purchase from Seller, upon the terms and for the consideration set forth in this Agreement the fee interest and ground lease in a portion of the following property and temporary construction easement, which are situated in the City of Redondo Beach, County of Los Angeles, State of California, and is more particularly described in the Grant Deed, **Exhibit "A"** attached hereto and hereinafter referred to as "Property":
- 2. <u>PURCHASE PRICE</u>. The total purchase price, payable in cash through escrow, shall be the sum of **One Hundred Thirty-One Thousand Two Hundred Dollars and 0/100** (\$131,200.00).

#### Value of Property acquired:

Fee Acquisition and Ground Lease (portion):

Improvements within Fee Area:

Temporary Construction Easement:

Improvements within TCE Area:

AMOUNT ESTABLISHED AS JUST COMPENSATION (rounded)

= \$ 110,000

= \$ 19,169

= \$ 1,688

= \$ 343

= \$ 343

The Purchase Price shall be paid out by escrow, as follows:

Redondo Beach Shopping Center \$66,000 K&L Redondo Beach Partnership \$65,200 **Total Purchase Price** \$131,200

- 3. <u>CONVEYANCE OF TITLE</u>. Seller agrees to convey by Grant Deed to Buyer marketable title to the Property free and clear of all recorded and unrecorded liens, encumbrances, assessments, easements, leases, and taxes EXCEPT:
  - A. Any assessments (not property taxes) for the current fiscal year prorated as per Section 5 hereinafter.
  - B. Quasi-public utility, public alley, public street easements, and rights of way of

record.

- C. Exceptions A through 26, 28 through 33 appearing on Preliminary Title Report to be provided by Title Company and approved in Escrow. Buyer has the right to disapprove the title report and terminate this Agreement.
- 4. <u>TITLE INSURANCE POLICY</u>. Escrow Agent shall, following recording of the Grant Deed to Buyer, provide Buyer with CLTA Standard Coverage Policy of Title Insurance in the amount of \$110,000 (Partial Fee Value) issued by <u>Commonwealth Land Title Company</u> showing the title to the property vested in Buyer, subject only to the exceptions set forth in Section 3 and the printed exceptions and stipulations in said policy (but without any exception for property taxes). Buyer agrees to pay the premium charged therefore. The title company's commitment to issue the title policy in form and substance acceptable to Buyer is a condition to Buyer's obligation to close.
- 5. <u>ESCROW</u>. Buyer agrees to open an escrow in accordance with this Agreement at Commonwealth Land Title Company, 4100 Newport Place, Suite 120, Newport Beach, CA 926660. This Agreement constitutes the joint escrow instructions of Buyer and Seller, and Escrow Agent to whom these instructions are delivered is hereby empowered to act under this Agreement. The Parties hereto agree to do all acts necessary to close this escrow in the shortest possible time.

Seller agrees to deposit with Escrow Agent prior to the Close of Escrow original, fully executed and acknowledged deeds, and any other customary agreements, consents, or documents reasonably necessary to effectuate the purchase of the subject property. Buyer agrees to deposit the purchase price and **certificate of acceptance** upon demand of Escrow Agent.

All funds received in this escrow shall be deposited with other escrow funds in a general escrow account(s) and may be transferred to any other such escrow trust account in any State or National Bank doing business in the State of California. All disbursements shall be made by check from such account.

ESCROW AGENT IS AUTHORIZED AND IS INSTRUCTED TO COMPLY WITH THE FOLLOWING AS TO PROPERTY TAXES AND ASSESSMENTS TAX ADJUSTMENT PROCEDURE:

A. Pay and charge Seller for any property taxes and/or penalties and interest thereon, and for any delinquent or non-delinquent assessments or bonds against the property (property taxes are not to be prorated as Buyer is exempt from property taxes; Seller is to pay the current tax period's property taxes; Buyer will cooperate in good faith with Seller in Seller's obtaining any refund of property taxes paid by Seller but allocable to the period after the Close of Escrow). Assessment installments shall be prorated as of the Close of escrow;

#### ESCROW AGENT IS AUTHORIZED TO, AND SHALL:

B. Pay and charge Seller, upon Seller's written approval, for any amount

necessary to place title in the condition necessary to satisfy Section 3 of this Agreement, excluding any penalty for prepayment to any lienholder in compliance with 1265.240 of the Eminent Domain Law;

- C. Pay and charge Buyer for any escrow fees, charges, and costs payable under Section 6 of this Agreement;
- D. Disburse funds and deliver deed when conditions of this escrow have been fulfilled by Buyer and Seller.

The term "Close of Escrow", where written in these instructions, shall mean the date necessary instruments of conveyance are recorded in the office of the County Recorder. Recordation of instruments delivered through this escrow is authorized if necessary or proper in the issuance of said policy of title insurance.

All time limits within which any matter herein specified is to be performed may be extended by mutual agreement of the Parties hereto. Any amendment of, or supplement to, any instructions must be in writing.

TIME IS OF THE ESSENCE IN THESE INSTRUCTIONS AND ESCROW IS TO CLOSE AS SOON AS POSSIBLE. If (except for deposit of money by Buyer, which shall be made by Buyer upon demand of Escrow Agent before Close of Escrow) this escrow is not in condition to close within forty-five (45) days from date of these instructions, any party who then shall have fully complied with his instructions may, in writing, demand the return of his money or property; but if none have complied no demand for return thereof shall be recognized until five (5) days after Escrow Agent shall have mailed copies of such demand to all other Parties at the respective addresses shown in these escrow instructions, and if any objections are raised within said five (5) day period, Escrow Agent is authorized to hold all papers and documents until instructed by a court of competent jurisdiction or mutual instructions. If no demands are made, proceed with closing of this escrow as soon as possible.

Responsibility for Escrow Agent under this Agreement is expressly limited to Sections 1, 2, 3, 4, 5, 6, 7, 9, 10, and 17 and to its liability under any policy of title insurance issued in regard to this transaction.

6. <u>Temporary Construction Easement.</u> It is understood and agreed by and between Buyer and Seller that this agreement includes a Temporary Construction Easement with a term of six (6) months. Buyer and Seller must deliver executed, acknowledged counterparts of the Temporary Construction Easement to escrow.

Within the TCE Area exists an ADA Compliant concrete ramp connecting the City sidewalk to the Redondo Beach Shopping Center sidewalk in front of the Subway restaurant, as well as power panels and timers that service the shopping center. The City will be fully responsible for all costs and construction related to the replacement of the concrete ramp in compliance with all applicable codes, including any damage to the electrical panels, timers, concrete pad, wiring and conduit located within the TCE area if such facilities are damaged as a result of the construction of the Project by the City. In addition, City shall provide immediate temporary power in the event the power, water and sewer services to tenants is interrupted as a result

of construction during construction.

Should the City need to extend the Temporary Construction Easement to complete the construction of the project, City shall pay an extension fee of \$1,688 per month. Extensions shall be on a month-to-month basis.

- 7. <u>ESCROW FEES, CHARGES AND COSTS</u>. Buyer agrees to pay all Buyer's and Seller's usual fees, charges, and costs which arise in this escrow.
- 8. <u>NO TENANTS</u>. Seller represents and warrants that there are no tenants or written or oral leases on all or any portion of the Property other than to K&L Redondo Beach Partnership and Seller further agrees to hold Buyer harmless and reimburse Buyer for any and all of its losses and expenses, including relocation assistance costs, occasioned by reason of any undisclosed lease of said property held by any undisclosed tenant of Seller.
- 9. PERMISSION TO ENTER ON PREMISES. Seller hereby grants to Buyer, or its authorized agents, permission to enter upon the Property at all reasonable times prior to Close of Escrow for the purpose of making necessary or appropriate inspections. It is understood that the buyer and its contractors will indemnify the undersigned and hold them harmless from any and all liability for bodily injury, death and property damage arising out of or in any way connected with such use, and reimburse the seller for all costs, expenses and loss, including attorney's fees, incurred by them in consequence of any claims, demands and causes of action which may be made or brought against them arising out of such use. Buyer has the right to disapprove the condition of the Property as a result of any inspection and terminate this Agreement.

#### 10. <u>INTENTIONALLY DELETED</u>

- 11. <u>CLOSING STATEMENT</u>. Seller instructs Escrow Agent to release a copy of Seller's statement to Buyer and to their agent, Property Specialists, Inc. (CPSI); purpose being to ascertain if any reimbursements are due Seller.
- 12. LOSS OR DAMAGE TO IMPROVEMENTS. Loss or damage to the real property or any improvements thereon, by fire or other casualty, occurring prior to the recordation of the Deed shall be at the risk of Seller. In the event that loss or damage to the real property or any improvements thereon, by fire or other casualty, occurs prior to the recordation of the Deed, Buyer may elect to require that the Seller pay to Buyer the proceeds of any insurance which may become payable to Seller by reason thereof, or to permit such proceeds to be used for the restoration of the damage done, or to reduce the total price by an amount equal to the diminution in value of said property by reason of such loss or damage or the amount of insurance payable to Seller, whichever is greater.
- 13. <u>WARRANTIES</u>, <u>REPRESENTATIONS</u>, <u>AND COVENANTS OF SELLER</u>. Seller hereby warrants, represents, and/or covenants to Buyer that:
  - A. To the best of Seller's knowledge, there are no actions, suits, material claims, legal proceedings, or any other proceedings affecting the property or any portion thereof, at law, or in equity before any court or

- governmental agency, domestic or foreign.
- B. To the best of Seller's knowledge, there are no encroachments onto the property by improvements on any adjoining property, nor do any buildings or improvements encroach on other properties.
- C. Until the closing, Seller shall maintain the property in good condition and state of repair and maintenance, and shall perform all of its obligations under any service contracts or other contracts affecting the property.
- D. Until the closing, Seller shall not do anything which would impair Seller's title to any of the property.
- E. To the best of Seller's knowledge, neither the execution of this Agreement nor the performance of the obligations herein will conflict with, or breach any of the provisions of any bond, note, evidence of indebtedness, contract, lease, or other agreement or instrument to which Seller's property may be bound.
- F. Until the closing, Seller shall, upon learning of any fact or condition which would cause any of the warranties and representations in these Warranties, Representations, and Covenants of Seller Section not to be true as of closing, immediately give written notice of such fact or condition to Buyer.
- HAZARDOUS WASTE. Neither Seller nor, to the best of Seller's knowledge, any 14. previous owner, tenant, occupant, or user of the Property used, generated, released, discharged, stored, or disposed of any hazardous waste, toxic substances, or related materials ("Hazardous Materials") on, under, in, or about the Property, or transported any Hazardous Materials to or from the Property. Seller shall not cause or permit the presence, use, generation, release, discharge, storage, or disposal of any Hazardous Materials on, under, in, or about, or the transportation of any Hazardous Materials to or from, the Property. The term "Hazardous Material" shall mean any substance, material, or waste which is or becomes regulated by any local governmental authority, the State of California, or the United States Government, including, but not limited to, any material or substance which is (i) defined as a "hazardous waste", "extremely hazardous waste", or "restricted hazardous waste" under Section 25115, 25117 or 25122.7, or listed pursuant to Section 25140 of the California Health and Safety Code, Division 20, Chapter 6.5 (Hazardous Waste Control Law), (ii) defined as "hazardous substance" under Section 25316 of the California Health and Safety Code, Division 20, Chapter 6.8 (Carpenter-Presley-Tanner Hazardous Substance Account Act), (iii) defined as a "hazardous material", "hazardous substance", or "hazardous waste" under Section 25501 of the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory), (iv) defined as a "hazardous substance" under Section 25281 of the California Health and Safety Code, Division 20, Chapter 6.7 (Underground Storage of Hazardous Substances), (v) petroleum, (vi) asbestos, (vii) polychlorinated biphenyls, (viii) listed under Article 9 or defined as "hazardous" or "extremely hazardous" pursuant to Article 11 of Title 22 of the California Administrative Code, Division 4, Chapter 20, (ix) designated as a "hazardous substances" pursuant to Section 311

of the Clean Water Act, (33 U.S.C. Section 1317), (x) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. (42 U.S.C. Section 6903) or (xi) defined as a "hazardous substances" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, as amended by Liability Act, 42. U.S.C. Section 9601 et seq. (42 U.S.C. Section 9601).

- 15. <u>COMPLIANCE WITH ENVIRONMENTAL LAWS</u>. To the best of Seller's knowledge the Property complies with all applicable laws and governmental regulations including, without limitation, all applicable federal, state, and local laws pertaining to air and water quality, hazardous waste, waste disposal, and other environmental matters, including, but not limited to, the Clean Water, Clean Air, Federal Water Pollution Control, Solid Waste Disposal, Resource Conservation Recovery and Comprehensive Environmental Response Compensation and Liability Acts, and the California Environment Quality Act, and the rules, regulations, and ordinances of the city within which the subject property is located, the California Department of Health Services, the Regional Water Quality Control Board, the State Water Resources Control Board, the Environmental Protection Agency, and all applicable federal, state, and local agencies and bureaus.
- INDEMNITY. To the fullest extent permitted by law, Seller agrees to indemnify, defend and hold Buyer harmless from and against any claim, action, suit, proceeding, loss, cost, damage, liability, deficiency, fine, penalty, punitive damage, or expense (including, without limitation, attorneys' fees), resulting from, arising out of, or based upon (i) the presence, release, use, generation, discharge, storage, or disposal of any Hazardous Material on, under, in or about, or the transportation of any such materials to or from, the Property, or (ii) the violation, or alleged violation, of any statute, ordinance, order, rule, regulation, permit, judgment, or license relating to the use, generation, release, discharge, storage, disposal, or transportation of Hazardous Materials on, under, in, or about, to or from, the Property. This indemnity shall include, without limitation, any damage, liability, fine, penalty, punitive damage, cost, or expense arising from or out of any claim, action, suit or proceeding for personal injury (including sickness, disease, or death, tangible or intangible property damage, compensation for lost wages, business income, profits or other economic loss, damage to the natural resource or the environment, nuisance, pollution, contamination, leak, spill, release, or other adverse effect on the environment). This indemnity extends only to contamination existing at the Property prior to the date this escrow shall close.
- 17. <u>CONTINGENCY</u>. It is understood and agreed between the Parties hereto that the completion of this transaction, and the escrow created hereby, is contingent upon the specific acceptance and approval of the Buyer herein.

The terms and conditions, covenants, and agreements set forth herein shall apply to and bind the heirs, executors, administrators, assigns and successors of the Parties hereto.

This Agreement contains the entire agreement between both Parties, neither party relies upon any warranty or representation not contained in this Agreement.

#### 18. LEFT INTENTIONALLY BLANK

19. <u>SETTLEMENT, WAIVER AND RELEASE</u>. Excepting those obligations on Buyer's part as set forth herein, Seller for itself and for its agents, successors and assigns fully waives, releases, acquits and discharges Buyer and its officers, officials, council members, employees, attorneys, accountants, other professionals, insurers, and agents, and all entities, boards, commissions, and bodies related to any of them (collectively, the "Released Parties") from all claims that Seller and its agents, successors and assigns has or may have against the Released Parties arising out of or related to Buyer's acquisition of the Property, including, without limitation, compensation for the loss of improvements, including improvements pertaining to the realty, furniture, fixture, and equipment; compensation for business goodwill, or lost income (past or future); compensation for damages to the remainder (i.e., severance damages); economic or consequential damages; professional consultant fees and attorney's fees and costs; precondemnation damages; any right to repurchase, leaseback from Buyer, or receive any financial gain from, the sale of any portion of the Interests; any right to relocation benefits under California relocation benefit laws; any right to enforce obligation(s) placed upon Buyer pursuant to Code of Civil Procedure sections 1245.245 and 1263.615; any rights conferred upon Seller pursuant to Code of Civil Procedure sections 1245.245 and 1263.615 and 1263.025; and all other costs, and any and all compensable interests, and/or damages, and/or claims, of any kind and nature, claimed or to be claimed, suffered or to be suffered, by Seller, its agents, successors and assigns by reason of the Buyer's acquisition of the Property, provided that nothing herein shall release claims of Seller for any liability resulting from the Buyer's breach of any agreement, warranty, or covenant for which it is responsible under this Agreement. This waiver does not apply to any claims for damage or injury to any person or property arising from the construction of the Project due to the negligence or willful misconduct of the Buyer's agents or contractors constructing the Project. This paragraph shall survive the Close of Escrow.

Seller, on behalf of itself and its agents, successors and assigns, expressly waives all rights under Section 1542 of the Civil Code of the State of California ("Section 1542"), or any other federal or state statutory rights or rules, or principles of common law or equity, or those of any jurisdiction, government, or political subdivision thereof, similar to Section 1542 (hereinafter referred to as a "Similar Provision"). Thus, Seller and its agents, successors and assigns, and any business, enterprise, or venture in which they are involved, may not invoke the benefits of Section 1542 or any Similar Provision in order to prosecute or assert in any manner the matters released in Section 14 above. Section 1542 provides as follows:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

Seller's Initials:		
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#### 20. MISCELLANEOUS

1. <u>Survival</u>. Any warranties, representations, promises, covenants, agreements, and indemnifications that this Agreement does not require to be fully performed prior to Close of Escrow shall survive Close of Escrow and shall be fully enforceable after Close of Escrow in accordance with their terms.

- Waiver, Consent and Remedies. Each provision of this Agreement to be performed by the Buyer and Seller shall be deemed both a covenant and a condition and shall be a material consideration for Seller' and the Buyer's performance hereunder, as appropriate, and any breach thereof by the Buyer or Seller shall be deemed a material default hereunder. Either party may specifically and expressly waive in writing any portion of this Agreement or any breach thereof, but no such waiver shall constitute a further or continuing waiver of a preceding or succeeding breach of the same or any other provision. A waiving party may at any time thereafter require further compliance by the other party with any breach or provision so waived. The consent by one party to any act by the other for which such consent was required shall not be deemed to imply consent or waiver of the necessity of obtaining such consent for the same or any similar acts in the future. No waiver or consent shall be implied from silence or any failure of a party to act, except as otherwise specified in All rights, remedies, undertakings, obligations, options, covenants, this Agreement. conditions and agreements contained in this Agreement shall be cumulative and no one of them shall be exclusive of any other. Except as otherwise specified herein, either party hereto may pursue any one or more of its rights, options or remedies hereunder or may seek damages or specific performance in the event of the other party's breach hereunder, or may pursue any other remedy at law or equity, whether or not stated in this Agreement.
- 3. Notices. All notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered, sent by reputable overnight courier, or sent by registered or certified mail, postage prepaid, return receipt requested, and shall be deemed received upon the earlier of: (i) if personally delivered, the date of delivery to the address of the person to receive such notice; (ii) if mailed, three business days after the date of posting by the United States post office; or (iii) if delivered by Federal Express or other overnight courier for next business day delivery, the next business day. Notice of change of address shall be given by written notice in the manner described in this Section 20. Rejection or other refusal to accept or the inability to deliver because of a change in address of which no notice was given shall be deemed to constitute receipt of the notice, demand, request or communication sent. Unless changed in accordance herewith, the addresses for notices given pursuant to this Agreement shall be as follows:

If to Seller: Redondo Beach Shopping Center

Attn: Craig Johnson 3615 Inglewood Avenue Redondo Beach, CA 90278

with a copy to: K & L Redondo Beach Partnership

Attn: Craig Johnson 1750 14<sup>th</sup> Street, Suite E Santa Monica, CA 90404

If to the Buyer: CITY OF REDONDO BEACH

Attn: Ted Semaan 415 Diamond Street

Redondo Beach, CA 90277

with a copy to:	

- 4. <u>Default</u>. Failure or delay by either party to perform any covenant, condition or provision of this Agreement within the time provided herein constitutes a default under this Agreement. The injured party shall give written notice of default to the party in default, specifying the default complained of. The defaulting party shall immediately commence to cure such default and shall diligently complete such cure within ten (10) days from the date of the notice. The injured party shall have the right to terminate this Agreement by written notice to the other party in the event of a default which is not cured within such ten-day period.
- 5. <u>Entire Agreement</u>. This Agreement and its exhibits constitute the entire agreement between the parties hereto pertaining to the subject matter hereof, and the final, complete and exclusive expression of the terms and conditions thereof. All prior agreements, representations, negotiations and understanding of the parties hereto, oral or written, express or implied, are hereby superseded and merged herein.
- 6. <u>Amendments</u>. No addition to or modification of any provision contained in this Agreement shall be effective unless fully set forth in writing by the Buyer and Seller.
- 7. <u>Counterparts</u>. This Agreement may be executed in any number of identical counterparts and each counterpart shall be deemed to be an original document. All executed counterparts together shall constitute one and the same document, and any counterpart signature pages may be detached and assembled to form a single original document. This Agreement may be executed by signatures transmitted by facsimile, adobe acrobat or other electronic image files and these signatures shall be valid, binding and admissible as though they were ink originals.
  - 8. <u>Time of Essence</u>. Time is of the essence of each provision of this Agreement.
- 9. <u>Legal Advice</u>. Each Party represents and warrants to the other the following: they have carefully read this Agreement, and in signing this Agreement, they do so with full knowledge of any right which they may have; they have received independent legal advice from their respective legal counsel as to the matters set forth in this Agreement, or have knowingly chosen not to consult legal counsel as to the matters set forth in this Agreement; and, they have freely signed this Agreement without any reliance upon any agreement, promise, statement or representation by or on behalf of the other party, or their respective agents, employees, or attorneys, except as specifically set forth in this Agreement, and without duress or coercion, whether economic or otherwise.
- 10. <u>Cooperation</u>. Each Party agrees to cooperate with the other in the closing of this transaction and, in that regard, to sign any and all documents which may be reasonably necessary, helpful, or appropriate to carry out the purposes and intent of this Agreement.
- 11. <u>Effective Date</u>. This Agreement shall become effective upon the full execution by the Parties (the "**Effective Date**").

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement the day and year set forth hereinabove.
BUYER:
CITY OF REDONDO BEACH
BY:
Print: William C. Brand
ITS: Mayor
MAILING ADDRESS OF BUYER:
415 Diamond Street Redondo Beach, CA 90277
APPROVED AS TO FORM

BY: Michael W. Webb, City Attorney

BY: \_\_\_\_\_ Eleanor Manzano, City Clerk

DATE: \_\_\_\_\_

**ATTEST** 

#### SELLER:

#### REDONDO BEACH SHOPPING CENTER, A JOINT VENTURE

#### MANDEL FAMILY PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

FRANK MANDEL EXEMPT TRUST under the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009	the ANNA MANDEL 2006 GRANTOR
Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:	Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:
SHIRLEY LEBOVICS EXEMPT TRUST und the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009	ler
Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:	
E.F.S. INVESTMENTS, A CALIFORNIA GEN	ERAL PARTNERSHIP
FRANK MANDEL, EVA WEISS, and SHIRL	EY LEBOVICS
Sign: Print: <u>FRANKLIN B. MANDEL, MEMBER</u>	
Sign: Print: <u>EVA WEISS, MEMBER</u>	
K & L REDONDO BEACH PARTNERSHIP	
Sign: Print: <u>STEVE LEONARD, General Partner</u> Date:	
MAILING ADDRESS OF SELLER:	
1750 14 <sup>th</sup> Street, Suite E Santa Monica, CA 90404	

**EXHIBIT "A"** 

**Grant Deed** 

Project:

Inglewood Avenue at Manhattan Beach
Boulevard Southbound Right-Hand Turn Lane

Recording requested by:

City Clerk of the City of Redondo Beach

WHEN RECORDED MAIL TO:

City of Redondo Beach 415 Diamond Street Redondo Beach, CA 90277

APN: 4149 -006-026

No charge for recording pursuant to Gov. Code Sec. 6103 Conveyance to a public entity. R&T 11922

#### **GRANT DEED**

## REDONDO BEACH SHOPPING CENTER, A JOINT VENTURE and K & L REDONDO BEACH PARTNERSHIP

(hereinafter collectively referred to as "Grantor") hereby grants to **City of Redondo Beach**, a **California Municipal Corporation** (hereinafter referred to as "City"), the following described interests in real property located in the County of Los Angeles, State of California:

**In Fee Simple**, all that portion of certain real property situated at 3615 Inglewood Avenue, City of Redondo Beach, County of Los Angeles, State of California, described as follows:

SEE LEGAL DESCRIPTION ATTACHED HERETO AND MADE A PART HEREOF IN EXHIBIT "A" AND DEPICTION IN EXHIBIT "B":

**GRANTOR:** 

#### REDONDO BEACH SHOPPING CENTER, A JOINT VENTURE

#### MANDEL FAMILY PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

FRANK MANDEL EXEMPT TRUST under the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009	EVA WEISS EXEMPT TRUST under the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009
Sign: Print: FRANKLIN B. MANDEL, Trustee Date:	Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:
SHIRLEY LEBOVICS EXEMPT TRUST under the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009	
Sign: Print: FRANKLIN B. MANDEL, Trustee Date:	

#### E.F.S. INVESTMENTS, A CALIFORNIA GENERAL PARTNERSHIP

FRANK MANDEL, EVA WEISS, and SHIRLEY	LEBOVICS		
Print: EVA WEISS, MEMBER	Sign: Print: FRANKLIN B. MANDEL, MEMBER Date:		
K & L REDONDO BEACH PARTNERSHIP	<b>)</b>		
Sign: Print: STEVE LEONARD, General Partner	Sign:Print: CRAIG JOHNSON, General Partner		

#### **EXHIBIT "A"**

#### LEGAL DESCRIPTION

#### **3615 INGLEWOOD AVENUE**

THAT PORTION OF LOT 12 OF SECTION 20, TOWNSHIP 3 SOUTH, RANGE 14 WEST, IN THE RANCHO SAUSAL REDONDO, IN THE CITY OF REDONDO BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE PARTITION MAP SHOWING PROPERTY FORMERLY OF THE REDONDO LAND COMPANY, AS FILED MAP NO. 140, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, AND ALSO DESCRIBED ON MEMORANDUM OF LEASE DOCUMENT, RECORDED MARCH 15, 1984, AS INSTRUMENT NO. 84-319764 OF OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OR SAID COUNTY, DESCRIBED AS FOLLOWS:

**COMMENCING** AT THE INTERSECTION OF THE EAST LINE OF SAID LOT 12 (BEING ALSO THE WEST LINE OF INGLEWWOD AVENUE, 40 FEET WIDE) WITH THE SOUTH LINE OF SAID LOT 12 (BEING ALSO THE NORTH LINE OF MANHATTAN BEACH BOULEVARD), AS SHOWN ON MAP OF TRACT NO. 11336, RECORDED IN BOOK 317, PAGES 35 TO 41 OF MAPS, RECORDS OF SAID COUNTY:

THENCE NORTHERLY ALONG SAID WESTERLY LINE OF INGLEWOOD AVENUE, NORTH 00° 01' 52" EAST, 155.29 FEET;

THENCE LEAVING SAID WESTERLY LINE, AND AT RIGHT ANGLE NORTH 89° 58' 08" WEST, 30.00 FEET TO THE WESTERLY RIGHT OF WAY LINE OF INGLEWOOD AVENUE, AS SHOWN ON TRACT NO. 42211, RECORDED IN BOOK 1004, PAGES 84 THROUGH 86 INCLUSIVE OF MAPS, RECORDS OF SAID COUNTY, AND ALSO THE **POINT OF BEGINNING.** 

THENCE LEAVING SAID WESTERLY RIGHT OF WAY LINE, NORTH 89° 49' 13" WEST, 6.50 FEET;

THENCE NORTH 00° 01' 52" EAST, 54.90 FEET, TO A POINT ON A TANGENT CURVE, CONCAVE EASTERLY, HAVING A RADIUS OF 125.00 FEET, THE RADIAL TO SAID POINT BEARS NORTH 89° 58' 08" WEST:

THENCE NORTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 09° 18' 46", AN ARC DISTANCE OF 20.32 FEET TO A POINT IN A TANGENT LINE:

THENCE LEAVING SAID CURVE, NORTHEASTERLY ALONG SAID TANGENT LINE, NORTH 09° 20' 38" EAST, 19.81 FEET TO A POINT ON A TANGENT CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 125.00 FEET, THE RADIAL TO SAID POINT BEARS NORTH 80° 39' 22" WEST;

THENCE LEAVING SAID LINE, NORTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 09° 18' 46", AN ARC DISTANCE OF 20.32 FEET TO SAID WEST LINE OF INGLEWOOD AVENUE;

THENCE LEAVING SAID CURVE, SOUTHERLY ALONG SAID WEST LINE, SOUTH 00° 01' 52" WEST, 114.91 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 552 SQUARE FEET MORE OR LESS.

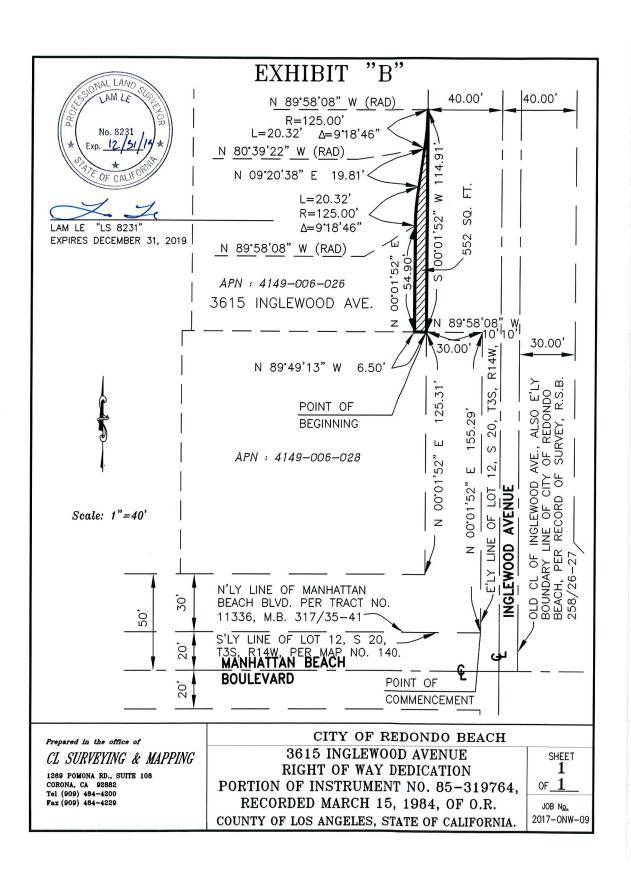
ALL AS SHOWN ON EXHIBIT "B" PLOT ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

PREPARED BY:

No. 8231 Exp. 12/31/15/\*

LAM LE, P.L.S. No. 8231, EXP. 12/31/2019

October 26, 2018 DATE



(County of	)			
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behalf of which the I certify und of California that	der PENALTY OF PE	RJURY under t	the laws of the S	tate
WITNESS my ha	and and official s	seal.		
Signature			(Seal)	

(County of	)		
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I certify und of California tha	der PENALTY OF PER t the foregoing pa			at∈
WITNESS my ha	and and official s	seal.		
Signature			(Seal)	

(County of)	
<pre>person(s) whose name(s) is/a and acknowledged to me that his/her/their authorized cap signature(s) on the instrume</pre>	(insert name and title of the officer)
<del>-</del>	OF PERJURY under the laws of the State oing paragraph is true and correct.
Signature	(Seal)

(County of	)		
Notary Public, per who proved to me of person(s) whose not and acknowledged his/her/their autisignature(s) on the	, 2021, before mersonally appeared _ on the basis of sate ame(s) is/are subseto me that he/she/thorized capacity(in the instrument the parson(s) acted,	(insert name and title tisfactory evident cribed to the with they executed the es), and that by person(s), or the	ce to be the hin instrument same in his/her/their entity upon
of California tha	der PENALTY OF PERC t the foregoing par and and official se	ragraph is true a	
Signature		(S	eal)

(County of	)		
who proved to me of person(s) whose national acknowledged the his/her/their authorized signature(s) on the signature of the s	, 2021, before me rsonally appeared on the basis of sat: ime(s) is/are subsc: to me that he/she/the forized capacity(iest the instrument the page person(s) acted,	isfactory evid ribed to the w hey executed t s), and that b erson(s), or t	ence to be the ithin instrument he same in y his/her/their he entity upon
of California that	ler PENALTY OF PERJU the foregoing para	agraph is true	
Signature		-	(Seal)

(County of	)			
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I certify u of California th	the person(s) act under PENALTY OF P lat the foregoing hand and official	ERJURY under t paragraph is t	he laws of t	the State
Signaturo			(502])	

#### PUBLIC WORKS DEPARTMENT - ENGINEERING SERVICES DIVISION

#### CERTIFICATE OF ACCEPTANCE

(GOVERNMENT CODE SECTION 27281)

#### **EXHIBIT "B"**

#### **Temporary Construction Easement**

Project:

Inglewood Avenue at Manhattan Beach Boulevard Southbound Right-Hand Turn Lane

Recording requested by:
City Clerk of the City of Redondo Beach

WHEN RECORDED MAIL TO:

City of Redondo Beach 415 Diamond Street Redondo Beach, CA 90277

FREE RECORDING REQUESTED – Essential to acquisition
City of Redondo Beach – See Gov't Code 6103
DOCUMENTARY TRANSFER TAX \$ NONE

Portion of A.P. No. 4149-006-026

#### TEMPORARY CONSTRUCTION EASEMENT

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

#### REDONDO BEACH SHOPPING CENTER, A JOINT VENTURE and K &L REDONDO BEACH PARTNERSHIP

hereinafter collectively termed Grantor, does hereby grant to the CITY OF REDONDO BEACH, a municipal corporation, hereinafter termed Grantee, an exclusive easement for ingress, egress and construction purposes, including but not limited to the use of the easement by Grantee and its officers, employees, agents, contractors and subcontractors, for the removal, clearance, grading, and construction of roadway improvements, or other necessary uses, in connection with the project over that certain real property (the "Property") situated in the City of Redondo Beach, County of Los Angeles, State of California, as depicted on Exhibit "A" attached hereto and incorporated herein by reference.

The Grantee agrees to restore or have restored the temporary construction easement area as reasonably as possible to the pre-existing condition or to a condition mutually agreed upon within a reasonable time.

Grantee shall be responsible for any accident occurring on the Property during the term of this easement caused by Grantee's negligent use of the Property or by the negligent acts or conduct of its officers, employees, agents, contractors or subcontractors. It is further understood and agreed that this easement shall extend for a period of six (6) months commencing at the recordation of the Easement. Grantee shall provide Grantor written notice upon recordation to confirm commencement date.

In the event Grantee is unable to complete the Project before the expiration of the Temporary Construction Easement period, Grantor shall grant Grantee extensions of the Temporary Construction Easement on a month-to-month basis. The Extension Period will begin upon written notice provided by the Grantee to the Grantor. Written notice may be provided by personal delivery, U.S. Mail, or via email, and will state the additional the number of months required to complete the project. The compensation for any such Temporary Construction Easement extension shall be in the amount of \$1,688 and will be paid for each monthly period the TCE is extended, to be paid upon Grantee notification to Grantor of the need for an extension.

SEE DEPICTION ATTACHED HERETO AND MADE A PART HEREOF IN EXHIBIT "A" **GRANTOR**:

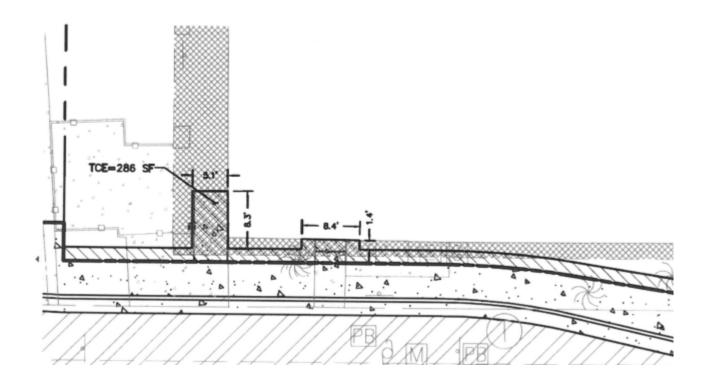
#### REDONDO BEACH SHOPPING CENTER, A JOINT VENTURE

#### MANDEL FAMILY PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

FRANK MANDEL EXEMPT TRUST under	EVA WEISS EXEMPT TRUST
the ANNA MANDEL 2006 GRANTOR	under the ANNA MANDEL 2006
TRUST, dated May 1, 2009	GRANTOR TRUST, dated May 1, 2009
Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:	Sign:Print: FRANKLIN B. MANDEL, Trustee Date:
SHIRLEY LEBOVICS EXEMPT TRUST und the ANNA MANDEL 2006 GRANTOR TRUST, dated May 1, 2009	ler
Sign: Print: <u>FRANKLIN B. MANDEL, Trustee</u> Date:	
E.F.S. INVESTMENTS, A CALIFORNIA GENE	ERAL PARTNERSHIP
FRANK MANDEL, EVA WEISS, and SHIRL	EY LEBOVICS
Sign: Print: <u>FRANKLIN B. MANDEL, MEMBER</u> Date:	
Sign: Print: EVA WEISS, MEMBER Date:	
K & L REDONDO BEACH PARTNERSHIP	
Sign: Print: <u>STEVE LEONARD, General Partner</u> Date:	Sign: Print: <u>CRAIG JOHNSON, General Partner</u> Date:

#### **EXHIBIT A**

#### **Depiction of TCE Area**



of California that the foregoing paragraph is true and correct.

I certify under PENALTY OF PERJURY under the laws of the State

(County of)	
On, 2021, before me, (insert name and title of the office	
Notary Public, personally appeared	cer)
who proved to me on the basis of satisfactory evidence to be person(s) whose name(s) is/are subscribed to the within inst	
and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/	
signature(s) on the instrument the person(s), or the entity behalf of which the person(s) acted, executed the instrument	upon

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

(County of	)		
On	, 2021, before		
		,	title of the officer)
Notary Public, per	rsonally appeare	ed .	,
who proved to me	on the basis of	satisfactory ev	idence to be the
person(s) whose na	ame(s) is/are su	bscribed to the	within instrument
and acknowledged	to me that he/sh	e/they executed	the same in
his/her/their auth	norized capacity	(ies), and that	by his/her/their

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

(County	of	

On \_\_\_\_\_, 2021, before me, \_\_\_\_\_(insert name and title of the officer)

Notary Public, personally appeared \_\_\_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

(County	of	 		_ )			
On		,	2021,	before	me,		

Notary Public, personally appeared \_\_\_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

(insert name and title of the officer)

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

(County	of	 )

Notary Public, personally appeared \_\_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

(County of	)	
On	, 2021, before me,	•
		(insert name and title of the officer)
Notary Public, per	rsonally appeared	,
who proved to me of	on the basis of sat:	isfactory evidence to be the
<del>-</del>		ribed to the within instrumen
and acknowledged t	to me that he/she/th	ney executed the same in
_		s), and that by his/her/their
signature(s) on th	ne instrument the pe	erson(s), or the entity upon
behalf of which th	ne person(s) acted,	executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



#### CITY OF REDONDO BEACH

PUBLIC WORKS DEPARTMENT - ENGINEERING SERVICES DIVISION

#### CERTIFICATE OF ACCEPTANCE

(GOVERNMENT CODE SECTION 27281)

THIS IS TO CERTIFY THAT THOSE CERTAIN INTERESTS IN THAT CERTAIN REAL PROPERTY
CONVEYED BY THE ATTACHED EASEMENT, DATED, 2021, FOR PUBLIC
STREETS AND HIGHWAYS PURPOSES AND ALL INCIDENTALS THEREOF, FROM REDONDO BEACH
SHOPPING CENTER, A JOINT VENTURE, CURRENT RECORD OWNERS OF SAID REAL PROPERTY, TO
THE CITY OF REDONDO BEACH, A MUNICIPAL CORPORATION OF LOS ANGELES COUNTY, STATE OF
CALIFORNIA, ITS SUCCESSORS AND ASSIGNS, HEREINAFTER REFERRED TO AS "GRANTEE", IS
HEREBY ACCEPTED BY THE CITY ENGINEER ON BEHALF OF THE CITY COUNCIL OF THE CITY OF
REDONDO BEACH, PURSUANT TO AUTHORITY CONFERRED BY RESOLUTION NO. 7510 OF REDONDO
BEACH CITY COUNCIL, ADOPTED ON SEPTEMBER 22, 1992, AND THE GRANTEE CONSENTS TO
RECORDATION THEREOF BY ITS DULY AUTHORIZED OFFICER.
ACCEPTED BY:
DATED.
DATED:
ANDREW S. WINJE, P.E.
CITY ENGINEER



## Administrative Report

H.10., File # 21-1943 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

#### TITLE

APPROVE THE 2021 BUDGET CALENDAR

#### **EXECUTIVE SUMMARY**

The City conducts its budgeting and financial reporting through an annual cycle of events and actions. The attached budget calendar details the 2021 annual cycle.

#### **BACKGROUND**

Staff has developed the attached 2021 budget calendar to communicate significant dates related to the current as well as the next year's budget. During calendar year 2021, those dates are regarding the Fiscal Year 2020-2021 and the Fiscal Year 2021-2022 budgets. The calendar reflects the tentative timing of the strategic plan, budget outreach, and, of course, City Council review/discussions.

#### COORDINATION

The 2021 Budget Calendar was coordinated with the Financial Services Department and the City Manager's Office.

#### FISCAL IMPACT

The total cost for this activity is included in the Fiscal Year 2020-2021 Adopted Budget and is part of the department's annual work program.

#### **APPROVED BY:**

Joe Hoefgen, City Manager

#### **ATTACHMENTS**

2021 Budget Calendar

#### City of Redondo Beach 2021 BUDGET CALENDAR

T 10 . 2021	2021 D. L. J. G. L. J. A. J. J.
January 19, 2021	2021 Budget Calendar Approval
Feb/Mar/Apr 2021	FY 2021-2022 Budget & CIP Commission Feedback
February 11, 2021	FY 2020-2021 Midyear Budget Review with Budget & Finance Commission
February 16, 2021	FY 2020-2021 Midyear Budget Report
February 16, 2021	FY 2021-2022 CIP Budget Priorities Review
February 16, 2021	City Treasurer's Update on Investments and Economic Trends
February 16, 2021	Strategic Plan Monthly Update
March 2021	Commission Input for Strategic Plan
March 16, 2021	Strategic Plan Monthly Update
April 20, 2021	Strategic Plan Monthly Update
April 26, 2021	Presentation of FY 2021-2022 CIP to Joint Budget & Finance and Public Works Commissions
TBD	Strategic Plan Workshop
May 14, 2021	FY 2021-2022 Proposed Budget and CIP Budget Delivered to Mayor and City Council
May 16, 2021	FY 2021-2022 Proposed Budget and CIP Budget Delivered to Mayor and City Council - Charter Date
May 18, 2021	FY 2021-2022 Proposed Budget and CIP Budget Received and Filed / Budget Challenges Discussion
May 18, 2021	FY 2021-2022 Proposed Budget Public Hearing Date Set
May 18, 2021	City Treasurer's Update on Investments and Economic Trends
May 18, 2021	Strategic Plan Adoption
May 20, 2021	Fiscal Year 2021-2022 CIP Review for Consistency with General Plan by Planning Commission
May 27, 2021	City Manager FY 2021-2022 Proposed Budget Review with Budget & Finance Commission
June 1, 2021	FY 2021-2022 Proposed Budget & CIP Public Hearing
June 8, 2021	FY 2021-2022 Proposed CIP Review
June 10, 2021	City Manager FY 2021-2022 Proposed Budget Review with Budget & Finance Commission
June 15, 2021	FY 2021-2022 Budget and CIP Adoption
June 15, 2021	Strategic Plan Monthly Update
July 1, 2021	New Fiscal Year Begins
July 20, 2021	Strategic Plan Monthly Update
August 17, 2021	City Treasurer's Update on Investments and Economic Trends
August 17, 2021	Strategic Plan Monthly Update
September 2021	Commission Input for Strategic Plan
September 30, 2021	Adopted FY 2021-2022 Budget Document Printed
October 2021	Strategic Plan Workshop
November 16, 2021	City Treasurer's Update on Investments and Economic Trends
November 16, 2021	Budget Carryovers from FY 2020-2021 to Fiscal Year 2021-2022
November 16, 2021	FY 2020-2021 General Fund Balance Reserves and Designations
November 16, 2021	Strategic Plan Adoption
December 9, 2021	FY 2020-2021 Comprehensive Annual Financial Report (CAFR) Review w/ Audit Committee
December 9, 2021	FY 2020-2021 Comprehensive Annual Financial Report (CAFR) Review w/ Budget and Finance Commission
December 21, 2021	FY 2020-2021 Comprehensive Annual Financial Report (CAFR) Received and Filed
December 21, 2021	Strategic Plan Monthly Update
2	- · · · · · · · · · · · · · · · · · · ·



### Administrative Report

H.11., File # 21-1953 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKS DIRECTOR

#### **TITLE**

APPROVE AMENDMENT #4 TO FUNDING AGREEMENT NO. FA.P00F3502 BETWEEN THE CITY OF REDONDO BEACH AND THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (METRO) FOR THE REDONDO BEACH BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PROJECT, AWARDED THROUGH THE METRO 2009 CALL FOR PROJECTS AND APPROVE PLANS AND SPECIFICATIONS FOR THE REDONDO BEACH BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PROJECT, JOB NO. 40940-40945 AND AUTHORIZE THE CITY CLERK TO ADVERTISE THE PROJECT FOR COMPETITIVE BIDS UPON COMPLETION OF E-76 AUTHORIZATION PROCESS

#### **EXECUTIVE SUMMARY**

On September 24, 2009 the Los Angeles County Metropolitan Transportation Authority (Metro) Board approved the Metro 2009 Call for Projects, allocating \$1,558,860 in Federal Congestion Mitigation Air Quality (CMAQ) Funds to the Redondo Beach Bicycle Transportation Plan Implementation Project. To receive those funds, the City approved a funding agreement with Metro on May 21, 2013. Due to a shortfall in regional Metro funds, Metro required the City to apply for State Active Transportation Grant funding prior to releasing any previously approved funds to the City. That effort was unsuccessful and delayed the project for over two years.

The original funding agreement had a project completion date of June 30, 2016. Metro approved Amendment #1 that included a two-year extension until June 30, 2018. That Amendment was approved by the City Council on May 3, 2016. Amendment #2, extending the completion date to June 30, 2019, was approved by the City Council on February 19, 2019. Amendment #3, extending the completion date to June 30, 2020 was approved by the City Council on April 7, 2020. Amendment #4, extending the completion date to June 30, 2021 has been approved by Metro and is now ready for City Council approval.

The final set of bicycle facility improvements included in the plans are attached to this report as Attachment 6. Plans and specifications for the project are now ready to be sent to Caltrans for Authorization to Proceed (Caltrans E-76). Once that approval is received, the project will be ready for advertisement for competitive bidding. Staff is seeking approval of plans and specifications for the project, with the understanding that staff may need to make minor modifications pending the Caltrans E-76 review, and authorization to advertise upon completion of that process. The Engineer's construction cost estimate is \$617,000.

H.11., File # 21-1953 Meeting Date: 1/19/2021

#### **BACKGROUND**

Historically, Metro conducted a biannual competitive Call for Projects (CFP) to program various federal, state, and local transportation funds for regionally significant transportation projects. The 2009 CFP programmed funds for five years, starting in Fiscal Year (FY) 2010-11. On September 24, 2009 the Los Angeles County Metropolitan Transportation Authority (Metro) Board approved the Metro 2009 Call for Projects, allocating \$1,558,860 in Federal Congestion Mitigation Air Quality (CMAQ) Funds to the Redondo Beach Bicycle Transportation Plan Implementation Project.

The Redondo Beach Bicycle Transportation Plan Implementation Project, Call for Projects No. F3502, includes the installation of signs, street markings, and video detection cameras for new bicycle facilities on streets throughout the City including Torrance Boulevard, Beryl Street, Lilienthal Lane, Catalina Avenue, and Avenue I (See project maps in the attached original Funding Agreement). Metro allocated \$1,558,860 in Federal Congestion Mitigation Air Quality (CMAQ) Funds to the project, and the City programmed \$389,715 in City Proposition C Local Return Funds as the local match, for a project total of \$1,948,575. To receive the funds, the City approved a funding agreement with Metro on May 21, 2013. Due to a shortfall in regional Metro funds, Metro required the City to apply for State Active Transportation Grant funding prior to releasing any previously approved funds to the City. That effort was unsuccessful and delayed the project for over two years until Metro released the original CMAQ Funds.

The original funding agreement had a project completion date of June 30, 2016. Metro approved Amendment #1 that included a two-year extension until June 30, 2018. That Amendment was approved by the City Council on May 3, 2016. Amendment #2, extending the completion date to June 30, 2019, was approved by the City Council on February 19, 2019. Amendment #3, extending the completion date to June 30, 2020 was approved by the City Council on April 7, 2020. Amendment #4, extending the completion date to June 30, 2021 has been approved by Metro and is now ready for City Council approval.

On January 16, 2020, the City authorized on-call consultant DBE Consulting, LLC (DBE) to facilitate oversite and implementation of the grant including tasks to develop the project scope of work, secure regulatory permitting, complete grant reporting, and develop RFPs for professional engineering and environmental services.

On August 12, 2020, the City authorized on-call consultant AGA Engineers, Inc. (AGA) to develop a construction-ready bid package for the project including plans, specifications and construction cost estimate.

The scope of work and preliminary design of the project was included in a presentation on the status of the South Bay Bicycle Master Plan (SBBMP) that was given to the Public Works Commission (PWC) on September 28, 2020. The PWC received a report on the status of the South Bay Bicycle Master Plan (SBBMP) and the tradeoffs inherent in determining how to design facilities into a built-out community. Their input included considerations of safety as a prioritization tool for SBBMP implementation, connectivity to City destinations and transit hubs, pursuit of grants as a funding source for future projects, the role of real estate acquisition to widen rights-of-way, and coordination of routes with other cities. On October 20, 2020, Staff presented a similar report to the City Council.

The final set of bicycle facility improvements included in the plans are attached to this report as Attachment 6. Plans and specifications for the project are ready for Caltrans E-76 review followed by competitive bidding. The Engineer's construction cost estimate is \$617,000. Bidding and construction of the project will occur after receipt of Caltrans E-76 approval which is expected to take several months.

#### COORDINATION

Amendment #4 has been approved as to form by the City Attorney's office. Development of project Plans and Specifications was coordinated by the Public Works Department. Input was provided by the Public Works Commission.

#### **FISCAL IMPACT**

The cost associated with preparing and reviewing the Amendment is included in the Department's adopted FY 2020-21 Annual Budget.

 Funding:
 Expenditures:

 Metro Call for Projects Grant
 \$1,558,860
 Construction
 \$1,693,575

 Local Prop C Funds
 \$389,715
 Project Mgmt/Design
 \$255,000

 Total
 \$1,948,575
 Total
 \$1,948,575

#### **APPROVED BY:**

Joe Hoefgen, City Manager

#### **ATTACHMENTS**

- Amendment #4
- 2. Amendment #3
- 3. Amendment #2
- 4. Amendment #1
- 5. RB Bicycle Transportation Plan Implementation Project, Funding Agreement No. FA.P00F3502
- 6. List of bike facility improvements included in the project

Rev: 09.30.20

## AMENDMENT NO. 4 LETTER OF AGREEMENT BETWEEN CITY OF REDONDO BEACH AND

#### THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

This Amendment No. 4 to Letter of Agreement (this "Amendment"), is dated as of October 1, 2020, by and between City of Redondo Beach ("Project Sponsor"), and the Los Angeles County Metropolitan Transportation Authority ("LACMTA").

#### **RECITALS:**

- A. Project Sponsor and LACMTA entered into that certain Letter of Agreement No. LOA.P00F3502, dated December 27, 2012, which was amended on February 12, 2016, November 1, 2018, and February 1, 2019 (as amended, the "Existing LOA"), which Existing LOA provides for the Redondo Beach Bicycle Transportation Plan Implementation ("the Project"); and
- B. Whereas, LACMTA Board on August 27, 2020, desires to extend the lapsing date of Funds programmed for Fiscal Year (FY) 2015-16 to June 30, 2021; and
- C. Project Sponsor and LACMTA desire to amend the Existing LOA as provided herein.

Rev: 09.30.20

#### AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

- 1. Part II, Paragraph 6.1(ii) of the Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following: "Funds programmed for Programmed Year FY 2015-16 are subject to lapse on June 30, 2021. Project Sponsor shall allocate or obligate these Funds by the lapsing date."
- 2. Attachment B Scope of Work, attached to the Existing LOA is hereby amended by deleting the Project Schedule and replacing it with the following Revised Project Schedule:

LOA Milestones		t #1 Revised Schedule	Revised Proj	ect Schedule
	Start Date	End Date	Start Date	End Date
Environmental Clearance	5/2016	9/2016	1/2020	12/2020
Obtain Authorization to Proceed from Caltrans for Design	N/A	N/A	N/A	N/A
Design Bid & Award	10/2016	1/2017	8/2020	10/2020
Design	1/2017	6/2017	10/2020	1/2021
Right-of-Way Acquisition	N/A	N/A	N/A	N/A
Obtain Authorization to Proceed from Caltrans for Construction	N/A	N/A	2/2021	5/2021
Construction Bid & Award	7/2017	10/2017	6/2021	9/2021
Construction	10/2017	3/2018	9/2021	1/2022
Total Project Duration (Months)	2	3	2.5	5

3. Except as expressly amended hereby, the Existing LOA remains in full force and effect as originally executed. All rights and obligations of the parties under the Existing LOA that are not expressly amended by this Amendment shall remain unchanged.

Rev: 09.30.20

LOS ANGELES COUNTY

METROPOLITAN TRANSPORTATION AUTHORITY

IN WITNESS WHEREOF, the parties have caused this Amendment No. 4 to be duly executed and delivered as of the above date.

Ву:	Date:
Phillip A. Washington Chief Executive Officer	
APPROVED AS TO FORM:	
RODRIGO CASTRO-SILVA Acting County Counsel	
By: Deputy	Date: 12/2/2020
CITY OF REDONDO BEACH	
By:	_ Date:
APPROVED AS TO FORM:	
By:  Michael W. Webb  City Attorney	Date:
ATTEST:	
By: Eleanor Manzano, City Clerk	_

3



May 14, 2020

Brad Lindahl Capital Project Program Manager CITY OF REDONDO BEACH 415 Diamond Street Redondo Beach, CA 90277

RE: F3502 - Redondo Bch Bicycle Transp. Imp. Plan - Amendment #3

#### Dear Lindahl:

Enclosed is a fully executed amended funding agreement for the above referenced project. The agreement, between Metro and the City of Redondo, provides CMAQ funds for the project.

With this agreement, the County can incur costs and submit to Metro reimbursement requests of CMAQ funds for eligible expenses described in the scope of work. Please keep us apprised of the project's progress via Quarterly Progress Reports, which are due on February 28, May 31, August 31, and November 30 of each year.

Should you have any questions, please contact me at (213) 922-2558.

Sincerely,

Michael Richmai Senior Manager

## AMENDMENT NO. 3 LETTER OF AGREEMENT BETWEEN CITY OF REDONDO BEACH AND

#### THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

This Amendment No. 3 to Letter of Agreement (this "Amendment"), is dated as of February 1, 2019, by and between City of Redondo Beach ("Project Sponsor"), and the Los Angeles County Metropolitan Transportation Authority ("LACMTA").

#### **RECITALS:**

- A. Project Sponsor and LACMTA entered into that certain Letter of Agreement No. LOA.P00F3502, dated December 27, 2012, which was amended on February 12, 2016 and November 1, 2018 (as amended, the "Existing LOA"), which Existing LOA provides for the Redondo Beach Bicycle Transportation Plan Implementation, ("the Project"); and
- B. Whereas, LACMTA Board on July 25, 2019, desires to extend the lapsing date of Funds programmed for Fiscal Year (FY) 2015-16 to June 30, 2020; and
- C. Project Sponsor and LACMTA desire to amend the Existing LOA as provided herein.



#### AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

- 1. Part II, Paragraph 6.1(ii) of the Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following: "Funds programmed for Programmed Year FY 2015-16 are subject to lapse on June 30, 2020. Project Sponsor shall allocate or obligate these Funds by the lapsing date."
- 2. Part II, Paragraph 8 of Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following:

#### "8 COMMUNICATIONS:

- 8.1 Project Sponsor shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project as more particularly set forth in "Funding Recipient Communications Guidelines" available at <a href="http://metro.net/partners-civic">http://metro.net/partners-civic</a>. The Funding Recipient Communications Guidelines may be changed from time to time during the course of this Agreement. Project Sponsor shall be responsible for complying with the latest Funding Recipient Communications Guidelines during the term of this Agreement, unless otherwise specifically authorized in writing by the LACMTA Chief Communications Officer.
- 8.2 For purposes of this Agreement, "Communications Materials" include, but are not limited to, press events, public and external newsletters, printed materials, advertising, websites radio and public service announcements, electronic media, and construction site signage. A more detailed definition of "Communications Materials" is found in the Funding Recipient Communications Guidelines.
- 8.3 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines. The preferred logo lock-up for Funding Recipients to use is included in the Funding Recipient Communications Guidelines.
- 8.4 Project Sponsor shall ensure that any subcontractor, including, but not limited to, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials for public and external purposes will comply with the requirements contained in this Section.
- 8.5 The LACMTA Project Manager shall be responsible for monitoring Project Sponsor's compliance with the terms and conditions of this Section. Project Sponsor's failure to comply with the terms of this Section shall be deemed a default hereunder and LACMTA shall have all rights and remedies set forth herein."



- 3. Part I, paragraph 13, of the Existing LOA is hereby amended by replacing with the following: "13. LACMTA understands Project Sponsor is unable to complete the Project as originally scheduled and needs additional time to complete the Project beyond the current lapse date. LACMTA is willing to allow Project Sponsor 1 year (12 months) to demonstrate that it has taken affirmative steps toward completing the Project within a reasonable timeframe. Therefore, Project Sponsor shall complete the following activities by the June 30, 2020 lapse date: Obtain environmental clearance. If Project Sponsor fails to complete the New Milestone by the applicable lapse date, LACMTA may determine that there is not sufficient progress being made and then LACMTA may consider the Project Lapsed and submit to the LACMTA Board for deobligations.
- 4. Except as expressly amended hereby, the Existing LOA remains in full force and effect as originally executed. All rights and obligations of the parties under the Existing LOA that are not expressly amended by this Amendment shall remain unchanged.

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Rev: 08.13.19

LOS ANGELES COUNTY

IN WITNESS WHEREOF, the parties have caused this Amendment No. 3 to be duly executed and delivered as of the above date.

METROPOLITAN TRANSPORTATION AUTHORITY APPROVED AS TO FORM: MARY C. WICKHAM County Counsel Date: 3/6/2020 CITY OF REDONDO BEACH By: Bill Brand ATTEST: Mayor Date: Attorney

LOA Amendment Lapsing Date Extension

## AMENDMENT NO. 2 LETTER OF AGREEMENT BETWEEN CITY OF REDONDO BEACH AND

#### THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

This Amendment No. 2 to Letter of Agreement (this "Amendment"), is dated as of November 1, 2018, by and between City of Redondo Beach ("Project Sponsor"), and the Los Angeles County Metropolitan Transportation Authority ("LACMTA").

#### **RECITALS:**

- A. Project Sponsor and LACMTA entered into that certain Letter of Agreement No. LOA.P00F3502, dated December 27, 2012, which was amended on February 12, 2016 (as amended, the "Existing LOA"), which Existing LOA provides for the Redondo Beach Bicycle Transportation Plan Implementation, ("the Project"); and
- B. Whereas, LACMTA Board on July 26, 2018, desires to extend the lapsing date of Funds programmed for Fiscal Year (FY) 2015-16 to June 30, 2019; and
- C. Project Sponsor and LACMTA desire to amend the Existing LOA as provided herein.



#### AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

- 1. Part II, Paragraph 6.1(ii) of the Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following: "Funds programmed for Programmed Year FY 2015-16 are subject to lapse on June 30, 2019. Project Sponsor shall allocate or obligate these Funds by the lapsing date."
- 2. Part I, Paragraph 11 of Existing LOA is hereby amended to change LACMTA's project manager to Michael Richmai, mail stop 99-23-1.
- 3. Part I, paragraph 13, is hereby added to the Existing LOA as follows: "13. LACMTA understands Project Sponsor is unable to complete the Project as originally scheduled and needs additional time to complete the Project beyond the current lapse date. LACMTA is willing to allow Project Sponsor one year (12 months) to demonstrate that it has taken affirmative steps toward completing the Project within a reasonable timeframe. Therefore, Project Sponsor shall complete the following activities ("New Milestone") by the June 30, 2019 lapse date: Obtain authorization from Caltrans to proceed with design. If Project Sponsor fails to complete the New Milestone by the applicable lapse date, LACMTA may determine that there is not sufficient progress being made and then LACMTA may consider the Project Lapsed and submit to the LACMTA Board for deobligations.
- 4. Except as expressly amended hereby, the Existing LOA remains in full force and effect as originally executed. All rights and obligations of the parties under the Existing LOA that are not expressly amended by this Amendment shall remain unchanged.



IN WITNESS WHEREOF, the parties have caused this Amendment No. 2 to be duly executed and delivered as of the above date.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY Date: \_\_\_\_\_ Phillip A. Washington Chief Executive Officer APPROVED AS TO FORM: MARY C. WICKHAM County Counsel Date: 12/6/18 CITY OF REDONDO BEACH By: Bill Brand Mayor APPROVED AS TO FORM: 2/19/8 Date: By: Michael W. Webb City Attorney ATTEST:



#### AMENDMENT NO. 1 LETTER OF AGREEMENT BETWEEN CITY OF REDONDO BEACH AND

#### THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

This Amendment No. 1 to Letter of Agreement (this "Amendment"), is dated as of February 12, 2016, by and between City of Redondo Beach ("Project Sponsor"), and the Los Angeles County Metropolitan Transportation Authority ("LACMTA").

#### **RECITALS:**

- A. Project Sponsor and LACMTA entered into that certain Letter of Agreement No. LOA.P00F3502, dated December 27, 2012, (the "Existing LOA"), which Existing LOA provides for the Redondo Beach Bicycle Transportation Plan Implementation, ("the Project"); and
- B. WHEREAS, LACMTA Board on June 25, 2015 reprogrammed the Project funds, which Project Sponsor applied for, but was not awarded funds through the State Active Transportation Program (ATP), to Fiscal Year (FY) 2015-16.
- C. Project Sponsor and LACMTA desire to amend the Existing LOA as provided herein.

#### AGREEMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree as follows:

- Part I, Paragraph 2 of the existing LOA is hereby amended by deleting it in its entirety and replacing it with the following: "LACMTA Board of Directors' action of September 24, 2009, programmed \$1,558,860 (the "Funds") to Project Sponsor for the Project. LACMTA Board of Directors action of June 25, 2016, reprogrammed the Funds to Fiscal Year (FY) 2015-16."
- Part II, Paragraph 6.1(ii) of the Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following: "All Funds programmed for FY 2015-16 are subject to lapse on June 30, 2018."
- Part II, Paragraph 8 of Existing LOA is hereby amended by deleting it in its entirety and replacing it with the following:

#### "8 COMMUNICATIONS:

- 8.1 Project Sponsor shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project as more particularly set forth in "Funding Agreement Communications Materials Guidelines" available on line or from the LACMTA Project Manager. Please check with the LACMTA Project Manager for the web address. The Funding Agreement Communications Materials Guidelines may be changed from time to time during the course of this Agreement. Project Sponsor shall be responsible for complying with the latest Funding Agreement Communications Materials Guidelines during the term of this Agreement, unless otherwise specifically authorized in writing by the LACMTA Chief Communications Officer.
- 8.2 For purposes of this Agreement, "Communications Materials" include, but are not limited to, press events, public and external newsletters, printed materials, advertising, websites radio and public service announcements, electronic media, and construction site signage. A more detailed definition of "Communications Materials" is found in the Funding Agreement Communications Materials Guidelines.
- The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines. These guidelines and logo files including scalable vector files will be available through the LACMTA Project Manager.
- 8.4 Project Sponsor shall ensure that any subcontractor, including, but not limited to, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials for public and external purposes will comply with the requirements contained in this Section.

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- 8.5 The LACMTA Project Manager shall be responsible for monitoring Project Sponsor compliance with the terms and conditions of this Section. Project Sponsor failure to comply with the terms of this Section shall be deemed a default hereunder and LACMTA shall have all rights and remedies set forth herein."
- Part I, Paragraph 11 of Existing LOA is hereby amended to change LACMTA's project manager to Brett Thomas, mail stop 99-22-2.
- Attachment A of the Existing MOU is hereby replaced by Attachment A-1, attached.
- S. Attachment B Scope of Work, attached to the Existing LOA is hereby amended by deleting the Milestone/Schedule and replacing it with the following Revised Project Schedule:

LOA Milestones		A Schedule in of Work	Revised Proj	ect Schedule
	Start Date	End Date	Start Date	End Date
Environmental Clearance	8/2012	12/2012	5/2016	9/2016
Design Bid & Award	1/2013	3/2013	10/2016	1/2017
Design	4/2013	6/2013	1/2017	6/2017
Right-of-Way Acquisition	N/A	N/A	N/A	N/A
Construction Bid & Award	11/2013	2/2014	7/2017	10/2017
Construction	2/2014	6/2014	10/2017	3/2018
Total Project Duration (Months)	22 MONTHS		22 MONTHS	

Except as expressly amended hereby, the Existing LOA remains in full force and effect as originally executed. All rights and obligations of the parties under the Existing LOA that are not expressly amended by this Amendment shall remain unchanged.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 1 to be duly executed and delivered as of the above date.

	ANGELES COUNTY ROPOLITAN TRANSPORTAT	TION AUTHORITY	
Ву: _	Phillip A. Washington Chief Executive Officer	Date:	
APPR	OVED AS TO FORM:		
	Y C. WICKHAM ty Counsel	Date: 3/30/16	
CITV	Deputŷ  OF REDONDO BEACH		
CITI	OF REDONDO BEACIT		
Ву:	Joseph Hoefgen City Manager	Date:	
APPR	OVED AS TO FORM:		
Ву:	Michael W. Webb City Attorney	Date:	

FTIP#: LAF3502

CFP# F3502 AMENDMENT NO. 1 LOA.P00F3502

# PROJECT FUNDING – FEDERAL GRANT AGREEMENT ATTACHMENT A

CFP#F3502 PROJECT TITLE: Redondo Beach Bicycle Transportation Plan Implementation

GRANTEE/PROJECT SPONSOR: City of Redondo Beach

LETTER OF AGREEMENT NO: LOA.P00F3502 (\$ in Actual Dollars)

(LACMTA F PROGRAMMED FUNDS	(LACMTA Programmed Funding and Sponsors Match)  NDS FY 2012-13 FY 2013-14 FY 2014-15 FY 2015-16 FY 2016-17 FY 2017-18 BUDGET	inding and 4 FY 2014-15	1 Sponso FY 2015-16	rs Matc} =Y 2016-17	1) FY 2017-18	BUDGET	%
LACMTA PROGRAMMED FUNDING:							
Federal							
(CMAQ)Congestion Mitigation and Air Quality Program			1,558,860			1,558,860	80.0%
Other:							
-PA & ED							
-PS&E							
-R/W							
-Construction							
		LACMTA SUBTOTAL	SUBTOTAL			1,558,860	%0.08
GRANTEE/SPONSOR MATCH: Grantee Funding Commitment (specify type)							
Prop C Local Return			389,715			389,715	20.0%
Other							
-PA & ED							
-PS&E							
R/W							
-Construction							
Note:You can not match Federal with Federal							
			i				
TOTAL PROJECT FUNDING			\$1,948,575			\$1,948,575	100.0%
			-				_



# Administrative Report

Council Action Date: May 21, 2013

To:

**MAYOR AND CITY COUNCIL** 

From:

MIKE WITZANSKY, DIRECTOR OF PUBLIC WORKS

Subject:

APPROVE A LETTER OF AGREEMENT WITH LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY FOR THE BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PROJECT

#### **RECOMMENDATION**

Authorize the Mayor to execute a letter of agreement with the Los Angeles County Metropolitan Transportation Authority (Metro) for the Bicycle Transportation Plan Implementation Project awarded to the City through Metro's 2009 Call for Projects.

#### **EXECUTIVE SUMMARY**

On September 24, 2009 the Los Angeles County Metropolitan Transportation Authority (Metro) Board approved the Metro 2009 Call for Projects, allocating \$1,558,860 in Congestion Mitigation Air Quality (CMAQ) funds to the City's Bicycle Transportation Plan Implementation Project. The project includes the installation of signs, street markings, and video detection cameras for new bicycle facilities on streets throughout the City including Torrance Boulevard, Beryl Street, Lilienthal Lane, Catalina Avenue, and Avenue I (see attached project maps).

The Metro grant requires a local funding match of \$389,715 which will be recommended for appropriation as part of the Fiscal Year (FY) 2013-14 Capital Improvement Program (CIP) using available Proposition C restricted funds. Plans and specifications for the project are expected to be presented to the City Council for review and consideration of approval in September 2013.

#### **BACKGROUND**

Every two years Metro conducts a competitive Call for Projects (CFP) to program various federal, state, and local transportation funds for regionally significant transportation projects. In 2009, the City submitted CFP applications for five projects, including implementation of the adopted 2005 Bicycle Transportation Plan. The City Council discussed the projects and approved submittal of the applications at their meeting on April 7, 2009.

#### **Administrative Report**

Metro Letter of Agreement – Bicycle Transportation Plan Implementaion Page 2

The 2009 CFP programmed funds for five years, beginning in FY 2010-11. On September 24, 2009 the Los Angeles County Metropolitan Transportation Authority (Metro) Board approved the Metro 2009 Call for Projects, allocating \$1,558,860 in Congestion Mitigation Air Quality (CMAQ) funds to the City's Bicycle Transportation Plan Implementation Project.

On December 6, 2005, the City Council adopted the City's first Bicycle Transportation Plan which was the genesis for the Metro Call for Projects application. The Bicycle Transportation Plan Implementation Project (CIP No. 40510, Metro's Project No. F3502) will implement the majority of the proposed bike lanes and bike routes shown on the plan. The roughly 18 miles of new bicycle facilities also conform to the facilities included in the South Bay Bicycle Master Plan, adopted by City Council at its October 18, 2011 meeting by Resolution No. C-1110-525.

Specifically, the Bicycle Transportation Plan Implementation Project includes installation of signs, markings, and video detection cameras on roughly 2.1 centerline miles of bike lanes and 15.8 centerline miles of bike routes and will create the following new bicycle facilities:

- Torrance Boulevard Bike Lanes South Catalina Avenue to eastern City Limits
  - Install bike lanes and bicycle detection on Torrance Boulevard between South Catalina Avenue and the eastern City Limits.
- Beryl Street Bike Lanes/Bike Route North Harbor Drive to Flagler Lane
  Re-stripe Beryl Street between North Catalina Avenue and North Prospect
  Avenue to add a bike lane in each direction. Install Bike Route signs and paint
  Sharrows on Beryl Street between North Harbor Drive and North Catalina
  Avenue, and between North Prospect Avenue and Flagler Lane.
- Lilienthal Lane Bike Lanes Fisk Lane to Ripley Avenue
  Reconfigure Lilienthal Lane (existing Bike Route, part of North Redondo Beach
  Bikeway) to match the vehicle lane configuration north of Hill Lane and provide
  one travel, parking, and bike lane in each direction between Fisk Lane and Ripley
  Avenue. Widen Lilienthal Lane between Ives Lane and Ripley Avenue to
  accommodate lane reconfiguration. Relocate SCE utility poles on the east side
  of Lilienthal Lane between Ives Lane and Ripley Lane.
- North Catalina Avenue Bike Lanes Beryl Street to North Pacific Coast Highway

Narrow medians and restripe North Catalina Avenue to install bike lanes with bicycle detection between Beryl Street and North Pacific Coast Highway.

**Administrative Report** 

Metro Letter of Agreement – Bicycle Transportation Plan Implementaion Page 3

• South Catalina Avenue Bike Route/Avenue I Bike Lanes – Palos Verdes Boulevard to Esplanade

Install Bike Route signs and paint Sharrows on South Catalina Avenue between Palos Verdes Boulevard and Avenue I. Reconfigure Avenue I between South Catalina Avenue and Esplanade to provide one parking, bike, and travel lane in each direction with a two-way left turn lane and match the vehicle lane configuration east of South Catalina Avenue.

• Citywide Bicycle Facilities – various

Paint bike lanes on portions of 182<sup>nd</sup> Street, Kingsdale Avenue, Knob Hill Avenue, and Del Amo Street; install Bike Route signs supplemented with painted Sharrows where applicable on portions of Palos Verdes Boulevard, South Helberta Avenue, Avenue D, South Juanita Avenue, Avenue C, Knob Hill Avenue, Camino Real, Emerald Street, North Juanita Avenue, Prospect Avenue, Ripley Avenue, Kingsdale Avenue, Ormond Lane, Ford Avenue, Flagler Lane, Rindge Lane, and Warfield Avenue; and install video detection cameras where applicable. Includes \$10,000 for marketing the entire Bicycle Transportation Plan Implementation Project.

For reference, in California the nomenclature for bicycle facilities is as follows:

- Class I = bike path (e.g., Marvin Braude Bikeway, The Strand)
- Class II = bike lanes (e.g., Grant Avenue)
- Class III = bike routes (e.g., Esplanade)

Metro allocated \$1,558,860 in CMAQ Funds to the project, and the City has scheduled \$389,715 for appropriation as part of the FY 2013-14 CIP using available Proposition C Funds as the local match.

Plans and specifications for the Bicycle Transportation Plan Implementation Project will be completed and presented to the City Council for review and consideration of approval in September 2013. Construction of the project is expected to begin in February 2014 and end in June 2014.

## COORDINATION

The letter of agreement has been approved as to form by the City Attorney's office, and the project has been coordinated with the Police and Community Development Departments.

May 21, 2013

### **Administrative Report**

Metro Letter of Agreement – Bicycle Transportation Plan Implementaion Page 4

#### **FISCAL IMPACT**

The cost associated with preparing and reviewing the letter of agreement is included in the Department's adopted FY 2012-13 Annual Budget. The \$389,715 of City matching funds will be recommended for appropriation as part of the FY 2013-14 CIP budget using available Proposition C restricted monies. The total cost of the Bicycle Transportation Plan Implementation Project is estimated to be \$1,948,575.

<u>Funding:</u>			Expenditures:	
	Metro CMAQ Funds FY 2013-14 Proposition C Funds		Bicycle Transportation Plan Implementation Project	<u>\$ 1,948,575</u>
	Total	\$ 1,948,575	Total	\$ 1,948,575

Submitted by:

Mike Witzansky

**Public Works Director** 

Approved for forwarding by:

Office of the City Manager

rboardman

#### Attachments:

- Letter of Agreement Bicycle Transportation Plan Implementation Project
- Location Maps



FTIP#:LAF3502

CFP#F3502 LOA.P00F3502

December 27, 2012

City of Redondo Beach 415 Diamond Street Redondo Beach, CA 90277 Attn: Bill Workman

RE: LETTER OF AGREEMENT FOR FEDERAL PROJECTS PROGRAMMED THROUGH THE LACMTA CALL FOR PROJECTS

Dear Sir/Madam:

Rev: 09.25.12

As part of the Los Angeles County Metropolitan Transportation Authority ("LACMTA") 2009 Call for Projects, the LACMTA Board of Directors, at its meeting on September 24, 2009, authorized the programming of funds to City of Redondo Beach ("Project Sponsor") for Redondo Beach Bicycle Transportation Plan Implementation – LACMTA Call for Projects ID# F3502, FTIP# LAF3502, (the "Project") subject to the terms and conditions contained in this Letter of Agreement ("LOA").

The terms and conditions of this LOA consist of the following and each is incorporated by reference herein as if fully set forth herein: Specific Terms of the LOA, General Terms of the LOA; <u>Attachment A</u> - the Project Funding, <u>Attachment B</u> - the Scope of Work-, <u>Attachment C</u> - the Reporting Guidelines, <u>Attachment D</u> - Federal Transportation Improvement Program (FTIP), <u>Attachment E</u> - Caltrans Document List, and <u>Attachment F</u> - Special Conditions for the Project, and any other attachments or documents referenced therein.

LOA Federal Agreement CMAQ RSTP

In the event of a conflict, the Special Conditions for the Project, if any, shall prevail over the Specific Terms of the LOA and the Specific Terms of the LOA shall prevail over the General Terms of the LOA.

Please acknowledge your acceptance and agreement to the terms and conditions of this LOA by signing below.

Very truly yours,

Arthur T. Leahy Chief Executive Officer

Project Sponsor has read and understands the terms and conditions of this LOA, including all the attachments, and by signing below Project Sponsor hereby accepts and agrees to the terms of this LOA.

City of Redondo Beach

Mayor

Date: 05-21-13

APPROVED AS TO FORM:

Michael Webb

City Attorney

ATTES(

Rev: 09.25.12

Eleanor Manzano

City Clerk

LOA Federal Agreement CMAQ RSTP

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# CALL FOR PROJECTS LETTER OF AGREEMENT

# PART I SPECIFIC TERMS OF THE LOA

- 1. Title of the Project (the "Project"): Redondo Beach Bicycle Transportation Plan Implementation LACMTA Call for Projects ID# F3502, FTIP # LAF3502.
- 2. Amount of Funds Programmed (the "Funds"): LACMTA Board of Directors' action of September 24, 2009, programmed \$ 1,558,860 (the "Funds") to Project Sponsor for the Project. The LACMTA funding plan reflects the programming of Funds over two years, Fiscal Years (FY) 2012-13 and FY 2013-14. LACMTA Board of Directors' action recertified the Funds for FY 2012-13 only in the amount of \$216,400. LACMTA Board of Directors' action will be required annually to approve Funds for each subsequent Fiscal Year prior to those Funds being obligated by Project Sponsor.
- 3. The Funding Agency for this Project (the "Agency") is CALTRANS. The Programming Agency for this Project is LACMTA.
- 4. The "Project Funding" documents all sources of funds programmed for the Project as approved by LACMTA and is attached as <u>Attachment A</u>. The Project Funding includes the total programmed budget for the Project, including the Funds programmed by LACMTA and the Project Sponsor Funding Commitment (local match). The Project Funding also includes the fiscal years in which all the funds for the Project are programmed.
- 5. Project Sponsor shall complete the Project as described in the Scope of Work. The "Scope of Work" for the Project is attached to this LOA as <u>Attachment B</u>. The Scope of Work includes a general description of the Project and a detailed description of the work to be completed. The Scope of Work also includes a set schedule including Project milestones consistent with the lapsing policy described in Part II below. Work shall be delivered in accordance with that schedule unless otherwise agreed to by the parties in writing.
- 6. <u>Attachment C</u> the Reporting Guidelines; Project Sponsor shall complete the "Quarterly Progress Report." The Quarterly Progress Report is attached to this LOA as Attachment C1 in accordance with Attachment C Reporting Guidelines.
- 7. The "FTIP PROJECT SHEET (PDF)" is attached as <u>Attachment D</u> and is required to ensure that the Project is programmed correctly in the most up-to-date FTIP document. The FTIP PROJECT SHEET (PDF) can be found in ProgamMetro FTIP database under the reports section at <a href="https://program.metro.net">https://program.metro.net</a>. All projects that receive funding through the LACMTA Call for Projects must be programmed into the FTIP which includes locally funded regionally significant projects for information and air quality

LOA Federal Agreement CMAQ RSTP

modeling purposes. Project Sponsor shall review the Project in ProgramMetro each year and update or correct the Project as necessary during a scheduled FTIP amendment or adoption. Project Sponsor will be notified of amendments and adoptions to the FTIP via e-mail. Changes to the FTIP through ProgramMetro should be made as soon as possible after Project Sponsor is aware of any changes to the Project, but no later than October 1 of the year the change or update is effective. Should Project Sponsor fail to meet this date, it may affect Project Sponsor's ability to access funding, delay the Project and may ultimately result in the Funds being lapsed.

- 8. <u>Attachment E</u> Caltrans Document List, are attached to this LOA as Attachment E for reference purposes only and however a more current listing may be found on <a href="http://www.dot.ca.gov/hq/LocalPrograms/orhttp://www.dot.ca.gov/hq/LocalPrograms/public.htm">http://www.dot.ca.gov/hq/LocalPrograms/public.htm</a>
- 9. <u>Attachment F</u>-Special Conditions for the Project, if any, are attached to this LOA as Attachment F.
- 10. Prior to the obligation of the Funds, no material changes to the Project Funding or the Scope of Work shall be funded or allowed without prior written approval of LACMTA and Project Sponsor. Such prior approval shall be evidenced by an amendment to this LOA, approved and signed by the LACMTA Chief Executive Officer or his designee and Project Sponsor. After the Funds have been obligated, no material changes will be allowed.

#### 11. LACMTA's Address:

Los Angeles County Metropolitan Transportation Authority One Gateway Plaza Los Angeles, CA 90012 Attention: Silva Mardrussian, 99-22-6, (213)922-2245, mardrussians@metro.net

12. Project Sponsor's Address:

City of Redondo Beach, 415 Diamond Street Redondo Beach, CA 90277, Robert Boardman, (310)318-0661, Robert.boardman@redondo.org

# PART II GENERAL TERMS OF THE LOA

1. PAYMENT OF FUNDS: Project Sponsor understands and agrees that LACMTA provides no Funds under this LOA and LACMTA shall have no responsibility or obligation to provide any Funds for the Project. Project Sponsor shall receive the Funds directly from the Agency pursuant to a separate agreement with the Agency. Project Sponsor shall submit to the Agency the appropriate invoices in the form, manner, and schedule specified by the applicable requirements of the Agency. Project Sponsor cannot be reimbursed for any cost incurred without prior authorization from the Agency. Project Sponsor shall be subject to, and comply with, all applicable requirements of the Agency and of LACMTA as required by LACMTA to fulfill its responsibilities as the programming agency. The allowability of expenditures, the cost reimbursement schedule, eligibility issues, resolution of disputes, and all other issues relating to this LOA shall be subject to the rules, regulations, and requirements of the Agency and LACMTA as the programming agency.

#### 2. **TERM**:

- 2.1 The term of this LOA shall commence upon the date of this LOA, and shall terminate upon completion of the Scope of Work and LACMTA's receipt of Caltrans' final voucher paid for the Project.
- 2.2 Prior to the obligation of the Funds, should LACMTA determine there are insufficient Funds available for the Project, LACMTA may terminate this LOA by giving written notice to Project Sponsor at least thirty (30) days in advance of the effective date of such termination.

#### 3. USE OF FUNDS:

- 3.1 Project Sponsor shall utilize the Funds to complete the Project as described in the Scope of Work and as approved by LACMTA and in accordance with the applicable requirements of the Agency.
- 3.2 The Funds, as programmed under this LOA, can only be used towards the completion of the Scope of Work originally adopted by LACMTA unless modified by an amendment to this LOA. Project Sponsor shall also be subject to and comply with all applicable requirements of the Agency administering this Project.

#### 4. **REPORTING AND AUDIT REQUIREMENTS:**

- 4.1 Project Sponsor shall be subject to and comply with all applicable requirements of the Agency regarding Project reporting and audit requirements. *Project Sponsor shall use the Federal Transportation Improvement Program ("FTIP") No., Expenditure Authorization ("EA") No., and LACMTA Call for Projects Project ID# on all correspondence.*
- 4.2 Since the Project is funded exclusively with Federal funds and contains no LACMTA local funding, LACMTA has no audit responsibilities for this Project. Project Sponsor shall comply with all Agency compliance, pre-award and performance audit requirements as deemed necessary to assure that funding expenditures conform to all applicable Project funding guidelines, laws and regulations. LACMTA, as the programming agency, shall have the right, at its sole discretion, to audit the Project for compliance with the terms of this LOA and to assure that funding expenditures conform to the terms of this LOA. LACMTA shall have the same audit rights as the Agency to audit the Project.
- 4.3 Project Sponsor shall submit the Quarterly Progress Report within 60 days after the close of each quarter on the last day of the months November, February, May and August. Annually with the 4th quarter Progress Report, Project Sponsor also shall submit photos of key components and milestones demonstrating Project progress or completion.

#### 5. **EXPENDITURE AND DISPOSITION OF FUNDS:**

- 5.1 The expenditure and disposition of the Funds by Project Sponsor shall be subject to and in accordance with the terms and conditions of this LOA and the applicable requirements of the Agency. Project Sponsor shall not utilize the Funds in any other way or on any project other than that specified in this LOA and the applicable requirements of the Agency.
- 5.2 Project Sponsor shall be responsible for any and all cost overruns for the Project.
- 5.3 Project Sponsor shall be eligible for the Funds up to the programmed amount specified in Part I, Section 2 of this LOA subject to the terms and conditions contained herein and in all applicable requirements of the Agency.
- 5.4 Subject to the requirements and regulations of the Agency, and to the extent allowed by the Agency, any underruns to the funds shown in <u>Attachment A</u> shall be apportioned between LACMTA and Project Sponsor in the same proportion as the Sources of Funds from each party to this LOA as specified in <u>Attachment A</u> to this LOA. Upon completion of the Project described in the Scope of Work and subject to the requirements and regulations of the Agency, and to the extent allowed by the Agency, any unused obligation of the Funds shall revert back to LACMTA for future programming at LACMTA's discretion.

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5.5 The programming of the Funds does not imply nor obligate any future funding commitment on the part of LACMTA or the Agency.

### 6. <u>TIMELY USE OF FUNDS / REPROGRAMMING OF FUNDS:</u>

- 6.1 Project Sponsor must demonstrate timely use of the Funds by:
  - (i) executing this LOA within ninety (90) days of receiving formal transmittal of the LOA from LACMTA, or by December 31 of the first Fiscal Year in which the Funds are programmed, whichever date is later; and
  - (ii) obligating the Funds programmed under this LOA for allowable costs within 36 months from July 1 of the first Fiscal Year in which the Funds are programmed. All Funds programmed for FY 2012-13 are subject to lapse on June 30, 2015. All Funds programmed for FY 2013-14 are subject to lapse on June 30, 2016.

If Project Sponsor fails to meet any of the above conditions, the Project shall be considered lapsed and will be submitted to the LACMTA Board of Directors for deobligation.

- 6.2 Project Sponsor must demonstrate evidence of timely use and obligation of Funds programmed for the Project within the time period described in Part II, Section 6.1 of this LOA. Evidence of timely obligation will be either an executed "Authorization To Proceed" document (Caltrans Version E-76).
- 6.3 In the event this LOA is not executed and/or evidence of timely obligation of Funds is not provided as described in Part II, Sections 6.1 and 6.2 of this LOA, the Project will be reevaluated by LACMTA as part of the annual Call for Projects Recertification/Deobligation process and the Funds may be deobligated and reprogrammed to another project by the LACMTA Board of Directors. If Project Sponsor does not complete one element of the Project, as described in the FTIP Sheet, due to all or a portion of the Funds lapsing, the entire Project may be subject to deobligation at LACMTA's sole discretion. In the event the Funds are reprogrammed, this LOA shall automatically terminate without further action by either party.

### 7. **SOURCES AND DISPOSITION OF FUNDS:**

- 7.1 The obligation for LACMTA to program the Funds for the Project is subject to sufficient Funds being made available for the Project by the LACMTA Board of Directors, the United States Government or the State of California, as applicable. If such Funds are not made available for the Project, this LOA shall be void and have no further force and effect, and LACMTA shall have no obligation to program the Funds for the Project, unless otherwise agreed to in writing by LACMTA.
  - 7.2 Project Sponsor shall fully fund and contribute the Project Sponsor

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Funding Commitment, as identified in the Project Funding (<u>Attachment A</u>), towards the cost of the Project. If the Funds identified in <u>Attachment A</u> are insufficient to complete the Project, Project Sponsor agrees to secure and provide such additional non-LACMTA programmed funds necessary to complete the Project.

#### 8. **COMMUNICATIONS:**

- 8.1 Project Sponsor shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project. Project Sponsor shall ensure that at a minimum, all Communications Materials shall include (i) the phrase "This project was partially funded by Metro" or alternative acceptable minimum language; and (ii) the Metro logo, with the exception of press releases, which do not require a Metro logo.
- 8.2 If Project Sponsor produces any Communication Materials that do not contain the information set forth in Section 8.1 above, Project Sponsor must provide an opportunity for the prior review and written comment by the Chief Communications Officer of LACMTA or its designee before such materials can be produced. If Project Sponsor does not receive a response from LACMTA Communications within seven (7) working days from the day of receipt by LACMTA Communications staff, Project Sponsor may proceed with producing the Communications Materials as proposed.
- 8.3 For purposes of this LOA, "Communications Materials" include, but are not limited to, literature, newsletters, publications, websites, advertisements, brochures, maps, information materials, video, radio and public service announcements, press releases, press event advisories, and all other related materials.
- 8.4 For signage on Project structures, facilities, vehicles and construction sites, Project Sponsor shall use the phrase, "Funded in part by [Metro logo]" or "Your tax dollars at work (Metro logo)" or alternative acceptable language. Further guidance on acknowledging LACMTA contribution is provided in the Communications Materials guidelines available from the LACMTA Communications Division.
- 8.5 Project Sponsor shall notify the LACMTA Chief Communications Officer or its designee of all press events related to the Project in such a manner that allows LACMTA to participate in such events, at LACMTA's sole discretion.
- 8.6 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines available from the LACMTA Communications Division.
- 8.7 Project Sponsor shall ensure that any subcontractor, including, without limitation, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials will comply with the requirements contained in this Section 8.

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#### 9. OTHER TERMS AND CONDITIONS:

9.1 This LOA, along with the applicable requirements of the Agency, constitutes the entire understanding between the parties, with respect to the subject matter herein. The LOA shall not be amended, nor any provisions or breach hereof waived, except in writing signed by the parties who agreed to the original LOA or the same level of authority.

- 9.2 In the event that there is any legal court (e.g. Superior Court of the State of California, County of Los Angeles, or the U.S. District Court for the Central District of California) proceeding between the parties to enforce or interpret this LOA, or the applicable requirements of the Agency, to protect or establish any rights or remedies hereunder, the prevailing party shall be entitled to its costs and expenses, including reasonable attorneys' fees.
- 9.3 Neither LACMTA nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or committed to be done by Project Sponsor under or in connection with any work performed by and or service provided by Project Sponsor, its officers, agents, employees, contractors and subcontractors under this LOA. Project Sponsor shall fully indemnify, defend and hold LACMTA, and its subsidiaries and their respective officers, agents and employees harmless from and against any liability and expenses, including without limitation, defense costs, any costs or liability on account of bodily injury, death or personal injury of any person or for damage to or loss of risk of property, any environmental obligation, any legal fees and any claims for damages of any nature whatsoever arising out of the Project, including, without limitation: (i) use of the Funds by Project Sponsor, or its officers, agents, employees, contractors or subcontractors; (ii) breach of Project Sponsor's obligations under this LOA; or (iii) any act or omission of Project Sponsor, or its officers, agents, employees, contractors in the performance of the work or the provision of the services in connection with the Project, including, without limitation, the Scope of Work, described in this LOA.
- 9.4 Neither party hereto shall be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by unforeseen causes including acts of God, acts of a public enemy, and government acts beyond the control and without fault or negligence of the affected party. Each party hereto shall give notice promptly to the other of the nature and extent of any such circumstances claimed to delay, hinder, or prevent performance of any obligations under this LOA.
- 9.5 Project Sponsor shall comply with and insure that work performed under this LOA is done in compliance with Federal Agency Regulations (FAR), Generally Accepted Accounting Principles (GAAP), all applicable provisions of federal, state, and local laws, statutes, ordinances, rules, regulations, and procedural requirements and the applicable requirements and regulations of the Agency and LACMTA.
- 9.6 Project Sponsor shall not assign this LOA, or any part thereof, without written consent and prior approval of the LACMTA Chief Executive Officer or his designee, and any assignment without said consent shall be void and unenforceable.

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Rev: 09.25.12

9.7 This LOA shall be governed by California law. If any provision of this LOA is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

- 9.8 The terms of this LOA shall inure to the benefit of, and shall be binding upon, each of the parties and their respective successors and assigns.
- 9.9 If any software/Intelligent Transportation Systems ("ITS") is developed with the Funds and if Project Sponsor ceases to use the software/ITS for public purposes or Project Sponsor sells, conveys, licenses or otherwise transfers the software/ITS, LACMTA shall be entitled to a refund or credit, at LACMTA's sole option, equivalent to the amount of the Funds spent developing the software/ITS. Such refund or credit shall not be required, subject to LACMTA approval of the intended use, if Project Sponsor reinvests the proceeds of such sale, conveyance, license or transfer into the Project to offset operating or systems management costs.
- 9.10 If applicable, implementation of any ITS project shall be consistent with the Regional ITS Architecture. ITS projects must comply with LACMTA's Countywide ITS Policy and Procedures adopted by the LACMTA Board of Directors including the submittal of a completed, signed self-certification form, in the form of Attachment F-1. (See <a href="http://www.metro.net/projects/call\_projects/">http://www.metro.net/projects/call\_projects/</a> for a copy of LACMTA's Countywide ITS Policy and Procedures.)
- 9.11 If any parking facilities are designed and/or constructed using the Funds, Project Sponsor shall coordinate with LACMTA parking program staff in the planning, design and management of the facility and shall ensure that its implementation is consistent with LACMTA-adopted parking policy. (For LACMTA's Parking Policy and contact information, see <a href="http://www.metro.net/projects/call\_projects/">http://www.metro.net/projects/call\_projects/</a>.)
- 9.12 Project Sponsor agrees that the disposal of property purchased with the Funds shall be disposed of in accordance with the Agency's guidelines.
- 9.13 Notice will be given to the parties at the address specified in Part I, unless otherwise notified in writing of change of address.
- 9.14 Project Sponsor in the performance of the work required by this LOA is not a contractor nor an agent or employee of LACMTA. Project Sponsor attests to no organizational or personal conflicts of interest and agrees to notify LACMTA immediately in the event that a conflict, or the appearance thereof, arises. Project Sponsor shall not represent itself as an agent or employee of LACMTA and shall have no powers to bind LACMTA in contract or otherwise.
- 9.15 Project Sponsor shall notify LACMTA in advance of any key Project staffing changes.

10

Rev: 09.25.12

LOA Federal Agreement CMAQ RSTP

LOA ATTACHMENT A. PROGRAMMED FUNDS

FTIP#: LAF3502

CFP#: F3502 LOA.P00F3502

FEDERAL GRANT AGREEMENT

CFP#: F3502 PROJECT TITLE:Redondo Beach Bicycle Transportation Plan Implementation LETTER OF AGREEMENT NO: LOA.P00F3502

(\$ in Actual Dollars)

(LACMTA Programmed Funding and Sponsors Match Only)

LACMTA PROGRAMMED FUNDING:					-		
Federal							
(RSTP) Regional Surface Transportation Program							
(CMAQ)Congestion Mitigation and Air Quality Program	216,400	1,342,460				1,558,860	80.0%
Other:							
-PA & ED							
-PS&E							
-R/W							
-Construction							
			LACMTA	LACMTA SUBTOTAL		1,558,860	80.0%
GRANTEE/SPONSOR MATCH:							
Grantee Funding Commitment (specify type)							
City General Fund							
Prop C Local Return	54,000	335,715				389,715	20.0%
Block Grant							
Other							
-PA & ED							
-PS&E							
-R/W							
-Construction							
Note:You can not match Federal with Federal							
		PROJE	PROJECT SPONSOR MATCH SUBTOTAL	R MATCH S	SUBTOTAL	389,715	20.0%
TOTAL PROJECT FUNDING	\$270,400	\$270,400 \$1,678,175		,		\$1,948,575	100.0%
===							

√ 1,948,575 LOA Attachment A-Federal

Rev: 09.20.12

FTIP#: LAF3502

#### ATTACHMENT B

#### **SCOPE OF WORK**

#### LOCATION

The Redondo Beach Bicycle Transportation Plan Implementation Project is a city-wide project located in the City of Redondo Beach, as shown on Figure 1. The right-of-way is owned by the City of Redondo Beach, except 0.1 miles on Lilienthal Lane owned by the Redondo Beach Unified School District.

#### PROIECT DESCRIPTION

The Redondo Beach Bicycle Transportation Plan Implementation Project consists of the design and construction of approximately 2.1 centerline miles of bike lanes and 15.8 centerline miles of bike routes throughout the City of Redondo Beach. This Project includes adding citywide 295 bicycle-facility signs; 328 bike-lane symbols or sharrows; 650' of roadway widening on Lilienthal Lane from 22 feet wide to 32 feet wide to accommodate bike lanes, sidewalk, and curb and gutter improvements; narrowing medians on North Catalina Avenue to provide bike lanes for 2,750 feet; 105 video detection cameras; 101 pedestrian push buttons; and, a bicycle signal at North Juanita Avenue/Pacific Coast Highway, pending Caltrans approval. The Redondo Beach Bicycle Transportation Plan Implementation Project is part of the South Bay Bicycle Master Plan network connecting to the City of Redondo Beach to its neighboring cities and regional bike facilities, and transit centers. Destinations and activity centers include the soon-to-be-relocated Redondo Beach Transit Center, the El Segundo Employment Center, Artesia Boulevard commercial corridor, the South Bay Galleria, the Civic Center Complex, and the King Harbor/Pier area. Bicycle detection will be installed at the intersections shown on Figure 2.

The Design, Preparation of Plans, Specifications and Estimates (PS&E) will be completed in accordance with Federal, State and Metro standards. The design of the bikeways will be in conformance with: California MUTCD (latest edition), State of California Department of Transportation *Highway Design Manual (Chapter 1000, Bicycle Transportation Design);* the Federal Americans with Disabilities Act (ADA); and MTA Rights-of-Way Preservation Guidelines.

# The City Redondo Beach has responsibility for the following milestones:

Milesione king king early along a second		in in Dries	i Charling
Project Kick-off (Execute LOA, Caltrans Field		Contraction of States and States of Contraction of Contraction of States of	
Review, Caltrans Authorization to proceed)	8/2012	12/2012	4
Preliminary Design	5/2007	4/2009	24
Acquisition	N/A	N/A	24
Bid package (final design, specifications, cost	1/2013	6/2013	6
estimate)	1/2013	0/2013	
Advertise/award construction contract	11/2013	2/2014	3
Construction	2/2014	6/2014	4
Project completion report (final invoices & report)	7/2014	8/2014	2
LOA Expiration Date	n/a	Month/year	n/a

2

# **Detailed Schedule\***

	PER A SANTAN SANAH I AN AN AN AN AN AN AN AN AN AN AN AN AN		ase de me et e Monthy etc ac	
	Develop LOA Attachments w/Metro	2-5 months	12/2012	
	Sponsor & Metro CEO signs LOA	1 month	2/2013	
	Schedule & Conduct Field Review with Caltrans	2 months	N/A	
7.1	<ul> <li>Submit to Caltrans: "Request for Authorization to Proceed with Preliminary Engineering," executed LOA, Request for Authorization Data Sheet, Local programs Agreement (See Local Assistance Procedures Manual for required forms).</li> </ul>	Concurrent w/ Field Review	N/A	
	<ul> <li>Caltrans must issue Notice to Proceed/Program Supplement Agreement E76 before starting design</li> </ul>	2-6 months	N/A	
100	Design	1/2013	6/2013	6
	Federal and State Environmental Clearance	6-12 months Concurrent w/design	6/2013	6
	<ul> <li>Acquisition Needs Authorization to Proceed (See Local Assistance Procedures Manual for required forms).</li> </ul>	12 months after Notice to Proceed	N/A	
	<ul> <li>License Agreement w/MTA</li> <li>Right of Way Certification</li> <li>Permit applications</li> </ul>	6-12 months Concurrent w/design	N/A	
	Complete all pieces of PS&E/Bid Package	6 months	6/2013	6
	<ul> <li>Submit to Caltrans: "Request for Authorization to Proceed with Construction" and all required documents (See Local Assistance Procedures Manual for required forms).</li> </ul>	3-6 months	7/2013	1
	<ul> <li>Caltrans must issue Notice to Proceed/Program Supplement Agreement E76 before advertising to bid (2-6 mos) (See Local Assistance Procedures Manual for required forms).</li> </ul>		10/2013	3
	Advertise Bid & Award Construction Contract	11/2013	2/2014	3
	Construction	12-18 months	6/2014	4
10)	<ul> <li>Report of Completion (See Local Assistance Procedures Manual for required forms).</li> </ul>	3 months	9/2014	3

Contact Caltrans District Office before proceeding with any of the steps and to be reimbursed.

CFP#F3502 LOA.P00F3502

#### FTIP#: LAF3502

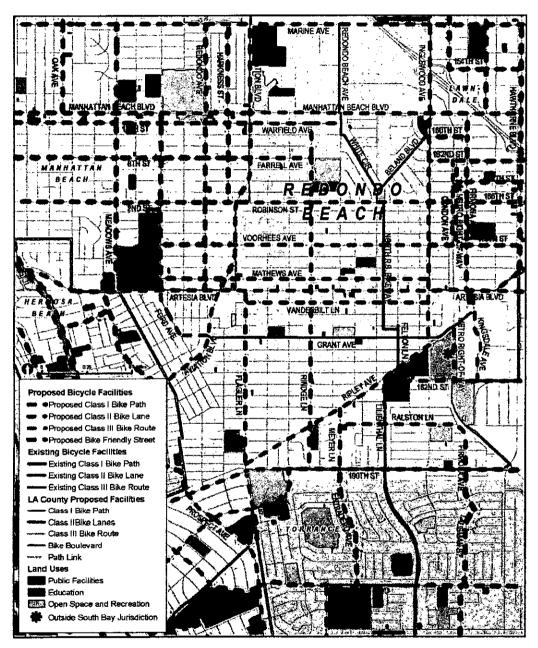
# **ESTIMATED PROJECT COSTS:** See attached Cost Estimate.

ITEM	[ ]		ESTIMAT	TED .	UNIT PRICE	ESTIMATED
NO.	DESCRIPTION		QUANTITY	UNIT	MAT. & LAB.	AMOUNT
1	Demo - AC, concrete et al		12,162	sf	21.00	255,402.00
2	Demo - Parkway only		7,540	sf	10.00	75,400.00
3	Asphalt		1,966	sy	10.00	19,660.00
4	Curb and gutter		2,120	lf	35.00	74,200.00
5	Sidewalk		2,010	sf	21.00	42,210.00
6	Relocate SCE poles		5	ea	22,500.00	112,500.00
7	Signs - Fabrication and Installation		295	ea	175.00	51,625.00
8	Sandblasting		910	sf	4.50	4,095.00
9	Striping - 6" white bike lane line	;	34,171	lf	1.00	34,171.00
10	Bike Lane Symbol and Arrow, SHARROWS		328	ea	100.00	32,800.00
11	Striping - 4" white parking lane line		2,500	lf	1.00	2,500.00
12	"STOP" Marking		3	ea	50.00	150.00
13	Arrow Marking		6	ea	30.00	180.00
14	Video Detection - 4 Cameras		18	ls	26,000.00	468,000.00
15	Video Detection - 3 Camera		4	ls	17,000.00	68,000.00
16	Video Detection - 2 Camera		10	ls	11,650.00	116,500.00
17	Video Detection - 1 Camera	·	1	ls	6,750.00	6,750.00
18	Ped Push Button Post Complete		101	ls	1,600.00	161,600.00
		SI	JB-TOTAL	- · · · · -		1,525,743.00
		11% (	Contingency			167,832.00
		Cons	struction Eng	ineering		105,000.00
			Project Adn	ninistrati	on/Management	140,000.00
		Marketing				10,000.00
		TOTAL	1			1,948,575.00

CFP#F3502 LOA.P00F3502

FIGURE 1

**Executive Summary** 



Proposed Bicycle Facilities in North Redondo Beach

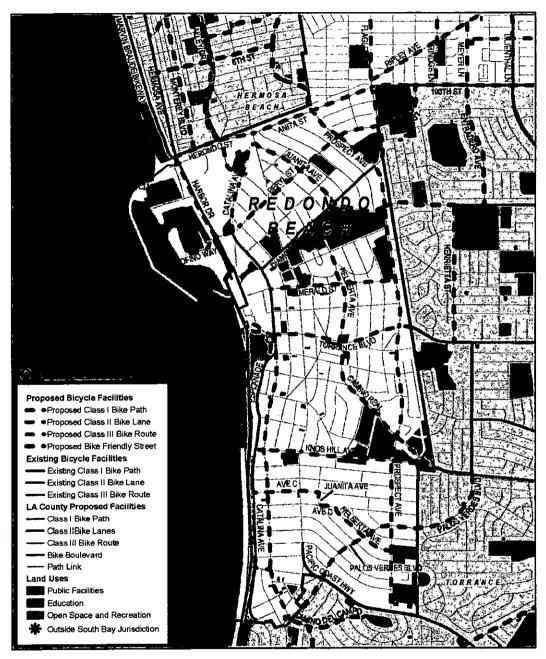
xxviii | Alta Planning + Design

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CFP#F3502

FTIP#: LAF3502 LOA.P00F3502

FIGURE 1 Los Angeles County Bicycle Coalition and South Bay Bicycle Coalition



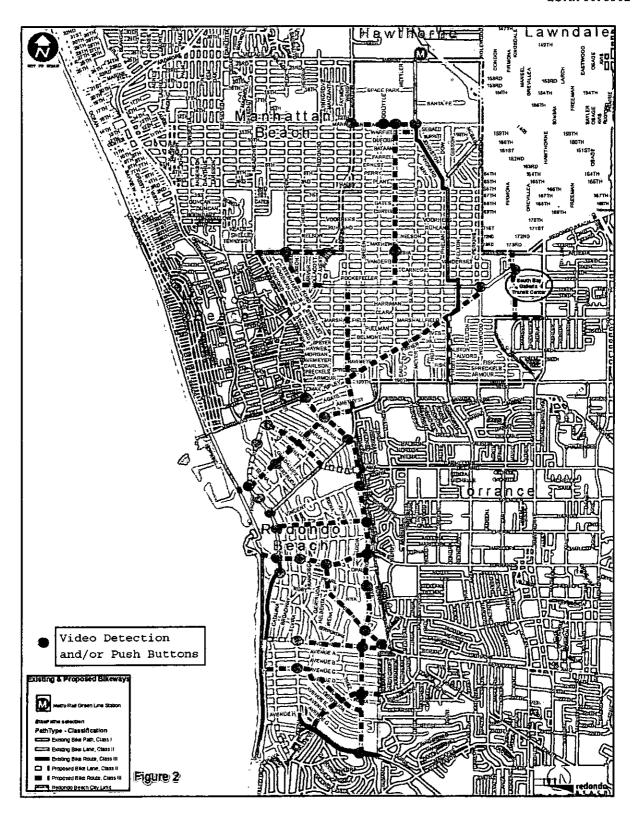
Proposed Bicycle Facilities in South Redondo Beach

Alta Planning + Design | xxix

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CFP#F3502 LOA.P00F3502

FTIP#: LAF3502



# LOA ATTACHMENT C REPORTING GUIDELINES FOR FEDERAL FUNDS

#### REPORTING PROCEDURES

Rev: 09.25.12

- The Quarterly Progress Report (Attachment C1) is required for all projects. The Project Sponsors shall be subject to and comply with all applicable requirements of the funding agency regarding project-reporting requirements. In addition, Project Sponsor will submit a quarterly report to the LACMTA PROJECT MANAGER. Please note that letters or other forms of documentation may <u>not</u> be substituted for this form.
- The Quarterly Progress Report covers all activities related to the project and lists all costs
  incurred. It is essential that Project Sponsors provide complete and adequate response to
  all the questions. The expenses listed must be supported by appropriate documentation
  with a clear explanation of the purpose and relevance of each expense to the project.
  Expenses must reflect the proportionate share of local match, including in-kind, charged
  to the grant.
- In cases where there are no activities to report, or problems causing delays, clear explanation, including actions to remedy the situation, must be provided.
- Project Sponsors are required to track and report on the project schedule. LACMTA will
  monitor the timely use of funds and delivery of projects. Project delay, if any, must be
  reported each quarter. Projects not delivered in a timely manner will be reevaluated by
  LACMTA as part of the annual Call for Projects Recertification process and the Funds
  may be deobligated and reprogrammed by the LACMTA Board.
- The Quarterly Progress Report is due to the LACMTA as soon as possible after the close of each quarter, but no later than the following dates for each fiscal year:

Quarter	Report Due Date
July –September	November 30
October - December	February 28
January - March	May 31
April - June	August 31

Upon completion of the Project a Final Report that includes project's final evaluation must be submitted.



# **LACMTA LOA ATTACHMENT C1**

## **QUARTERLY PROGRESS REPORT**

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LO/	<b>\</b> #						
Qua	arte	ly F	Repo	rt	#		

Project Sponsors are requested to mail this report to the LACMTA PROJECT MANAGER. Please submit Quarterly Progress Report with 60 days after the close of each quarter. No later than November 30, February 28, May 31, and August 31.

SECTION 1: GENERAL INFO	DRMATION	
PROJECT TITLE:		
LOA#:		
QUARTERLY REPORT SUB	MITTED FOR:	
Fiscal Year :	2011-2012	2012-20132013-2014
	2014-2015	2015-2016 2016-2017
Quarter :	Q1: Jul - Sep	Q2: Oct - Dec
	Q3: Jan - Mar	Q4: Apr - Jun (Attach photos of key components & milestones)
DATE SUBMITTED:		
LACMTA MODAL CATEGOR	Y:	
	Freeway	RSTI Signal Synchronization
	TDM	Bicycle Pedestrian
	Transit	TEA
	Name:	
	Project Mgr:	
LACMTA Project Mgr.		
	Phone Number:	
	e-mail:	
	Contact Name:	
	Job Title:	
Project Sponsor	Department:	
Contact / Project	City / Agency:	
Manager	Mailing Address:	
	Phone Number:	C-1305-055

Rev: 09.25.12

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	e-mail:		
SECTION 2: Quarterly PROG	RESS REPORT		
the control of the long space of the	i e sa		
% of Project Budget Expended to Date			
% of Project Completion			
DESCRIPTION OF THE PROPERTY OF			
A. Based on the comparison of the	e original and actual proj	ect milestone sch	nedules above, project is (select only one) :
On schedule per original LOA s	chedule	Γ	Less than 12 months behind original schedule
Between 12-24 months behind	original schedule		More than 24 months behind original schedule
B. Was the project design started  Yes	within 6 months of the da	ate originally state	
Yes	No No	ed within 9 month  Not Appli	ns after completion of design / specifications?
्र रहणभाषि स्वाधिक स्वासन्दर्भ वर्ष	to the second of	• •	and the second s
List tasks or milestones accom	plished and progress n	nade this quarte	г.

C-1305-055

Rev: 09.25.12

If project is delayed, describe reasons for delay (this quarter). Prois for the same reason as mentioned in previous quarters, please	ay particular attention to schedule delays. If delay indicate by writing "Same as Previous Quarter."
ī	
If the project is delayed (as described in #4), include action items the delay.	that have been, or will be, undertaken to resolve
I certify that I am the responsible Project Manager or fiscal office and that to the best	er and representative of of my knowledge and belief the information
stated in this report is true and correct.	
Signature	Date

C-1305-055

Rev: 09.25.12 3

# Los Angeles Metropolitan Transportation Authority 2013 Federal Transportation Improvement Program (\$000)

TIPID LAF3502	Implem	enting A	gency Re	dond	Beach, City	of				
Project Description: Redondo Beach Bicycle Transportation identified in the City of Redondo Beach's adopted Bicycle and 15.8 centerline miles of bike routes throughout the City	Transportation P	an, Approx	lement Class imately 2.1 c	II and I	II bike facilities e miles of bike lan	98	is Mod PM; R Email: LS: N	lef: NO obert Boar robert.boa LS GRO	ect#: 1NL04 Model#: rdman - (310) ardman@reck )UP#: gory: TCM	318-0661 orido.org
System : Local Hwy Route : Postmile:	Distance:	Phase	: Engineering	g/Plans,	Specifications and	d Estima	ites (PS&E)		pletion Date 1	2/31/2014
Lane # Extd: Lane # Prop: Imprv Desc:	remain des seus et personales partir de la compa	'Ar. 1 - A Seri out Total	Paris Programma, pu		Air Besin: SCAB	Envir	Doc: DRAFT C	ATEGORI	CALLY EXEM	IPT - 09/30/20
Toll Rate: Toll Cotc Loc: Toll Meth	od: Hovac	s eg loc:			Uza: Los Angeles Beach-Santa Ana	s-Long	Sub-Area:	•	Region:	
Program Code: NCN28 - BICYCLE FACILITY-NEW	n various referencials in a sustain relative participation and successive		541 /		CTIPS ID:	•	EA#:		PPNO:	
•	PHASE	PRIOR	12/13	13/1	4 14/15	15/16	16/17	17/18	05/01/0	
MAG - Congestion Magation At Guality (17	PE V						OF THE	1//10	BEYOND	TOTAL
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COLLOS Argeles County Proposition, CO.	BINDE RES		100	120	\$0					
	RW		or wide of the party.	THE STATE	\$0			18 (4 T) NO		\$(
	CON			Y	\$300	1			<b>A.</b>	\$390
erannizer eranz era <u>erzenendekinezen bizenta</u>	SHELOWER				380					
	TOTAL PE:	\$0		TOTA	L RW: \$0		TOTAL C	DN: \$1,949		
- General Comment: No significant change made Mdeling Comment: No significant change made TCM Comment:										
- Narrative: Project cost stays the same Revise Funds Between Fiscal Years CMAO:										
— Delete funds in 13/14 in CON for \$1,559  ► Add funds in 14/15 in CON for \$1,559										
PC20:										
Last Revised Adoption 13-00 - SCAG PENDING	3		Change	reason	:Carry Over, EN	IGINEE	RING CHAN	To	tal Cost	\$1,949

CFP#F3502 LOA.P00F3502

# ATTACHMENT E LIST OF DOCUMENTS TO BE SUBMITTED TO CALTRANS (FOR FEDERAL FUNDED PROJECTS)

NOTE: Refer to the Local Assistance Procedure Manual (LAPM) for the Exhibits.

## Request for Authorization for Preliminary Engineering (PE)

- 1. Copy of approved FTIP sheet.
- 2. Copy of LOA with LACMTA (only if RSTP, CMAQ, or Federal STIP funds are involved).
- 3. Field Review Form Exhibit 7-B.
- 4. Preliminary Environmental Study Form (PES) Exhibit 6-A.
- 5. A field review should be conducted at this stage and then the remaining documents could be submitted. During the field review all issues of the project such as Environmental & Right-of-Way (R/W) should be identified and addressed.
- 6. Request for Authorization to Proceed with PE Exhibit 3-A.
- 7. Request for Authorization Data Sheets Exhibit 3-G.
- 8. Local Programs Agreement Exhibit 4-A (only if the agency plans to begin invoicing for PE Phase prior to contract award).

NOTE: The portion of PE work done prior to authorization is ineligible for federal participation. The Master Agreement (if needed), Supplemental Agreement and PR2 will be initiated upon receiving Exhibit 4-A. Invoices will be accepted only after execution of all of these agreements. Caltrans Encroachment permit must be obtained before the Request to Proceed with Construction Phase if Caltrans R/W is involved.

# Request for Authorization for Utility Relocation

- 1. Request for Authorization to Proceed with Utility Relocation Exhibit 3-L.
- 2. Completed Project Prefix Checklist Exhibit 3-E (if previously not submitted).
- 3. Finance Letter Exhibit 3-F.
- 4. Request for Authorization Data Sheets Exhibit 3-G.
- 5. Local Programs Agreement Checklist Exhibit 4-A (if not submitted previously).
- 6. Approved Environmental Document. (After the authorization, the following documents should be submitted).
- 7. Request for Specific Authorization: See Exhibit 14-A. (Utility relocation work can commence only after the approval of Specific Authorization).
- 8. Fully executed Utility Agreement.

C-1305-055



#### Request for Authorization for R/W Phase

- 1. Request for Authorization to Proceed with R/W Exhibit 3-B.
- 2. Completed Project Prefix Checklist Exhibit 3-E (if previously not submitted).
- 3. Finance Letter Exhibit 3-F.
- 4. Request for Authorization Data Sheets Exhibit 3-G.
- 5. Local Programs Agreement Checklist Exhibit 4-A (if not submitted previously).
- 6. Approved Environmental Document (if not submitted previously.

### **Request for Authorization for Construction**

- 1. Environmental Clearance Document.
- 2. R/W Certification LAPM, Chapter 13.
- 3. PS&E Certification Exhibit 12-C.
- 4. PS&E Checklist Exhibit 12-D.
- 5. Request for Authorization to Proceed with Construction Exhibit 3-C.
- 6. Project Prefix Checklist Exhibit 3-E (if not previously submitted).
- 7. Preliminary Estimate.
- 8. Finance Letter Exhibit 3-F.
- 9. Request for Authorization Data Sheets Exhibit 3-G.
- 10. Local Programs Agreement Exhibit 4-A.

NOTE: The Local Agency shall not advertise the project until they receive the authorization to proceed with construction. Every local agency must also have Quality Assurance Program (QAP) – LAPM, Chapter 16.14, before advancing to Construction Phase. After a Program Supplemental Agreement, Exhibit 4-A, which includes all the phases of the project, will be mailed to the Local Agency.

FTIP#: LAF3502

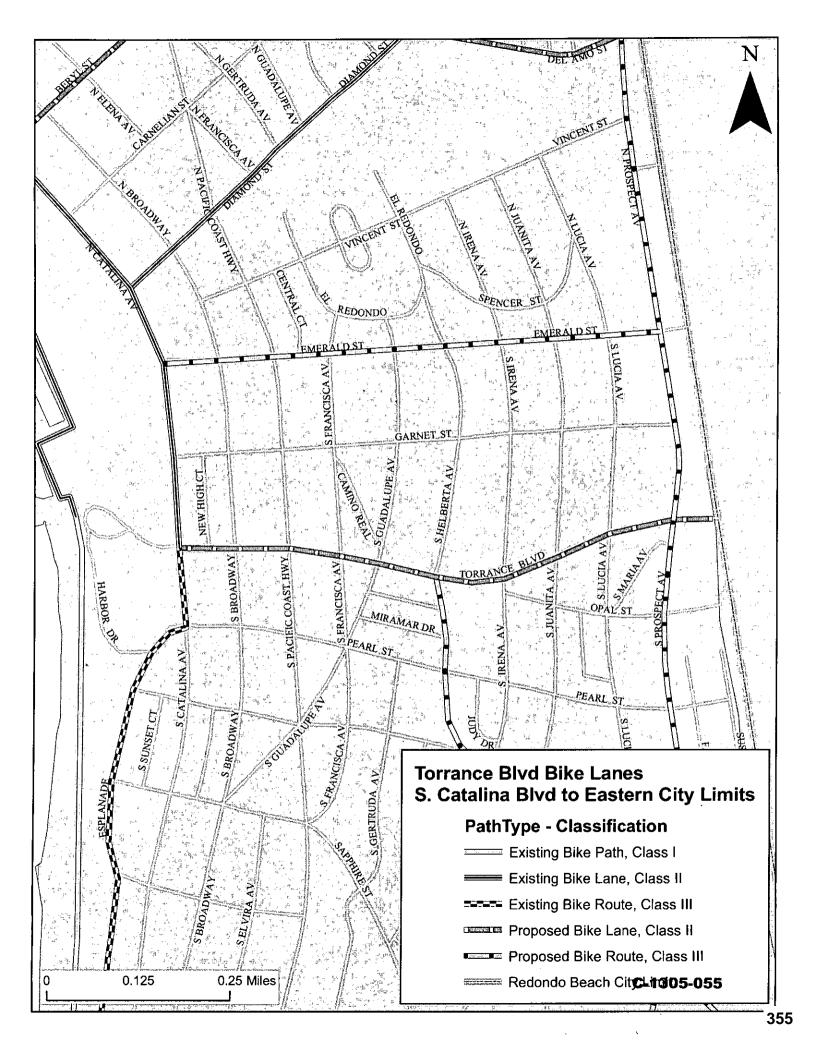
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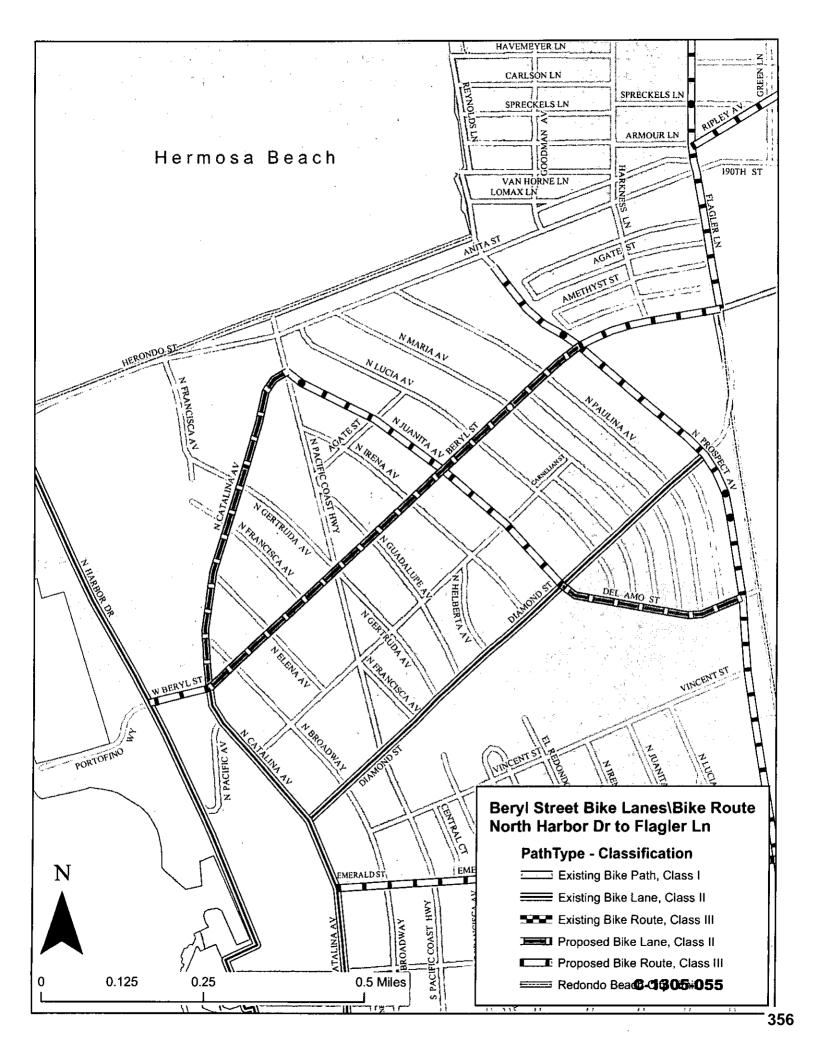
CFP#F3502 LOA.P00F3502

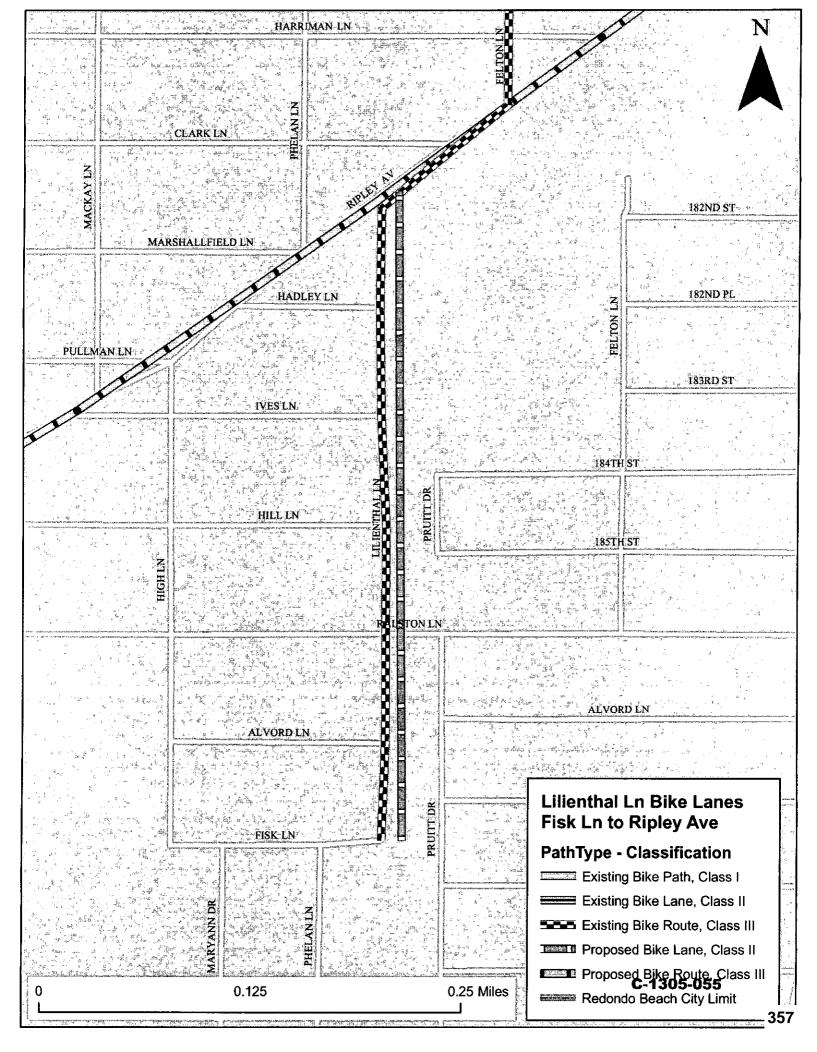
# ATTACHMENT F SPECIAL GRANT CONDITIONS

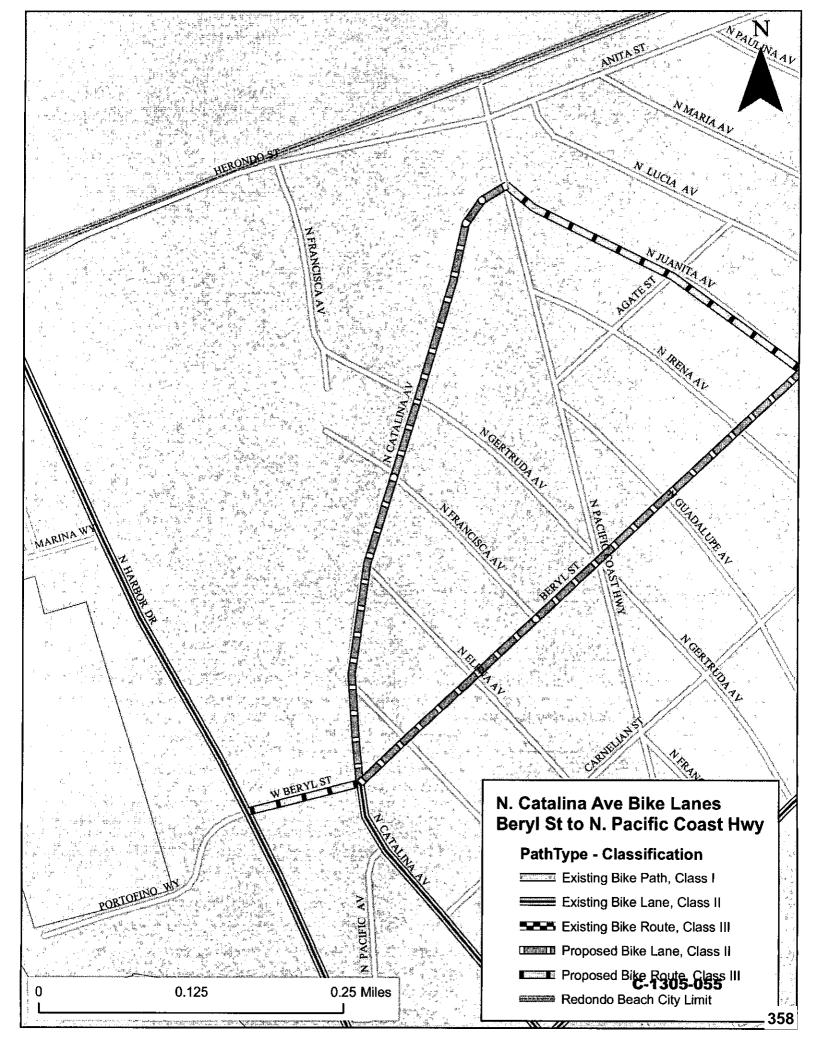
The 2009 COUNTYWIDE CALL FOR PROJECTS Board Report 10 dated September 16, 2009 included various projects specific condition imposed by the LACMTA.

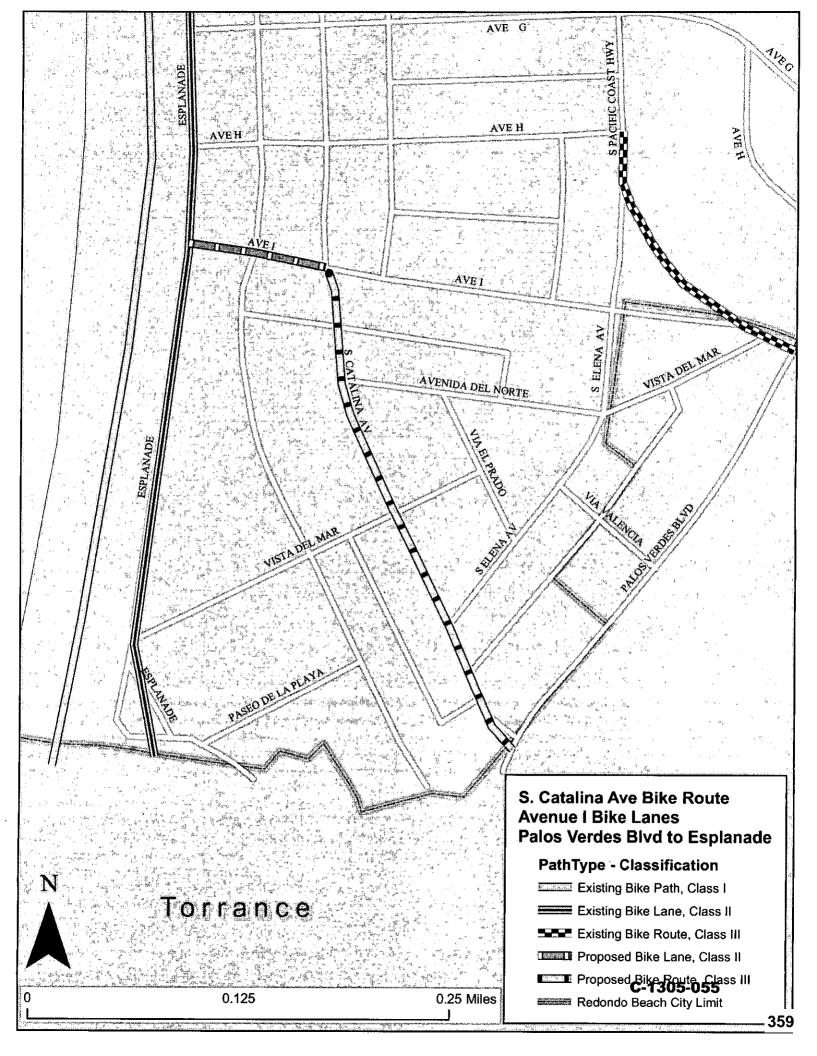
Redondo Beach Bicycle Transportation Plan Implementation (Project F3502) will require sponsor to prepare a Project Completion Report to be provided to the MTA Bike Program Manager. The report must include a brief description of "lessons learned", a user survey and "before and after" bicycle counts taken on a mid-week day and weekend, excluding winter months. The "after" counts should not be taken until six (6) months after the completion of the project.

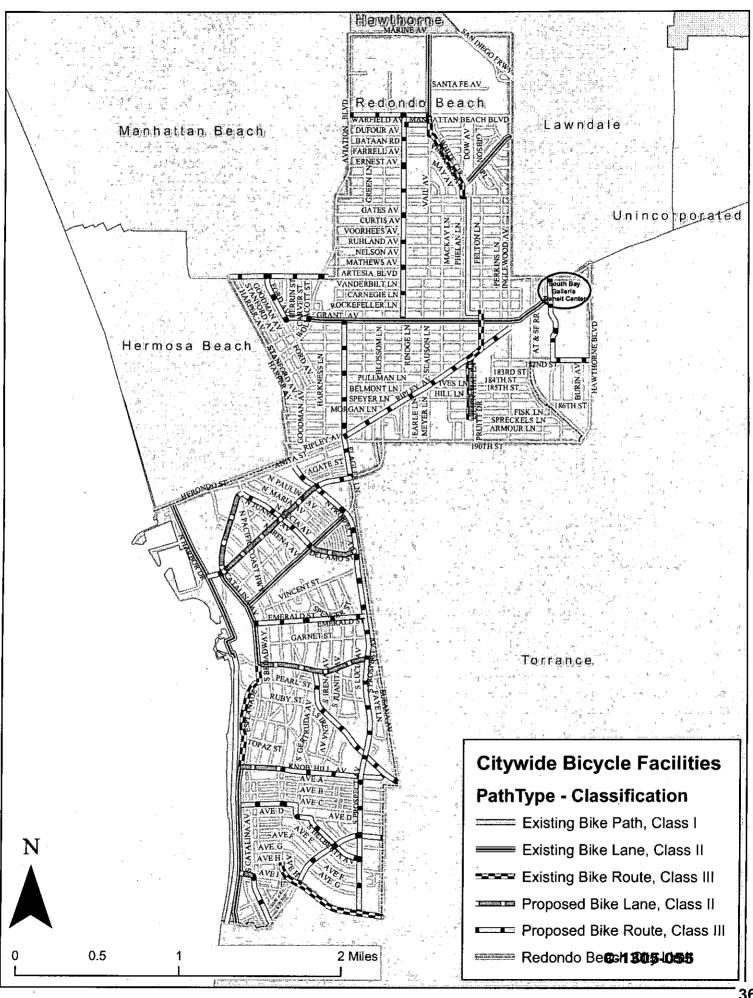












### BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PROJECT, JOB NO. 40940-40945, CFP NO. F3502

After approval of Plans and Specs, Caltrans will need to review and provide E-76 clearance before it can be advertised. That process typically takes 6 months. Expected date for advertising of this project is Summer 2021.

#	Street	Limits	CLASS	Dete
1	Torrance Blvd Bike Lanes Job No. 40944	Francisca to eastern City limits		х
2	Beryl Street Bike Lanes/Routes Job No. 40940	N. Catalina Ave. to N. Prospect Avenue	2	
3	N. Catalina Avenue Bike Lanes, Job No. 40941	Beryl Street to Gertruda Avenue	2	х
4	S. Catalina Avenue Bike Route Job No. 40942	Palos Verdes Blvd to Avenue I	3	
5	Avenue I Bike Lanes Job No. 40942	S. Catalina Avenue to Esplanade	2	
6	Citywide Bicycle Facilities Job No. 40945	Knob Hill Avenue (Esplanade to PCH)	2	
		Knob Hill Avenue (PCH to Camino Real)	3	
		Palos Verdes Blvd (PCH to Irena Ave)	3	
		Palos Verdes Blvd (Irena Ave to w/o Susana)	2	
		S. Helberta Avenue(Prospect Ave to Avenue D)	3	
		Avenue D (S. Helberta Ave to S. Juanita Ave)	3	
		S. Juanita Avenue (Avenue D to Avenue C)	3	
		Avenue C (Juanita Ave to Esplanade)	3	
		Camino Real (Torrance Blvd to Juanita)	3	
		Camino Real (Juanita to Prospect)	3	
		N. Juanita Ave. (Diamond to PCH)	3	
		Prospect Avenue (PCH to Ripley)	3	
		Ormond Lane (Aviation Blvd to Ford Ave)	3	
		Ford Avenue (Herrin St to Artesia Blvd)	3	
		Rindge Lane (Grant to Manhattan Beach Blvd)	3	

Page 1 of 1 1/14/2021 2:00 PM



H.12., File # 21-1960 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: ANGELICA ZAVALA, HOUSING SUPERVISOR

### **TITLE**

APPROVE AMENDMENT NO. 1 BY AND BETWEEN MRI SOFTWARE LLC AND THE CITY OF REDONDO BEACH.

APPROVE THE ORDER DOCUMENT NO. 2 AMENDING THE ORDER DOCUMENT DATED AND THE MASTER AGREEMENT MARCH 1, 2020 BETWEEN MRI AND THE CITY OF REDONDO BEACH FOR THE AMOUNT NOT EXCEED \$52,655 FOR THE TERM OF JANUARY 01, 2021 THROUGH DECEMBER 31, 2025.

### **EXECUTIVE SUMMARY**

HAPPY Software is a specialized computer program used by the Housing Authority to collect and track data related to the Section 8 Housing Choice Voucher Program. The software and its technical support are necessary for the Housing Authority to administer the Section 8 Program in compliance with federal regulations. The proposed amendment to the contract establishes the purchase of software modules and services from MRI/Happy Software for the term January 1, 2021 through December 31, 2025. This software will streamline operations and enable contactless processing of Section 8 applications and recertifications. The cost of the of this software is \$14,179 for the first year and for a 5-year term total cost of \$52,655. The expenses for the contract would be allocated from the Housing Authority's HUD administrative funds as part of the adopted FY Budget for each year of the term.

### **BACKGROUND**

In May of 2003, the City Council approved a contract to purchase Section 8 Housing software and annual maintenance from HAPPY Software. This enabled the Housing Authority to administer the Section 8 program in compliance with federal regulations. The Housing Authority has been utilizing HAPPY Software since that time and has routinely amended the contract to maintain service and annual maintenance support.

The annual maintenance includes periodic software updates and support for City staff involved with administration of the Section 8 program. Software updates occur when the federal government makes various changes to the Section 8 program rules.

This Amendment to the HAPPY Software, Inc. contract provides for the purchase of software modules that will assist the Housing Authority with contactless interactions with applicants, tenants, and landlords.

### COORDINATION

The City Attorney's office has approved this contract as to form. The Information Technology Department will

install any software updates for use by the Housing Authority.

### FISCAL IMPACT

The cost of the of this software is \$14,179 for the first year and for a 5-year term total cost of \$52,655. The expenses for the contract would be allocated from the Housing Authority's HUD administrative funds as part of the adopted FY Budget for each year of the term.

### **ATTACHMENTS**

- MRI Amendment
- MRI Order Documents
- MRI March 2020 Signed Agreement



### AMENDMENT NO. 1

This Amendment No. 1 (this "Amendment") is made effective as of January 1, 2021 (the "Effective Date") by and between MRI Software LLC, with its office at 28925 Fountain Parkway, Solon, OH 44139 ("MRI") and Client (collectively the "Parties" and each a "Party").

- A. WHEREAS, MRI and Client entered into a certain Master Agreement along with various Schedules and an Order Document effective March 1, 2020 (collectively "the Agreement").
- B. WHEREAS, MRI and Client desire to enter this Amendment and amend certain provisions of the Agreement.
- C. NOW, THEREFORE, for the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, MRI and Client hereby agree as follows:

Both Client and MRI agree that Section 4.3 of the Agreement shall be struck and replaced with the following:

"Information shall not be considered Confidential Information to the extent, but only to the extent, that the receiving Party can establish that such information (i) is or becomes generally known or available to the public through no fault of the receiving Party; (ii) was rightfully in the receiving Party's possession before receipt from the disclosing Party free of any obligation to keep it confidential; (iii) is lawfully obtained from a third party who has the right to make such disclosure; (iv) has been independently developed by the receiving Party without reference to any Confidential Information of the disclosing Party; or (v) is required by the City Clerk to be disclosed by the Client as part of its contract approval process."

All other provisions of the Agreement remain in full force and effect.

City of Redondo Beach ("Client") 415 Diamond Street Redondo Beach, CA 90277

MRI Software LLC ("MRI") 28925 Fountain Parkway Solon, OH 44139

Redondo Beach, CA 90277	Solon, OH 44139
Signature:	Signature:
Print Name:	Print Name:
Title:	Title:
ATTEST:	
Eleanor Manzano, City Clerk  APPROVED AS TO FORM:	
APPROVED AS TO FORM.	
Michael W. Webb, City Attorney	

File: City of Redondo Beach



### ORDER DOCUMENT #2 Subscription License and Maintenance & SaaS Services

This Order Document #2 incorporates by reference and is governed by the terms and conditions of the Order Document dated March 1, 2020 and the Master Agreement, the SaaS Services Schedule, and the Professional Services Schedule attached therein (collectively, the "Agreement") between MRI and Client, and this Order Document is effective as of January 1, 2021 (the "Effective Date"). Capitalized terms that are not otherwise defined in this Order Document shall have the meanings set forth in the Agreement. This Order Document is an offer to make an offer and does not constitute a valid contract between the Parties until countersigned by MRI. Any pricing terms in this Order Document are valid for thirty (30) days following issuance of this Order Document.

ATTEST: City of Redondo Beach ("Client"), MRI Software LLC ("MRI"), Eleanor Manzano, City Clerk 415 Diamond Street 28925 Fountain Parkway APPROVED AS TO FORM: Redondo Beach, CA 90277 Solon, OH 44139 Michael W. Webb, City Attorney Signature: \_\_\_\_\_ Signature: \_\_\_\_\_ Print Name: William C. Brand Print Name: Title: Mayor Title:

The Parties accept and agree to this Order Document, as follows:

ADDITIONAL HAPPY SAAS SERVICES							
Products	License Metric	Quantity	Territory				
AssistanceCheck - Online Assistance	Portal	Up to 1 Portal	USA				

Product	License Metric	Quantity	Installation Site	Territory							
HQS Mobile Inspections (iPad)	Units Users	Up to 593 Units Up to 8 Named Users	1922 Artesia Boulevard Redondo Beach, CA 90278	USA							
iDIA (Integrated Document Imaging Archive) System	Units Users	Up to 593 Units Up to 8 Named Users	1922 Artesia Boulevard Redondo Beach, CA 90278	USA							
Inspections	Units Users	Up to 593 Units Up to 8 Named Users	1922 Artesia Boulevard Redondo Beach, CA 90278	USA							



COMMON SERVICES SAAS SERVICES							
Products	License Metric	Minimum Quantity	Territory				
Secure Sign	Packets	1,187 Packets	USA				
Database	Each	Up to 1 Production	USA				

The additional SaaS and Subscription Fees for the above Services and corresponding License Metric Quantity are U.S. \$9,619 annually, payable in U.S. Dollars 60 days from MRI's invoice date.

The SaaS and Subscription Services fees are subject to the terms and conditions of the Agreement, including, without limitation, footnotes (1) and (2) as well as the Initial Term and any Renewal Term(s) of the Order Document with an effective date of March 1, 2020. The first invoice for such additional SaaS Fees shall be pro-rated to align with the Client's current invoice term. Thereafter, the above listed additional SaaS Fees shall be renewed, billed, payable, and subject to any increases in conjunction with the Client's current SaaS and Subscription Fees.

Secure Sign Overage Payment Terms: The total Minimum Quantity of Packets shall be allocated per year, without roll over from year to year. MRI will invoice the Client monthly in arrears for all Packets utilized above the Minimum Quantity set forth above. Each Packet shall be billed at a rate of \$2.01 per Packet per year (the "Secure Sign Overage Price"). Such Secure Sign Overage Price may be modified by MRI after the first twelve (12) months in accordance with footnote (2) above.

#### LICENSE METRICS AND USE RIGHTS DEFINITIONS

#### **Definitions**

A "Packet" is an individual file containing a single document or multiple documents which are sent to a recipient via the Secure Sign product. An initiated, completed, canceled, incorrect, or incomplete file will be counted so long as it is sent out of the Secure Sign product, regardless of the status.

<u>Use Rights</u>: The license to use the SaaS Service is priced based on Client's License Metrics as of the Effective Date of this Order Document and allows Client to use the Software to manage <u>up to</u> the quantity set forth above. Additional licenses must be purchased by Client in the event the number of actual License Metrics exceeds such licensed quantity. If Client's actual License Metrics exceed such licensed quantity, then MRI reserves the right to charge a premium fee for any additional License Metric used. The cost for these additional licenses will be at MRI's then-current fees. There shall be no fees adjustments or refunds for any actual License Metrics decreases. Fees (other than monthly user access fees) are based on quantity purchased, not usage.

## Statement of Work – Work Authorization



### **STATEMENT OF WORK #648608 and 682137**

This Statement of Work incorporates by reference and is governed by the terms and conditions of the Master Agreement ("Agreement") with an effective date of March 1<sup>st</sup>, 2020 and the Schedule for Professional Services of same date between MRI Software LLC ("MRI") and the City of Redondo Beach ("Client") and is effective as of January 1, 2021 ("Effective Date").

Client Name: City of Redondo Beach
Date: January 1, 2021

### PROJECT SCOPE AND SUMMARY

MRI shall deliver the following services:

- Internet Based Training Assistance Connect
  - Two (2) hours of training to review the Administrative Settings and how staff will be using Assistance Connect with their software
  - Two (2) hours of follow up training to continue to incorporate features of Assistance Connect into Agency process
- Project Management Assistance Connect
  - Assist with settings and agency process and use of Assistance Connect
  - Work on agency process to incorporate Assistance Connect into day to day processes
- Installation Assistance Connect
  - Install scheduled tasks on Housing Pro server
- Internet Based Training iDIA
  - One (1) hour of training to review module core functions
  - One (1) hour to review processes at agency for efficiency
- Project Management iDIA
  - Sending follow up post training sessions on both modules
- Internet Based Training Inspections and Mobile Inspections
  - Three and a half (3.5) hours of training to review module functionality
- Project Management Inspections and Mobile Inspections
  - Assistance with setup and configuration of module
- Installation Inspections and Mobile Inspections
  - iPad Installation

### PROJECT PRE-REQUISITES

- 1. Before MRI is able to secure/book any MRI resources, provide any targeted start and end dates for project the following must be in place.
  - 1.1. The Master Agreement has been signed by both MRI and the Client, if applicable.
  - 1.2. Statement of Work has been executed by both Client and MRI.

### PROJECT SERVICE DELIVERABLES

1. MRI has endeavored to provide the most accurate estimates for each deliverable and activity based on the scope and budgetary information provided by the Client. All estimates at this stage in the project are subject to change; however, such changes shall be agreed by both parties in writing prior to implementation.



### Mi

## Statement of Work – Work Authorization

- The project timescales for this project and related deliverables must be formally communicated and agreed upon by MRI and the Client.
- 3. MRI maintains a backlog of project work; therefore the start date for this project will be subject to MRI availability at the time this Statement of Work is executed. Each Party shall perform its obligations promptly and without unreasonable delay. Should you have any questions regarding expected backlog for this project, please contact MRI at gpsrequests@mrisoftware.com.

### **PROJECT ASSUMPTIONS**

- 1. Client is responsible for providing all reasonably requested necessary documentation, if applicable, for MRI to complete the Scope.
- 2. Software and Software Documentation is provided in English only. Training and Support is provided in English with optional Spanish Language Assistance.

### **CHANGE CONTROL PROCEDURES**

- 1. Changes to this Statement of Work ("SOW") may be requested at any time, by either party. As any proposed changes to the original scope of work might affect the price, schedule changes that incur additional fees or alter the terms of the original SOW must be approved by authorized parties of Client and MRI "prior" to amending the SOW and implementing the change. Any such modification shall be executed by both Parties via a subsequent SOW.
- 2. This procedure will be used by the Parties to control changes to the SOW and changes to any previously approved services or deliverables.
- 3. The requesting party will create a Project Change Request ("PCR") which will serve as the vehicle for communicating the change. The PCR shall describe the change, the justification for the change, additional fees, and the impact such changes will have on the SOW.
- 4. The requesting party's designated Project Manager or project representative will review the proposed change and determine whether to submit the request to the other party.
- 5. The Parties will review the proposed PCR and will either approve, investigate it further or reject the PCR. The PCR will not be binding until a SOW incorporating the PCR is executed by both parties.

### **GENERAL ASSUMPTIONS**

- 1. Once the Statement of Work is executed, the assigned MRI Consultant(s) will be scheduled with project personnel at a mutually agreeable timetable.
- 2. Efforts around change management, business process reengineering, or project management of Client resources is considered out of scope.
- 3. Mutually agreed changes to specifications, whether before, during or after MRI's performance will be handled by processing a Project Change Request.
- 4. MRI reserves the right to charge Client a cancellation fee in accordance with the Agreement, if applicable.
- 5. Client shall make reasonable business efforts to deliver a stable network and computing environment prior to any services engagement.
- 6. Client and MRI will work together to resolve all issues related to the project in a timely fashion.
- 7. Client and MRI will communicate any changes in schedule, availability of project personnel, hardware, software, resources or facilities related to the project within a reasonable timeframe in advance of scheduled engagements.
- 8. Client will manage the availability of appropriate personnel for knowledge transfer as well as decision-making and escalation of decisions.
- 9. The project team may adjust the master project plan based on real world findings and the Client's ability to secure required resources.
- 10. Location of work will be remote only.

### PRICING ASSUMPTIONS

The professional services fee estimates are for MRI resources (or affiliates). Client understands that professional services



### mi

### Statement of Work – Work Authorization

fees are due as incurred and are billed on a monthly basis at month end. Client agrees to pay invoices sixty (60) days after the invoice date. Failure to pay invoices will be handled in accordance with MRI collections policy.

- 1. MRI fees for the scope of Services described in this Statement of Work will be billed to the Client on a time and materials basis for hourly services and at a fixed fee basis for all other services per the Pricing Schedule below.
- 2. Project Change Requests (aka Change Orders) executed against this contract will be contracted at MRI standard rates; provided, however that Client provides written approval of such Change Order.
- 3. Future work for MRI services not associated with this Statement of Work will be contracted at standard rates.
- 4. The cost estimates are for MRI personnel or affiliates and will be billed on a monthly basis.
- 5. Identified SCHEDULES may be modified at the request and/or acceptance of Client. Changes in SCOPE will require PCR (see above).
- 6. Client is responsible for payment of any applicable taxes. MRI will invoice Client for any applicable taxes in connection with performance of the Statement of Work in accordance with the Agreement. Any tax amounts are over and above the fees and expenses noted in the Statement of Work and any amounts prepaid hereunder for such fees and expenses will not be applied to taxes due.
- 7. Pricing schedule is subject to change if Statement of Work is not signed within 60 days of creation date at which time this Statement of Work will expire.



### MI

## Statement of Work – Work Authorization

### **PRICING SCHEDULE**

MRI DELIVERABLE	RATE	QUANTITY	UNIT	EST SERVICE FEES
Internet Based Initial Training – Assistance Connect	\$160	2 hours	Fixed fee	\$320
Internet Based Follow-up Training – Assistance Connect	\$160	2 hours	Fixed Fee	\$320
Project Management – Assistance Connect	\$160	10 hours	Fixed fee	\$1,600
Installation – Assistance Connect	\$160	.5 hour	Fixed fee	\$80
Internet Based Initial Training – iDIA	\$160	1 hours	Fixed fee	\$160
Internet Based Follow-up Training – iDIA	\$160	1 hour	Fixed Fee	\$160
Project Management – iDIA	\$160	4 hours	Fixed fee	\$640
Internet Based Training – Inspections	\$160	3.5 hours	Fixed fee	\$560
Internet Based Installation – Inspections	\$160	.5 hours	Fixed fee	\$80
Project Management – Inspections	\$160	4 hours	Fixed fee	\$640
MRI Services Total				\$4,560

### **AGREEMENT TO COMMENCE WORK:**

City of Redondo Beach

With my signature below and on behalf of Client, Client hereby, (i) acknowledges that this entire Statement of Work (all pages) accurately documents the terms of the work agreed upon by Client and MRI; (ii) approves this Statement of Work as issued; (iii) gives approval for commencement of work as specified herein; and (iv) acknowledges that these terms are subject to change in accordance with any modification to the scope of work.

		ATTEST:
* Signature:		Eleanor Manzano, City Clerk
* Name:	William C. Brand	APPROVED AS TO FORM:
* Date:	January 5, 2021	Michael W. Webb, City Attorney
MRI Softwa	are LLC	
* Signature:		_
* Name:		
* Date:		
* Indicates required	field	



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 07/02/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).												
this certificate does not confer rights to the certificate holder in field of s					CONTACT Willis Towers Watson Certificate Center							
	lis Towers Watson Northeast, Inc.									-467-2378		
	26 Century Blvd				(A/C, No	o, Ext): 1-0//			1-000	-407-2376		
	. Box 305191 nville, TN 372305191 USA				ADDRES		cates@willi			T .		
Nası	1VIIIe, IN 3/2305191 USA							RDING COVERAGE		NAIC#		
					INSURER A: Continental Insurance Company 352					35289		
INSU MRI	RED Software LLC				INSURE	RB:						
2892	25 Fountain Pkwy				INSURER C:							
Sol	on, OH 441394356				INSURE	RD:						
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	X COMMERCIAL GENERAL LIABILITY							EACH OCCURRENCE	\$	1,000,000		
	CLAIMS-MADE X OCCUR							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000		
A								MED EXP (Any one person)	\$	15,000		
		Y		6014864752		06/23/2020	06/23/2021	PERSONAL & ADV INJURY	\$	1,000,000		
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$	2,000,000		
	X POLICY PRO- JECT LOC							PRODUCTS - COMP/OP AGG	\$	2,000,000		
	OTHER: AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT	\$			
	ANY AUTO							(Ea accident)	\$			
	OWNED SCHEDULED							BODILY INJURY (Per person)	<u> </u>			
	AUTOS ONLY AUTOS NON-OWNED							BODILY INJURY (Per accident) PROPERTY DAMAGE	-			
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	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N/A						E.L. EACH ACCIDENT	\$			
	(Mandatory in NH)	,,,						E.L. DISEASE - EA EMPLOYEE	\$			
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$			
DESC	CRIPTION OF OPERATIONS / LOCATIONS / VEHICL	ES (A	CORD	) 101, Additional Remarks Schedul	e, may be	attached if more	e space is require	ed)	1			
Thi	s Voids and Replaces Previous	ly I	ssue	ed Certificate Dated	06/23	3/2020 WIT	H ID: W168	97421.				
Cit	y of Redondo Beach is included	d as	an	Additional Insured a	as res	spects to	General Li	ability.				
CERTIFICATE HOLDER CANCELLATION												
					SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.							
۲.	v of Redondo Reach		AUTHORIZED REPRESENTATIVE									
City of Redondo Beach 415 Diamond Street					Peter le l'autent							
	Redondo Beach, CA 90277					LAM D. C	zavij	Peta b-ladat				

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H.13., File # 21-1942 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

### TITLE

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-012, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, APPROVING A LOCAL SALES TAX REVENUE SHARING AGREEMENT AND A SALES TAX SHARING IMPLEMENTATION AGREEMENT FOR THE REDONDO MITSUBISHI DEALERSHIP LOCATED JOINTLY IN REDONDO BEACH AND HERMOSA BEACH

### **EXECUTIVE SUMMARY**

Because the Redondo Mitsubishi auto dealership occupies a property which is in both the City of Hermosa Beach and the City of Redondo Beach, a tax sharing agreement is needed for the sales tax generated from the dealership. Consistent with the auto dealership's square footage, the agreed upon split is 47% to Hermosa Beach and 53% to Redondo Beach.

### **BACKGROUND**

The Redondo Mitsubishi dealership will be filing its first quarterly sales tax return at the end of January 2021. In order for the California Department of Tax and Fee Administration (CDTFA) to create sub-permits for each of the parcels on the Hermosa Beach site and the Redondo Beach site and make this quarterly sales tax distribution (together with all future distributions) using the agreed upon split, it needs to be in possession of an agreement between the two cities specifying the percentage each city is to receive. The agreement (to be provided via blue folder) between the Cities of Hermosa Beach and Redondo Beach satisfies this requirement. The agreement between the two cities and Redondo Automotive (dba Redondo Mitsubishi) ensures that the auto dealership is in agreement with the sharing of its collected sales tax.

Since the auto dealership property is 47% in the City of Hermosa Beach and 53% in the City of Redondo Beach, those are the percentages to be used in the sharing of the sales tax generated by the dealership.

### COORDINATION

Upon execution their execution of the agreements, the agreement between the City of Hermosa Beach and the City of Redondo Beach will be sent to the State for administration by the CDTFA.

### FISCAL IMPACT

For the time the property has been vacant, the City has received no sales tax. With a timely

execution of the resolution and agreements, all sales tax revenue from the Redondo Mitsubishi auto dealership will be shared with the City of Hermosa Beach (47%) for remittances to the City of Redondo Beach totaling 53%.

### APPROVED BY:

Joe Hoefgen, City Manager

### **ATTACHMENTS**

Resolution (to be provided via blue folder)
Sales Tax Sharing Agreement (to be provided via blue folder)
Sales Tax Sharing Implementation Agreement (to be provided via blue folder)



H.14., File # 21-1954 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

**From**: MICHAEL W. WEBB, CITY ATTORNEY CHERYL PARK, ASSISTANT CITY ATTORNEY JOY ABAQUIN, QUALITY OF LIFE PROSECUTOR

### TITLE

APPROVE THE FIRST AMENDMENT TO THE AGREEMENT WITH CITY NET TO ADD NAVIGATION SERVICES FOR PEOPLE EXPERIENCING HOMELESSNESS IN REDONDO BEACH FOR THE EXISTING TERM OF SIX MONTHS

### **EXECUTIVE SUMMARY**

On January 12, 2021, the Mayor and City Council approved an agreement with City Net to conduct a census count of people experiencing homelessness in Redondo Beach. The Mayor and City Council also directed staff to bring back an amendment to that agreement to add navigation services from City Net. The amended agreement is presented for City Council consideration and possible approval.

### **BACKGROUND**

City Net is a non-profit organization that has assisted several cities in the counties of Los Angeles, Orange, Riverside and Santa Barbara. City Net's organization and mission are effective in helping individuals who have been chronically homeless for a number of years.

On January 12, 2021, the Mayor and City Council approved an agreement with City Net for a census count of people experiencing homelessness in Redondo Beach. The Mayor and City Council also directed staff to return with an amendment to the agreement to add housing navigation services for people experiencing homelessness in Redondo Beach.

As part of a compromise of the location for the temporary emergency transitional housing, the Mayor and City Council approved an additional housing navigator dedicated to outreach in North Redondo. One of the additional Housing Navigators provided by this contract amendment with City Net will only manage cases from North Redondo. The other will manage cases from throughout the entire City. Housing navigation services from City Net would provide outreach, case management, housing navigation, and referrals to interim housing and partnering local programs.

The approval of the amendment to this agreement will supplement the City's services by continuing efforts through contracting with City Net to utilize homeless outreach and housing navigation specialists for people experiencing homelessness in Redondo Beach.

### **COORDINATION**

The City Attorney's Office coordinated with the Police Department, the Department of Community Services, and the City Manager's Office in connection with the preparation of this report.

### FISCAL IMPACT

\$80,000 of CDBG CARES funding is available in the Intergovernmental Grants Fund

\$31,527 of unallocated CDBG program funding is scheduled for appropriation to the Community Development Block Grant Fund at the midyear budget review.

### **ATTACHMENTS**

First Amendment to City Net Agreement

## FIRST AMENDMENT TO AGREEMENT FOR PROJECT SERVICES BETWEEN THE CITY OF REDONDO BEACH AND CITY NET

THIS FIRST AMENDMENT TO THE AGREEMENT FOR PROJECT SERVICES ("First Amendment") is made between the City of Redondo Beach, a chartered municipal corporation ("City") and City Net, a California Nonprofit 501(c)(3) corporation ("Consultant").

WHEREAS, on January 12, 2021, the parties hereto originally entered into that certain Agreement for Project Services between the City and Consultant ("Agreement"); and

WHEREAS, City and Consultant desire to amend the Agreement pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereby agree to make the following amendments to the Agreement:

- Scope of Services. Exhibit A is amended to include the following:
   City Net shall provide two (2) housing navigators to provide housing navigation
   services including outreach, case management, housing navigation, and referrals
   to interim housing and partnering local programs.
- 2. <u>Compensation</u>. Exhibit C is amended to provide compensation for the housing navigation services in the amount of \$111,527 for a not to exceed amount of \$139,848. The compensation matrix for the housing navigation services is attached hereto and incorporated herein by this reference.
- 3. <u>Modification.</u> Except as expressly set forth herein, the Agreement shall continue in full force and effect. The Agreement together with this First Amendment constitutes the entire agreement between the parties and supersedes any previous oral or written agreement. In the event of any inconsistency between this First Amendment and the Agreement the terms of this First Amendment shall prevail. This First Amendment may be modified or amended only by a subsequent writing executed by all of the parties.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have entered into this First Amendment as of this 19th day of January, 2021.

CITY OF REDONDO BEACH A chartered municipality	CITY NET a California Nonprofit 501(c)(3) Corporation
William C. Brand, Mayor	Matt Bates, Vice President
APPROVED AS TO FORM:	
Michael W. Webb, City Attorney APPROVED:	
Diane Strickfaden, Risk Manager	
ATTEST:	
Eleanor Manzano, City Clerk	



## Redondo Beach Outreach and Engagement Feb 1, 2021 - June 30, 2021 Summary Budget

Redondo Beach Outreach and Engagement, February 1, 2021 - June 30, 2021 (21.6 weeks) Summary Budget

### Labor

2.75 FTE for direct labor on project, including street outreach and engagement, housing navigation and housing stabilization, supportive services, project management and oversight, quality control, communications, finance and billing, human resources, operations and data entry and reporting.

Labor Subtotal: \$62,778

### **Client Services**

Client transport vehicle, plus rees, rental assistance and move-in costs for rapid rehousing, sober living homes, room and board, rooms for rent, relocations, etc. Also fees for documentation, local transportation, work expenses, etc.

Client Services Subtotal: \$34,000

### **Operations**

Office space and office equipment rentals, program equipment (phones, computers, uniforms, Personal Protective Equipment (PPE), etc.), materials and supplies (copies, forms, office supplies, etc.), IT support, financial audit, liability insurance etc.

Operations Subtotal: \$11,047

### Administration

Indirect costs including general expenses incurred by City Net but not directly borne by the project (utilities, taxes, insurance, legal, staff development, contingencies, etc.)

Administration subtotal: \$10,782

### **Project Disount**

Discount for contracting City Net services for both Census and Outreach and Engagement (@ 25% of value of Census contract)

Discount subtotal: -\$7,080

Project TOTAL \$111,527



H.15., File # 21-1955 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: ELEANOR MANZANO, CITY CLERK

### TITLE

APPROVE AGREEMENT WITH LOS ANGELES COUNTY REGISTRAR-RECORDER FOR CITY'S USE OF COUNTY-OWNED BALLOT DROP-OFF BOXES FOR MARCH 2, 2021 GENERAL MUNICIPAL ELECTION BALLOTS

### **EXECUTIVE SUMMARY**

This agreement acknowledges County's commitment to provide access to the City's use and access of Los Angeles County Registrar-Recorder's (County) three 24-Hour Ballot Drop-Off Boxes located in the City for our March 2, 2021 General Municipal Election beginning February 1, 2021.

### **BACKGROUND**

The City entered into an agreement with the County to host placement of three (3) ballot drop-off boxes in advance of the November 3, 2020 General/Presidential Election for a period of five (5) years on September 1, 2020. The agreement also allows the City the use of the drop boxes for collection of voted ballots for the City's municipal elections, whether conducted independently or by the County. However, no other details of use or access, *e.g.*, providing the City keys or County designated personnel locking/unlocking the boxes at scheduled times during this election cycle with the City Clerk's Office designees were included on the original agreement.

### COORDINATION

Coordinated with the City Attorney's office.

### FISCAL IMPACT

None.

### **APPROVED BY:**

Eleanor Manzano, City Clerk

### **ATTACHMENTS**

County Use Agreement will be forwarded via Blue Folder on Tuesday, January 19, 2021.



J.1., File # 21-1937 Meeting Date: 1/19/2021

**TITLE** 

For eComments and Emails Received from the Public



L.1., File # 21-1958 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKS DIRECTOR

### TITLE

PUBLIC HEARING TO CONSIDER THE ADOPTION OF A RESOLUTION OF NECESSITY TO ACQUIRE CERTAIN REAL PROPERTY INTERESTS FROM 1700 ARTESIA BLVD.

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-011, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DECLARING CERTAIN REAL PROPERTY INTERESTS NECESSARY FOR PUBLIC PURPOSES AND AUTHORIZING THE ACQUISITION THEREOF IN CONNECTION WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE AVIATION BLVD. AT ARTESIA BLVD. NORTHBOUND RIGHT TURN LANE PROJECT, JOB NO. 40780 (PART FEE TAKE AND TEMPORARY CONSTRUCTION EASEMENT OVER PORTIONS OF APN 4162-001-014)

#### PROCEDURES:

- A. Open Public Hearing, take testimony; and
- B. Close Public Hearing; and
- C. Adopt by Title only Resolution No. CC-2101-011

### **EXECUTIVE SUMMARY**

This resolution is needed to secure needed right of way for the Aviation Blvd. at Artesia Blvd. NB Right Turn Lane Project, Job No. 40780, ("Project") from the adjacent property owner at 1700 Artesia Blvd. The Project was initially funded by Measure R in FY 2011-12. Preliminary engineering and adoption of a CEQA finding have been completed and final design is nearing completion. The property at 1700 Artesia Blvd. was redeveloped in the mid 1990's with a project like this in mind. At that time, staff recommended the conditions of development include dedication of a 10-foot strip of land along Aviation Blvd. to accommodate a future dedicated right turn lane. The Planning Commission, however, deleted this condition in their final approval, making it necessary to secure about 1,813 square feet of real estate from the property at 1700 Artesia Blvd. for the Project to be able to move forward.

Staff has made two offers to the property owner, the Madani Family Trust, to purchase the needed real estate. The first offer was made in the Spring of 2017 and the most recent offer was made in October 2020. Each time, the offered price, considered the fair market value, was based on a full appraisal of the property. The property owner has shown no interest in selling the property and has responded each time by questioning the need for the project.

In order to secure the needed real estate and allow the Project to move forward, staff is now ready to pursue eminent domain proceedings, upon the Council's direction to do so. Therefore, staff now recommends that the City Council:

- 1. Consider Resolution No. CC-2101-011 a Resolution of the City Council of the City of Redondo Beach Declaring Certain Real Property Interests Necessary for Public Purposes and Authorizing the Acquisition Thereof in Connection with the Construction, Operation and Maintenance of the Aviation Blvd. at Artesia Blvd. Northbound Right Turn Lane Project, Job No. 40780, ("Resolution of Necessity").
- 2. Open and conduct a hearing on the adoption of the proposed Resolution of Necessity, receive from City Staff the evidence stated and referred to in this Agenda Report ("Report"), take testimony from any person wishing to be heard on issues A, B, C, and D below, and consider all evidence to determine whether to adopt the proposed Resolution of Necessity.
- 3. If the City Council finds, based on the evidence contained and referred to in this Report, the testimony and comments submitted to the City Council, that the evidence warrants the necessary findings with respect to the proposed Resolution of Necessity, then City Staff recommends that the City Council, in the exercise of its discretion, adopt the proposed Resolution of Necessity, which requires a 4/5ths vote of the entire City Council, and authorize the City Attorney's office to file eminent domain proceedings to acquire the real property interests described below, which include a part fee take, impacted site improvements, and a temporary construction easement with a term of twelve months (referred to below collectively as the "Subject Property Interests") from the parcel described below:

### 1700 Artesia Boulevard, APN 4162-001-014) (Madani Parcel)

• An approximate 1,813 square foot part fee take, impacted site improvements, and a 1,436 square foot temporary construction easement, with a term of twelve months, over portions of the real property for roads, highways and related purposes, and all uses necessary or convenient thereto from the real property located at 1700 Artesia Boulevard, Redondo Beach, and identified as Los Angeles County Tax Assessor's Parcel Number 4162-001-014, which is owned by the Madani Family Trust Under Declaration of Trust Dated May 6, 2002 (referred to as "Madani Parcel").

The Subject Property Interests, comprised of the above-described part fee take and temporary construction easement areas, are described more particularly in the Resolution of Necessity. The Resolution of Necessity with its Exhibits are attached hereto and incorporated herein by this reference.

4. If the City Council adopts the proposed Resolution of Necessity, authorize the City Attorney's Office to file and prosecute eminent domain proceedings for the acquisition of the Subject Property Interests by eminent domain.

5. Authorize the City Manager to execute all necessary documents.

### **BACKGROUND**

The City Council has before it a proposed Resolution of Necessity for the acquisition by eminent domain of certain real property interests in connection with the City's proposed Project. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. The City has attempted to negotiate in good faith with the owner of the larger parcel to acquire the earlier-described Subject Property Interests, but the parties have not reached a negotiated acquisition for the Subject Property Interests. Based on the timing of the Project, it is necessary that the City consider the proposed Resolution of Necessity at this time.

The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. Both Aviation Boulevard and Artesia Boulevard are designated in the General Plan as major arterials. In the existing condition, north bound motorists experience significant delays at Aviation Boulevard. The proposed Project will assist in alleviating these delays by introduction of a dedicated right turn lane in the north bound direction. The Project requires the acquisition of an 1,813 square foot part fee take, the relocation of some site improvements, and the use of a 1,436 square foot temporary construction easement for a term of twelve months, over portions of the larger parcel to build and operate the Project. The City seeks to acquire the Subject Property Interests for public use, namely roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Project. The City seeks to construct the Project to improve capacity and circulation. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. The final Street Improvement Plans for the Project are nearing completion and a draft set of these documents is on file with the Public Works Department and are incorporated herein by this reference.

The Project is planned and located to minimize the impact on the adjacent properties. The Project requires the acquisition of one part fee take and a temporary construction easement over portions of the larger parcel owned by private property owners. The construction of the Project will not result in the displacement of anyone from their residence or business. Nor will it require a change of operation to the business since the business was developed with a dedicated right turn project in mind. The Subject Property was designed and constructed based on the site plan proposed to the Planning Commission, which included setbacks to accommodate the dedicated northbound right turn lane. The City will coordinate the construction with the owners of the Subject Property Interests to minimize the impact of construction on the parcel.

The existing signage within the acquisition area will require relocation onto the remainder. A landscaped pocket adjacent to Aviation Boulevard, that lies within the acquisition area, will not be replaceable in the after condition due to space limitations. In addition, all improvements within the temporary construction easement area, although not proposed for acquisition, have been included in the total compensation as the City's contractor will not protect them in place. The large pylon display sign near the corner of the intersection, the monument sign along Aviation Boulevard, and the two parking restriction signs are proposed for relocation. The City will construct, per approved plans, the driveways within the proposed right-of-way. Additionally, the City will relocate all utilities in the public right-of-way. The City's contractor will also demolish the entire planters along Aviation Boulevard and

at the corner of Aviation Boulevard and Artesia Boulevard.

The Project is included in the City's Capital Improvement Program as an implementation measure of the City's General Plan Circulation Element to improve traffic conditions at the Aviation Boulevard and Artesia Boulevard intersection. The Project is also included in the South Bay Transportation Project List - Coastal Corridor Study completed by the South Bay Cities Council of Governments ("SBCCOG") and is included in the SBCCOG Goods Movement Study as a "priority one" project. The Project is identified as such because it will increase mobility within a fully urbanized area and would reduce vehicle delay and idling time, along with associated pollutant emissions, by allowing northbound vehicles to make right turns onto Artesia without slowing down northbound through lanes.

The City seeks to acquire the Subject Property Interests for public use, namely roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Project pursuant to the authority conferred on the City of Redondo Beach to acquire real property by eminent domain by Section 19 of Article 1 of the California Constitution, Government Code Sections 37350, 37350.5, 37351, 40401, and 40404, California Code of Civil Procedure Section 1230.010 et seq. (Eminent Domain Law), including but not limited to Sections 1240.010, 1240.020, 1240.110, 1240.120, 1240.610, 1240.650, and by other provisions of law.

For the reasons set forth above, the construction of the Project is in the public interest and necessity and is needed to improve capacity and circulation, by creating a more efficient and safe means of traffic circulation at this intersection of the City.

### Required Findings for Adoption of Resolutions of Necessity Authorizing the Acquisition of the Subject Property Interests by Eminent Domain

In order to adopt the proposed Resolution of Necessity for the acquisition by eminent domain of the Subject Property Interests, the City Council must find and determine, that:

- A. The public interest and necessity require the Project;
- B. The Project is planned and located in the manner that will be most compatible with the greatest public good and the least private injury;
- C. The Subject Property Interests described in the Resolution of Necessity are necessary for the Project; and
- D. The City has made an offer as required by Government Code Section 7267.2 to the owner of record of the real property interests it seeks to acquire.

The amount of just compensation is not an issue before the City Council at this hearing. The hearing relates to issues A, B, C, and D above. The amount of just compensation would be determined in the eminent domain proceedings that would be filed if the City Council, in its sole discretion, adopts the proposed Resolution of Necessity.

### **Environmental Analysis**

The environmental effects of the Project were studied and analyzed pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code Section 21000 et seq., and the CEQA

Guidelines, 14 Cal. Code Regs. Section 15000 et seq. ("CEQA Guidelines"). Pursuant to CEQA and the CEQA Guidelines, the City determined that there was no substantial evidence that the Project would have a significant impact on the environment and a Negative Declaration was warranted. The City Council adopted a Negative Declaration.

On January 15, 2020, the City duly filed the Negative Declaration with the State of California Clearing House in accordance with CEQA. A Notice of Determination was filed with the County of Los Angeles on or about May 28, 2020 in accordance with CEQA.

In connection with the proposed Resolution of Necessity to be considered on January 19, 2021, City Staff reviewed the environmental documentation prepared in connection with the Project. Pursuant to the criteria of Section 15162 of the CEQA Guidelines and Section 21166 of the Public Resources Code, City Staff concluded that no substantial changes have occurred in the Project, no substantial changes have occurred in the circumstances under which the Project is undertaken, and that the City has obtained no new information of substantial importance that would require further environmental analysis. These environmental findings are the appropriate findings with respect to the proposed acquisition of the Subject Property Interests.

### <u>City's Actions Pursuant to Government Code Section 7260 et seq.</u>

Pursuant to Government Code Section 7260 et seq., the City of Redondo Beach obtained a fair market value appraisal of the Subject Property Interests and the larger parcel of which the Subject Interests are a part, set just compensation in accordance with the appraised fair market value, and extended a written offer to the owner of record. The City negotiated in good faith with the record owner. As of the date of this Staff Report, however, the parties have not reached a negotiated agreement. Based on the timing of the Project, it is necessary that the City consider the adoption of the Resolution of Necessity at this time.

Following is a summary of the actions taken by the City pursuant to Government Code Section 7260 et seq.

### 1700 Artesia Boulevard, APN 4162-001-014) (Madani Parcel)

Pursuant to Government Code Section 7260 et seq., the City of Redondo Beach obtained a fair market value appraisal of the Madani Parcel, and the approximate 1,813 square foot area that the City seeks to acquire in fee, as well as the 1,436 square foot area required for a temporary construction easement, and impacted site improvements, for public use, namely roads, highways and related purposes. The City set just compensation in accordance with the appraised fair market value, and extended a written offer on October 22, 2020 to Mike Madani and Florence Madani, Trustees of the Madani Family Trust Under Declaration of Trust Dated May 6, 2002, the owner of record. The fair market value appraisal used a date of value of February 7, 2020.

The City's written offer included an informational pamphlet describing the eminent domain process and the record owner's rights under the Eminent Domain Law. In accordance with Government Code Section 7267.2, the City's written offer contained a written statement of, and summary of the basis for, the amount it established as just compensation. The offer set forth the date of value utilized by the appraiser and explained the appraiser's opinion of the highest and best use of the larger parcel.

It explained the applicable zoning and General Plan designation of the larger parcel. The City's offer also summarized the principal transactions relied on by the appraiser to arrive at the appraiser's opinion of value. In addition, the written offer explained the appraiser's valuation analysis, including severance damages. It included the City's comparable market data relied on by the appraiser. Further, the City offered, pursuant to Code of Civil Procedure Section 1263.025, to pay the record owner the reasonable costs, up to \$5,000.00, for an independent appraisal of the approximate 1,813 square foot part take, the 1,436 square foot temporary construction easement area, and impacted site improvements.

The City made several attempts to follow up with the owner regarding the City's offer. Based on the timing of the Project, it is necessary for the City Council to consider the adoption of the proposed Resolution of Necessity authorizing the acquisition by eminent domain of the Subject Property Interests needed from the Madani Parcel.

### City's Actions Pursuant to Code of Civil Procedure Section 1245.235

Pursuant to Code of Civil Procedure Section 1245.235, the City sent a letter and a notice by first-class mail dated December 22, 2020 to the record owner of the Subject Property Interests the City seeks to acquire from the Madani Parcel, informing them of the City's intent to consider at its January 19, 2021 meeting, the adoption of a resolution of necessity for the acquisition by eminent domain of the Subject Property Interests from said Madani Parcel. The notice advised the record owner of their right to appear and be heard regarding the City's proposed adoption of the Resolution of Necessity by filing, within fifteen days of the date the notice was mailed, a written request with the City to appear at the hearing. The notices specifically informed the record owners of the Subject Property Interests that they have an opportunity to appear before the City Council and raise questions about whether the public interest and necessity require the Project; whether the Project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury; and whether the Subject Property Interests the City seeks to acquire from the owner of record are necessary for the Project.

As discussed above, based on the proposed timing of the Project, it is necessary for the City Council to consider the adoption of the proposed Resolution of Necessity at this time.

This hearing relates to issues A, B, C, and D below.

### REQUIRED FINDINGS FOR ADOPTION OF RESOLUTIONS OF NECESSITY

### A. The Public Interest and Necessity Require the Project

The Project, as planned and designed, is in the public interest and necessity and is needed to improve traffic circulation and safety in this area of the City. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. Both Aviation Boulevard and Artesia Boulevard are designated in the General Plan as major arterials. The intersection of Aviation Boulevard and Artesia Boulevard is signal-controlled. Both roadways provide left-turn pockets in all directions.

Aviation Boulevard and Artesia Boulevard are regionally significant roadways that support the movement of commuters and goods in the South Bay region of Los Angeles County. Aviation Boulevard is a north-south corridor connecting residential areas in the southern part of the South Bay to the employment centers to the north. Artesia Boulevard is an east-west corridor connecting Redondo Beach and Manhattan Beach to the regional freeway system. Motorists, including both commuters and goods transporters, traverse Aviation Boulevard and Artesia Boulevard, traveling to and from many regionally significant destinations. Additionally, Aviation Boulevard and Artesia Boulevard provide critical links to several freeways in the South Bay including I-405, I-105, and SR-91.

Because there is inadequate room for northbound motorists turning right onto Artesia Boulevard to move out of the way of through traffic to make their turn, it is necessary for the City to acquire the Subject Property Interests to provide for a right-turn lane.

In the existing condition, traffic backs up along northbound Aviation Boulevard. The proposed Project will assist in alleviating the delays in northbound traffic. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. The Project also satisfies two important goals of the City, namely to improve public facilities and infrastructure, and to enhance the livability and environmental sustainability of the community. Accordingly, the Project will benefit the residents and businesses of the City and the community as a whole.

The traffic analysis prepared for the Project in 2009 used a method known as the Intersection Utilization Capacity (ICU) method essentially measures a ratio of the intersection's use, or volume, to its capacity. The ICU analysis prepared for this project indicates that it would result in an 8 percent improvement in the AM for volume to capacity ("v/c") ratio. Peak hour v/c ratio at the intersection is as follows:

- Future 2030 without the Project
  - o AM peak hour v/c would be 1.212
  - o PM peak hour v/c would be 1.325
- Future 2030 with the Project
  - o AM peak hour v/c would be 1.128
  - o PM peak hour v/c would be 1.372

The Intersection Utilization Capacity (ICU) method, however, does not always capture all the potential benefits gained from improvements to an intersection. The merits of constructing the proposed right turn lane should be made considering all traffic metrics that demonstrate the benefits of such an improvement.

Therefore, in addition to the Intersection Utilization Capacity (ICU) analysis completed previously, further analysis utilizing the Highway Capacity Manual (HCM) and Highway Capacity Manual 2010 (HCM 2010) methodologies was performed by City staff. These methods provide general guidance for consideration of a right turn lane in addition to modeling delays expected to be experienced by motorists. The following scenarios were analyzed:

- Existing AM/PM Conditions
- Future Buildout 2030 AM/PM Conditions

Future Buildout 2030 AM/PM Conditions with Exclusive Northbound Right Turn

Prior to this later analysis, the City became aware of another project at this multi-jurisdictional intersection recently determined to be justified by the City of Manhattan Beach, which controls the northern and eastern quadrant of the intersection. That project, which proposes to add a dedicated right turn only (RTO) lane in the southbound direction, was included in the City's analysis. The two future conditions (with and without the RTO lanes) were evaluated to determine the future effects of these projects on the intersection. The analysis concludes that for the future buildout year 2030 conditions, delays would be reduced significantly with the construction of the RTO lanes. The average delay reductions are:

- AM Peak Hour 26.6 seconds per vehicle (from 108.7 s to 82.1 s), a 24.5% improvement;
- PM Peak Hour 17.7 seconds per vehicle (from 131.5 s to 113.8 s), a 13.5% improvement.

It should be noted that although the level of service (LOS) remains as an F with the construction of the northbound right turn lane improvement, LOS nears the threshold for LOS E (80 seconds) in the AM. In addition, there are other genuine traffic improvements that cannot be measured using HCM methods such as a shorter queue in the northbound right turn lane, and making turning movements out of adjacent properties safer and more efficient.

The Project, as planned and designed, is consistent with the Circulation Element of the General Plan. The City seeks to acquire the Subject Property Interests for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Project. The City seeks to construct the Project to improve circulation by providing a dedicated right-turn lane from Artesia Boulevard onto Aviation Boulevard.

Among the goals of the City's General Plan Circulation Element is to reduce greenhouse gas emissions (Goal G.7, Take Action on Climate Change). Several strategies are set forth in the Circulation Element to accomplish this goal, including easing traffic congestion, discouraging single-occupant vehicles, and increasing the use of transit and non-motorized forms of transportation. The proposed northbound right-turn improvements at the intersection of Aviation Boulevard and Artesia Boulevard are consistent with this goal and its related strategies.

The Project is included in the City's Capital Improvement Program as an implementation measure of the City's General Plan Circulation Element to improve traffic conditions at the Aviation Boulevard and Artesia Boulevard intersection. The Project is also included in the South Bay Transportation Project List - Coastal Corridor Study completed by the South Bay Cities Council of Governments ("SBCCOG") and is included in the SBCCOG Goods Movement Study as a priority one project. The Project would increase mobility within a fully urbanized area and would reduce vehicle delay and idling time, along with associated pollutant emissions, by allowing northbound vehicles to make right turns onto Artesia without slowing down northbound through lanes.

The public use for which the City seeks to acquire the Subject Property Interests, namely roads, highways and related purposes, and all uses necessary or convenient thereto, will not unreasonably interfere with or impair the continuance of the public use to which any easement holders may have

appropriated the area (Code of Civil Procedure Section 1240.510). Further, the Project may require the relocation of several utilities to the proposed new right-of-way area. The public use for which the City seeks to acquire the Subject Property Interests, namely roads, highways and related purposes, and all uses necessary or convenient thereto, is a more necessary public use within the meaning of Code of Civil Procedure Section 1240.650 than the uses to which public utility easement holders have appropriated any utility easements located in the Subject Property Interests that are affected by the Project. Accordingly, the City is authorized to acquire the Subject Property Interests pursuant to Code of Civil Procedure Sections 1240.510, 1240.610, and 1240.650.

### B. <u>The Project is Planned and Located in the Manner that will be Most Compatible with the Greatest Public Good and the Least Private Injury</u>

The Project is planned and located in the manner that is most compatible with the greatest public good and the least private injury. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. Both Aviation Boulevard and Artesia Boulevard are designated in the General Plan as major arterials. In the existing condition, traffic backs up onto Aviation Boulevard. The proposed Project will assist in alleviating traffic delays and traffic congestion and by extension reduce greenhouse gas emissions. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. Accordingly, the Project will benefit the residents and businesses of the City and the community as a whole.

Aviation Boulevard and Artesia Boulevard are regionally significant roadways that support the movement of commuters and goods in the South Bay region of Los Angeles County. Aviation Boulevard is a north-south corridor connecting residential areas in the southern part of the South Bay to the employment centers to the north. Artesia Boulevard is an east-west corridor connecting Redondo Beach and Manhattan Beach to the regional freeway system. Motorists, including both commuters and goods transporters, traverse Aviation Boulevard and Artesia Boulevard, traveling to and from many regionally significant destinations. Additionally, Aviation Boulevard and Artesia Boulevard provide critical links to several freeways in the South Bay including I-405, I-105, and SR-91.

The intersection of Aviation Boulevard and Artesia Boulevard is signal-controlled. Both roadways provide left-turn pockets in all directions.

The intersection of Aviation Boulevard and Artesia Boulevard currently operates at a level of service ("LOS") F in both the AM and PM peak hours. The northbound right-turn lane improvement proposed by the City would relieve intersection backup and congestion due to vehicles traveling northbound through the intersection and vehicles turning onto Artesia Boulevard having to share the same lane. The traffic analysis prepared for the Project indicates that it would result in an 8 percent improvement in the AM. Peak hour volume-to-capacity (v/c) ratio at the intersection is as follows:

- Future 2030 without the Project
  - o AM peak hour v/c would be 1.212
  - o PM peak hour v/c would be 1.325
- Future 2030 with the Project

- o AM peak hour v/c would be 1.128
- o PM peak hour v/c would be 1.372

Another metric for improvement is the reduction in delay times experienced by motorists at the intersection approach. The City of Manhattan Beach has determined (this intersection is multi-jurisdictional, with the northwest quadrant falling under the jurisdiction of the City of Manhattan Beach) that the addition of an RTO lane for the southbound direction of Aviation is also justified: The two future conditions (with and without the RTO lanes) were evaluated to determine the future effects of these projects on the intersection. The analysis concludes that for the future buildout year 2030 conditions, delays would be reduced significantly with the construction of the RTO lanes. The average delay reductions are:

- AM Peak Hour 26.6 seconds per vehicle (from 108.7 s to 82.1 s), 24.5% improvement;
- PM Peak Hour 17.7 seconds per vehicle (from 131.5 s to 113.8 s), 13.5% improvement.

It should be noted that although the level of service (LOS) remains as an F with the construction of the northbound right turn lane improvement, LOS nears the threshold for LOS E (80 seconds) in the AM. In addition, there are other genuine traffic improvements that cannot be measured using HCM methods such as a shorter queue in the northbound right turn lane, making turning movements out of your client's property and the properties immediately to the south safer and more efficient.

Because there is inadequate room for northbound motorists turning right onto Artesia Boulevard to move out of the way of through traffic to make their turn, it is necessary for the City to acquire the Subject Property Interests to provide for a right-turn lane.

In the existing condition, traffic backs up onto Aviation Boulevard. The proposed Project will assist in alleviating the back log of traffic. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. The Project also satisfies two important goals of the City, namely to improve public facilities and infrastructure, and to enhance the livability and environmental sustainability of the community. The draft Street Improvement Plans for the Project are on file with the Public Works Department and are incorporated herein by this reference. Accordingly, the Project will benefit the residents and businesses of the City and the community as a whole.

The Project, as planned and designed, is consistent with the Circulation Element of the General Plan. The City seeks to acquire the Subject Property Interests for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Project. The City seeks to construct the Project to improve circulation by providing a dedicated right-turn lane from Artesia Boulevard onto Aviation Boulevard.

Among the goals of the City's General Plan Circulation Element is to reduce greenhouse gas emissions (Goal G.7, Take Action on Climate Change). Several strategies are set forth in the Circulation Element to accomplish this goal, including easing traffic congestion, discouraging single-occupant vehicles, and increasing the use of transit and non-motorized forms of transportation. The proposed northbound right-turn improvements at the intersection of Aviation Boulevard and Artesia Boulevard are consistent with this goal and its related strategies.

The Project is included in the City's Capital Improvement Program as an implementation measure of the City's General Plan Circulation Element to improve traffic conditions at the Aviation Boulevard and Artesia Boulevard intersection. The Project is also included in the South Bay Transportation Project List - Coastal Corridor Study completed by the South Bay Cities Council of Governments ("SBCCOG") and is included in the SBCCOG Goods Movement Study as a priority one project. The Project would increase mobility within a fully urbanized area and would reduce vehicle delay and idling time, along with associated pollutant emissions, by allowing northbound vehicles to make right turns onto Artesia without slowing down northbound through lanes.

The Project was planned and located to minimize the impact on the adjacent properties. The Project requires the acquisition of one part fee take and a temporary construction easement over portions of the larger parcel owned by a private property owner. The construction of the Project will not result in the displacement of anyone from their residence or business. Nor will it require a change of operation to the business since the business was developed with a dedicated right turn project in mind. The Subject Property was designed and constructed based on the site plan proposed to the Planning Commission, which included set backs to accommodate the dedicated northbound right turn lane. The City will coordinate the construction with the owner of the Subject Property Interests to minimize the impact of construction on the parcel. The existing signage within the acquisition area will require relocation onto the remainder. A landscaped pocket adjacent to Aviation Boulevard, that lies within the acquisition area, will not be replaceable in the after condition due to space limitations. In addition, all improvements within the temporary construction easement area, although not proposed for acquisition, have been included in the total compensation as the City's contractor will not protect them in place. The large pylon display sign near the corner of the intersection, the monument sign along Aviation Boulevard, and the two parking restriction signs are proposed for relocation.

The City will construct, per approved plans, the driveways within the proposed right-of-way. Driveway access from both Aviation Boulevard and Artesia Boulevard to the existing gas station and car wash will be maintained at all times during construction of the Project. Pedestrian access to the intersection along the east side of Aviation Boulevard may be re-routed only during construction. Further, the City has analyzed the ability of vehicle and gasoline delivery trucks to safely maneuver within the existing gas station during project construction including the use of existing pump islands by vehicles and access for fuel delivery trucks within the gas station. The City's engineering design consultant has determined that the Project will not interrupt pump operation or fuel deliveries.

Additionally, the City will relocate all utilities in the public right-of-way. The City's contractor will also demolish the entire planters along Aviation Boulevard and at the corner of Aviation Boulevard and Artesia Boulevard. Based on the timing of the Project, it is necessary that the City consider the acquisition by eminent domain of the Subject Property Interests needed from the larger parcel.

The public use for which the City seeks to acquire the Subject Property Interests, namely roads, highways and related purposes, and all uses necessary or convenient thereto, will not unreasonably interfere with or impair the continuance of the public use to which any easement holders may have appropriated the area (Code of Civil Procedure Section 1240.510). Further, the Project may require

the relocation of several utilities to the proposed new right-of-way area. The public use for which the City seeks to acquire the Subject Property Interests, namely roads, highways and related purposes, and all uses necessary or convenient thereto, is a more necessary public use within the meaning of Code of Civil Procedure Section 1240.650 than the uses to which public utility easement holders have appropriated any utility easements located in the Subject Property Interests that are affected by the Project. Accordingly, the City is authorized to acquire the Subject Property Interests pursuant to Code of Civil Procedure Sections 1240.510, 1240.610, and 1240.650.

### C. <u>The Subject Property Interests Described in the Resolution of Necessity are Necessary for the Project</u>

The City seeks to construct the Project, as planned and designed, improve traffic circulation and safety in this area of the City. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. Because there is inadequate room for northbound motorists turning right onto Artesia Boulevard to move out of the way of through traffic to make their turn, it is necessary for the City to acquire the Subject Property Interests to provide for a right-turn lane. The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. In the existing condition, traffic backs up onto Aviation Boulevard. Development of the new right turn lane will require use of existing right of way and additional right of way identified as the Subject Property Interests.

The Project was planned and located to minimize the impact on the adjacent properties. The Project requires the acquisition of one part fee take and a temporary construction easement over portions of the larger parcel owned by a private property owner. The construction of the Project will not result in the displacement of anyone from their residence or business. The City will coordinate the construction with the owner of the Subject Property Interests to minimize the impact of construction on the parcel. The existing signage within the acquisition area will require relocation onto the remainder. A landscaped pocket adjacent to Aviation Boulevard, that lies within the acquisition area, will not be replaceable in the after condition due to space limitations. In addition, all improvements within the temporary construction easement area, although not proposed for acquisition, have been included in the total compensation as the City's contractor will not protect them in place. The large pylon display sign near the corner of the intersection, the monument sign along Aviation Boulevard, and the two parking restriction signs are proposed for relocation.

The City will construct, per approved plans, the driveways within the proposed right-of-way. Driveway access from both Aviation Boulevard and Artesia Boulevard to the existing gas station and car wash will be maintained at all times during construction of the Project. Pedestrian access to the intersection along the west side of Aviation Boulevard may be suspended or re-routed only during construction along both Aviation Boulevard and Artesia Boulevard. Further, the City has analyzed the ability of vehicle and gasoline delivery trucks to safely maneuver within the existing gas station during project construction including the use of existing pump islands by vehicles and access for fuel delivery trucks within the gas station. The City's engineering design consultant has determined that the Project will not interrupt pump operation or fuel deliveries.

The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. Accordingly, the Project will benefit the residents and businesses of the City

and the community as a whole.

The City cannot construct the Project without the acquisition of the following Subject Property Interests, which are described more particularly in the Resolution of Necessity:

### 1700 Artesia Boulevard, APN 4162-001-014) (Madani Parcel)

 An approximate 1,813 square foot part fee take, a 1,436 square foot temporary construction easement, and impacted site improvements, over a portion of the real property for public roads, highways and related purposes, and all uses necessary or convenient thereto from the real property located at 1700 Artesia Boulevard, Redondo Beach, and identified as Los Angeles County Tax Assessor's Parcel Number 4162-001-014, which is owned by the Madani Family Trust Under Declaration of Trust Dated May 6, 2002.

As stated above, the public use for which the City seeks to acquire the Subject Property Interests, namely public roads, highways and related purposes, and all uses necessary or convenient thereto, will not unreasonably interfere with or impair the continuance of the public use to which any easement holders may have appropriated the area (Code of Civil Procedure Section 1240.510). Further, the Project may require the relocation of several utilities to the proposed new right-of-way area. The public use for which the City seeks to acquire the Subject Property Interests, namely public roads, highways and related purposes, and all uses necessary or convenient thereto, is a more necessary public use within the meaning of Code of Civil Procedure Section 1240.650 than the uses to which public utility easement holders have appropriated any utility easements located in the Subject Property Interests that are affected by the Project. Accordingly, the City is authorized to acquire the Subject Property Interests pursuant to Code of Civil Procedure Sections 1240.510, 1240.610, and 1240.650.

## D. The City has made an offer as required by Government Code Section 7267.2 to the owners of record of the Subject Property Interests it seeks to acquire from each of the two subject parcels

The City, pursuant to Government Code Section 7260 et seq., obtained fair market value appraisals of the Subject Property Interests, set just compensation in accordance with the fair market value and extended a written offer to the owner of record of the Subject Property Interests. As detailed above, the City extended to the owner of record of the Subject Property Interests a written offer pursuant to Government Code Section 7267.2 to acquire the Subject Property Interests for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto. Specifically, the City extended a written offer to the following record owner of the Subject Property Interests:

• The City extended a written offer to Mike Madani and Florence Madani, Trustees of the Madani Family Trust Under Declaration of Trust Dated May 6, 2002 to purchase an approximate 1,813 square foot part fee take, a 1,436 square foot temporary construction easement and impacted site improvements over portions of the real property for public roads, highways and related purposes, and all uses necessary or convenient thereto from the real property located at 1700 Artesia Boulevard, Redondo Beach, and identified as Los Angeles

County Tax Assessor's Parcel Number 4162-001-014.

### **Incorporation of Above-Referenced Documents**

The following documents on file with the City Clerk's Office and/or the Public Works Department, which are referenced in this report, are incorporated herein by this reference:

- Resolution of Necessity (attached hereto)
- City of Redondo Beach General Plan
- Offer letter to the record owner of the Subject Property Interests
- Notice pursuant to Code of Civil Procedure Section 1245.235 to record owner of the Subject Property Interests
- Draft Street Improvement Plans for Project
- Environmental Documents relating to Project

### Objections Made by the Property Owner

The attorney representing the Madani Family Trust has written to communicate their objection to this Resolution of Necessity and to request the opportunity for the Madani Family Trust trustees (Mr. and Mrs. Madani), their counsel and traffic engineer to be heard at the hearing. The letter and accompanying documents are included as an attachment to this report.

A principal argument of their objection is that the project does not demonstrate "any meaningful improvement to the intersection" based on an assertion that the LOS for the proposed project does not change. However, the City's analysis shows that, when considered with the City of Manhattan Beach's pending project to provide a similar RTO lane in the southbound direction at this intersection, per vehicle delays are reduced by 26.6 seconds in the AM peak hour (24.5%) and by 17.7 seconds (13.5%) in the PM peak hour.

Another claim in this letter is that the project's take of property will result in "substantial property and business damages." However, the City notes that the business owners developed the property with a project like this anticipated by the Planning Commission. The development's setbacks and traffic flow operations were designed when it was expected that a condition of development would include the loss of a similar strip of land to accommodate a future right turn lane on Aviation Blvd. Other losses, like the use of a temporary construction easement to facilitate construction and the relocation of business signage are accounted for in the offer made to the property owners.

Finally, the property owners contend that an alternate project, the introduction of dual left turn lanes in the westbound approach along Artesia, provides a superior LOS letter grade improvement to the project and should be considered in lieu of the proposed project. The City gratefully acknowledges this analysis and may consider these additional improvements to the intersection. However, such a project does not alleviate the delay's experienced by Aviation's north bound motorists, the primary objective of this project.

### **COORDINATION**

Funding for the Project has been coordinated with the City's Engineering Services Division, the South Bay COG staff and Transportation Committee and staff of the Los Angeles County Metropolitan

Transportation Authority (METRO). The resolution was approved as to form by the City Attorney's Office.

### **FISCAL IMPACT**

This project is entirely funded by METRO's Measure R as a Regional Project. Acquisition of the Subject Property Interests will be paid for from Regional Project R funding. The City anticipates having to amend the funding agreement with METRO to increase the budget for the project, due to delays in the project over which the price of real estate, professional services, and construction costs have and will likely increase.

### APPROVED BY:

Joe Hoefgen, City Manager

### **ATTACHMENTS**

- 1. Proposed Resolution of Necessity, Resolution No. CC-2101-011
- 2. Letter of Objection, and attachments, from property owner's attorney dated January 5, 2021

### **RESOLUTION NO. CC-2101-011**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DECLARING CERTAIN REAL PROPERTY INTERESTS NECESSARY FOR PUBLIC PURPOSES AND AUTHORIZING THE ACQUISITION THEREOF IN CONNECTION WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE AVIATION BLVD. AT ARTESIA BLVD. NORTHBOUND RIGHT TURN LANE PROJECT, JOB NO. 40780 (PART FEE TAKE AND TEMPORARY CONSTRUCTION EASEMENT OVER PORTIONS OF APN 4162-001-014)

WHEREAS, the City of Redondo Beach ("City") is a municipal corporation in the County of Los Angeles, State of California; and

WHEREAS, the City seeks to construct and maintain a right turn only pocket from north bound Aviation Boulevard onto east bound Artesia Boulevard known as the Aviation Blvd. at Artesia Blvd. Northbound Right Turn Lane Project, Job No. 40780 ("Project") to improve traffic operations at this intersection. Both Aviation Boulevard and Artesia Boulevard are designated in the General Plan as major arterials. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. In the existing condition, traffic backs up onto Aviation Boulevard. The proposed Project will assist in alleviating the back log of traffic. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. The draft Street Improvement Plans for the Project are on file with the Public Works Department and are incorporated herein by this reference; and

WHEREAS, the Project is included in the City's Capital Improvement Program as an implementation measure of the City's General Plan Circulation Element to improve traffic conditions at the Aviation Boulevard and Artesia Boulevard intersection. The Project is also included in the South Bay Transportation Project List - Coastal Corridor Study completed by the South Bay Cities Council of Governments ("SBCCOG") and is included in the SBCCOG Goods Movement Study as a "priority one" project. The Project would increase mobility within a fully urbanized area and would reduce vehicle delay and idling time, along with associated pollutant emissions, by allowing northbound vehicles to make right turns onto Artesia without slowing down northbound through lanes; and

WHEREAS, the environmental effects of the Project were studied and analyzed pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code

RESOLUTION NO. CC-2101-011 RESOLUTION OF NECESSITY PAGE NO. 1 Section 21000 et seq., and the CEQA Guidelines, 14 Cal. Code Regs. Section 15000 et seq. ("CEQA Guidelines"). Pursuant to CEQA and the CEQA Guidelines, the City determined that there was no substantial evidence that the Project would have a significant impact on the environment and a Negative Declaration was warranted. The City Council adopted a Negative Declaration. On January 15, 2020, the City duly filed the Negative Declaration with the State of California Clearing House in accordance with CEQA. A Notice of Determination was filed with the County of Los Angeles on or about May 28, 2020 in accordance with CEQA; and

WHEREAS, in connection with the Resolution of Necessity, on January 19, 2021, City Staff reviewed the environmental documentation prepared in connection with the Project. Pursuant to the criteria of Section 15162 of the CEQA Guidelines and Section 21166 of the Public Resources Code, City Staff concluded that no substantial changes have occurred in the Project, no substantial changes have occurred in the circumstances under which the Project is undertaken, and that the City has obtained no new information of substantial importance that would require further environmental analysis. These environmental findings are the appropriate findings with respect to the proposed acquisition of the Subject Property Interests.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The Redondo Beach City Council adopts Resolution No. CC-21-XXX, A Resolution of the City Council of the City of Redondo Beach, California, Declaring Certain Real Property Interests Necessary for Public Purposes and Authorizing the Acquisition Thereof in Connection with the Construction, Operation and Maintenance of the Aviation Blvd. at Artesia Blvd. Northbound Right Turn Lane Project, Job No. 40780 (A Part Fee Take and Temporary Construction Easement and Impacted Site Improvements on Portions of APN 4162-001-014).

SECTION 2. The City seeks to acquire by eminent domain the real property interests described below in Section 3 of this Resolution for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Construction and Maintenance of the Aviation Blvd. at Artesia Blvd. Northbound Right Turn Lane Project, Job No. 40780, pursuant to the authority conferred on the City of Redondo Beach to acquire real property by eminent domain by Section 19 of Article 1 of the California Constitution, Government Code Sections 37350, 37350.5, 37351, 40401, and 40404, California Code of Civil Procedure Section 1230.010 *et seq.* (Eminent Domain Law), including but not limited to Sections 1240.010, 1240.020, 1240.110, 1240.120, 1240.510, 1240.610, 1240.650, and by other provisions of law.

SECTION 3. The City seeks to acquire an approximate 1,813 square foot part fee take, a 1,436 temporary construction easement, and impacted site improvements, over

portions ("Subject Property Interests") of the real property located at 1700 Artesia Boulevard, Redondo Beach, California, and identified as Los Angeles County Tax Assessor's Parcel Number 4162-001-014 ("Madani Parcel") in connection with the Project. The Subject Property Interests are described more particularly in Exhibits "A-1" and "A-2" and depicted on Exhibits "B-1" and "B-2", which are attached hereto and incorporated herein by this reference.

SECTION 4. The environmental effects of the acquisition of the Subject Property Interests were studied as an integral part of the environmental review for the Project. In connection with the proposed Resolution of Necessity, on January 19, 2021, City staff reviewed the environmental documentation prepared in connection with the Project. Pursuant to the criteria of Section 15162 of the CEQA Guidelines and Section 21166 of the Public Resources Code, City staff concluded that no substantial changes have occurred in the Project, no substantial changes have occurred in the circumstances under which the Project is undertaken, and that the City has obtained no new information of substantial importance that would require further environmental analysis. These environmental findings are the appropriate findings with respect to the proposed acquisition of the Subject Property Interests.

SECTION 5. The Project, as planned and designed, is in the public interest and necessity and is needed to improve traffic circulation and safety in this area of the City as more fully explained below:

- A. The proposed Project requires the acquisition of additional right of way for the proposed street improvements. The Project involves the widening of the northbound travel lanes along Aviation Boulevard to add a 15-foot-wide right-turn lane onto Artesia Boulevard. Both Aviation Boulevard and Artesia Boulevard are designated in the General Plan as major arterials. All work is consistent with the City's General Plan of Circulation.
- B. The proposed Project will assist in alleviating delays to traffic. The Project is consistent with the Circulation Element of the General Plan in that it will improve traffic circulation and safety. The Project also satisfies two important goals of the City, namely to improve public facilities and infrastructure, and to enhance the livability and environmental sustainability of the community. The draft Street Improvement Plans for the Project are on file with the Public Works Department and are incorporated herein by this reference. Accordingly, the Project will benefit the residents and businesses of the City and the community as a whole.
- C. The Project, as planned and designed, is consistent with the Circulation Element of the General Plan. The City seeks to acquire the Subject Property Interests for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto in connection with the Project. The City

seeks to construct the Project to improve circulation by providing a dedicated right-turn lane from Artesia Boulevard onto Aviation Boulevard.

Among the goals of the City's General Plan Circulation Element is to reduce greenhouse gas emissions (Goal G.7, Take Action on Climate Change). Several strategies are set forth in the Circulation Element to accomplish this goal, including easing traffic congestion, discouraging single-occupant vehicles, and increasing the use of transit and non-motorized forms of transportation. The proposed northbound right-turn improvements at the intersection of Aviation Boulevard and Artesia Boulevard are consistent with this goal and its related strategies.

The Project is included in the City's Capital Improvement Program as an implementation measure of the City's General Plan Circulation Element to improve traffic conditions at the Aviation Boulevard and Artesia Boulevard intersection. The Project is also included in the South Bay Transportation Project List - Coastal Corridor Study completed by the South Bay Cities Council of Governments ("SBCCOG") and is included in the SBCCOG Goods Movement Study as a priority one project. The Project would increase mobility within a fully urbanized area and would reduce vehicle delay and idling time, along with associated pollutant emissions, by allowing northbound vehicles to make right turns onto Artesia without slowing down northbound through lanes.

The Project was planned and located to minimize the impact on the adjacent properties. The Project requires the acquisition of one part fee take and a temporary construction easement over portions of the larger parcel owned by a private property owner. The construction of the Project will not result in the displacement of anyone from their residence or business. The City will coordinate the construction with the owner of the Subject Property Interests to minimize the impact of construction on the parcel. The existing signage within the acquisition area will require relocation onto the remainder. A landscaped pocket adjacent to Aviation Boulevard, that lies within the acquisition area, will not be replaceable in the after condition due to space limitations. In addition, all improvements within the temporary construction easement area, although not proposed for acquisition, have been included in the total compensation as the City's contractor will not protect them in place. The large pylon display sign near the corner of the intersection, the monument sign along Aviation Boulevard, and the two parking restriction signs are proposed for relocation. The City will construct, per approved plans, the driveways within the proposed right-of-way. Additionally, the City will relocate all utilities in the public right-of-way. The City's contractor will also demolish the entire planters along Aviation Boulevard and at the corner of Aviation Boulevard and Artesia Boulevard. Based on the timing of the Project, it is necessary that the City consider the acquisition by eminent domain of the Subject Property Interests needed from the larger parcel.

#### SECTION 6.

- A. Pursuant to Government Code Section 7260 *et seq.*, the City of Redondo Beach obtained a fair market value appraisal of the Madani Parcel, the approximate 1,813 square foot part fee take, a 1,436 square foot temporary construction easement, and impacted site improvements, the City seeks to acquire for public use, namely public roads, highways and related purposes, and all uses necessary or convenient thereto.
- B. The City set just compensation in accordance with the appraised fair market value, and extended a written offer on October 22, 2020 to Mike Madani and Florence Madani, Trustees of the Madani Family Trust Under Declaration of Trust Dated May 6, 2002, the owner of record. The fair market value appraisal used a date of value of February 7, 2020.
- C. The City's written offer included an informational pamphlet describing the eminent domain process and the record owner's rights under the Eminent Domain Law. In accordance with Government Code Section 7267.2, the City's written offer contained a written statement of, and summary of the basis for, the amount it established as just compensation. The offer set forth the date of value utilized by the appraiser and explained the appraiser's opinion of the highest and best use of the larger parcel. It explained the applicable zoning and General Plan designation of the larger parcel. The City's offer also summarized the principal transactions relied on by the appraiser to arrive at the appraiser's opinion of value. In addition, the written offer explained the appraiser's valuation analysis, including severance damages. It included the City's comparable market data relied on by the appraiser. Further, the City offered, pursuant to Code of Civil Procedure Section 1263.025, to pay the record owner the reasonable costs, up to \$5,000.00, for an independent appraisal of the approximate 1,813 square foot part fee take, a 1,436 square foot temporary construction easement, and impacted site improvements.

SECTION 7. The City provided written notice to the owner of record, pursuant to Code of Civil Procedure section 1245.235 of the City Council's intent to consider the adoption of a Resolution of Necessity for the acquisition of the Subject Property Interests by eminent domain.

SECTION 8. The public use for which the City seeks to acquire the Subject Property Interests, namely public roads, highways and related purposes, and all uses necessary or convenient thereto, will not unreasonably interfere with or impair the continuance of the public use to which any easement holders may have appropriated the area (Code of Civil Procedure Section 1240.510). Further, the Project may require the relocation of several utilities to the proposed new right-of-way area. The public use for which the City seeks to acquire the Subject Property Interests, namely public roads, highways and related purposes, and all uses necessary or convenient thereto, is a more

necessary public use within the meaning of Code of Civil Procedure Section 1240.650 than the uses to which public utility easement holders have appropriated any utility easements located in the area of the Subject Property Interests that are affected by the Project. Accordingly, the City is authorized to acquire the Subject Property Interests pursuant to Code of Civil Procedure Sections 1240.510, 1240.610, and 1240.650.

SECTION 9. Based on the evidence presented at the hearing regarding the Project, including the Agenda Report and documents referenced therein and any oral and written testimony at the hearing, the City Council hereby finds and determines that:

- A. The public interest and necessity require the Project;
- B. The Project is planned and located in the manner that will be most compatible with the greatest public good and the least private injury;
- C. The Subject Property Interests described more particularly in Exhibits "A-1" and "A-2" and depicted on Exhibits "B-1" and "B-2" hereto, are necessary for the Project; and
- D. The City has made the offer required by Government Code Section 7267.2 to the record owner of the Subject Property Interests the City seeks to acquire.
- SECTION 10. The findings and declarations contained in this Resolution are based upon the record before the City Council, including the Agenda Report and all documents referenced therein, all of which are incorporated herein by this reference, and any testimony and/or comments submitted to the City by the record owner and or the owner's representative(s). These documents include, but are not limited to the City of Redondo Beach's General Plan, the offer letter sent to the owner pursuant to Government Code Section 7267.2, the notice to the record owner pursuant to Code of Civil Procedure Section 1245.235 of the City's intent to consider the adoption of the Resolution of Necessity, draft Street Improvement Plans for the Project, and the Negative Declaration for the Project.
- SECTION 11. The City Council of the City of Redondo Beach hereby authorizes and directs the City Attorney's Office to take all steps necessary to commence and prosecute legal proceedings in a court of competent jurisdiction to acquire an approximate 1,813 square foot part fee take, a 1,436 square foot temporary construction easement, and impacted site improvements for the Project. The Subject Property Interests are described more particularly on Exhibits "A-1" and "A-2" and are depicted on Exhibits "B-1" and "B-2" hereto.
- SECTION 12. The City Council of the City of Redondo Beach hereby authorizes the City Manager to execute all necessary documents in connection with the eminent domain proceeding.

SECTION 13.	The City Clerk shall certify to the passage and adoption of this
resolution and shall enter	the same in the Book of Original Resolutions.

PASSED, APPROVED AND ADOPTED this 19th day of January, 2021.

	William C. Brand, Mayor
APPROVED AS TO FORM:	ATTEST:
Michael W. Webb, City Attorney	 Eleanor Manzano, CMC, City Clerk

STATE OF CALIFORNIA COUNTY OF LOS ANGELES CITY OF REDONDO BEACH	) )ss )
that Resolution No. CC-2101-011 of Redondo Beach, California, at day of January, 2021, and there a	the City of Redondo Beach, California, do hereby certify was passed and adopted by the City Council of the City a regular meeting of said City Council held on the 19th after signed and approved by the Mayor and attested by lution was adopted by the following vote:
AYES:	
NOES:	
ABSENT:	
ABSTAIN:	

RESOLUTION NO. CC-2101-011 RESOLUTION OF NECESSITY PAGE NO. 8

Eleanor Manzano, CMC City Clerk



GLENN L. BLOCK

GLB@CALEDLAW.COM

DIRECT DIAL – 818-957-6577

January 5, 2021

#### VIA OVERNIGHT MAIL and E-MAIL [ted.semaan@redondo.org]

City of Redondo Beach

Attn: Ms. Eleanor Manzano, City Clerk Attn: Mr. Ted Semaan, Public Works Director 415 Diamond Street Redondo Beach, California 90277

Re: January 19, 2021 - City of Redondo Beach

**Public Hearing considering adoption of Resolution of Necessity**Right-Turn Only Pocket from Aviation Boulevard to Artesia Boulevard 1700 Artesia Boulevard, Redondo Beach, California

Assessor's Parcel No.: 4162-001-014

**Owner: Madani Family Trust** 

To The Honorable City Clerk, Public Works Director and City Council Members:

We have been retained as eminent domain counsel for Mr. & Mrs. Mike and Florence Madani, Trustees of the Madani Family Trust, with respect to the City's proposed acquisition by eminent domain of portions of the above-referenced property ("Subject Property") for the City's Right-Turn Only Pocket from northbound Aviation Boulevard onto eastbound Artesia Boulevard Project ("Project").

Mr. & Mrs. Madani strongly object to the City's consideration of adopting the above-referenced Resolution of Necessity and request the opportunity to be heard at the public hearing on January 19, 2021. Mr. & Mrs. Madani's counsel and independent expert traffic engineer will discuss these objections and the evidentiary basis for the objections.

#### 1. INTRODUCTION.

The basis of Mr. & Mrs. Madani's legal and factual objections to the proposed Project and Resolution of Necessity are set forth and summarized herein. These objections are supported by independent expert traffic engineering studies performed by RICK Engineering Company (Brian Stephenson and Robert Stockton), copies of which are enclosed herewith. Additionally, these objections are supported by the City's 2009 Project Study Report Equivalent (PSRE), a copy of which is enclosed herewith, the City's General Plan and such other and further evidence and testimony as may be presented at the public hearing of this matter on January 19, 2021.

Attn: Ms. Eleanor Manzano, City Clerk

Attn: Mr. Ted Semaan, Public Works Director

January 5, 2021 Page 2 of 12

Mr. & Mrs. Madani object on the following grounds establishing that the City cannot make at least 2 of the 3 the requisite findings and determinations required for a duly adopted Resolution of Necessity in accordance with <u>California Code of Civil Procedure</u> §1240.030 and §1245.230(c):

#### (1) <u>The Proposed Project is Not Necessary and is Not in the Public Interest.</u>

The City's 2009 PSRE and the Madani's independent expert traffic studies establish the proposed Project will not improve intersection traffic operations in either the current or future conditions. Moreover, the proposed Project is not warranted because right-turn traffic volume is well below established traffic engineering thresholds in both the current and future scenarios.

- a. The City's 2009 PSRE analysis confirms that the intersection Level of Service with and without the Project will remain LOS F for both the morning and afternoon scenarios.
- b. The City's 2009 PSRE analysis and the independent analysis commissioned by Mr. & Mrs. Madani both confirm that to the extent there may be an improvement, such improvement is minimal and not meaningful and/or the improvement is offset by a corresponding degradation (i.e., if AM condition improves from LOS F to LOS E, the PM condition degrades from LOS E to LOS F).
- c. Standards established by the widely accepted Highway Capacity Manual provide that an exclusive right-turn lane is justified where right-turn volume exceeds 300 vehicles per hour. None of the existing condition traffic counts conducted by the City or independently (in 2009, 2015, and 2018) exceed even 200 vehicles per hour. None of the future 2030 projected traffic counts exceed 300 vehicles per hour (AM 190 v/h; PM 270 v/h). Thus, the proposed Project is not justified.

# (2) <u>The Proposed Project is Not Planned or Located in the Manner Most Compatible</u> with the Greatest Public Good and Least Private Injury.

The Project not only fails to provide meaningful improvement to intersection traffic operations, but the Madani's independent expert traffic study establishes at least one alternative traffic improvement that would improve the intersection without any private property impacts – adding a second dedicated westbound left-turn lane on Artesia Blvd.

Attn: Ms. Eleanor Manzano, City Clerk

Attn: Mr. Ted Semaan, Public Works Director

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- a. The independent analysis by RICK Engineering studied alternative intersection improvement options and determined implementation of a second westbound left-turn lane would provide substantial Level of Service improvements for the future 2030 condition (LOS E in AM, and nearly LOS E in PM). Thus, the proposed Project fails to meet the greatest public good and least private injury standard as there is an alterative available that would achieve greater public good without any private injury.
- b. Below is the conceptual layout prepared by RICK Engineering for the implementation of dual left-turn lanes for the westbound approach at the Aviation Blvd. and Artesia Blvd. intersection, entirely within the existing Artesia Blvd. right-of-way:



Accordingly, there is clearly an insufficient evidentiary basis for the City to make the requisite findings and determinations, and there is clearly substantial evidence establishing that such findings and determinations would are not justified.

The City's adoption of a Resolution of Necessity in the absence of substantial evidence or in an arbitrary and capricious manner would constitute a gross abuse of discretion in per <u>Cal. Code of</u> Civ. Proc. §1245.255(b) rendering the Resolution ineffectual. See *Huntington Park Redev*.

Attn: Ms. Eleanor Manzano, City Clerk

Attn: Mr. Ted Semaan, Public Works Director

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Agency v. Duncan (1983) 142 Cal.App.3d 17. If the Court sustains Mr. & Mrs. Madani's objections in a subsequent eminent domain action and dismisses the City's case, the City would be obligated to pay litigation expenses and damages. <u>Cal. Code of Civ. Proc.</u> §1268.610 and §1268.620.

#### 2. THE SUBJECT PROPERTY, BUSINESS AND THE PROPOSED PROJECT.

#### a. Mr. & Mrs. Madani's Property and Business.

Mr. & Mrs. Madani are long-time, well-known and respected business owners in Redondo Beach, successfully operating the gas station at the Subject Property for nearly 30 years.

Mike and Florence Madani, Trustees of the Madani Family Trust, are the owners and operators of the property and Shell gas station business at 1700 Artesia Blvd ("Subject Property"). In 1995, after operating the gas station for several years, Mr. & Mrs. Madani purchased the Subject Property from Exxon/Mobil. After purchasing the property, they invested more than \$1 million to install a modern underground gasoline storage and dispensing system and upgrade and re-brand the station.

The Subject Property is an approximately 1.25 acre parcel located at the southeast corner of Aviation Blvd. and Artesia Blvd. This very busy high-volume Shell gas station consists of 8 covered pump islands with 16 pumps, under 2 large canopies, as well as an approximately 1,800 square foot full-service convenience store and a car wash. Mr. & Mrs. Madani lease a portion of the property to the operator of a Valvoline oil change business.

For nearly 30 years Mr. Madani has been at the Subject Property *daily* to monitor the business. During that time, Mr. Madani observed and is very familiar with the traffic in and out of the Subject Property, and on the adjoining streets. The gas station business relies on vehicular traffic and, as a convenience business, is dependent on easy access to and from, and ingress/egress into and out of, the Subject Property from the adjoining streets. Thus, Mr. Madani would welcome street improvements that would significantly relieve congestion at the intersection.

Mr. Madani objects to the City's proposed Project because a dedicated right-turn lane will not alleviate the congestion. Mr. Madani has observed for nearly 30 years that there are not a lot of northbound cars turning right at Artesia Blvd., so the proposed Project will not relieve the back-up of cars travelling north on Aviation Blvd.

Attn: Ms. Eleanor Manzano, City Clerk

Attn: Mr. Ted Semaan, Public Works Director

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As set forth herein, Mr. Madani's observations are substantiated by the actual traffic volume counts collected by the City in 2009 and 2015, as well as the traffic volume counts collected in 2108 by the Madani's independent expert traffic engineer.

#### b. The Proposed Project and Proposed Acquisition.

The City proposes the construction and maintenance of a right-turn only pocket from northbound Aviation Blvd. onto eastbound Artesia Boulevard ("Project"). The City's 2009 Project Study Report Equivalent ("PSRE") states that the proposed Project will improve traffic conditions at the intersection. However, this statement is not accurate. While the PSRE states that the Project proposes to improve the level of service from LOS F to LOS E, the report actually concludes that the Project will not improve the level of service because it will remain LOS F with the Project in both the current and future 2030 condition.

Moreover, while the City's PSRE identifies a minimal improvement to the volume/capacity ratio for the AM conditions with the Project (even through it does not improve the LOS from F to E), the PSRE concludes there would be a degradation of the volume/capacity ratio in the PM conditions. Thus, the City's PSRE does not establish that the Project will meet its objective (LOS E) or provide any actual meaningful improvements to the intersection.

Notwithstanding the conclusion of the City's PSRE that the Project will not result in a meaningful improvement to traffic conditions at the intersection, the City apparently proposes to proceed with the Project.

In order to accomplish the Project, the City seeks to acquire permanent and temporary interests in the Subject Property. The City seeks to acquire an approximately 1,813sf permanent fee right-of-way interest in the Subject Property along Aviation Blvd. and continuing to the corner of Artesia Blvd ("Fee Interest"). The City also seeks to acquire an additional approximately 1,436sf temporary construction easement for a duration of 12-months (one year) adjacent to the Fee Interest along Aviation Blvd. and continuing around the corner along Artesia Blvd.

#### c. Substantial Damages Caused by the City's Proposed Project and Acquisition.

The Fee Interest is approximately 10' wide along the Subject Property's entire Aviation Blvd. frontage. The Fee Interest encompasses the large landscape planter along Aviation Blvd, the landscape planter at the corner, and other site improvements which will all be eliminated. The City's acquisition of the Fee Interest will also require Mr. & Mrs. Madani to relocate the large pylon sign at the corner, as well as the monument sign at the southern corner of the property. The Project will also require Mr. & Mrs. Madani to relocate drainage and irrigation

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utilities within the Fee Interest area.

Moreover, the City's construction of the exclusive right-turn lane and taking of the Fee Interest will permanently constrain and restrict ingress/egress through the Aviation Blvd. driveways and the internal circulation for gas station customers and gas delivery trucks. Thus, the taking and Project will result in substantial property and business damages suffered by Mr. & Mrs. Madani.

The width of the Temporary Construction Easement ("TCE") varies between 2.5 feet and 10 feet and is required by the City to reconstruct three driveways – the two driveways along Aviation Blvd, and the westernmost driveway along Artesia Blvd. During the 12-month construction period, the City has the non-exclusive right to use and occupy the TCE area, including half of each driveway. Obviously, ingress and egress to the Subject Property and the driveways will be impeded and disrupted causing significant business damages during the 1-year construction period.

As set forth above, the City's construction and maintenance of the Project, including but not limited to the City's taking of the permanent Fee Interest and Temporary Construction Easement, will constrain, disrupt and impede the Madani's gas station operations and cause substantial property and business damages.

3. THE PUBLIC INTEREST AND NECESSITY DO NOT REQUIRE THE PROJECT; AND, THE PROJECT IS NOT PLANNED OR LOCATED IN THE MANNER COMPATIBLE WITH THE GREATEST PUBLIC GOOD AND LEAST PRIVATE INJURY.

The City cannot establish the requisite findings to properly support adoption of a Resolution of Necessity.

As discussed in detail below, the City's proposed Project is not necessary or in the public interest because it will not improve traffic operations at the intersection. This is established in the City's 2009 PSRE analysis concluding that the Level of Service (LOS) for the intersection will remain F after the Project. To the extent there may be a potential improvement from the Project, the improvement is not meaningful or would be offset by a corresponding degradation. This is reflected in the independent expert traffic analysis prepared by RICK Engineering determining under one scenario the AM peak hour LOS improves from F to E, but in the PM peak hour the LOS degrades from E to F. Thus, the intersection is not improved with the Project.

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Moreover, the Project is not planned to accomplish the greatest public good and least private injury because it does not improve the intersection and because there is at least one other alternative that would improve the intersection and not require any acquisition private property or other private injury. RICK Engineering determined that the intersection could be improved with dual west bound left-turn lanes – adding another dedicated westbound left turn at the intersection. This improvement could be achieved within the width of the existing Artesia Blvd. right-of-way without the need for the taking of any private property. Thus, there is at least one alterative that would achieve a greater public good, greater intersection traffic operation improvements, without any private injury, no taking of any private property.

In order to adopt a Resolution of Necessity to acquire permanent and temporary interests in Mr. & Mrs. Madani's property and proceed with the Project, the City must make several findings and determinations required per <u>Cal. Code Civ. Proc.</u> §1240.030 which provides, "The power of eminent domain may be exercised to acquire property for a proposed project *only if all of the following are established*:

- (a) The public interest and necessity require the proposed project.
- (b) The project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury.

<u>Cal. Code Civ. Proc.</u> §1240.030(c)(1 & 2); emphasis added.

Per the Legislative Comment to this statute, "Subdivision (a) prevents the taking of property by eminent domain unless the public interest and necessity require the project. ... Subdivision (b) prevents the taking of property by eminent domain unless the proposed project is planned or located in the manner that will be compatible with the greatest public good and the least private injury. This limitation, which involves essentially a comparison between two or more sites, has also be described as 'the necessity for adopting a particular plan' for a given public improvement. ... Proper location is based on two factors: public good and private injury. Accordingly, the condemnor's choice is correct or property *unless another site would involve an equal or greater public good and a lesser private injury*." (Cal. Code Civ. Proc. §1240.030, Legislative Committee Comment; emphasis added; citations omitted.)

Here, the public interest and necessity does not require the proposed Project. Furthermore, an alternative improvement – dual westbound left turn lanes – would provide a greater public good and lesser private injury.

Adoption of a Resolution of Necessity in the absence of substantial evidence, or where the condemnor is committed to taking the property regardless of the evidence presented, constitutes a gross abuse of discretion. "A gross abuse of discretion occurs where the public

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agency acts arbitrarily or capriciously, renders findings that are lacking in evidentiary support, or fails to follow the required procedures and give the required notices before condemning the property. (City of Saratoga v. Hinz (2004) 115 Cal.App.4th 1202, 1221, 9 Cal.Rptr.3d 791.)" City of Stockton v. Marina Towers LLC (2009) 171 Cal.App.4th 93, 114.

Moreover, "It has been judicially recognized that '[i]mplicit in this requirement of a hearing and the adoption of a resolution of necessity is the concept that in arriving at its decision to take, the Agency engage in a good faith and judicious consideration of the pros and cons of the issue and that the decision to take be buttressed by substantial evidence of the existence of the three basic requirements set forth in Code of Civil Procedure, section 1240.030, ...' (Redevelopment Agency v. Norm's Slauson (1985) 173 Cal.App.3d 1121, 1125–1126, 219 Cal.Rptr. 365.) In short, the statutory requirement that a public entity adopt a Resolution of Necessity before initiating a condemnation action is designed to ensure that public entities will verify and confirm the validity of their intended use of the power of eminent domain prior to the application of that power in any one particular instance." San Bernardino County Flood Control Dist. v. Grabowski (1988) 205 Cal.App.3d 885, 897.

If the Council were to abuse its discretion in adopting a Resolution of Necessity, Mr. & Mrs. Madani will raise these objections in the eminent domain action. And, if successful, the action would be dismissed and the City would be obligated to compensate Mr. & Mrs. Madani for damages and litigation costs, including legal and expert fees. <u>Cal. Code of Civ. Proc.</u> §1268.610 and §1268.620.

#### a. The Public Interest and Necessity Does Not Require the Proposed Project.

As set forth above, <u>California Code of Civil Procedure</u> §1240.030(a) prevents the taking of private property by eminent domain unless the public interest and necessity require the project. Here, there is insufficient evidence to establish that the proposed Project is in the public interest or is necessary.

More importantly, though, the evidence presented in the City's 2009 PSRE as well as the independent expert traffic study prepared by RICK Engineering clearly establishes that the Project will not improve the traffic operations at the intersection. Moreover, the 2009, 2015, and 2018 traffic counts establish that construction of an exclusive right-turn lane, as proposed, is not justified as the volume is significantly less than the standard 300 vehicles per hour threshold (the actual volumes do not exceed 200 vehicles per hour). Thus, there is clear evidence that the public interest and necessity do not require the proposed Project.

In the City's 2009 PSRE, the City analyzed and evaluated the proposed Project. The PSRE calculated the Level of Service vehicle to capacity (v/c) ratios in both the existing (2009) and future (2030) conditions for both the morning and evening. The calculations indicate that in

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the existing conditions, the intersection would continue to operate in excess of capacity in both the morning and evening (both LOS F). While the morning scenario would show a nominal v/c improvement (0.0390), in the afternoon the conditions remain the same. Thus, there is no change in the afternoon and the morning would have a negligible – but still LOS F – condition.

Similarly, in the City's 2009 PSRE the intersection would continue to operate in excess of capacity in both the morning and afternoon scenarios (LOS F) for the future 2030 condition. While the morning condition would show a minimal v/c improvement (0.0840), the afternoon condition would actually worsen (-0.0470). Thus, any negligible improvement in the morning future condition provided by the Project is offset by a worse condition in the afternoon.

Accordingly, the City's 2009 PSRE establishes that there is no meaningful benefit from the proposed Project so it is not in the public interest or necessity.

Mr. & Mrs. Madani obtained an independent expert traffic study performed by Robert Stockton (recently deceased) and Brian Stephenson of RICK Engineering Company. Both Mr. Stockton and Mr. Stephenson are well-regarded and experienced expert traffic engineers working on behalf of municipalities and other government agencies, as well as private parties.

RICK Engineering performed traffic analyses not only based on the 2009 data reflected in the City's 2009 PSRE report, but also the City's 2015 traffic data, as well as independent traffic counts conducted in 2018. Rick Engineering evaluated and studied numerous scenarios and conditions, including a scenario based on the City's General Plan Circulation Element (which considered the City of Manhattan Beach's right-turn only lane project), as well as the eastbound right-turn lane which was not considered by the City in the PSRE.

In RICK Engineering's January 4, 2021 report prepared by Brian Stephenson and enclosed herewith, Mr. Stephenson concludes that the City's proposed Project will not provide any meaningful improvement, that any potential improvement is offset by a corresponding degradation in service. He also finds the proposed Project is not justified because the right-turn volume does not exceed the standard set forth in the Highway Capacity Manual of 300 vehicles per hour as the actual volumes are all less than 200 vehicles per hour in all scenarios.

The following is the conclusion section contained in Mr. Stephenson's January 4, 2021 report:

Based on the traffic analysis shown in the PSRE (LOS F to LOS F), the follow-up counts and analysis performed in 2015 and again in 2018 (which shows a minimal improvement to LOS E during the AM peak hour, likely due to the addition of the eastbound right turn lane; and a degradation to LOS F during the PM peak hour), and the City's buildout projections for 2030 (which show a 3.5% degradation of the v/c ratio for PM conditions with the right-turn lane), an exclusive northbound

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right-turn lane does not appear to be warranted at this location, and any potential improvements are offset.

The PSRE and General Plan improvement scenarios are shown to have negligible improvements related to delay and or queue, however, these are not anticipated to have a significant improvement to the intersection LOS as all scenarios are anticipated to continue to operate at LOS F (except for the PSRE scenario, which swapped LOS F and E for the AM and PM peak hours of existing conditions to LOS E and F for the AM and PM peak hours of Forecast Year (2030) conditions).

Additionally, the standard contained within the Highway Capacity Manual 6<sup>th</sup> Edition states, "An exclusive right-turn lane is often provided when the right-turn volume exceeds 300 veh/h and the adjacent through volume exceeds 300 veh/h/ln." The report does not show a volume exceeding 300 vehicles per hour in the existing (2018) or in the future (2030) scenarios. In addition, the updated traffic counts from the City of Redondo Beach dated 10/22/2015 do not show volumes exceeding 300 vehicles per hour. An exclusive northbound right turn lane does not appear to be warranted.

Based on the foregoing, the evidence clearly establishes that the proposed Project will not provide a meaningful improvement to the intersection traffic operations. Accordingly, the proposed Project is not in the public interest and is not necessary.

# b. The Project is Not Designed to Accomplish the Greatest Public Good and Least Private Injury

The Project is not planned or located in a manner consistent with the greatest public good and least private injury. As discussed above, the Project will not provide a meaningful improvement and is thus not in the public interest or necessary. The Project as planned will cause extensive permanent damage to the Subject Property. Thus, as planned, the Project will not provide a meaningful public benefit but will cause significant private injury.

However, RICK Engineering determined that there is at least one clear alternative available that would accomplish a public benefit – improvement to the intersection traffic operations – while avoiding any private injury. In their January 4, 2021 Addendum Report, enclosed herewith, RICK Engineering reviewed potential alternative options for geometric and signal phasing improvements to determine whether the intersection could function better with alternative improvements.

As described by Mr. Stephenson, "Based on this review of alternative improvements, it was determined that the results obtained from the implementation of a second left-turn lane for the westbound approach provide an overall better level of service with less delay at the

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Aviation Boulevard and Artesia Boulevard intersection when compared to the improvement of a northbound right-turn lane as shown in the PSRE."

In RICK Engineering's January 4, 2021 addendum report, Mr. Stephenson concludes:

The westbound dual left-turn lane analysis contained within this supplemental analysis shows a greater improvement in terms of LOS and delay when compared to the PSRE analysis. Additionally, important to note is that the dual left-turn lanes can be constructed within the existing curb-to-curb width along Artesia Boulevard, without the need to acquire any private property, and still maintaining the raised median to maintain safety along the roadway.

The standard contained within the Highway Capacity Manual 6<sup>th</sup> Edition describes the relationship between left-turn volumes and the probable need for exclusive turn lanes. Single left-turn lanes are typically needed when left-turning volumes are at least 100 vehicles per hour, and dual left-turn lanes are typically needed when there are over 300 vehicles per hour. Based on the City's General Plan Circulation Element, the forecasted volumes for the westbound left-turn movement are shown to exceed 300 turning vehicles during the PM peak hour (530 left-turning vehicles are projected), and the analysis contained within this letter report shows that the overall intersection delay can be further improved with the addition of a second westbound left-turn lane.

Based on the foregoing, the evidence clearly establishes that the proposed Project will not provide a meaningful improvement to the intersection traffic operations and there is a clear alternative that will provide greater public benefit and no private injury. Accordingly, the proposed Project is not planned or located in the manner compatible with the greatest public good and least private injury.

#### 4. CONCLUSION.

For the foregoing reasons, among others, Mr. & Mrs. Madani respectfully object to the City's consideration of adoption of the proposed Resolution of Necessity on January 19, 2021.

The evidence presented herein clearly establishes the City's proposed Project will not provide any meaningful improvement to the intersection and is not warranted, thus the proposed Project is not in the public interest or necessary.

Moreover, because the proposed Project will not provide any meaningful improvement and will cause significant private injury – the taking of private property and causing substantial

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property and business damages – the proposed Project is not planned or located consistent with the greatest public good and least private injury.

Furthermore, independent expert traffic engineers, RICK Engineering, determined that implementation of dual westbound left-turns at the intersection will improve the intersection traffic operations, within the existing Artesia Blvd. right-of-way, and will not result in any private injury.

Accordingly, the City's adoption of the proposed Resolution of Necessity is not justified or supported. Adoption of the Resolution of Necessity contrary to Mr. & Mrs. Madani's objections and the ample evidence presented herein would constitute a gross abuse of discretion. Adoption of the proposed Resolution of Necessity is not supported by substantial evidence and would be arbitrary and capricious.

Mr. & Mrs. Madani request the opportunity to appear before the City Council with their counsel and expert traffic engineer to be heard with respect to their objections to the proposed Resolution of Necessity. Please also ensure that this letter and accompanying documents are presented to the City Council for consideration and included in the public record for this matter.

Very truly yours.

Glenn L. Block

California Eminent Domain Law Group,

a Professional Corporation

#### **Enclosures:**

<u>Aviation Boulevard Right Turn Lane Improvement Project in the City of Redondo Beach,</u> January 4, 2021, RICK Engineering Company

Addendum to Aviation Boulevard Right Turn Lane Improvement Project in the City of Redondo Beach, January 4, 2021, RICK Engineering Company

<u>Project Study Report Equivalent, Aviation Boulevard Northbound Right Turn Lane</u> Improvement at Artesia Boulevard, April 23, 2009, City of Redondo Beach

cc: Mr. & Mrs. Mike and Florence Madani (via email) City of Redondo Beach City Council (via email)



January 4, 2021

Mr. Glenn L. Block, Esq. California Eminent Domain Law Group, APC 3429 Ocean View Blvd., Suite L Glendale, CA 91208

SUBJECT: AVIATION BOULEVARD RIGHT TURN LANE IMPROVEMENT PROJECT IN

THE CITY OF REDONDO BEACH

(RICK ENGINEERING COMPANY JOB NO. 17989)

Dear Mr. Glenn L. Block:

#### *Summary*

Based on the traffic analysis shown in the PSRE (LOS F to LOS F), the follow-up counts and analysis performed in 2015 and again in 2018 (which shows a minimal improvement to LOS E during the PM peak hour, likely due to the addition of the eastbound right turn lane), and the City's buildout projections for 2030 (which show a 3.5% degradation of the v/c ratio for PM conditions with the right-turn lane), an exclusive northbound right turn lane does not appear to be warranted at this location, and any potential improvements are offset.

#### Introduction

Pursuant to your request, Rick Engineering Company (RICK) analyzed the necessity for the City of Redondo Beach's proposed northbound right-turn lane project at the intersection of Aviation Boulevard and Artesia Boulevard. Items analyzed include, but are not limited to, the PSRE for *Aviation Boulevard, northbound right turn lane improvement at Artesia Boulevard* dated 4/23/09, the City's General Plan Circulation Element and traffic counts conducted by Transportation Studies Inc. on October 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> 2018. Based on the PSRE, the City's General Plan Circulation Element, and recent traffic movement counts obtained, it was determined that there is not a need for the proposed northbound right-turn lane project at the Aviation Boulevard.

#### **PSRE**

This project proposes to construct a right-turn lane on northbound Aviation Boulevard at the intersection of Aviation Boulevard and Artesia Boulevard. The City of Redondo Beach is considering the acquisition of a portion of the Shell Station property for the proposed project. This includes a right-of-way acquisition area of approximately 1,813 square feet, more or less, and a temporary construction easement of approximately 1,436 square feet, more or less.

The PSRE identifies 3 different alternatives for the intersection. Alternative 1 suggests no change to the intersection; alternative 2 suggests traffic signal synchronization; alternative 3 suggests the proposed right turn lane project. The report explains that the suggested alternative 2 was already completed to improve the intersection, but still recommends implementing alternative 3. This report

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analyzes alternative 3 in which a right-turn lane is added for the northbound approach during the plus PSRE scenario.

#### General Plan Circulation Element

The City's General Plan proposes to construct a dedicated right-turn lane for the eastbound approach and southbound approach at the Aviation Boulevard/Artesia Boulevard intersection. Existing conditions observed at the study intersection show the General Plan dedicated right-turn lane for the eastbound approach as constructed. This report analyzes the addition of a right-turn lane for the southbound approach and includes the already existing right turn lane for the eastbound approach.

#### Existing Transportation Conditions and Traffic Data

Traffic counts at the study intersection were performed by Transportation Studies Inc. on October 9, 10 and 11<sup>th</sup> 2018. The turning movement counts were conducted on October 9 and 10<sup>th</sup> during the A.M. (7-9) and P.M. (4-6) peak periods. Daily machine counts were conducted on October 10<sup>th</sup> and 11<sup>th</sup>, for a total of forty-eight (48) hours.

The conducted counts show existing traffic movement volumes exceeding some of the forecasted (2030) traffic movement volumes contained within the PSRE report. The following movements reflect higher counts for at least one of the peak hours when compared to those shown under the 2030 baseline volumes:

- Southbound: left-turn volumes, through volumes, and right-turn volumes.
- Westbound: through volumes
- Northbound: left-turn volumes
- Eastbound: left-turn volumes

**Exhibit 1** shows the existing traffic movement volumes and intersection conditions.

#### **Studied Scenarios**

The study intersection was analyzed under the following scenarios using existing traffic data and forecasted volumes reported under the PSRE document:

- Existing (2018) Conditions
- Existing (2018) Conditions + PSRE geometric improvements
- Existing (2018) Conditions + General Plan improvements
- Forecast Year (2030)
- Forecast Year (2030) + PSRE geometric improvements
- Forecast Year (2030) + General Plan improvements

Exhibit 2 shows the traffic volumes and intersection lane conditions used for the study intersection.

#### **Methodologies**

The Level of Service (LOS) and 95<sup>th</sup> percentile queue length results for signalized intersections were calculated using the methodologies described in Chapter 18 of the 2010 HCM, using Synchro Version 10 software. The LOS for signalized intersections is defined in terms of control delay, which is made up of several factors that relate to right-of-way control, geometrics and traffic volumes. The

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95<sup>th</sup> percentile queue length is defined in terms of feet as it relates to the vehicular traffic (vehicle length plus space between them) being in queue during the signal peak operations which is made up of several factors such as arrival times, the number of lanes available, lane utilization factors, saturation flow rate, and red time.

LOS ranges from LOS A (excellent conditions) to LOS F (overloaded conditions). The City's General Plan Circulation Element Policy P9 states "Where feasible, maintain or achieve LOS D at City intersections."

#### **Traffic Operation Results**

Based on the methodologies described above, the study intersection currently operates at LOS F and E for the AM and PM peak hours, respectively. All future study scenarios are anticipated to operate at the same LOS F as existing for the AM and PM peak hours with the exception of the following:

- Forecast Year (2030) + PSRE: LOS F to LOS E, AM peak hour.
- Forecast Year (2030) + PSRE: LOS E to LOS F, PM peak hour.

Thus, while slightly improving the AM peak hour, the PM peak hour gets worse. It should be noted that the City's General Plan Circulation Element shows this intersection to operate at LOS F for both the AM and PM peak hours of the City's buildout condition.

The queuing results are shown to stay the same for all intersection approaches for the "with" and "without" PSRE improvements scenarios, with the exception of the northbound approach. The introduction of the northbound right-turn lane is shown to reduce northbound through queue lengths for the existing and forecast scenarios. Although there is an overall queue length reduction for the northbound approach, the forecast year scenario is shown to have queue lengths exceeding the proposed right-turn lane capacity for the PM peak hour.

**Table 1** summarizes the intersection operation results as it relates to Level of Service for the studied scenarios. **Table 2** summarizes the 95<sup>th</sup> percentile queue lengths and available storage for the studied scenarios.

#### Highway Capacity Manual Standard

The Highway Capacity Manual 6<sup>th</sup> Edition states, "An exclusive right-turn lane is often provided when the right-turn volume exceeds 300 veh/h and the adjacent through volume exceeds 300 veh/h/ln." The Project Study Report Equivalent (PSRE) for *Aviation Boulevard*, *northbound right turn lane improvement at Artesia Boulevard* dated 4/23/09 does not show a volume exceeding 300 vehicles per hour in the existing (2009) or in the future (2030) scenarios. In addition, the updated traffic counts from the City of Redondo Beach dated 10/22/2015 do not show volumes exceeding 300 vehicles per hour, nor do the traffic counts conducted by Transportation Studies Inc. on October 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> 2018.

#### Conclusion

Based on the traffic analysis shown in the PSRE (LOS F to LOS F), the follow-up counts and analysis performed in 2015 and again in 2018 (which shows a minimal improvement to LOS E during the AM peak hour, likely due to the addition of the eastbound right turn lane; and a degradation to LOS F during the PM peak hour), and the City's buildout projections for 2030 (which

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show a 3.5% degradation of the v/c ratio for PM conditions with the right-turn lane), an exclusive northbound right-turn lane does not appear to be warranted at this location, and any potential improvements are offset.

The PSRE and General Plan improvement scenarios are shown to have negligible improvements related to delay and or queue, however, these are not anticipated to have a significant improvement to the intersection LOS as all scenarios are anticipated to continue to operate at LOS F (except for the PSRE scenario, which swapped LOS F and E for the AM and PM peak hours of existing conditions to LOS E and F for the AM and PM peak hours of Forecast Year (2030) conditions).

Additionally, the standard contained within the Highway Capacity Manual 6<sup>th</sup> Edition states, "An exclusive right-turn lane is often provided when the right-turn volume exceeds 300 veh/h and the adjacent through volume exceeds 300 veh/h/ln." The report does not show a volume exceeding 300 vehicles per hour in the existing (2018) or in the future (2030) scenarios. In addition, the updated traffic counts from the City of Redondo Beach dated 10/22/2015 do not show volumes exceeding 300 vehicles per hour. An exclusive northbound right turn lane does not appear to be warranted.

Sincerely,

RICK ENGINEERING COMPANY

BirR. Spt

Brian R. Stephenson, P.E., T.E., P.T.O.E.

RCE No. 69471 Associate Principal

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#### Attachments:

- 1. Exhibits
- 2. Tables
- 3. Traffic Volume Counts (2018)
- 4. Capacity Analysis
- 5. Timing Printouts
- 6. Queuing Printouts
- 7. General Plan Circulation Element Analysis Excerpts -Redondo Beach and Manhattan Beach
- 8. Highway Capacity Manual Exclusive Lane Excerpt

## Brian Stephenson PE, TE, PTOE

Brian Stephenson is an Associate Principal at RICK, where he manages a team of traffic engineers who provide a variety of engineering and planning services, including the preparation and review of traffic control plans, traffic signal plans, signing and striping plans, traffic impact studies, optimized network timing plans, and collision analysis. Brian is well-versed with municipal traffic engineering and currently serves as the Contract City Traffic Engineer for the City of Murrieta. Through his public agency work as an extension of staff for the City of Murrieta, and his public works project experience within the San Diego region, he has designed and managed traffic control PS&E for large scale pipeline projects, which typically include sidewalk and ADA improvements, traffic signal upgrades, and utility lateral installations and relocations.

As part of Rick Engineering Company's expert witness services, Mr. Stephenson is responsible for performing review of traffic analysis reports and design plans, and providing expert opinions on conformance to State and local agency analysis and design requirements. A few of these projects include the following:

- Keiper, et al v. USA, et al County of San Bernardino
- Caltrans v. Janet Gale Hubbard County of San Bernardino, CA
- SANBAG v. Hakimian San Bernardino, CA
- RCTC v. Pearl Street Properties Corona, CA
- San Bernardino County Transportation Commission v. Ehab Atatlla Colton, CA
- South Milliken Avenue Grade Separation (Sears/Kmart)

CONSULTANT TRAFFIC ENGINEER — CITY OF MURRIETA, CA: As part of Rick Engineering Company's contract services to the City of Murrieta, Mr. Stephenson is the City's Consulting Traffic Engineer responsible for reviewing traffic signal plans, traffic impact studies, and Environmental Impact Report (EIR) traffic analysis submitted to the City of Murrieta by developers. He also responds to citizens concerns with traffic related issues, and represents the City at Traffic Commission, Planning Commission, and City Council meetings.

University Avenue Mobility Plan – City of San Diego, CA: Traffic Engineer responsible for the preparation of traffic related plans for the mobility improvement project within the North Park community of San Diego, which included a transit only lane. The traffic plans included 10 traffic signal/signal modification plans, 3 RRFB plans, 5 street lighting plans, 5 signing and striping plans and 18 traffic control plans, as well as an Intersection Control Evaluation (ICE) study and conceptual layout evaluating a roundabout at one of the study intersections.

**INTERSECTION SAFETY STUDIES — CITY OF SACRAMENTO, CA:** Project engineer responsible for the preparation of an Intersection Safety Studies report for five intersections within the City of Sacramento. Tasks performed include site visits, analyzing accident history, preparation of accident rates, recommending potential mitigation, preparation of cost estimates for mitigation, and preparation of a report summarizing the collision patterns and mitigation.

Pacific Beach Pipeline South – City of San Diego, CA: Traffic Engineer responsible for the preparation of traffic control plans for the replacement of approximately 7.6 miles of 8-inch to 24-inch water transmission and distribution lines and approximately 1.6 miles of sewer gravity lines and force mains in the Mission Bay Park area and Midway/Pacific



PROJECT ASSIGNMENT Expert Witness

YEARS OF EXPERIENCE 22

#### **EDUCATION**

B.S. in Civil Engineering 1998, University of New York at Buffalo

#### REGISTRATION

Registered Professional Engineer California, #69471 Arizona, #42520 New York, #080635 Colorado, #0048708

Registered Traffic Engineer California, #2419

Professional Traffic Operations Engineer, #2169

PROFESSIONAL
AFFILIATIONS
Institute of
Transportation
Engineering (ITE)

American Society of Civil Engineers (ASCE)

International Municipal Signal Association (IMSA)

American Public Works Association (APWA) Highway Corridor. The traffic control plans include 200 sheets of traffic control, within both City and Caltrans right-of-way, and included a separate encroachment permit submittal through Caltrans. The traffic control plans were designed to minimize impacts to the travelling public, area businesses, and residents, as well as to maintain the safety for bicyclists and pedestrians maneuvering through the traffic control.

AZUSA WASTE MANAGEMENT MATERIAL RECOVERY FACILITY — CITY OF AZUSA, CA: Project engineer responsible for the traffic signal modification design at 2 City intersections, and traffic signal design at 3 on-site private intersections. Tasks unique to this project included design within the Waste Management facility, accounting for both horizontal and vertical curve approaches to the signals, as well as designing for primarily large vehicles.

**TRAFFIC ENGINEERING PLAN CHECKING — MURRIETA, ONTARIO, LAKE ELSINORE, PLACENTIA, CA:** As part of Rick Engineering's contract services to Bureau Veritas for the Cities of Murrieta, Ontario, Lake Elsinore, and Placentia, Mr. Stephenson is the project engineer responsible for the review of various traffic engineering design related plans, including traffic signal plan, signing & striping plans, and traffic control plans.

CALIFORNIA BAPTIST UNIVERSITY TRAFFIC IMPACT ANALYSIS — CITY OF RIVERSIDE, CA: Project Engineer responsible for preparing a Traffic Impact Analysis for the California Baptist University Specific Plan, which calls for an estimated enrollment of 8,080 students by year 2020. The project is an expansion to the existing university, and will ultimately consist of 13 academic buildings, 2 parking structures along with additional surface lots, an event center, and an athletic area and recreation center. The study analyzed impacts of vehicular traffic on the adjacent City and Caltrans roadways, as well as internal to the site. Tasks included performing trip generation, capacity analysis, queuing analysis, ramp merge/diverge analysis, internal truck turning templates, mitigation for buildout of the project, and preparation of a report summarizing the findings of the analysis.

Harmony Grove Traffic Signal, Signing & Striping, Traffic Control, & Detour Plans – County of San Diego, CA: Provided project engineering services for all traffic-related PS&E including traffic signal plans, signing and striping plans, traffic control plans, and detour plans for the mixed-use community 0f 742 dwelling units, commercial uses, an equestrian facility, and a fire station. The traffic related PS&E included 4 traffic signals, 12 sheets of signing and striping, 6 sheets of traffic control, and 2 detour plans.

RANCHO PARKWAY AND SPORTS PARK TRAFFIC SIGNAL — CITY OF LAKE FOREST, CA: Project manager responsible for the traffic related PS&E for a new traffic signal at the intersection of Rancho Parkway and Sports Park/Nursery. The design for this project included meeting all necessary City and MUTCD requirements for ADA accessibility, including truncated domes for all pedestrian ramps, countdown pedestrian timers, and bicycle detection loops.

## Robert Stockton PE, LEED AP

**Mr. Stockton** has been Principal-in-Charge of Rick Engineering Company's (RICK) Riverside office since opening it in 1987. He received his Bachelor of Science in Construction Engineering in 1978 at California State Polytechnic University, Pomona. He is a Registered Civil Engineer in the states of California and Arizona, and a LEED Accredited Professional. Mr. Stockton has been Principal-in-Charge of numerous large and complex private and public sector projects. He directs and supervises a staff of project engineers, designers, a landscape architect, a mapping director, and surveyors. His responsibilities include coordination of projects with clients and public agencies, as well as supervision of all work performed by his team.

Mr. Stockton is highly experienced in all aspects of civil engineering and surveying related to land and site development. His 41 years of experience include the design of roads, drainage systems, sewer systems, water systems, grading, and right-of-way surveys and mapping.

Mr. Stockton is a board member of the California Board for Professional Engineers, Land Surveyors and Geologists, is a board member Western Municipal Water District representing Division 1, is a past Chair of the Greater Riverside Chamber of Commerce and the City of Riverside's Board of Public Utilities, and is active in national, state, and regional power and water issues. He was the Riverside Public Utilities representative on the Western Municipal Water District and served City of Riverside Ad Hoc Committee for six years. Mr. Stockton also serves on the Path of Life Ministries Board, and the California Baptist University School of Engineering Advisory Committee, is a past Chair of Leadership Riverside and served two terms as planning commissioner for the City of Riverside.

A few of Mr. Stockton's representative projects include:

- SBCTC v. Arrowhead Central Credit Union Provided expert witness services in connection with eminent domain action by the San Bernardino County Transportation Commission. SBCTC sought to condemn a large portion of the credit union's property for the construction of a detention basin for its Downtown San Bernardino Passenger Rail Project. Case settled before trial.
- RCTC v. 2410 Wardlow Property, LLC Provided expert witness services in connection with eminent domain action brought by Riverside County Transportation Commission.

  RCTC sought to condemn a portion of the multi-tenant commercial/retail property to widen the 91 Freeway in Corona. Case settled before trial.
- Caltrans v. Javad N. Sani Provided expert witness services in connection with eminent domain action brought by Caltrans for three ocean and pastoral view parcels totaling 13.47 acres of Highway 1 in San Simeon. Caltrans sought to condemn portions of two of the three parcels for its State Route 1 Realignment Project. Settlement for full takes of two of the parcels, preserved the owner's ability to seek compensation for the taking of, and damages to the third parcel.
- Caltrans District 08 Provided expert witness testimony and forensic engineering on condemnation proceedings at Highway 330, Route 30 and Highland Avenue for the State of California.
- Ku, Fong, Larsen & Chen, LLP, Bradbury Estates, Bradubury, CA Provided expert
  witness testimony for an arbitration hearing regarding the development potential and
  corresponding value for 190-acres in the City of Bradbury
- Caltrans District 08 Provided expert witness and forensic engineering for development potential and costs for a site at Oleander Drive and Interstate 215
- City of San Dimas Provided expert witness planning and civil engineering to defend the City of San Dimas in a case concerning the General Plan and Hillside Ordinances

**PROJECT ASSIGNMENT**Principal-in-Charge

YEARS OF EXPERIENCE

#### **EDUCATION**

California State Polytechnic University, Pomona B.S. Construction Engineering, 1978

#### **REGISTRATION**

Registered Professional Engineer California, No. 33591 Arizona, No. 20021

U.S. Green Building Council Leadership in Energy and Environmental Design Accredited Professional

#### **PROFESSIONAL AFFILIATIONS**

California Board for Professional Engineers, Land Surveyors, and Geologists, V.P., Board Member

American Society of Civil Engineers (ASCE)

American Council of Engineering Companies – California (ACEC-CA)

Greater Riverside Chamber of Commerce, Past Chair

California Baptist University, School of Engineering Advisory Committee

Leadership Riverside, Past Chairman

Monday Morning Group, Director

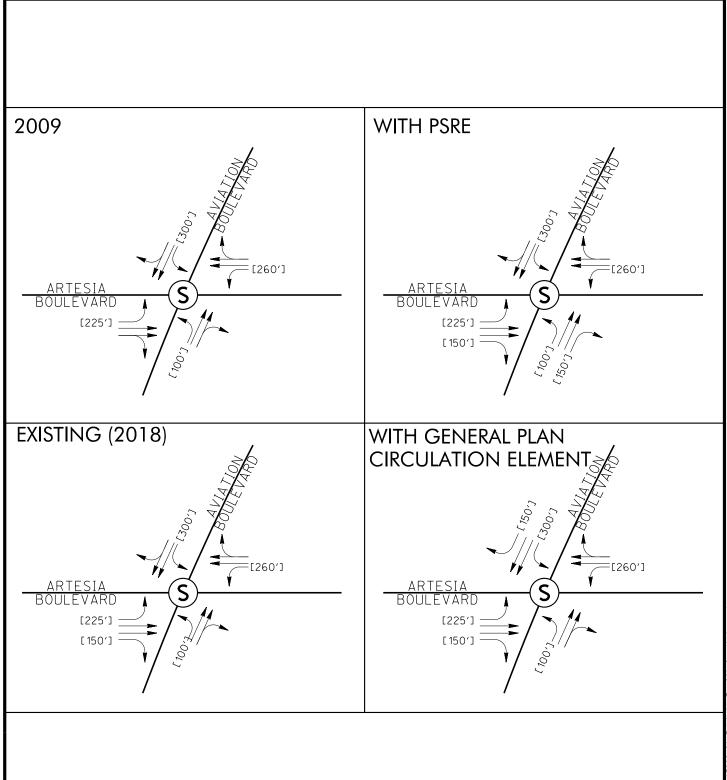
Path of Life Ministries Board Member

Western Municipal Water District, Past Director Board Member



## ATTACHMENT 1

## **EXHIBITS**



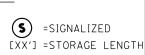


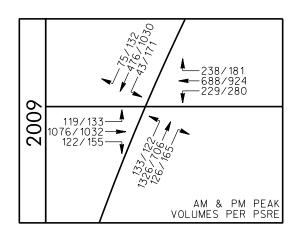


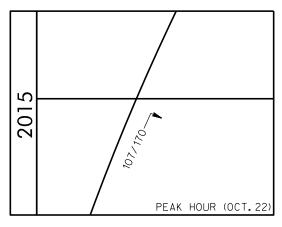
**EXHIBIT** 1 TRANSPORTATION CONDITIONS

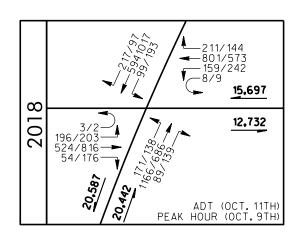
AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

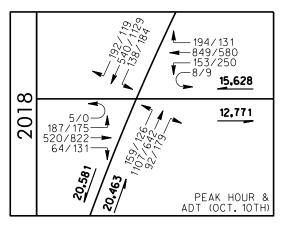
**LEGEND** 

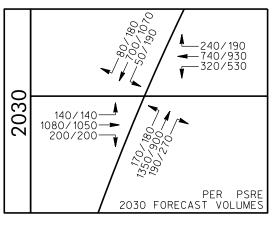












NOT TO SCALE

**ENGINEERING COMPANY** 

**EXHIBIT 2** TRAFFIC VOLUMES

AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

**LEGEND** 

AM/PM=PEAK VOLUMES X,XXX =DIRECTIONAL ADT

## ATTACHMENT 2

## **TABLES**



TABLE 1
INTERSECTION OPERATION RESULTS
AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

ARTESIA BOULEVARD & AVIATION BOULEVARD													
Scenarios (Traffic Signal)		<b>DELAY</b> <sup>1</sup>	$LOS^2$										
Existing (2018) Tuesday	AM	117.4	F										
	PM	70.6	Е										
Existing (2018) Wednesday	AM	116.6	F										
	PM	75.6	E										
Existing (2018) Tuesday + PSRE <sup>3</sup>	AM	111.2	F										
	PM	68.4	E										
Existing (2018) Wednesday + PSRE <sup>3</sup>	AM	111.6	F										
	PM	73.5	Е										
Existing (2018) Tuesday + General Plan <sup>4</sup>	AM	116.2	F										
	PM	64.0	E										
Existing (2018) Wednesday + General Plan <sup>4</sup>	AM	115.7	F										
	PM	66.9	E										
Forecast Year (2030)	AM	90.8	F										
	PM	125.0	F										
Forecast Year (2030) + PSRE <sup>3</sup>	AM	75.4	E										
	PM	112.6	F										
Forecast Year (2030) + General Plan <sup>4</sup>	AM	90.0	F										
	PM	113.8	F										

#### Footnotes:

Results calculated utilizing the methodologies described in Chapters 18 of the 2010 Highway Capacity Manual (HCM 2010).

- 1) Delay is measured in seconds per vehicle.
- 2) Level of Service
- 3) The "+PSRE" scenario consists of geometrical improvements of a dedicated right-turn lane for the northbound approach.
- 4) The "+ General Plan" scenario consists of geometrical improvements of a dedicated right-turn lane for southbound approach.



# TABLE 2 INTERSECTION QUEUING RESULTS AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

AVIATION BOULEVAR							Queue				<del></del> -
ARTESIA BOULEVARD & AVIATION		ED				entne	-	(Feet)	1	CD	
BOULEVARD	<b>T</b>	EB	ъ	VV	B	· ·	NB	ъ	· ·	SB	
	L	T	R	L	TR	L	T	R	L	T	R
Scenarios (Traffic Signal)											
Existing (2018) Tuesday AM	#402	214	0	#332	#530	#337	#643	-	#203	307	-
PM	#339	#527	125	#404	383	#256	426	-	#331	#670	-
Existing (2018) Wednesday AM	#388	212	6	#319	#558	#316	#601	-	#276	270	-
PM	#283	#579	61	#450	#416	#258	453	-	#296	#806	-
Existing (2018) Tuesday + PSRE <sup>1</sup> AM	#402	214	0	#345	#530	#337	#566	21	#203	307	-
	#339	#527	125	#404	383	#256	344	79	#331	#670	-
Existing (2018) Wednesday + PSRE <sup>1</sup> AM	#388	212	6	#332	#558	#316	#521	22	#276	270	-
PM	#283	#579	61	#450	#416	#258	344	104	#292	#806	-
Existing (2018) Tuesday + General Plan <sup>2</sup> AM	#402	214	0	#345	#530	#337	#643	-	#203	223	97
PM	#339	#520	124	#404	380	#252	431	-	#329	#583	41
Existing (2018) Wednesday + General Plan <sup>2</sup> AM	#388	212	6	#332	#558	#316	#601	-	#276	200	84
PM	#279	#566	60	#442	407	#256	448	-	#330	#701	64
Forecast Year (2030) AM	#238	#753	97	#556	539	#274	#1,009	-	#130	417	-
PM	#262	#760	132	#917	611	#376	#749	-	#400	#836	-
Forecast Year (2030) + PSRE <sup>1</sup> AM	#230	#728	95	#520	513	#274	#866	101	#130	440	-
PM	#262	#760	100	#917	611	#376	512	171	#340	#836	-
Forecast Year (2030) + General Plan <sup>2</sup> AM	#238	#753	97	#556	539	#274	#1,009	-	#130	369	0
PM	#262	#760	132	#905	603	#376	#774	-	#338	#655	99
Available Storage	225	420	150	265	420	100	420	130	300	820	150

#### Footnotes:

NB = Northbound, SB = Southbound, EB = Eastbound, WB= Westbound

#=95th percentile volume exceeds capacity, queue may be longer.

T=thru lane, L=left-turn lane, R =right-turn lane, TR= shared thru-right lane, etc.

<sup>1)</sup> The "+PSRE" scenario consists of geometrical improvements of a dedicated right-turn lane for the northbound approach.

<sup>2)</sup> The "+ General Plan" scenario consists of geometrical improvements of a dedicated right-turn lane for southbound approach.

## ATTACHMENT 3

## **TRAFFIC COUNTS (2018)**

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

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code: 12215000 Start Date: 10/22/2015 Page No: 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

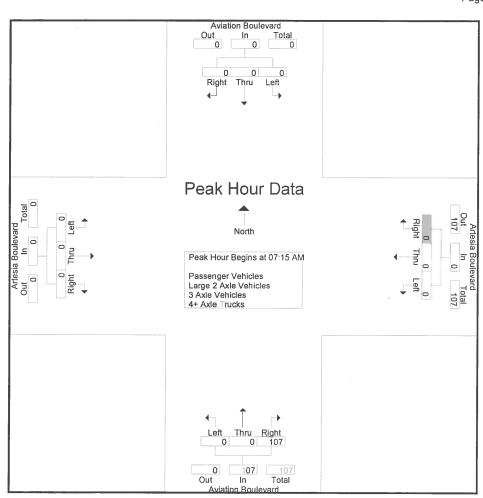
	Α	Sout	Boulev hbound		F		Bouleva tbound	ard	Α		Boulev hbound	ard	A		Bouleva bound	ard	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	23	23	0	0	0	0	23
07:15 AM	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	20
07:30 AM	0	0	0	0	0	0	0	0	0	0	29	29	0	0	0	0	29
07:45 AM	0	0	0	0	0	0	0	0	0	0	32	32	0	0	0	0	32
Total	0	0	0	0	0	0	0	0	0	0	104	104	0	0	0	0	104
08:00 AM	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	26
08:15 AM	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	20
08:30 AM	0	0	0	0	0	0	0	0	0	0	29	29	0	0	0	0	29
08:45 AM	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	26
Total	0	0	0	0	0	0	0	0	0	0	101	101	0	0	0	0	101
Grand Total	0	0	0	0	0	0	0	0	0	0	205	205	0	0	0	0	205
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	
Passenger Vehicles	0	0	0	0	0	0	0	0	0	0	197	197	0	0	0	0	197
% Passenger Vehicles	0	0	0	0	0	0	0	0	0	0	96.1	96.1	0	0	0	0	96.1
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	5
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	2.4	2.4	0	0	0	0	2.4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	1.5	1.5	0	0	0	0	1.5
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	А		Boulevanbound	ard	F		Bouleva bound	ard	Α		Boulev nbound	ard	P		Bouleva bound	Boulevard bound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
Peak Hour Ana	lysis Fro	om 07:0	00 AM to	o 08:45 A	M - Pea	ak 1 of 1	1													
Peak Hour for E	Entire In	tersecti	ion Beg	ins at 07:	15 AM															
07:15 AM	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	20			
07:30 AM	0	0	0	0	0	0	0	0	0	0	29	29	0	0	0	0	29			
07:45 AM	0	0	0	0	0	0	0	0	. 0	0	32	32	0	0	0	0	32			
08:00 AM	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	26			
Total Volume	0	0	0	0	0	0	0	0	0	0	107	107	0	0	0	0	107			
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0					
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.836	.836	.000	.000	.000	.000	.836			

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

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

ouit i loui loi		20.000	009	,													
	07:00 AN	1			07:00 AN	Λ			07:15 AM	И			07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	29	29	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	32	32	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	107	107	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.836	.836	.000	.000	.000	.000	

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

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

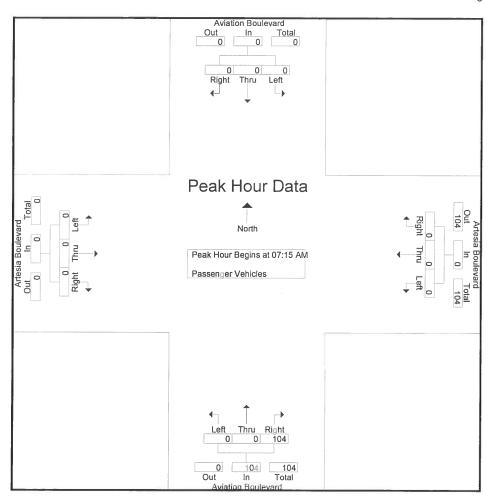
Groups Printed- Passenger Vehicles

						OIU	ups i ii	illeu- i as	scrigor	V CITICI	C3						,
	Α	viation	Boulev	ard	P	Artesia	Bouleva	ard	A		Boulev	ard	P				
			nbound			West	tbound			North	nbound		Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	22	22	0	0	0	0	22
07:15 AM	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	20
07:30 AM	0	0	0	0	0	0	0	0	0	0	27	27	0	0	0	0	27
07:45 AM	0	0	0	0	0	0	0	0	0	0	31	31	0	0	0	0	31
Total	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	100
08:00 AM	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	26
08:15 AM	0	0	0	0	0	0	0	0	0	0	19	19	0	0	0	0	19
08:30 AM	0	0	0	0	0	0	0	0	0	0	27	27	0	0	0	0	27
08:45 AM	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	0	25
Total	0	0	0	0	0	0	0	0	0	0	97	97	0	0	0	0	97
Grand Total	0	0	0	0	0	0	0	0	0	0	197	197	0	0	0	0	197
Apprch %	0	0	0		0	0	0		0	0	100		o o	0	Ō		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	Ö	Ő	0	

	Α	viation I	Bouleva	ard	P	\rtesia	Bouleva	ard	А	viation	Bouleva	ard	F				
		South	bound			West	tbound			North	nbound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 07:1	5 AM to	O8:00 A	M - Pea	k 1 of	1										
Peak Hour for E	Entire In	tersecti	on Beg	ins at 07:	15 AM												
07:15 AM	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0	20
07:30 AM	0	0	0	0	0	0	0	0	0	0	27	27	0	0	0	0	27
07:45 AM	0	0	0	0	0	0	0	0	0	0	31	31	0	0	0	0	31
08:00 AM	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0	26
Total Volume	0	0	0	0	0	0	0	0	0	0	104	104	0	0	0	0	104
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.839	.839	.000	.000	.000	.000	.839

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code: 12215000 Start Date: 10/22/2015 Page No: 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AN	1			07:15 AN	1			07:15 AN	Λ			07:15 AM	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	27	27	0	. 0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	31	31	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	26	26	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	104	104	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.839	.839	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

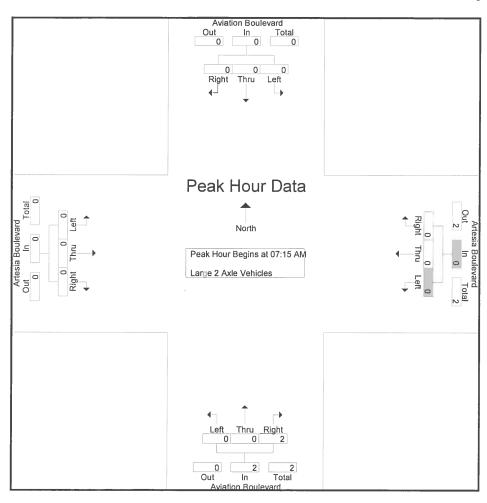
Groups Printed- Large 2 Axle Vehicles

								teu- Lary									1
	Α	viation	Boulev	ard	Α		Bouleva	ard	Α		Boulev		F		Bouleva	ard	
		Sout	hbound			West	bound			Norti	hbound				tbound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	. 0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3
MA 00:80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	5
Apprch %	0	0	Ō		Ō	Ō	0		0	0	100		0	0	0		
Total %	Ö	0	0	0	Ö	0	0	0	Ō	0	100	100	0	0	0	0	

	Α	viation I	Bouleva	rd	A	Artesia I	Bouleva	ırd	Α	viation	Bouleva	ard	F	Artesia	Bouleva	ard	
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fr	om 07:1	5 AM to	08:00 A	M - Pea	k 1 of 1											
Peak Hour for E	Entire In	tersecti	on Begi	ns at 07:	15 AM												
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	. 0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	000	000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.500

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	07:15 AN	1			07:15 AN	Л			07:15 AN	И			07:15 AN	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name : RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

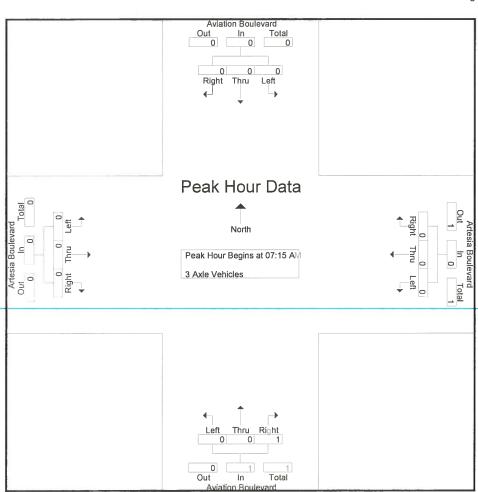
Groups Printed- 3 Ayle Vehicles

						G	roups F	rintea- 3									
	Α	viation	Boulev	ard	Α	rtesia l	Bouleva	ard	A <sup>1</sup>	viation	Boulev	ard	A	rtesia	Bouleva	ard	
		South	nbound			West	bound				bound				bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0_
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	11_
Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	3
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	

	А		Bouleva bound	ard	F		Bouleva tbound	ard	А		Boulev nbound	ard	F		Bouleva bound	ard	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fr	om 07:	15 AM t	o 08:00 A	M - Pea	ak 1 of	1										
Peak Hour for E	Entire In	tersect	ion Beg	ins at 07:	15 AM												
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code: 12215000 Start Date: 10/22/2015 Page No: 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

Out Flour for		pprodo	. Dogiiii	J 41.												
	07:15 AM	1			07:15 AN	Λ			07:15 AN	/i			07:15 AN	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

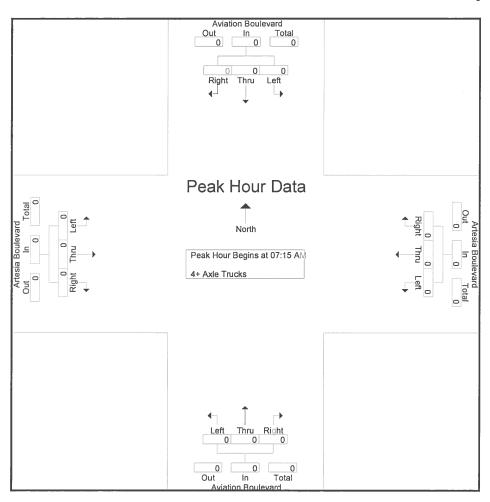
Groups Printed- 4+ Axle Trucks

						G	roups r	rintea- 4	+ Axie	ITUCKS							
	A <sup>-</sup>	viation	Bouleva	ard	Α	rtesia	Bouleva	ard	Α	viation	Bouleva	ard	Α	rtesia	Bouleva	ard	
			hbound			West	tbound			North	bound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	A		Bouleva Ibound	rd	A		Bouleva bound	ard	Α		Bouleva abound	ard	F	East	Bouleva bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 07:1	5 AM to	08:00 A	M - Pea	k 1 of	1										
Peak Hour for E	ntire In	tersecti	on Begi	ns at 07:	15 AM												
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARAM Site Code: 12215000 Start Date: 10/22/2015 Page No: 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

r cak i loui loi	Laura	phinari	i begins	o at.												
	07:15 AM				07:15 AN	Λ			07:15 AN	Л			07:15 AN	Л		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name : RDBAVARPM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

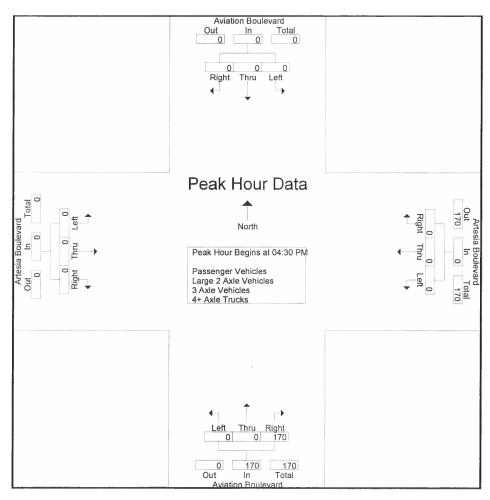
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	А		Boulev hbound		P		Bouleva tbound	ard	Α		Boulev bound	ard	A		Bouleva bound	ard	
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	0	50
04:15 PM	0	0	0	0	0	0	0	0	0	0	37	37	0	0	0	0	37
04:30 PM	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0	39
04:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
Total	0	0	0	0	0	0	0	0	0	0	167	167	0	0	0	0	167
05:00 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:15 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:30 PM	0	0	0	0	0	0	0	0	0	0	37	37	0	0	0	0	37
05:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
Total	0	0	0	0	0	0	0	0	0	0	168	168	0	0	0	0	168
Grand Total	0	0	0	0	0	0	0	0	0	0	335	335	0	0	0	0	335
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	
Passenger Vehicles	0	0	0	0	0	0	0	0	0	0	335	335	0	0	0	0	335
% Passenger Veh cles	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Α	viation	Bouleva	ard	A	Artesia I	3ouleva	ırd	Α	viation	Boulev	ard	F	Artesia	Bouleva	ard	
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 04:0	00 PM t	o 05:45 P	M - Pea	ak 1 of 1											
Peak Hour for E	Entire In	tersecti	ion Beg	ins at 04:	30 PM												
04:30 PM	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0	39
04:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
05:00 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:15 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
Total Volume	0	0	0	0	0	0	0	0	0	0	170	170	0	0	0	0	170
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.944	.944	.000	.000	.000	.000	.944

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code : 12215000 Start Date : 10/22/2015 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM	1			04:00 PM	1			04:30 PN	Л			04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	170	170	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.944	.944	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code: 12215000 Start Date: 10/22/2015 Page No: 1

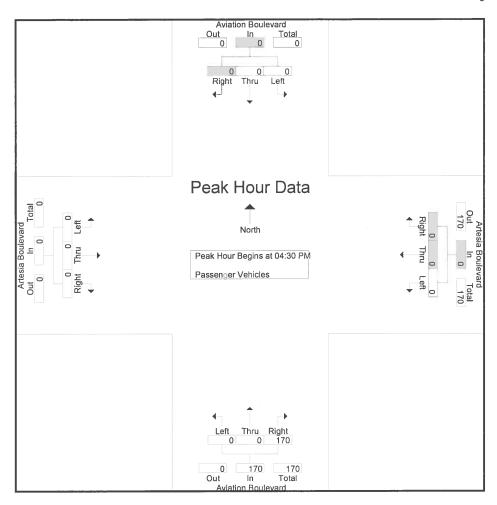
Groups Printed- Passenger Vehicles

						GIO	ups Pn	nieu- Pas	senger	venici	es						
	Α	viation	Boulev	ard	P	\rtesia	Bouleva	ard	Α	viation	Boulev	ard	A	rtesia	Bouleva	ard	
		South	nbound			West	tbound			Nortl	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	0	50
04:15 PM	0	0	0	0	0	0	0	0	0	0	37	37	0	0	0	0	37
04:30 PM	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0	39
04:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
Total	0	0	0	0	0	0	0	0	0	0	167	167	0	0	0	0	167
05:00 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:15 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:30 PM	0	0	0	0	0	0	0	0	0	0	37	37	0	0	0	0	37
05:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
Total	0	0	0	0	0	0	0	0	0	0	168	168	0	0	0	0	168
Grand Total	0	0	0	0	0	0	0	0	0	0	335	335	0	0	0	0	335
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	

U.	A		Bouleva	ard	P		Bouleva	ırd	Α		Bouleva	ard	F		Bouleva	ırd	
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 04:3	30 PM t	o 05:15 P	M - Pea	k 1 of 1											
Peak Hour for I	Entire In	tersecti	ion Beg	ins at 04:	30 PM												
04:30 PM	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0	39
04:45 PM	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0	41
05:00 PM	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0	45
05:15 PM	0	0	0	0	0	0	0	0	. 0	0	45	45	0	0	0	0	45
Total Volume	0	0	0	0	0	0	0	0	0	0	170	170	0	0	0	0	170
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.944	.944	.000	.000	.000	.000	.944

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code: 12215000 Start Date: 10/22/2015 Page No: 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

I cak Hour tor	Lauin	phinari	I Degin	J at.												
	04:30 PM	l			04:30 PN	1			04:30 PN	Л			04:30 PN	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	39	39	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	41	41	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	170	170	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.944	.944	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code: 12215000 Start Date: 10/22/2015 Page No: 1

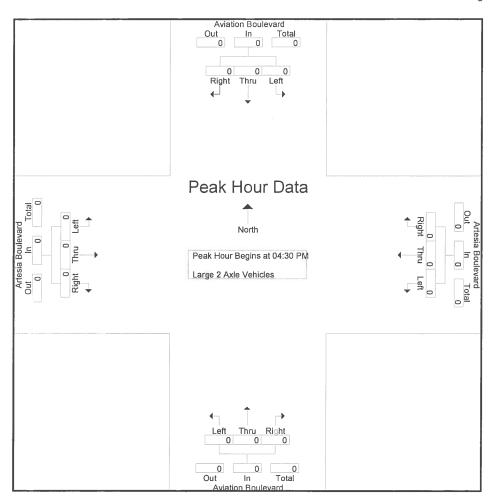
Groups Printed- Large 2 Axle Vehicles

						Grou	ps Prin	ted- Larg									
	Α	viation	Boulev	ard	A	Artesia	Bouleva	ard	Α	viation	Boulev	ard	F		Bouleva	ard	
		South	nbound			West	tbound			Nortl	hbound			Eas	tbound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tota!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

and a second	Α	viation I		ard	P		Bouleva	ırd	Α		Bouleva	ard	F		Bouleva	ırd	
		South	bound			West	bound			Norti	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fr	om 04:3	0 PM t	o 05:15 P	M - Pea	ak 1 of 1	l										
Peak Hour for E	Entire In	tersecti	on Beg	ins at 04:	30 PM			,									
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0_
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code : 12215000 Start Date : 10/22/2015 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

Cak Hour Ioi	Laciin	ppivac	II Degiii.	oat.												
	04:30 PM	1			04:30 PN	Λ			04:30 PI	Л			04:30 PN	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard

Weather: Clear

File Name : RDBAVARPM Site Code : 12215000 Start Date : 10/22/2015 Page No : 1

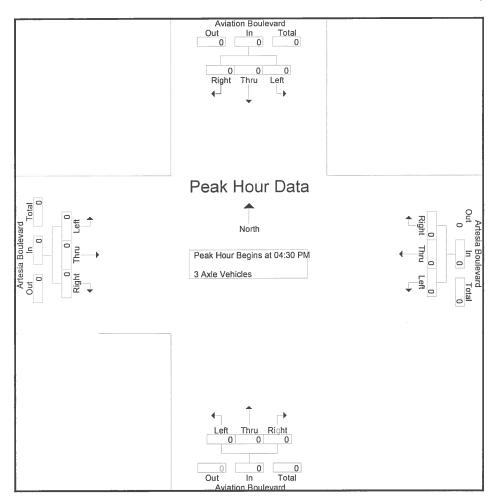
Groups Printed- 3 Axle Vehicles

							TOUPS I	Titlleu- 3	WIE A	EL II CI CO							1
	Α	viation	Boulev	ard	P	Artesia	Bouleva	ard	Α	viation	Boulev	ard	P	ırtesia	Bouleva	ard	
		South	nbound			West	tbound			Norti	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total Apprch % Total %	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0

	Α	viation		ird	P		3ouleva	rd	Α		Bouleva	ard	F		Bouleva	ard	
		South	bound			West	bound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 04:3	80 PM to	05:15 P	M - Pea	ık 1 of 1											
Peak Hour for E	Entire In	tersecti	on Begi	ins at 04:	30 PM												
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code: 12215000 Start Date: 10/22/2015 Page No: 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for	Each Ap	oproaci	n Begins	at:												
	04:30 PM				04:30 PN	1			04:30 PN	Л			04:30 PN	Λ		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code: 12215000 Start Date: 10/22/2015 Page No: 1

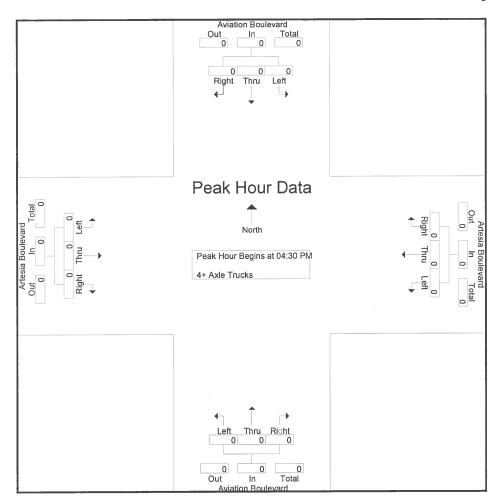
Groups Printed- 4+ Axle Trucks

						G	TOUPS I	Tillleu- 4									
	Α	viation	Boulev	ard	P	Artesia l	Bouleva	ard	Α		Boulev		F		Bouleva	ard	
		Soutl	nbound			West	bound			Nort	hbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Α	viation	Bouleva	ard	P	Artesia I	Bouleva	ard	Α	viation	Boulev	ard	P	Artesia	Bouleva	ard	
		South	bound			West	lbound			North	nbound			East	bound		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Ana	ilysis Fro	om 04:3	30 PM t	o 05:15 P	M - Pea	ak 1 of 1	1										
Peak Hour for I	Entire In	tersecti	on Beg	ins at 04:	30 PM												
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04: <b>4</b> 5 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0_
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Redondo Beach N/S: Aviation Boulevard E/W: Artesia Boulevard Weather: Clear

File Name: RDBAVARPM Site Code : 12215000 Start Date : 10/22/2015 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for	Each Approach	Begins at:
Cak Hour to	Lacit / (pproacit	Dogino at.

	04:30 PM	1			04:30 PM	1			04:30 PN	Λ			04:30 PM	1		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	, 0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City: REDONO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 11-Oct-18

A1810001

<u>IORTHBC</u> Start	OUND, NC	<u>NTHBOU</u> Cars &	ND1 2 Axle		2 Axle	2 / \	4 Avic	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
	Dileas			Duran		3 Axle	4 Axle							T-4-
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double_	Double	<u>Double</u>	<u>Multi</u>	<u>Multi</u>	<u>Multi</u>	Tota
10/11/18	2	46	1	1	3	0	0	0	0	0	0	0	0	53
00:15	1	54	10	0	2	0	0	0	0	0	0	0	0	67
00:30 00:45	0	43 35	3 4	0	2	0	0	0	0	0	0	0	0	48
00.45	3	178	18	1	9	0	0	0	0	0	0	0	0	209
01:00	0	16	2	0	0	0	0	0	0	0	0	0	0	18
01:00	0	27	0	0	0	0	0	0	0	0	0	0	0	27
01:13	0	24	2	0	0	0	0	0	0	0	0	0	0	26
01:30	0	27	2	0	0	0	0	0	0	0	0	0	0	29
01.45	0	94	6	0	0	0	0	0	0	0	0	0	0	100
02:00	0	9 <del>4</del> 16	4	0	0	0	0	0	0	0	0	0	0	20
02:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
02:13	0	15	2	0	0	0	0	0	0	0	0	0	0	17
02:30	0	10	2	0	0	0	0	0	0	0	0	0	0	12
02.43	0	57	12	0	0	0	0	0	0	0	0	0	0	69
03:00	1	17	2	0	0	0	0	2	0	0	0	0	0	22
03:15	0	10	4	0	0	0	0	0	0	0	0	0	0	14
03:30	0	9	2	0	2	0	0	0	0	0	0	0	0	13
03:45	0	24	2	0	2	0	0	0	0	0	0	0	0	2
03.43	1	60	10	0	4	0	0	2	0	0	0	0	0	28 7
04:00	Ó	25	17	0	2	0	0	0	0	0	0	0	0	44
04:15	0	34	9	0	6	0	0	0	1	0	0	0	0	50
04:13	0	62	12	0	1	0	0	0	0	0	0	0	0	75
04:45	1	117	16	2	4	0	0	2	0	0	0	0	0	142
04.43	1	238	54	2	13	0	0	2	1	0	0	0	0	311
05:00	1	102	17	0	2	0	0	0	0	0	0	0	0	122
05:15	Ó	123	28	0	6	2	0	1	0	0	0	0	0	160
05:30	0	203	35	0	4	2	1	1	0	0	0	0	0	246
05:45	0	237	41	0	5	2	Ö	4	3	1	0	0	Ö	293
00.40	1	665	121	0	17	6	1	6	3	1	0	0	0	82
06:00	Ó	267	35	0		4	1	2	1	0	0	0	0	315
06:15	0	288	33	0	5 7	4	0	2	1	0	0	0	0	335
06:30	0	317	34	0	3	1	0	1	0	1	0	0	Ö	357
06:45	1	359	28	4	7	4	1	4	0	0	0	1	Ö	409
00.10	1	1231	130	4	22	13	2	9	2	1	0	1	0	1416
07:00	0	260	23	0	4	5	0	2	0	1	Ő	0	Ö	295
07:15	Õ	336	36	Ö	7	6	0	0	0	0	Ö	Ö	Ő	385
07:30	1	320	42	Ö	1	4	Ö	2	Ö	1	Ö	Ö	Ö	371
07:45	0	189	12	4	4	3	1	2	0	0	Ö	0	Ő	215
01110	1	1105	113	4	16	18	1	6	0	2	0	0	0	1266
08:00	0	153	11	4	2	6	0	2	Ö	1	Ö	Ö	Õ	179
08:15	0	157	15	1	1	2	0	3	0	1	Ö	Ö	Ö	180
08:30	0	167	23	0	i	6	1	1	1	Ö	0	ő	Ő	200
08:45	0	131	15	3	0	7	0	1	2	1	0	0	Ö	160
	0	608	64	8	4	21	1	7	3	3	0	0	0	719
09:00	0	312	32	2	4	5	0	3	0	Ö	1	Ö	Ö	359
09:15	Ö	253	53	0	5	6	0	1	1	Ö	0	Ö	Ö	319
09:30	0	242	39	0	1	8	3	5	2	Ö	0	0	Ö	30
09:45	1	241	50	4	7	5	Ö	Ö	1	3	Ö	Ö	Ő	312
	1	1048	174	6	17	24	3	9	4	3	1	0	0	1290
10:00	0	278	41	1	13	4	1	3	1	Ö	0	Ö	Ö	34
10:15	1	243	51	1	4	5	1	2	2	Ö	Ö	1	Ö	31
10:30	0	282	43	0	6	4	1	1	4	2	Ö	0	Ö	34
10:45	0	266	41	Ő	7	5	1	2	1	0	0	0	Ő	32
. 30	1	1069	176	2	30	18	4	8	8	2	0	1	0	131
11:00	0	253	35	2	10	4	2	2	0	1	0	0	Ö	30
11:15	1	232	39	0	14	2	2	4	0	Ö	0	0	Ö	29
11:30	0	313	51	0	5	1	0	4	1	Ö	0	0	Ö	37
11:45	1	214	42	2	11	1	1	1	0	1	0	ő	0	27
	2	1012	167	4	40	8	5	11	1	2	0	0	0	1252
Total	12	7365	1045	31	172	108	17	60	22	14	1	2	0	8849
Percent	0.1%	83.2%	11.8%	0.4%	1.9%	1.2%	0.2%	0.7%	0.2%	0.2%	0.0%	0.0%	0.0%	23.0

City: REDONO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 11-Oct-18

A1810001

Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Tota
12 PM	0	254	37	2	7	9	1	6	2	0	0	0	0	31
12:15	0	216	49	0	7	2	1	2	4	0	0	0	0	28
12:30	0	241	51	2	7	3	2	1	2	0	0	0	0	30
12:45	0	248	50	3	6	6	0	3_	0	0	0	0	0	31
	0	959	187	7	27	20	4	12	8	0	0	0	0	122
13:00	0	237	35	0	2	3	0	1	0	0	0	0	0	27
13:15	0	229	30	1	7	6	0	1	0	0	0	0	0	27
13:30	0	263	32	3	10	4	1	2	2	0	0	0	1	31
13:45	0	233	41	0	6	4	0	2	1	2	0	0	0	28
14:00	0 1	962	138 31	4 3	25	17 3	1 1	6 4	3 0	2 1	0 0	0 0	1	118 23
14:00	0	188 215	44	3	6 12	4	0	4	0	0	0	0	0	2
14:30	0	203	43	2	0	4	1	3	0	0	0	0	0	2
14:45	1	211	42	3	9	3	0	1	2	0	0	0	0	2
17.70	2	817	160	11	27	14	2	12	2	1	0	0	0	104
15:00	1	242	33	3	5	5	0	1	0	2	Ő	Ö	ő	2
15:15	1	249	36	0	8	7	0	6	0	2	Ō	Ō	0	3
15:30	0	228	19	0	6	6	0	1	0	0	0	0	0	2
15:45	1	216	45	2	13	3	0	1	0	0	0	0	0	2
	3	935	133	5	32	21	0	9	0	4	0	0	0	11
16:00	0	248	31	3	6	4	2	1	0	0	0	0	0	2
16:15	0	237	31	0	5	1	0	5	0	0	0	0	0	2
16:30	0	253	57	0	2	5	0	4	0	0	0	0	0	3
16:45	0	249	40	0	6	2	0	4	0	0	0	0	0	3
	0	987	159	3	19	12	2	14	0	0	0	0	0	11
17:00	0	297	29	0	7	2	1	2	0	0	0	0	0	3
17:15	0	225	40	1	3	0	0	5	1	1	0	0	0	2
17:30	0	265	30	1	3	2	1	6	0	1	0	0	0	3
17:45	0	252	28	0	0	5_	0	1	0	0	0	0	0	2
	0	1039	127	2	13	9	2	14	1	2	0	0	0	12
18:00	1	264	37	1	4	3	0	4	0	0	0	0	0	3
18:15	1	272	30	0	0	3	0	2	0	0	0	0	0	3
18:30	0	219	31	0	0	5	0	3	0	1	0	0	0	2
18:45	<u>7</u> 9	253	38	0 1	1	5	1	1	0	0 1	0	0	0	3
10:00	7	1008 224	136 34	0	5 3	16 2	1 0	10	0	0	0	0	0	11 2
19:00 19:15	0	271	22	0	7	3	0	0	0	0	0	0	0	3
19:30	0	242	22	0	7	4	0	1	2	1	0	0	0	2
19:45	1	219	22	2	2	4	1	0	1	0	0	0	0	2
10.10	8	956	100	2	19	13	<u>_</u>	3	3	1	0	0	0	11
20:00	1	189	13	0	2	2	0	Ö	0	0	Ö	Ö	Ö	2
20:15	0	209	22	Ö	3	0	1	2	0	0	Ö	Ö	Ö	2
20:30	Ö	193	19	Ō	3	0	0	1	0	0	Ō	0	0	2
20:45	Ō	161	14	0	2	0	0	3	0	0	Ō	0	0	1
	1	752	68	0	10	2	1	6	0	0	0	0	0	8
21:00	0	139	20	2	0	1	0	1	0	0	0	0	0	1
21:15	1	187	13	0	1	0	0	0	0	0	0	0	0	2
21:30	1	160	11	0	0	0	0	2	0	0	0	0	0	1
21:45	1_	133	27	0	1_	1	0	0	0	0	0	0	0	1
	3	619	71	2	2	2	0	3	0	0	0	0	0	7
22:00	2	129	9	0	0	1	0	0	0	0	0	0	0	1
22:15	0	129	11	0	2	2	0	0	0	0	0	0	0	1
22:30	1	99	16	0	0	0	0	0	0	0	0	0	0	1
22:45	2	84	9	0	0	0	0	0	0	0	0	0	0	
00.00	5	441	45	0	2	3	0	0	0	0	0	0	0	4
23:00	0	83	6	0	0	0	0	0	0	0	0	0	0	
23:15	2	66	9	0	1	1	0	2	0	0	0	0	0	
23:30	0	53	7	0	0	0	0	0	0	0	0	0	0	
23:45	0	52	0	0	2	0	0	0	0	0	0	0	0	
Total	2	254	22	0	3	120	0	2	0	0	0	0	01	111
Total	33	9729	1346	37	184	130	14	91	17	11	0 00/	0 0%	0.0%	115
Percent	0.3%	83.9%	11.6%	0.3%	1.6%	1.1%	0.1%	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	
Grand														
Grand Total	45	17094	2391	68	356	238	31	151	39	25	1	2	1	204
	0.2%	83.6%	11.7%	0.3%	1.7%	1.2%	0.2%	0.7%	0.2%	0.1%	0.0%	0.0%	0.0%	
Percent	U.Z70	03.0%	11./70	0.370	1./ 70	1.270	U.Z 70	0.7 70	U.Z70	U. 170	0.0%	0.076	0.070	

City: REDONO BEACH

Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

A1810001

NORTHBOUND, NORTHBOUND1

<u>NORTHBO</u>	UND, NO													
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
10/10/18	0	46	4	1	0	0	0	0	0	0	0	0	0	51
00:15	0	27	1	0	0	0	0	0	0	0	0	0	0	28
00:30	0	47	1	0	2	0	0	0	0	0	0	0	0	50
00:45	11	28	0	0	0	0	0	0	0	0	0	0	0	29
	1	148	6	1	2	0	0	0	0	0	0	0	0	158
01:00	0	43	1	0	0	0	0	0	0	0	0	0	0	44
01:15	0	24	1	0	0	0	0	0	0	0	0	0	0	25
01:30	0	19	2	0	0	0	0	0	0	0	0	0	0	21
01:45	0	19	7	0	0	0	0	1	0	0	0	0	0	27
	0	105	11	0	0	0	0	1	0	0	0	0	0	117
02:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
02:15	0	38	8	0	0	0	0	0	0	0	0	0	0	46
02:30	0	6	2	0	0	0	0	0	0	0	0	0	0	8
02:45	0	14	1	0	0	0	0	0	0	0	0	0	0	15_
	0	69	13	0	0	0	0	0	0	0	0	0	0	82 22
03:00	0	21	11	0	0	0	0	0	0	0	0	0	0	22
03:15	0	12	7	0	0	0	0	0	0	0	0	0	0	19
03:30	0	10	8	0	1	0	0	0	0	0	0	0	0	19
03:45	2	27	9	0	4	0	0	0	0	0	0	0	0	42
04:00	2	70	25	0	5	0	0	0	0	0	0	0	0	102
04:00	0	30	15	0	0	0	0	0	0	0	0	0	0	45
04:15	0	33	7	0	2	0	0	0	0	0	0	0	0	42
04:30	1	65	21	0	4	0	0	0	0 2	0	0	0	0	91
04:45	2	111 239	19 62	0	6 12	0	0	3	2	0	0	0	0	142 320
05:00	0	106	27	0	2	1	0	0	0	0	0	0	0	136
05:15	1	153	23	0	3	1	0	1	2	1	0	0	0	185
05:30	0	225	46	0	3	1	0	2	0	0	0	0	0	277
05:45	0	255	56	0	7	1	0	4	0	0	0	0	0	323
05.45	1	739	152	0	15	4	0	7	2	1	0	0	0	921
06:00	1	289	22	0	6	1	2	3	1	1	0	0	0	326
06:15	1	281	39	0	15	2	0	1	0	0	0	0	0	339
06:30	0	324	23	ő	7	7	0	2	0	1	0	ő	Ö	364
06:45	0	274	31	Ő	9	7	0	2	0	2	Ö	1	Ö	326
	2	1168	115	0	37	17	2	8	1	4	0	1	0	1355
07:00	1	329	29	Ö	6	3	1	2	0	1	0	0	Ö	372
07:15	1	262	33	0	4	2	0	0	1	1	0	0	0	304
07:30	0	248	11	0	2	2	0	0	1	1	0	0	0	265
07:45	0	181	15	0	5	3	0	1	1	2	1	1	0	210
	2	1020	88	0	17	10	1	3	3	5	1	1	0	1151
08:00	0	183	18	1	6	5	0	1	0	1	0	0	0	215
08:15	0	113	11	1	0	2	0	2	0	0	0	1	2	132
08:30	0	163	11	1	6	4	0	3	0	3	0	0	0	191
08:45	0	265	33	1_	5	4	0	2	0	0	0	0	0	310
	0	724	73	4	17	15	0	8	0	4	0	1	2	848
09:00	0	160	8	1	5	3	1	3	0	0	1	0	0	182
09:15	1	239	23	2	3	4	0	4	0	0	0	0	0	276
09:30	1	251	44	0	7	7	0	4	0	0	0	1	0	315
09:45	0	313	32	2	8	4	1	1	0	0	0	0	0	361
	2	963	107	5	23	18	2	12	0	0	1	1	0	1134
10:00	1	269	40	2	9	4	1	1	0	0	0	0	0	327
10:15	0	288	41	1	6	5	0	2	0	0	0	0	0	343
10:30	0	285	38	1	13	2	1	3	0	0	0	0	0	343
10:45	2	231	29	0	4	2	1	5	2	0	0	0	0	276
44:00	3	1073	148	4	32	13	3	11	2	0	0	0	0	1289
11:00	1	239	51	2	0	5	0	2	2	0	0	0	0	302
11:15	1	233	42	0	13	2	1	5	0	0	0	0	0	297
11:30	0	229	36	2	8	4	•	2	0	0	0	0	0	282
11:45	<u>1</u> 3	245 946	46 175	<u>0</u> 4	9 30	1 12	0 2	<u>3</u> 12	0 2	11	0	0	0	306
Total	<u>3</u> 18	7264	975	<u>4</u> 18	30 190	89	10	65	<u>2</u> 12	15	02	4	2	1187 8664
Percent	0.2%	83.8%	11.3%	0.2%	2.2%	1.0%	0.1%	0.8%	0.1%	0.2%	0.0%	0.0%	0.0%	0004
i elcelit	0.2/0	05.070	11.5/0	0.2 /0	∠.∠ /0	1.0 /0	U. I /0	0.070	U. I /0	U.Z /0	0.0 /0	0.070	0.070	

City: REDONO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

A1810001

NORTHBO	UND, NO	<u>RTHBO</u> U	ND1											
Start	, ,	Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
12 PM	0	261	39	2	15	1	0	2	0	1	0	0	0	321
12:15	0	258	39	3	7	5	0	0	4	0	0	0	0	316
12:30	1	230	51	0	7	4	0	1	2	0	0	0	0	296
12:45	0 1	292	49 178	<u>0</u> 5	11 40	3 13	0	<u>3</u>	<u> </u>	0 1	0	0	0	358
13:00	1	1041 270	34	0	7	4	0	1	0	0	0	0	0	1291 317
13:15	0	216	58	0	9	7	0	5	2	1	0	0	0	298
13:30	1	251	30	1	6	2	0	3	0	0	0	0	0	294
13:45	0	231	41	2	9	4	1	3	4	1	0	0	Ō	296
	2	968	163	3	31	17	1	12	6	2	0	0	0	1205
14:00	0	244	34	0	1	4	1	2	1	1	0	0	0	288
14:15	1	212	45	2	9	6	0	2	0	1	0	0	0	278
14:30	1	230	35	0	6	3	0	1	0	1	0	0	0	277
14:45	1	248	37	3		3	<u>0</u>	5_	<u>0</u>	0	0	0	0	304
15:00	3	934 277	151 56	5 1	23 4	16 3	0	10	0	3	0	0	0	1147 345
15:15	0	219	35	1	8	8	0	0	0	0	0	0	0	271
15:30	Ő	225	42	0	9	3	0	3	2	Ö	ő	ő	0	284
15:45	1	231	44	1	6	2	0	Ö	0	1	Ö	Ö	Ö	286
	2	952	177	3	27	16	0	6	2	1	0	0	0	1186
16:00	1	233	40	0	14	7	0	3	0	1	0	0	0	299
16:15	0	260	52	3	7	4	1	5	1	0	0	0	0	333
16:30	0	216	66	1	4	4	2	1	0	0	0	0	0	294
16:45	1	242	54	0	2	2	0	0	0	1	1_	0	0	303
17:00	2	951	212 28	4	27 13	17 4	3	9	1 0	2	1 0	0	0	1229
17:00 17:15	1	261 248	40	0	10	4	0	0	0	0	0	0	0	309 303
17:13	0	223	46	0	2	2	0	5	0	1	0	0	0	279
17:45	0	251	38	1	1	6	0	1	0	0	Ö	Ö	Ö	298
	2	983	152	2	26	16	0	7	0	1	0	0	0	1189
18:00	1	286	32	0	7	4	1	2	0	0	0	0	0	333
18:15	1	243	35	0	6	0	0	1	0	0	0	0	0	286
18:30	0	240	26	0	4	1	0	2	0	0	0	0	0	273
18:45	0	267	42	0	1	2	1	8	0	0	0	0	0	321
19:00	2	1036 266	135 20	0	18 2	7 2	2	13 0	0	0	0	0	0	1213 292
19:15	1	256	20	0	6	5	3	0	0	0	0	0	0	292
19:30	Ö	200	21	0	1	2	0	0	0	ő	0	0	0	224
19:45	0	205	22	0	2	4	0	0	2	0	0	0	0	235
	2	927	83	0	11	13	4	0	2	0	0	0	0	1042
20:00	0	172	9	0	3	2	0	2	0	0	0	0	0	188
20:15	0	203	22	0	1	1	0	0	0	0	0	0	0	227
20:30	1	179	21	0	3	1	0	1	0	0	0	0	0	206
20:45	1	190	13	0	2	1	0	0	0	0	0	0	0	207
21:00	2	744	65 36	0	9	5 0	0	3	0	0	0	0	0	828
21:00 21:15	0	180 157	26 19	0	0	0	0	0	0	0	0	0	0	211 176
21:30	1	145	13	0	2	0	0	2	0	0	0	0	0	163
21:45	2	138	23	0	0	0	0	3	0	0	0	0	0	166
	4	620	81	0	2	0	0	9	0	0	0	0	0	716
22:00	1	118	20	0	2	0	0	0	0	0	0	0	0	141
22:15	1	110	13	0	2	0	0	0	0	0	0	0	0	126
22:30	0	133	7	0	0	0	0	0	0	0	0	0	0	140
22:45	0	113	14	4	0	0	0	0_	0	0	0	0	0	131
22.00	2	474	54	4	4	0	0	0	0	0	0	0	0	538
23:00 23:15	2	91 89	8 7	0	2 1	0	0	0	0	0	0	0	0	103 97
23:15	0	62	4	0	1	1	0	0	0	0	0	0	0	68
23:45	1	55	9	0	0	0	0	0	0	0	0	0	0	65
	3	297	28	0	4	1	0	0	0	0	0	0	0	333
Total	27	9927	1479	26	222	121	11	75	18	10	1	0	0	11917
Percent	0.2%	83.3%	12.4%	0.2%	1.9%	1.0%	0.1%	0.6%	0.2%	0.1%	0.0%	0.0%	0.0%	
Grand	45	17191	2454	44	412	210	21	140	30	25	3	4	2	20581
Total														
Percent	0.2%	83.5%	11.9%	0.2%	2.0%	1.0%	0.1%	0.7%	0.1%	0.1%	0.0%	0.0%	0.0%	

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 11-Oct-18

a1810001s

	>6 AxI	6 Axle	<6 Axl	>6 Axl	5 Axle	<5 Axl	4 Axle	3 Axle	2 Axle		2 Axle	UTHBOUN Cars &	,	Start
Tot	Multi	Multi	Multi	Double	Double	Double	Single	Single	6 Tire	Buses	Long	Trailers	Bikes	Time
	0	0	0	0	0	0	0	0	2	0	5	52	0	0/11/18
	0	0	0	0	0	0	1	0	1	0	7	41	1	00:15
	0	0	0	0	0	1	0	0	0	0	5	27	0	00:30
	0	0	0	0	0	0	0	0	1	0	4	30	11	00:45
1	0	0	0	0	0	1	1	0	4	0	21	150	2	
	0	0	0	0	0	0	0	0	0	0	4	20	0	01:00
	0	0	0	0	0	0	0	0	1	0	7	18	0	01:15
	0	0	0	0	0	0	0	0	0	0	0	17	0	01:30
	0	0	0	0	0	0	0	0	1	2	6	12	0	01:45
1	0	0	0	0	0	0	0	0	2	2	17	67	0	
	0	0	0	0	0	0	0	0	0	0	4	12	0	02:00
	0	0	0	0	0	0	0	0	0	0	1	9	0	02:15
	0	0	0	0	0	2	0	0	0	0	4	10	0	02:30
	0	0	0	0	0	0	0	0	0	0	2	10	1_	02:45
	0	0	0	0	0	2	0	0	0	0	11	41	1	00.00
	0	0	0	0	0	0	0	0	0	0	1	6	0	03:00
	0	0	0	0	0	0	0	0	0	0	4	8 9	0	03:15
				-										03:30
:	0	0	0	0 0	2	0	0	0	0	0	9 18	23 46	0	03:45
	0	0	0	0	0	0	0	0	1	2	4	15	0	04:00
	0	0	0	0	0	2	0	0	1	0	2	14	0	04:00
	0	0	0	0	0	2	0	0	2	1	8	11	0	04:13
	0	0	0	0	1	1	0	0	1	0	8	48	2	04:45
1:	0	0	0	0	1	5	0	0	5	3	22	88	2	07.70
	ő	0	0	0	0	0	0	0	0	0	9	16	0	05:00
	ő	ő	ő	ő	3	1	ő	ő	2	ő	8	38	1	05:15
	Ö	0	Ö	0	0	0	0	Ö	4	2	8	35	0	05:30
	0	Ō	0	0	1	0	Ō	1	6	0	10	58	Ö	05:45
2	0	0	0	0	4	1	0	1	12	2	35	147	1	
_	Ō	Ö	Ō	Ō	0	0	Ö	1	1	2	14	44	0	06:00
	0	0	1	0	0	1	0	0	4	0	16	66	2	06:15
1-	0	0	0	0	2	3	0	1	5	4	14	115	0	06:30
1	0	0	0	0	0	2	1	0	11	1	37	108	0	06:45
4	0	0	1	0	2	6	1	2	21	7	81	333	2	
1	0	0	1	0	0	3	1	2	12	0	25	123	0	07:00
2	0	0	0	2	0	2	0	3	13	2	49	178	0	07:15
2	0	0	0	0	0	6	1	5	10	1	52	201	0	07:30
2	0	1_	0	0	1_	6	1_	5	18	2	62	166	1_	07:45
9	0	1	1	2	1	17	3	15	53	5	188	668	1	
2	0	0	0	1	0	3	0	9	16	1	42	146	1	08:00
2	1	1	0	1	0	8	0	4	9	2	46	146	0	08:15
2	0	0	0	0	0	3	0	6	16	0	42	183	0	08:30
2	11	0	0	1	0	2	1_	6	11	2	44	172	0	08:45
9:	2	1	0	3	0	16	1	25	52	5	174	647	1	00.00
2	0	0	0	0	0	5	0	5	11	1	51	152	0	09:00
2	0	0	0	0	1	5 1	2	5	12	0	49	183	1	09:15
	0	0		0	2 1	•	0	4	6 12	0	51	167	1	09:30 09:45
9	0	0	0 1	0	4	4 15	2	18	41	<u>4</u> 5	48 199	181 683	2	09.43
2	0	0	0	0	0	15		3	14	0	30	156	0	10.00
2	0	0	0	1	0	1	3	2	14	1	28	159	1	10:00 10:15
2	0	0	0	0	2	0	0	0	15	0	46	158	0	10:15
2	0	0	0	0	1	3	0	2	17	1	46	189	0	10:30
8	0	0	0	1	3	<u>5</u>	3	7	60	2	150	662	1	10.40
2	0	0	0	0	1	3	0	5	15	0	38	151	0	11:00
2	0	0	0	0	0	3	0	7	16	2	25	171	1	11:15
2	0	0	0	0	0	1	1	3	13	1	41	228	0	11:30
2	0	0	1	1	1	2	0	3	6	2	32	240	0	11:45
10	0	0	1	1	2	9	1	18	50	5	136	790	1	11.70
	2	2	4	7	19	77	12	86	300	36	1052	4322	14	Total
59														

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 11-Oct-18

a1810001s

SOUTHBO	UND, SO	<u>UTHBOU</u>	ND1											
Start	,	Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
12 PM	1	198	44	3	14	3	2	5	0	1	0	0	0	271
12:15	1	187	40	3	14	3	0	4	0	0	0	0	0	252
12:30	0	217	47	0	11	8	2	3	0	0	0	0	0	288
12:45	0	243	48	2	13	3	0	2	2	0	0	0	0	313
	2	845	179	8	52	17	4	14	2	1	0	0	0	1124
13:00	1	235	48	1	22	2	3	0	1	1	0	0	0	314
13:15	0	272	47	0	10	6	1	4	0	0	1	0	0	341
13:30	1	242	53	2	19	1	0	3	0	1	0	0	1	323
13:45	0	273	62	1	10	5	0	5_	0	2	0	0	0	358
	2	1022	210	4	61	14	4	12	1	4	1	0	1	1336
14:00	0	236	40	0	13	2	0	4	0	1	0	0	0	296
14:15	1	254	55	1	8	1	0	6	0	0	0	0	0	326
14:30	0	258	51	1	16	4	1	2	1	1	0	1	0	336
14:45	1	312	49	0	11	10	1	3	0	0	0	0	0	387
15.00	2	1060	195	2	48	17	2	15	1	2	0	1	0	1345
15:00	0	268	64	0	14	4		4	0	1	0	0	0	356
15:15 15:30	1	322 258	55 57	0	7 12	5 12	1 0	5 2	0	1	0	0	0	397 344
15:45	0	314	57 55	3	7	6	0	4	1	0	2	1	0	393
15.45	1	1162	231	6	40	27	2	15	1	2	2	1	0	1490
16:00	1	340	231 57	1	11	3	2	4	0	2	0	0	0	421
16:15	0	324	50	0	12	7	1	3	0	0	1	0	0	398
16:30	0	329	43	0	18	3	1	5	0	0	0	0	0	399
16:45	0	343	59	0	9	6	0	4	0	1	0	0	0	422
10.10	1	1336	209	1	50	19	4	16	0	3	1	0	0	1640
17:00	0	323	46	2	8	10	0	7	2	1	0	Ö	Ö	399
17:15	Õ	345	49	1	5	12	1	4	0	1	1	Ö	Ő	419
17:30	0	345	49	1	12	10	0	7	1	0	1	1	0	427
17:45	0	335	57	0	16	5	0	2	0	0	0	0	0	415
	0	1348	201	4	41	37	1	20	3	2	2	1	0	1660
18:00	0	366	58	0	8	8	1	1	1	1	1	0	0	445
18:15	0	304	42	3	7	7	0	2	0	2	0	0	0	367
18:30	0	418	45	2	4	9	4	5	1	2	0	1	0	491
18:45	0	340	46	0	10	5	0	4	0	1_	0	0	0	406
	0	1428	191	5	29	29	5	12	2	6	1	1	0	1709
19:00	0	324	50	0	14	3	0	3	0	0	0	0	0	394
19:15	0	321	48	1	6	6	0	5	0	0	0	0	1	388
19:30	0	306	32	1	9	4	1	2	0	1	0	0	0	356
19:45	1_	315	40	0	2	6	3	4	0	0	1_	0	0	372
	1	1266	170	2	31	19	4	14	0	1	1	0	1	1510
20:00	0	269	33	0	6	3	0	2	0	1	1	0	0	315
20:15	0	340	34	0	3	4	0	4	0	0	0	0	0	385
20:30	1	180	24	0	1	4	0	2	0	0	0	0	0	212
20:45	0	225	24	0	12	2	0	2	0	0	0	0	0	265
21.00	1	1014	115	0	22	13	0	10 1	0	1	1	0	0	1177
21:00 21:15	0	180 191	13 21	0	4	2 0	0	1	0	0	0	0	0	202
21:15	1	139	13	0	4	0	1	1	0	0	0	0	0	216 159
21:45	0	139	12	0	6	1	0	3	0	1	0	0	0	158
21.45	2	645	59	0	17	3	1	6	0	2	0	0	0	735
22:00	1	142	22	0	17	0	1	2	1	1	1	0	0	172
22:15	0	122	27	0	1	1	1	1	0	0	0	0	0	153
22:30	0	122	16	0	3	0	0	1	0	0	0	0	0	146
22:45	0	118	1	0	0	0	1	2	0	0	0	0	0	122
22.40	1	508	66	0	5	1	3	6	1	1	1	0	0	593
23:00	0	95	8	0	4	2	0	0	0	0	0	0	0	109
23:15	1	88	12	1	2	0	0	0	0	0	0	0	0	109
23:30	0	57	5	0	0	0	0	0	0	0	0	0	0	62
23:45	0	49	9	0	2	0	0	0	0	0	0	0	0	60
20.70	1	289	34	1	8	2	0	0	0	0	0	0	0	335
Total	14	11923	1860	33	404	198	30	140	11	25	10	4	2	14654
Percent	0.1%	81.4%	12.7%	0.2%	2.8%	1.4%	0.2%	1.0%	0.1%	0.2%	0.1%	0.0%	0.0%	
	2	,5	, 0	/-	,	,5	J. <b>_</b> ,0	,	2	3.2,0	,0	2.0,0	2.070	
Grand	20	16045	2012	60	704	004	40	047	20	22	4.4	6	4	20507
Total	28	16245	2912	69	704	284	42	217	30	32	14	6	4	20587
Percent	0.1%	78.9%	14.1%	0.3%	3.4%	1.4%	0.2%	1.1%	0.1%	0.2%	0.1%	0.0%	0.0%	

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

a1810001s

	>6 Axl	6 Axle	<6 AxI	>6 AxI	5 Axle	<5 Axl	4 Axle	3 Axle	2 Axle		2 Axle	<u>UTHBOUN</u> Cars &		Start
Tot	Multi	Multi	Multi	Double	Double	Double	Single	Single	6 Tire	Buses	Long	Trailers	Bikes	Time
	0	0	0	0	0	1	0	0	0	0	2	44	0	0/10/18
	0	0	0	0	0	0	2	0	1	1	11	41	0	00:15
	0	0	0	0	0	0	0	0	1	0	3	38	0	00:30
	0	0	0	0	0	0	0	0	0	0	3	32	2	00:45
1	0	0	0	0	0	1	2	0	2	1	19	155	2	
	0	0	0	0	0	0	0	0	2	0	7	22	1	01:00
	0	0	0	0	0	0	0	0	0	0	4	17	0	01:15
	0	0	0	0	0	0	0	0	0	0	4	19	1	01:30
	0	0	0	0	0	0	0	0	1	0	5	19	0	01:45
1	0	0 0	0 0	0 0	0	0	0	0 0	3	0	20	77 20	2 1	02:00
	0	0	0	0	0	0	0	0	0	0	2	20 13	0	02:00 02:15
	0	0	0	0	0	2	0	0	0	0	0	15	0	02:30
	0	0	0	0	0	0	0	0	1	0	6	15	0	02:45
-	0	0	0	0	0	2	0	0	2	0	9	63	1	02.40
	Ö	ő	ő	Ö	ő	0	Ö	Ö	0	ő	2	8	0	03:00
	0	0	0	0	0	0	0	0	0	0	5	16	0	03:15
	0	0	0	0	0	0	0	0	0	0	7	15	0	03:30
	0	0	0	0	0	0	0	1	0	0	6	19	0	03:45
	0	0	0	0	0	0	0	1	0	0	20	58	0	
	0	0	0	0	1	0	0	0	2	0	7	15	0	04:00
	0	0	0	0	0	2	0	0	3	0	2	9	0	04:15
	0	0	0	0	0	1	0	0	7	0	8	13	0	04:30
	0	0	0	0	2	0	0	0	0	0	5	31	1_	04:45
1	0	0	0	0	3	3	0	0	12	0	22	68	1	
	0	0	0	0	0	0	0	0	0	0	4	25	0	05:00
	0	0	0	0	0	2	0	0	2	0	14	31	0	05:15
	0	0	0	0	0	0	0	0	5	1	8	48	0	05:30
	0	0	0	0	1_	0	0	0	2	0 1	9	64	0	05:45
2	0 0	0 0	0 0	0 0	1 0	2 1	0	0 0	9 5	0	35 22	168	0 0	06:00
	0	0	0	0	0	0	0	1	4	2	15	63 62	1	06:00 06:15
1:	0	0	0	0	0	0	0	2	7	3	17	97	0	06:30
1.	Ö	0	0	0	0	1	0	1	9	0	22	113	0	06:45
4	0	0	0	0	0	2	0	4	25	5	76	335	1	00.10
1	Ö	0	0	0	Ő	6	0	4	10	Ő	36	110	0	07:00
2	Ö	Ö	Ö	0	Ö	4	0	2	13	1	54	158	0	07:15
2	0	1	0	Ō	0	9	1	3	14	0	52	194	Ō	07:30
2	0	0	0	1	0	5	3	6	13	0	54	174	0	07:45
9	0	1	0	1	0	24	4	15	50	1	196	636	0	
2	0	0	0	0	0	3	0	2	15	1	58	183	1	08:00
2	0	0	0	1	1	8	2	1	13	1	40	164	0	08:15
2	0	0	0	1	0	2	0	3	9	0	28	159	1	08:30
2	0	1	0	0	0	3	0	8	15	0	44	202	0_	08:45
9	0	1	0	2	1	16	2	14	52	2	170	708	2	
2	0	0	0	0	0	6	1	3	12	2	42	169	0	09:00
2	0	0	0	1	1	3	0	4	7	0	38	170	1	09:15
2	0	0	0	1	0	1	1	5	15	1	38	167	1	09:30
1	00	0	0	0	0	2	1	2	9	3	31	137	0	09:45
8	0	0	0	2	1	12	3	14	43	6	149	643	2	10.00
1	1 0	0	0	0	0	1 2	0	2 6	14 10	3 0	31 39	130	1 0	10:00
2		0	0	0	0	4	1					146	0	10:15
2	1 0	0	0	0	0	2	0	7 5	8 16	2	37 39	210 183	1	10:30 10:45
9	2	0	0	0	2	9	1	20	48	6	<u>39</u> 146	669	2	10.45
2	0	0	0	1	1	5	0	20	6	0	42	154	0	11:00
2	0	0	0	0	1	1	0	4	19	1	42	183	0	11:15
2	0	0	1	0	0	2	1	0	8	0	47	181	1	11:30
2	0	1	0	1	2	2	1	5	10	0	43	190	0	11:45
9	0	1	1	2	4	10	2	11	43	1	173	708	1	11.70
	2	3	1	7	12	81	14	79	289	23	1035	4288	14	Total
58														

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

a1	81	00	01	s
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t		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Э	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	To
PM	0	218	52	2	20	7	0	5	1	0	0	0	0	3
15	0	237	56	0	9	3	0	7	1	2	0	1	0	3
30	0	219	44	0	13	0	0	5	0	0	0	0	0	2
45	0	239	27	2	13	3	0	1	1	1	1	0	1	- 2
	0	913	179	4	55	13	0	18	3	3	1	1	1	1
:00	2	226	44	0	12	1	0	3	0	2	0	0	0	
15	0	212	46	0	7	6	0	5	0	1	0	0	0	
30	0	253	41	1	9	9	0	5	0	2	0	0	0	
45	0	231	39	0	7	4	Õ	4	2	0	Ö	Ö	Ö	
. 10	2	922	170	1	35	20	0	17	2	5	Ö	0	0	1
:00	0	213	36	0	15	4	2	2	0	1	ŏ	ő	ŏ	
:15	Ő	256	57	Ő	15	3	0	9	0	1	ő	0	0	
:30	Ő	271	53	2	6	7	1	2	1	1	ő	0	0	
45	0	293	42	1	13	1	0	2	0	2	0	0	0	
. 40	0	1033	188	3	49	15	3	15	1	5	0	0	0	1
:00	0	270	54	1	7	11	1	7	1	0	0	0	0	
:15	0	300	66	1	16	4	3	9	1	1	0	0	0	
:30	1	294	57	0	20	5	2	1	0	1	0	1	0	
45	0		76	1	14	5	1	2	1	1	0	0	0	
.40	1	363	253	3	57	25	7	19	3	3	0	1	0	
.00	0	1227	253 44	0	57 17	25 6	0		0	0	0	0		1
:00		289		1				6				1	1	
15	0	369	59		11	7	3	3	0	2	0	-	0	
:30	0	337	52	2	10	7	2	9	1	1	1	1	0	
45	0	333	52	1_	11	4	2	9	1_	2	0	0	0	
	0	1328	207	4	49	24	7	27	2	5	1	2	1	1
:00	0	340	51	0	12	10	0	6	1	1	0	0	1	
15	0	337	51	0	10	4	3	3	0	0	1	0	0	
:30	0	352	39	0	9	7	0	3	1	0	1	0	0	
45	0	351	39	0	7	6_	1	2	0	1	0	0	0	
	0	1380	180	0	38	27	4	14	2	2	2	0	1	1
:00	0	359	35	1	7	12	3	5	2	0	0	0	0	
:15	0	365	28	0	4	6	0	4	0	0	0	0	0	
:30	0	353	39	0	6	9	2	5	1	3	0	0	0	
45	00	355	27	0	6	12	0	3	0	1_	0	0	0	
	0	1432	129	1	23	39	5	17	3	4	0	0	0	1
:00	0	329	46	1	5	6	3	5	0	1	0	0	0	
:15	0	335	60	0	6	10	4	2	0	0	0	0	0	
:30	0	301	48	2	4	1	2	2	0	1	0	0	0	
:45	0	311	33	11	9	1	0	5	0	0	1	0	0	
	0	1276	187	4	24	18	9	14	0	2	1	0	0	1
:00	0	273	35	0	5	3	2	3	2	0	1	0	0	
15	1	275	40	0	5	4	1	4	0	0	0	0	0	
:30	0	236	36	0	7	1	0	1	0	0	0	0	0	
45	2	194	34	0	8	3	1	0	0	1	0	0	0	
	3	978	145	0	25	11	4	8	2	1	1	0	0	1
:00	0	198	25	0	6	1	2	2	0	0	0	0	0	
15	0	139	18	0	1	0	0	0	0	1	0	0	0	
30	1	166	22	0	1	2	0	Ö	0	0	Ö	0	0	
45	Ö	145	19	Ő	2	2	0	ő	0	ő	ő	ő	ő	
	1	648	84	0	10	5	2	2	0	1	0	0	0	
:00	0	178	21	Ő	6	0	0	0	0	0	ő	Ő	0	
:15	0	117	19	0	1	0	0	0	0	0	0	0	0	
:30	1	127	11	0	1	1	2	1	0	0	0	0	0	
45	0	116	7	0	4	0	0	0	0	0	0	0	0	
70	1	538	58	0	12	1	2	1	0	0	0	0	0	
:00	0	90	10	0	0	0	0	0	2	0	0	0	0	
				0										
:15	1	59	8		2	1	0	0	0	0	0	0	0	
30	0	47	9	0	0	0	0	0	0	0	0	0	0	
45	0	67	4	0	0	0	0	0	0	0	0	0	0	
	1	263	31	0	2	1	0	0	2	0	0	0	0	
tal	9	11938	1811	20	379	199	43	152	20	31	6	4	3	14
ent	0.1%	81.7%	12.4%	0.1%	2.6%	1.4%	0.3%	1.0%	0.1%	0.2%	0.0%	0.0%	0.0%	
ınd	23	16226	2846	43	668	278	57	233	32	38	7	7	5	20
tal	_0		_0.0		000	0	01	200	02	00		,	•	
ent	0.1%	79.3%	13.9%	0.2%	3.3%	1.4%	0.3%	1.1%	0.2%	0.2%	0.0%	0.0%	0.0%	

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 11-Oct-18

A1810002E

EASTBOU	ND, EAST	TBOUND1											A10	310002E
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
10/11/18	1	28	1	0	0	0	0	0	0	0	0	0	0	30
00:15	0	32	4	0	0	0	0	0	0	0	0	0	0	36
00:30	0	24	3	0	0	0	0	0	0	0	0	0	0	27
00:45	0	12	2	0	0	0	0	0	0	0	0	0	0	14
	1	96	10	0	0	0	0	0	0	0	0	0	0	107
01:00	1	15	2	0	0	0	0	0	0	0	0	0	0	18
01:15	1	13	1	0	0	0	0	0	0	0	0	0	0	15
01:30	2	11	3	0	0	0	0	0	0	0	0	0	0	16
01:45	0	23	0	0	0	0	0	0	0	0	0	0	0	23
	4	62	6	0	0	0	0	0	0	0	0	0	0	72
02:00	0	10	2	0	2	0	0	0	0	0	0	0	0	14
02:15	2	11	3	0	0	0	0	0	0	0	0	0	0	16
02:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:45	0	1	4	0	0	0	0	0	0	0	0	0	0	5
	2	30	9	0	2	0	0	0	0	0	0	0	0	43
03:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5
03:45	0	8	2	0	2	0	0	0	0	0	0	0	0	12
	0	24	5	0	2	0	0	0	0	0	0	0	0	31
04:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
04:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15
04:30	0	17	2	0	0	0	0	0	0	0	0	0	0	19
04:45	1	17	4	0	11	0	0	0_	0	0	0	0	0	23
	1	53	11	0	1	0	0	0	0	0	0	0	0	66
05:00	0	14	4	0	1	0	0	0	0	0	0	0	0	19
05:15	0	27	3	2	2	0	0	0	2	0	0	0	0	36
05:30	0	35	7	0	2	0	0	0	0	0	0	0	0	44
05:45	0	33	8	4	11	0	0	1_	1_	0	0	0	0	48
	0	109	22	6	6	0	0	1	3	0	0	0	0	147
06:00	0	53	9	0	0	0	0	0	0	0	0	0	0	62
06:15	2	48	11	2	0	0	0	1	1	0	0	0	0	65
06:30	1	78	5	1	0	0	0	0	1	0	0	0	0	86
06:45	0	81	9	3_	2	0	0	0_	0	0	0	0	0	95
	3	260	34	6	2	0	0	1	2	0	0	0	0	308
07:00	0	126	13	1	2	0	0	0	0	0	0	0	0	142
07:15	0	104	16	2	1	1	0	1	0	0	0	0	0	125
07:30	0	141	7	1	1	1	0	1	0	0	0	0	0	152
07:45	1_	133	11	2	3_	1_	1_	0	0	0	0	0	0	152
	1	504	47	6	7	3	1	2	0	0	0	0	0	571
08:00	0	146	17	1	3	1	2	1	0	0	0	0	0	171
08:15	0	155	10	1	4	1	0	0	0	0	0	0	0	171
08:30	0	143	30	2	7	4	0	1	0	0	0	0	0	187
08:45	0	150	22	1	2	5	0	2	2	0	0	0	0	184
00.00	0	594	79	5	16	11	2	4	2	0	0	0	0	713
09:00	2	130	16	2	3	2	0	0	0	0	1	0	0	156
09:15	1	130	22	1	9	1	1	2	1	0	0	0	0	168
09:30	1	107	20	2	10	4	0	2	2	0	0	0	0	148
09:45	0	136	30	2	3	1	0	0	1	0	0	0	0	173
40.00	4	503	88	7	25	8	1	4	4	0	1	0	0	645
10:00	0	152	30	2	8	3	0	2	0	0	0	0	0	197
10:15	0	150	25	2	6	0	0	2	3	0	0	0	0	188
10:30	1	130	24	1	2	3	1	0	2	0	1	0	0	165
10:45	0	149	21	1	6	3	0		2	0	0	0	0	183
44.00	1	581	100	6	22	9	1	5	7	0	1	0	0	733
11:00	0	120	23	4	8	3	1	0	1	0	0	0	0	160
11:15	1	125	35	0	11	6	3	1	1	0	0	0	0	183
11:30	0	150	25	3	2	1	0	0	2	0	0	0	0	183
11:45	0	154	22	0	5	2	1	1	0	0	0	0	0	185
Takal	1	549	105	7	26	12	5	2	4	0	0	0	0	711
Total	18	3365	516	43	109	43	10	19	22	0 00/	2	0 00/	0	4147
Percent	0.4%	81.1%	12.4%	1.0%	2.6%	1.0%	0.2%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 11-Oct-18

A1810002E

Start		TBOUND1 Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
	D:1			D										T-4-1
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double_	Double	<u>Double</u>	Multi	Multi	<u>Multi</u>	Total
12 PM	0	151	23	2	4	3	0	2	4	0	0	0	0	189
12:15	0	171	36	0	6	3	0	3	0	0	0	0	0	219
12:30	0	153	34	3	8	2	1	3	0	0	0	0	0	204
12:45	1_	147	29	4	6	0	1	3	0	0	0	0	0	191
10.00	1	622	122	9	24	8	2	11	4	0	0	0	0	803
13:00	1	159	26	0	8	3	1	2	1	0	2	0	0	203
13:15	1	162	36	4	5	1	0	0	1	0	0	0	0	210
13:30	1	146	20	2	11	1	0	0	1	0	1	0	0	183
13:45		153	33	2	4	3	0	2	1_	0	0	0	0	199
44.00	4	620	115	8	28	8	1	4	4	0	3	0	0	795
14:00	1	176	27	1	11	2	0	2	0	0	0	0	0	220
14:15	0	176	24	3	7	3	1	5	0	1	0	0	0	220
14:30	1	159	28	1	5	1	0	1	0	0	0	0	0	196
14:45	1_	157	39	1	10	1	0	1_	2	0	0	0	0	212
15.00	3	668	118	6	33	7	1	9	2	1	0	0	0	848
15:00	1	175	38	1	6	5	0	0	1	0	0	0	0	227
15:15	0	212	29	4	11	2	0	2	0	0	0	0	0	260
15:30	0	173	30	0	12	1	0	1	1	1	0	0	0	219
15:45	1 2	138	44	3	6	3	0	2	<u>0</u> 2	1	0	0	0	198
16.00		698	141	8	35	11	0	5		2	0	0	0	904
16:00	1	208	28	3	5	2	1	0	0	0	1	0	0	249
16:15	1	205	46	2	5	5	0	0	•	0	0	0	0	265
16:30	0	141	27	2	6 5	1 2	0	0	0	0	0	0	0	177
16:45	0 2	173	28 129		<u>5</u> 21		1	3	1	0			0	215
17.00		727		9		10					3	0		906
17:00 17:15	0	192 199	31 32	0	5 7	2	0	0	0	0	0	0	0	230 243
17:13	0	185	25	0	1	2	0	0	0	0	0	0	0	212
	0													
17:45	0	248	39	14	5	1 5	0	0	0 0	0	0 0	0	01	294 979
10.00	1	824	127		18		1	0			1	0	1	
18:00 18:15	0	208 227	25 24	3 2	5 5	0	0	2	0	0	0	0	0	244 260
18:30	0	182	14	0	5	0	0	0	0	0	0	0	0	201
18:45	0	200	21	1	5	2	0	0	0	0	0	0	0	229
10.43	1	817	84	6	20	2	1	2	0	0	1	0	0	934
19:00	0	198	26	1	20	5	1	1	0	0	0	0	0	234
19:15	1	190	15	1	1	1	0	0	0	0	0	0	0	210
19:30	0	170	17	0	2	0	0	0	0	0	1	0	0	190
19:45	0	144	13	2	1	0	0	0	1	0	Ó	0	0	161
13.43	1	703	71	4	6	6	1	1	1	0	1	0	0	795
20:00	Ó	159	14	2	1	0	0	Ó	Ó	0	Ó	0	1	177
20:15	0	154	18	0	1	0	0	0	0	0	1	0	0	174
20:30	1	135	10	2	0	0	0	0	0	0	Ó	0	0	148
20:45	0	120	13	0	1	0	0	0	0	0	0	0	0	134
20.40	1	568	55	4	3	0	0	0	0	0	1	0	1	633
21:00	1	138	14	3	0	0	0	0	0	Ö	0	ő	0	156
21:15	0	128	10	Ő	2	0	0	0	0	0	Ő	ő	0	140
21:30	0	90	7	1	1	1	0	0	0	Ö	ő	ő	0	100
21:45	Ö	90	10	2	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	102
	1	446	41	6	3	1	0	0	0	0	0	0	0	498
22:00	0	76	9	Ö	0	0	Ö	Ö	Ö	Ö	Ö	Ö	Ö	85
22:15	0	67	4	Ö	1	Ö	0	0	Ö	Ö	Ö	0	Ö	72
22:30	2	66	4	Ö	0	Ö	0	Ö	Ö	Ö	Ö	Ö	Ö	72
22:45	1	60	13	1	0	0	0	Ö	Ö	0	Ö	0	Ö	75
	3	269	30	1	1	0	0	0	0	0	0	0	0	304
23:00	1	49	6	Ö	0	Ö	0	Ö	Ö	Ö	Ö	0	Ö	56
23:15	1	38	3	Ö	1	Ö	0	1	Ö	Ö	Ö	0	Ö	44
23:30	0	51	5	Ö	1	Ö	0	0	Ö	Ö	Ö	0	Ö	57
23:45	0	26	2	Ö	i	Ö	0	Ö	Ö	Ö	Ö	0	Ö	29
	2	164	16	0	3	0	0	1	0	0	0	0	0	186
Total	21	7126	1049	65	195	58	7	36	14	3	9	0	2	8585
Percent	0.2%	83.0%	12.2%	0.8%	2.3%	0.7%	0.1%	0.4%	0.2%	0.0%	0.1%	0.0%	0.0%	
						2,0	2/0	2/0	-:=/0		2			
Grand		40.404	4505	100	20.4	404			00	•		^	•	40700
Total	39	10491	1565	108	304	101	17	55	36	3	11	0	2	12732
Percent	0.3%	82.4%	12.3%	0.8%	2.4%	0.8%	0.1%	0.4%	0.3%	0.0%	0.1%	0.0%	0.0%	
	0					0	2	2	2.270	2.2.0	20	2.2.0		

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 10-Oct-18

A1810002E

	>6 Axl	6 Axle	<6 Axl	>6 Axl	5 Axle	<5 Axl	4 Axle	3 Axle	2 Axle		2 Axle	Cars &		ASTBOUN Start
Tot	Multi	Multi	Multi	Double	Double	Double	Single	Single	6 Tire	Buses	Long	Trailers	Bikes	Time
2	0	0	0	0	0	0	0	0	0	0	2	24	0	10/10/18
1	0	0	0	0	0	0	0	0	0	0	0	18	0	00:15
3	0	0	0	0	0	0	0	0	1	0	0	29	1	00:30
1	0	0	0	0	0	0	0	0	0	0	1	13	0	00:45
8	0	0	0	0	0	0	0	0	1	0	3	84	1	
1	0	0	0	0	0	0	0	0	1	0	0	13	0	01:00
1	0	0	0	0	0	0	0	0	0	0	2	15	2	01:15
1	0	0	0	0	0	0	0	0	0	0	1	12	0	01:30
1	0	0	0	0 0	0	0	0	0	<u> </u>	0	<u>3</u>	10 50	<u>2</u> 4	01:45
1	0	0	0	0	0	0	0	0	0	0	2	12	0	02:00
1	0	0	0	0	1	0	0	0	1	0	4	10	2	02:00
	Ö	0	0	ő	Ö	0	0	0	Ö	0	2	7	0	02:30
	Ö	0	0	Ö	Ö	0	Ő	0	0	Ö	1	5	Ő	02:45
	0	0	0	0	1	0	0	0	1	0	9	34	2	020
1	0	0	0	Ō	1	0	0	0	0	Ō	1	12	0	03:00
	0	0	Ö	0	0	Ō	Ō	0	1	0	0	6	1	03:15
	0	0	0	0	0	0	0	0	0	0	2	5	0	03:30
1	0	0	0	0	0	0	0	0	2	0	2	7	1	03:45
4	0	0	0	0	1	0	0	0	3	0	5	30	2	
1	0	0	0	0	0	0	0	0	0	0	3	6	1	04:00
1	0	0	0	0	0	0	0	0	0	0	3	10	2	04:15
2	0	0	0	0	0	0	0	0	0	0	2	19	0	04:30
2	0	0	0	0	1_	0	0	0	2	0	3	14	0	04:45
6	0	0	0	0	1	0	0	0	2	0	11	49	3	05.00
2	0	0	0	0	0	0	0	0	1	0	3	17	0	05:00
3	0	0	0	0	2	0	0	0	0 6	2 0	5 2	26 34	0	05:15 05:30
6	0	0	0	0	0	0	0	0	1	3	11	45	1	05:45
16	0	0	0	0	2	0	0	0	8	<u>5</u>	21	122	2	05.45
5	0	0	0	0	0	1	0	0	1	2	7	42	0	06:00
6	0	0	0	0	0	0	0	0	0	2	8	54	1	06:15
ě	Ö	0	0	ő	ő	0	ő	0	2	1	6	71	1	06:30
12	Ö	0	Ö	0	Ö	1	0	1	2	2	12	104	0	06:45
32	0	0	0	0	0	2	0	1	5	7	33	271	2	
10	0	0	0	0	0	1	0	0	0	3	4	98	1	07:00
12	0	0	0	0	0	0	0	0	1	3	15	101	1	07:15
14	0	0	0	0	0	0	2	2	1	0	13	123	0	07:30
12	0	0	0	0	1_	0	0	0	2	3	20	94	0	07:45
48	0	0	0	0	1	1	2	2	4	9	52	416	2	
16	0	0	0	0	0	0	0	1	2	2	15	144	0	08:00
21	0	0	0	0	0	0	0	1	3	2	11	187	8	08:15
15	0	0	0	0	0	0	2	0	3	1	18	132	0	08:30
17	0	0	0	0	0	1	0	2	2	3	20	149	2	08:45
71	0	0	0	0	0	1	2	4	10	8	64	612	10	00.00
18	0	0	0	0	0	0	0	1	2	2	23	153	0	09:00
15	0	0	0	0	2	1	2	0	7 7	0	22	122	0	09:15
13	0	0	0	0	0	1	1	2	3	3	26 26	103 143	0	09:30 09:45
18 65	0	0	0	0	<u>5</u>	2	4	3	<u>3</u> 19	6	97	521	0	09.40
16	0	0	0	0	1	0	0	3	10	0	23	127	1	10:00
18	0	0	0	0	0	1	0	0	10	2	18	150	0	10:00
17	0	0	0	0	0	0	0	3	9	4	23	136	0	10:13
19	0	0	0	0	1	0	0	2	9	0	40	143	0	10:35
71	0	0	0	0	2	1	0	8	38	6	104	556	1	
17	Ö	0	0	Ö	1	1	1	4	3	2	20	144	0	11:00
19	Ö	0	Ö	1	0	0	0	3	10	1	40	137	0	11:15
18	0	0	0	0	4	4	0	3	6	2	31	134	0	11:30
20	0	0	Ö	1	1	2	Ō	1	3	2	29	167	0	11:45
75	0	0	0	2	6	7	1	11	22	7	120	582	0	
		0	0	2	19	14	9	29	114	48	525	3327	29	Total
411	0	U	U	_	10	0.3%	U			1.2%	020	0021	20	i Otai

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 10-Oct-18

A1810002E

Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 AxI	6 Axle	>6 Axl	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Tota
12 PM	1	152	30	2	6	4	0	2	0	0	0	0	0	19
12:15	0	127	28	4	3	2	0	2	1	0	0	0	0	16
12:30	0	156	28	1	4	2	1	1	0	1	0	0	0	19
12:45	0	159	20	2	4	0	0	1_	0	0	0	0	0	18
	1	594	106	9	17	8	1	6	1	1	0	0	0	74
13:00	1	170	22	1	6	3	0	0	0	0	0	0	0	20
13:15	0	159	30	1	3	1	0	4	0	1	0	0	0	19
13:30	0	167	41	0	8	3	2	0	0	0	0	0	0	22
13:45	0	137	31	2	13	1_	1_	0	1_	0	0	0	0	18
14.00	1	633	124	4	30	8	3	4	1 0	1	0	0	0	80
14:00 14:15	0	171 184	33 40	0	1 9	3	0	1 3	0	0	0	0	0	20
14:30	0	162	35	2	7	2	1	2	1	0	0	0	1	2
14:45	0	190	28	0	12	2	0	2	0	0	0	0	0	23
17.70	0	707	136	3	29	8	1	8	1	0	0	0	1	89
15:00	Ő	170	30	1	9	4	Ö	Ő	2	0	1	ő	Ö	2
15:15	Ö	217	32	2	11	1	0	Ö	1	Ö	0	0	Ö	20
15:30	0	161	39	1	15	8	0	6	0	0	0	0	0	2
15:45	1	180	28	1	11	2	0	3	0	0	0	0	0	2
	1	728	129	5	46	15	0	9	3	0	1	0	0	9
16:00	1	187	31	3	8	4	0	1	0	1	0	0	0	2
16:15	0	182	24	4	6	0	0	1	0	0	0	0	0	2
16:30	0	201	56	2	7	1	0	1	0	0	0	0	0	2
16:45	0	165	44	0	10	1_	0	2	0	1_	0	0	1	2
	1	735	155	9	31	6	0	5	0	2	0	0	1	94
17:00	0	210	26	1	3	0	0	1	0	0	0	0	0	24
17:15	2	200	31	2	6	1	0	0	1	0	0	0	0	2
17:30	0	237	29	0	2	1	0	0	0	0	1	0	0	2
17:45	0 2	200 847	25 111	<u>3</u>	3 14	2 4	0	0 1	0 1	0	0 1	0 0	0	9
18:00	0	264	18	1	14 5	1	0	1	0	0	0	0	0	29
18:15	0	187	18	3	8	1	0	1	0	1	0	0	0	2
18:30	0	164	18	1	4	0	1	1	0	0	0	0	0	1
18:45	1	179	18	3	0	0	0	1	0	0	1	0	0	2
10.10	1	794	72	8	17	2	1	4	0	1	1	0	0	9
19:00	1	232	16	2	5	0	0	1	0	0	0	0	0	2
19:15	0	172	11	2	6	1	0	0	1	0	0	0	0	1
19:30	0	166	16	2	1	0	0	0	1	0	0	0	0	1
19:45	0	138	12	1_	5	2	0	0	0	0	1	0	0	1
	1	708	55	7	17	3	0	1	2	0	1	0	0	7
20:00	0	168	12	0	1	1	0	0	0	0	0	0	0	1
20:15	1	142	16	0	1	2	0	0	0	0	0	0	0	1
20:30	0	150	16	0	1	0	0	1	0	0	0	0	0	1
20:45	0	125	21	1_	1_	0	0	2	0	0	0	0	0	1
04:00	1	585	65	1	4	3	0	3	0	0	0	0	0	6
21:00	2	134	15 11	0	0	0	0	0	0	0	0	0	0	1
21:15 21:30	0	114 94	12	0	2	0	0	0	0	0	0	0	0	1
21:45	0	83	7	0	0	0	0	0	0	0	0	0	0	
21.40	2	425	45	0	3	1	0	0	0	0	0	0	0	4
22:00	0	63	10	2	Ő	ó	ő	0	0	ő	Ő	ő	0	
22:15	1	77	9	0	0	0	0	Ö	0	Ö	Ö	Ö	Ö	
22:30	1	72	4	Ö	0	0	0	0	0	0	Ö	Ö	0	
22:45	0	57	9	0	2	1	0	0	0	0	0	0	0	
	2	269	32	2	2	1	0	0	0	0	0	0	0	3
23:00	1	53	7	1	1	0	0	0	0	0	0	0	0	
23:15	0	48	5	0	0	0	0	0	0	0	0	0	0	
23:30	0	40	0	0	0	0	0	0	0	0	0	0	0	
23:45	1	38	2	0	0	0	0	0	0	0	0	0	0	
	2	179	14	11	1	0	0	0	0	0	0	0	0	1
Total	15	7204	1044	55	211	59	6	41	9	5	4	0	2	86
Percent	0.2%	83.2%	12.1%	0.6%	2.4%	0.7%	0.1%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%	
Grand	44	10531	1569	103	325	88	15	55	28	7	4	0	2	127
Total														
ercent	0.3%	82.5%	12.3%	0.8%	2.5%	0.7%	0.1%	0.4%	0.2%	0.1%	0.0%	0.0%	0.0%	

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 11-Oct-18

Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Tota
10/11/18	0	22	5	0	2	0	0	0	0	0	0	0	0	2
00:15	0	23	7	0	1	0	0	0	0	0	0	0	0	3
00:30	0	14	5	0	1	0	0	0	0	0	0	0	0	2
00:45	0	12	3	0	0	0	0	0	0	0	0	0	0	1
	0	71	20	0	4	0	0	0	0	0	0	0	0	9
01:00	0	8	3	0	2	0	0	0	0	0	0	0	0	1
01:15	0	12	4	0	0	0	0	0	0	0	0	0	0	1
01:30	0	12	3	0	0	0	0	0	0	0	0	0	0	1
01:45	0	13	4	11	0	0	0	0	0	0	0	0	0	1
	0	45	14	1	2	0	0	0	0	0	0	0	0	6
02:00	0	12	6	0	1	0	0	0	0	0	0	0	0	1
02:15	0	7	0	0	0	0	0	0	0	0	0	0	0	
02:30	0	10	0	0	0	0	0	0	0	0	0	0	0	1
02:45	1	5	2	0	0	0	0	0	0	0	0	0	0	
	1	34	8	0	1	0	0	0	0	0	0	0	0	4
03:00	0	4	2	0	0	0	0	0	0	0	0	0	0	
03:15	0	5	1	0	1	0	0	0	0	0	0	0	0	
03:30	0	6	4	0	0	0	0	0	2	0	0	0	0	•
03:45	0	19	8	0	1_	0	0	2	1	0	0	0	0	
	0	34	15	0	2	0	0	2	3	0	0	0	0	5
04:00	0	17	4	0	0	0	0	0	0	0	0	0	0	2
04:15	0	18	2	0	1	0	0	0	0	0	0	0	0	2
04:30	0	22	1	1	1	0	0	1	1	0	0	0	0	2
04:45	0	36	12	2	2	0	0	1_	0	0	0	0	0	5
	0	93	19	3	4	0	0	2	1	0	0	0	0	12
05:00	0	32	12	2	2	0	0	0	1	0	0	0	0	4
05:15	1	31	8	2	6	1	0	1	0	0	0	0	0	5
05:30	0	51	16	1	8	0	0	2	0	0	0	0	0	. 7
05:45	0	119	25	0	6	1_	0	0	0	0	0	0	0	15
	1	233	61	5	22	2	0	3	1	0	0	0	0	32
06:00	2	119	16	2	10	1	0	0	0	0	0	0	0	15
06:15	0	155	27	0	11	0	0	0	0	0	0	0	0	19
06:30	0	194	40	0	14	4	0	5	0	0	0	0	0	25
06:45	0	203	52	2	16	5_	1_	2	0	2	0	0	0	28
	2	671	135	4	51	10	1	7	0	2	0	0	0	88
07:00	1	183	60	2	16	2	1	8	0	1	0	0	0	27
07:15	0	189	51	1	20	4	0	7	1	1	0	0	0	27
07:30	1	183	58	2	20	5	2	4	1	0	0	0	0	27
07:45	1_	94	33	0	10	4	1	4	1	1_	0	0	1	15
00.00	3	649	202	5	66	15	4	23	3	3	0	0	1	97
08:00	1	136	41	0	9	4	1	11	0	1	0	0	0	20
08:15	0	190	53	0	16	8	3	7	0	1	0	0	0	27
08:30	0	172	29 43	0	7	6	0	5	0	1	0	0	0	22
08:45	<u>0</u>	167	43 166	0	11 43	21	4	6	0	14	0	0	1	23 93
00.00	•	665 166	30	0	43	4		29 6	0	1	1	1		21
09:00 09:15	0	182	66	1	12	3	0	4	1	0	0	0	0	27
09:15	0	161	40	2	8	4	2	4	3	0	0	0	0	22
09:30	0	170	40 37	4	8 7	4 5	0	1	0	1	0	0	0	22
09.40	1	679	173	7	36	16	3	15	4	2	1	1	0	93
10.00							3 1		4 1	0		1	0	
10:00 10:15	2	150 162	33 39	3	13 22	3 2	0	5	3	0	0	0	0	2:
	1							8	0	1	0	0		
10:30		145	26	3	13	5	0	3				-	0	19
10:45	14	157	42	0	10	5	0	7	1	1	0	0 1	0 0	22 87
11.00		614	140	9	58	15	1	23	5	2	0		-	
11:00	0	148	48	4	10	5	1	0	0	0	1	0	0	2
11:15	0	172	32	2	12	4	1	8	0	0	0	0	0	2
44.00	0	205	37	2	16	1	1	2 2	2	1	0	0	0	20
11:30									1					
11:30 11:45	1_	206	32	1_	13	7	3					0	0	
11:45	1	731	149	9	51	17	6	12	3	2	1	0	0	98 98

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 11-Oct-18

<b>WESTBOU</b>	ND, WES													
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
12 PM	0	152	40	4	1	7	0	3	0	0	0	0	0	207
12:15	1	183	54	2	7	2	0	5	0	0	0	0	0	254
12:30	1	178	53	2	14	1	0	5	3	0	0	0	0	257
12:45	2	171	53	2	9	3	0	4	1	0	0	0	1	246
	4	684	200	10	31	13	0	17	4	0	0	0	1	964
13:00	0	182	43	2	11	4	0	6	2	0	0	0	1	251
13:15	0	163	46	0	11	6	0	1	1	0	0	0	0	228
13:30	0	194	31	2	12	2	0	6	0	0	1	0	0	248
13:45	0	168	40	1	3	3	1	0	0	1	0	0	1	218
	0	707	160	5	37	15	1	13	3	1	1	0	2	945
14:00	1	200	48	Ö	8	5	0	1	1	1	0	0	2	267
14:15	1	224	40	3	9	6	1	3	0	0	0	0	1	288
14:30	2	184	46	3	8	4	0	2	0	0	1	0	0	250
14:45	1	185	31	2	17	3	1	6	0	0	0	0	2	248
	5	793	165	8	42	18	2	12	1	1	1	0		1053
15:00	Ö	185	40	2	9	0	2	2	Ö	Ö	0	ő	Ö	240
15:15	Ő	171	48	1	6	5	0	6	0	ő	ő	ő	Ő	237
15:30	1	179	47	1	7	6	2	3	0	1	0	0	0	247
15:45	i	228	37	2	9	4	0	3	0	1	0	0	0	285
10.40	2	763	172	6	31	15	4	14	0	2	0	0	0	1009
16:00	0	167	40	2	2	3	0	3	1	0	0	0	0	218
16:15	0	193	32	1	9	2	0	2	0	0	0	1	0	240
16:30	0	176	32	0	9	7	0	5	1	0	0	0	0	230
16:45	0	203	39	0	4	5	0	2	0	0	0	0	0	253
10.45	0	739	143	3	24	17	0	12	2	0	0	1	0	941
17,00	1		42	4	5	7	1	12	0	0	0	0	0	
17:00	•	214												275
17:15	0	180	20	2	8	5	0	0	0	0	0	0	0	215
17:30	1	185	38	2	6	6	3	0	0	2	0	0	0	243
17:45	0	194	35	3	3	6	1_	5_	0	0	0	0	0	247
	2	773	135	11	22	24	5	6	0	2	0	0	0	980
18:00	0	209	31	2	8	1	0	1	1	0	0	0	0	253
18:15	1	202	31	0	3	2	1	0	0	0	0	0	0	240
18:30	1	200	28	2	5	5	2	4	2	0	0	1	0	250
18:45	0	216	34	0	8	3	0	0	0	0	0	0	0	261
	2	827	124	4	24	11	3	5	3	0	0	1	0	1004
19:00	1	196	34	3	8	5	1	2	0	0	0	0	0	250
19:15	1	171	27	0	4	3	0	3	0	0	0	0	0	209
19:30	0	140	18	0	2	3	0	2	0	0	0	0	0	165
19:45	1_	192	35	2	5	1_	0	1	0	0	0	0	0	237
	3	699	114	5	19	12	1	8	0	0	0	0	0	861
20:00	1	132	31	0	5	1	0	0	0	0	0	0	0	170
20:15	1	126	23	0	2	1	0	1	0	0	0	0	0	154
20:30	2	112	26	1	2	1	1	1	0	0	0	0	0	146
20:45	0	117	11	0	0	1_	0	0	0	0	0	0	0	129
	4	487	91	1	9	4	1	2	0	0	0	0	0	599
21:00	0	111	10	2	4	0	0	0	0	0	0	0	0	127
21:15	0	106	20	2	1	2	0	0	0	0	0	0	0	131
21:30	0	98	15	0	2	1	0	0	0	0	0	0	0	116
21:45	1	86	10	1	3	1	0	1	0	0	0	0	0	103
	1	401	55	5	10	4	0	1	0	0	0	0	0	477
22:00	0	96	23	2	0	0	1	0	0	0	0	0	0	122
22:15	0	73	13	0	0	1	0	0	0	0	0	0	0	87
22:30	1	56	13	Ō	0	0	0	0	0	0	0	0	0	70
22:45	2	61	13	2	2	0	0	1	0	0	0	0	0	81
	3	286	62	4	2	1	1	1	0	0	0	0	0	360
23:00	1	56	7	0	2	0	0	0	0	0	0	0	0	66
23:15	0	40	4	2	0	Ö	0	0	Ö	Ö	0	0	Ö	46
23:30	0	44	7	0	2	0	0	0	0	0	Ő	ő	Ő	53
23:45	0	41	6	0	1	0	0	1	0	0	0	0	0	49
20.70	1	181	24	2	5	0	0	1	0	0	0	0	0	214
Total	27	7340	1445	64	256	134	18	92	13	6	2	2	8	9407
Percent	0.3%	78.0%	15.4%	0.7%	2.7%	1.4%	0.2%	1.0%	0.1%	0.1%	0.0%	0.0%	0.1%	J <del>7</del> 01
i Giletiil	0.370	10.070	13.4 /0	0.7 /0	2.1 /0	1.4/0	U.Z /0	1.0 /0	U. I /0	U. I /0	0.0 /0	0.0 /0	0.170	
Grand														
Total	41	11859	2547	107	596	230	37	208	33	21	4	4	10	15697
Percent	0.3%	75.5%	16.2%	0.7%	3.8%	1.5%	0.2%	1.3%	0.2%	0.1%	0.0%	0.0%	0.1%	
FEICEIIL	0.370	10.070	10.270	0.7 70	3.070	1.070	0.270	1.370	U.Z 70	U. 170	0.070	0.070	U. 170	

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 10-Oct-18

	>6 Axl	6 Axle	<6 Axl	>6 AxI	5 Axle	<5 Axl	4 Axle	3 Axle	2 Axle		2 Axle	Cars &		Start
Tot	Multi	Multi	Multi	Double	Double	Double	Single	Single	6 Tire	Buses	Long	Trailers	Bikes	Time
1	0	0	0	0	0	0	0	0	0	0	2	13	0	0/10/18
1	0	0	0	0	0	0	0	0	0	0	2	14	2	00:15
3	0	0	0	0	0	0	0	0	1	0	5	27	1	00:30
2	0	0	0	0	0	0	0	0	2	0	3	16	0	00:45
3	0	0	0	0	0	0	0	0	3	0	12	70	3	
2	0	0	0	0	2	0	0	0	0	0	3	23	0	01:00
	0	0	0	0	0	0	0	0	0	0	1	4	1	01:15
1	0	0	0	0	0	0	0	0	0	0	2	8	0	01:30
2	0	0	0	0	0	0	0	0	1	0	2	20	0	01:45
6	0	0	0	0	2	0	0	0	1	0	8	55	1	00.00
	0	0	0	0	0	0	0	0	1	0	3	5	0	02:00
1	0	0	0	0	0	0	0	0	1	0	3	7	0	02:15
1	0	0	0	0	0	0	0	0	0	0	1	9	0	02:30
1	0	0	0	0	0	0	0	0	2	0	2	7	1_	02:45
4	0	0	0	0	0	0	0	0	4	0	9	28	1	00.00
	0	0	0	0	0	0	0	0	0	0	2	6	0	03:00
	0	0	0	0	0	0	0	0	0	0	2	6	0	03:15
1	0	0	0	0	0	0	0	0	0	0	7	9	0	03:30
	0	0	0	0	0	0	0	0	0	0	7	17	0	03:45
5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1	0 0	18 5	38 13	0 0	04:00
2	0	0	0	0	0	2	0	0	2	0	4	18	0	04:00
2	0		0	0	0	2	0	0		0	4	33	0	04:15
7	0	0	0	0	1	0	0	0	2 7	1	15	53 51	0	04:45
16	0	0	0	0	1	4	0	0	12	1	28		0	04.43
3	0	0	0	0	0	0	0	0	2	2	12	115 22	0	05:00
6	0	0	0	0	0	1	0	0	5	2	15	46	0	05:00
10	0	0	0	0	0	0	0	0	7	1	10	86	2	05:30
15	0	0	0	0	1	0	1	1	3	0	17	127	0	05:45
36	0	0	0	0	1	1	1	1	17	5	54	281	2	05.45
16	0	0	0	0	0	4	0	0	5	3	19	132	0	06:00
20	0	0	0	0	0	2	0	0	5	3	34	156	0	06:00
23	ő	0	0	ő	0	3	0	2	20	2	37	170	1	06:30
20	Ö	0	1	0	0	8	2	5	7	0	44	140	1	06:45
80	0	0	<u> </u>	0	0	17	2	7	37	8	134	598	2	00.40
22	Ö	0	0	1	0	6	0	6	13	0	40	161	0	07:00
26	ő	0	0	0	1	7	1	2	18	4	40	193	0	07:15
27	1	0	Ö	ő	1	10	3	9	16	3	56	177	0	07:30
23	Ö	0	Ö	Ö	0	6	1	7	21	3	47	151	0	07:45
100	1	0	0	1	2	29	5	24	68	10	183	682	0	011.0
28	1	0	0	1	0	3	3	6	13	2	44	210	Ő	08:00
21	Ö	0	0	1	1	5	3	8	11	4	39	144	0	08:15
19	Ö	1	ő	2	i	4	2	6	11	3	24	140	0	08:30
16	Ö	Ö	Ö	0	1	6	1	1	6	2	23	127	2	08:45
86	1	1	0	4	3	18	9	21	41	11	130	621	2	
18	0	0	1	2	2	8	2	2	11	2	34	120	1	09:00
25	0	1	0	0	2	4	0	4	21	1	40	178	0	09:15
23	0	0	1	0	1	4	1	3	9	1	35	180	0	09:30
23	0	0	0	0	0	5	Ó	5	13	1	37	178	Ō	09:45
91	0	1	2	2	5	21	3	14	54	5	146	656	1	
25	1	0	0	0	1	2	1	6	7	2	34	195	1	10:00
22	0	0	0	0	0	1	1	4	9	0	28	183	2	10:15
21	0	0	0	0	0	2	2	6	13	3	49	140	1	10:30
24	0	0	0	1	0	3	0	4	11	3	47	180	0	10:45
94	1	0	0	1	1	8	4	20	40	8	158	698	4	
19	1	0	0	0	1	5	0	5	9	2	33	136	1	11:00
25	0	0	0	1	0	2	0	7	20	3	55	169	0	11:15
24	0	0	0	0	2	5	0	2	13	4	38	178	0	11:30
21	0	0	0	1	1	6	Ō	9	11	0	33	151	0	11:45
90	1	0	0	2	4	18	0	23	53	9	159	634	1	
		2	3	10	19	116	24	110	330	57	1039	4476	17	Total
620	4	_	J	10	19	110	0.4%	110	000	31	1039	4470	17	i Otai

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

A1810002W

Date Start: 10-Oct-18

WESTBOU	ND, WES	STBOUND	1											
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI	
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total
12 PM	1	146	36	0	12	7	1	6	1	0	0	0	0	210
12:15 12:30	1	201 146	49 56	2	13 12	4 6	0	2	0	1	0	0	0	273 225
12:45	1	212	41	3	8	9	0	9	3	1	0	0	0	287
	3	705	182	7	45	26	1	18	4	3	0	0	1	995
13:00	1	163	27	2	9	9	1	1	0	0	2	0	0	215
13:15	0	184	44	0	20	3	0	3	0	0	1	0	0	255
13:30 13:45	0	199	46 51	3 2	8 4	2 5	1	3	0	0	0	0	0	262 251
13.45	2	186 732	168	7	41	<u>5</u> 19	3	8	0	0	3	0	0	983
14:00	1	200	38	2	11	8	0	5	0	ő	0	0	0	265
14:15	0	189	43	1	7	2	1	4	0	0	0	0	1	248
14:30	0	199	44	1	9	4	0	3	0	1	0	0	0	261
14:45	0	188	42	2	4	7	2	1	0	1	0	0	0	247
15:00	1 0	776 201	167 35	6 2	31 6	21 2	3	13 1	0	2	0	0	1 0	1021 248
15:15	0	161	41	1	10	1	0	4	0	1	0	0	0	219
15:30	0	191	39	0	7	5	0	1	0	1	1	0	2	247
15:45	1	161	39	1	9	1	0	2	0	1	0	0	0	215
	1	714	154	4	32	9	0	8	0	4	1	0	2	929
16:00	1	199	29 44	4	12 4	1	1 2	3 5	0	1 0	0	0	0	251 240
16:15 16:30	1	181 224	32	1	4	3	2	3	0	0	0	0	0	270
16:45	1	205	33	1	10	3	4	3	0	0	1	0	0	261
	4	809	138	7	30	8	9	14	1	1	1	0	0	1022
17:00	0	182	33	1	7	5	1	4	0	1	0	0	0	234
17:15	0	192	18	0	2	5	2	1	0	1	0	0	0	221
17:30 17:45	0	219	37 22	1 2	5 2	7 6	1	4	0	0	0	0	0	274 165
17.45	0	130 723	110	4	16	23	<u></u>	10	1	2	0	0	0	894
18:00	1	190	38	2	8	6	1	1	0	0	1	Ő	Ő	248
18:15	0	199	32	0	4	6	0	3	0	0	0	0	0	244
18:30	0	187	38	0	2	8	0	5	0	1	0	0	0	241
18:45	1	189	34	2	1_	3	0	2	0	0	0	1_	0	233
19:00	2	765 144	142 23	4	15 2	23 3	1 2	11 5	0	1	1 0	1	0	966 185
19:15	1	188	27	0	3	2	1	1	0	0	0	0	0	223
19:30	Ö	161	30	Ö	5	3	0	2	Ő	1	Ő	Ŏ	Ő	202
19:45	2	170	16	2	9	5	0	1	0	0	0	0	0	205
	4	663	96	5	19	13	3	9	0	2	0	1	0	815
20:00	1	155	34	1	3	3	0	2	1	0	0	0	0	200
20:15 20:30	0	133 171	37 24	0 2	2	3 1	0	2	0	0	0	0	0	177 202
20:45	1	118	14	2	3	6	0	0	0	0	0	0	0	144
20.10	2	577	109	5	10	13	0	6	1	0	0	0	0	723
21:00	0	131	26	0	4	0	2	2	0	0	0	0	0	165
21:15	0	123	22	2	8	1	0	1	0	0	0	0	0	157
21:30	0	98	13	0	1	1	0	3	0	0	0	0	0	116
21:45	0	92 444	17 78	2 4	14	1 3	0 2	<u> </u>	0	0	0	0	0	113 551
22:00	0	82	20	0	0	0	0	0	0	0	0	0	0	102
22:15	1	75	11	0	0	0	0	0	0	0	0	0	0	87
22:30	1	67	17	0	2	0	0	0	0	0	0	0	0	87
22:45	0	55	9	1	0	0	0_	0	0	0	0	0	0	65
22.00	2	279	57	1	2	0	0	0	0	0	0	0	0	341
23:00 23:15	1	39 44	8 10	0	0 2	0	0	0	1 0	0	0	0	0	49 57
23:15	2	35	5	0	0	0	0	0	0	0	0	0	0	42
23:45	0	25	7	0	1	0	0	0	0	0	0	0	0	33
	4	143	30	0	3	0	0	0	1	0	0	0	0	181
Total	25	7330	1431	54	258	158	27	103	8	15	6	2	4	9421
Percent	0.3%	77.8%	15.2%	0.6%	2.7%	1.7%	0.3%	1.1%	0.1%	0.2%	0.1%	0.0%	0.0%	
Grand														
Grand Total	42	11806	2470	111	588	268	51	219	27	25	9	4	8	15628
Percent	0.3%	75.5%	15.8%	0.7%	3.8%	1.7%	0.3%	1.4%	0.2%	0.2%	0.1%	0.0%	0.1%	

Page 1

City: REDONO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

a1810001

Start	10-Oct-18	NOR <sup>-</sup>	THBOUNE		THBOUND	Co	ombined	11-Oct	- NOF	RTHBOUNI		RTHBOUND	Co	mbined
Time	Wed	A.M.	<u>Р.М.</u>	A.M	. P.M.	A.M		. Thu	A.N	1. P.M.	A.M	l. P.M.	A.M.	P.M.
12:00		22	114	29	207	51	321		20	108	33	210	53	318
12:15		10	110	18	206	28	316		26	103	41	178	67	281
12:30		19	105	31	191	50	296		19	112	29	197	48	309
12:45		9	130	20	228	29	358		18	127	23	189	41	316
01:00		17	119	27	198	44	317		7	101	11	177	18	278
01:15		11	100	14	198	25	298		12	98	15	176	27	274
01:30		8	108	13	186	21	294		12	127	14	191	26	318
01:45		11	104	16	192	27	296		12	113	17	176	29	289
02:00		5	100	8	188	13	288		8	90	12	148	20	238
02:15		20	107	26	171	46	278		9	97	11	185	20	282
02:30		2	98	6	179	8	277		5	97	12	159	17	256
02:45		6	100	9	204	15	304		6	88	6	184	12	272
03:00		9	128	13	217	22	345		9	100	13	192	22	292
03:15		8	103	11	168	19	271		6	132	8	177	14	309
03:30		6	104	13	180	19	284		4	96	9	164	13	260
03:45		17	98	25	188	42	286		11	96	17	185	28	281
04:00		18	110	27	189	45	299		17	119	27	176	44	295
04:15		15	123	27	210	42	333		18	87	32	192	50	279
04:30		33	105	58	189	91	294		27	111	48	210	75	321
04:45		45	114	97	189	142	303		49	107	93	194	142	301
05:00		49	113	87	196	136	309		42	116	80	222	122	338
05:15		68	114	117	189	185	303		59	107	101	169	160	276
05:30		101	99	176	180	277	279		89	110	157	199	246	309
05:45		114	106	209	192	323	298		102	100	191	186	293	286
06:00		114	114	212	219	326	333		107	117	208	197	315	314
06:15	_	122	98	217	188	339	286		116	114	219	194	335	308
06:30		125	98	239	175	364	273		125	96	232	163	357	259
06:45		133	121	193	200	326	321		159	112	250	194	409	306
07:00		145	108	227	184	372	292		113	99	182	173	295	272
07:15		131	110	173	181	304	291		140	118	245	185	385	303
07:30		113	75	152	149	265	224		139	106	232	173	371	279
07:45		98	86	112	149	210	235		98	96	117	156	215	252
08:00		103	65	112	123	215	188		97	79	82	128	179	207
08:15		93	82	39	145	132	227		87	89	93	148	180	237
08:30		94	80	97	126	191	206		104	82	96	134	200	216
08:45		123	75	187	132	310	207		77	63	83	117	160	180
09:00		86	75	96	136	182	211		132	57	227	106	359	163
09:15		110	64	166	112	276	176		109	75	210	127	319	202
09:30		113	60	202	103	315	163		113	63	187	111	300	174
09:45		130	68	231	98	361	166		105	58	207	105	312	163
10:00		112	56	215	85	327	141		119	52	223	89	342	141
10:15		122	49	221	77	343	126		110	55	201	89	311	144
10:30		117	57	226	83	343	140		115	46	228	70	343	116
10:35		87	53	189	78	276	131		120	35	203	60	323	95
11:00		115	39	187	64	302	103		117	34	192	55	309	89
11:15		109	36	188	61	297	97		107	33	187	48	294	81
11:30		105	26	177	42	282	68		133	22	242		375	60
11:45		107	28	199	37	306	65		103	21	171	38 33	274	54
Total		3330	4335	5334	7582	8664	11917		3332	4264	5517	7329	8849	11593
Day Tota			4333 665		7562 2916		)581			7596		7329 2846		442
,						20	1001						202	+42
% Total	1	6.2%	21.1%	25.9%	36.8%				16.3%	20.9%	27.0%	35.9%		
Peak	- (	06:30	00:15	09:45	12:00	06:15	12:00	-	06:45	00:45	06:00	04:15	06:45	04:15
Vol.	-	534	464	893	832	1401	1291	-	551	453	909	818	1460	1239
P.H.F.	(	0.921	0.892	0.934	0.912	0.942	0.902		0.866	0.892	0.909	0.921	0.892	0.916
ADT	ADT 20	0,512	AADT	20,512										

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City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 10-Oct-18

Untitled Vo

Start	10-Oct-18	SOU	THBOUNI	D SOU	THBOUND	) Co	ombined	11-0	Oct- S	SOU	THBOUNE	SOU	THBOUND	) Co	mbined
Time	Wed	A.M				A.M				A.M.		A.M		A.M.	P.M.
12:00		14	90	33	215	47	305			13	80	46	191	59	271
12:15		16	102	40	214	56	316			9	81	42	171	51	252
12:30		12	89	30	192	42	281			7	107	26	181	33	288
12:45		11	91	26	198	37	289			11	100	25	213	36	313
01:00		9	92	23	198	32	290			5	103	19	211	24	314
01:15		3	89	18	188	21	277			8	107	18	234	26	341
01:30		6	92	18	228	24	320			4	101	13	222	17	323
01:45		8	84	17	203	25	287			6	112	15	246	21	358
02:00		7	86	16	187	23	273			3	94	13	202	16	296
02:15		3	108	12	233	15	341			3	105	7	221	10	326
02:30		6	116	11	228	17	344			5	105	11	231	16	336
02:45		5	120	17	234	22	354			2	126	11	261	13	387
03:00		2	119	8	233	10	352			0	115	7	241	7	356
03:15		6	142	15	259	21	401			4	135	8	262	12	397
03:30		6	133	16	249	22	382			3	122	10	222	13	344
03:45		9	157	17	307	26	464			14	136	20	257	34	393
04:00		6	126	19	237	25	363			7	152	15	269	22	421
04:15		4	159	12	297	16	456			4	137	15	261	19	398
04:30		7	159	22	264	29	423			5	138	19	261	24	399
04:45		12	139	27	276	39	415			24	146	37	276	61	422
05:00		10	148	19	274	29	422			8	142	17	257	25	399
05:15		19	145	30	264	49	409			16	145	37	274	53	419
05:30		19	136	43	276	62	412			15	164	34	263	49	427
05:45		21	146	55	261	76	407			24	146	52	269	76	415
06:00		35	151	56	273	91	424			23	153	39	292	62	445
06:15		26	134	59	273	85	407			32	128	58	239	90	367
06:30		40	146	86	272	126	418			46	172	98	319	144	491
06:45		46	135	100	269	146	404			58	133	102	273	160	406
07:00		57	140	109	256	166	396			55	122	112	272	167	394
07:15		75	136	157	281	232	417			<b>77</b>	125	172	263	249	388
07:30		87	117	187	244	274	361			83	117	193	239	276	356
07:45		84	112	172	249	256	361			86	125	177	247	263	372
08:00		88	103	175	221	263	324			70	95	149	220	219	315
08:15		82	106	149	224	231	330			73	121	145	264	218	385
08:30		69	82	134	199	203	281			80	61	170	151	250	212
08:45		85	69	188	174	273	243			76	84	164	181	240	265
09:00		75	73	160	161	235	234			74	62	151	140	225	202
09:15		84	47	141	112	225	159			84	65	174	151	258	216
09:30		73	58	157	134	230	192			77	43	155	116	232	159
09:45		54	50	131	118	185	168			79	47	176	111	255	158
10:00		55	67	128	138	183	205			68	57	139	115	207	172
10:15		64	44	141	93	205	137			67	48	140	105	207	153
10:30		80	44	190	100	270	144			61	43	160	103	221	146
10:45		81	40	166	87 75	247 211	127			86 71	35 31	173	87	259	122
11:00		56 75	27 22	155 175	49	250	102			64		142	78	213 225	109
11:15		75 77		-	-		71 56				33	161	71	=	104
11:30 11:45		77 74	14 17	164 181	42 54	241 255	56 71			87 91	16 18	201 197	46 42	288 288	62 60
Total		1843	4802	4005	9813	5848	14615			91 868	4833	4065	9821	5933	14654
Day Total			645		3818		)463		10		701		3886		587
% Total		9.0%	23.5%	19.6%	48.0%	20	7-05		٥,	1%	23.5%	19.7%	47.7%	20	307
/0 IUIal	,	J.U /0	20.070	13.070	40.070				9.	1 /0	23.370	13.170	+1.170		
Peak		7:30	04:15	07:15	04:15	07:15	04:15	_	07:	15	05:15	11:00	06:30	11:00	05:45
Vol.	-	341	605	691	1111	1025	1716	_		16	608	701	1127	1014	1718
P.H.F.	r	0.969	0.951	0.924	0.935	0.935	0.941		0.9		0.927	0.872	0.883	0.880	0.875
				J.J_ 1	3.333	3.000	0.0.1		0.0	. •	J.U.	J. <b>J</b> .	3.000		0.0.0
ADT	ADT 20	),525	AADT	20,525											

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City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 10-Oct-18

Start	10-Oct-18		STBOUNE		TBOUND1		mbined	11-00		STBOUND		STBOUND1		nbined
Time	Wed	A.M				A.M.	P.M.	. Thu					A.M.	P.M.
12:00		4	92	11	118	15	210		10	85	19	122	29	207
12:15		4	98	14	175	18	273		10	91	21	163	31	254
12:30		9	87	25	138	34	225		5	92	15	165	20	257
12:45		8	110	13	177	21	287		3	86	12	160	15	246
01:00		10	70	18	145	28	215		2	98	11	153	13	251
01:15		0	94	6	161	6	255		4	79	12	149	16	228
01:30		2	92	8	170	10	262		4	91	11	157	15	248
01:45		7	92	16	159	23	251		5	83	13	135	18	218
02:00		1	99	8	166	9	265		7	98	12	169	19	267
02:15		3	92	8	156	11	248		2	112	5	176	7	288
02:30		3	102	7	159	10	261		4	88	6	162	10	250
02:45		2	94	10	153	12	247		2	94	6	154	8	248
03:00		1	94	7	154	8	248		1	89	5	151	6	240
03:00		2	80	6	139	8	219		1	89	6	148	7	237
03:30		4	91	12	156	16	247		2	95	10	152	12	247
03:45		7	80	17	135	24	215		8	98	23	187	31	285
04:00		6	93	13	158	19	251		7	84	14	134	21	218
04:15		10	88	16	152	26	240		8	90	13	150	21	240
04:30		14	101	27	169	41	270		9	84	18	146	27	230
04:45		27	102	48	159	75	261		17	95	36	158	53	253
05:00		13	87	25	147	38	234		15	111	34	164	49	275
05:15		26	86	43	135	69	221		16	78	34	137	50	215
05:30		36	102	70	172	106	274		24	89	54	154	78	243
05:45		51	70	99	95	150	165		57	91	94	156	151	247
06:00		60	92	103	156	163	248		59	90	91	163	150	253
06:15		82	89	118	155	200	244		74	84	119	156	193	240
06:30		94	92	141	149	235	241		98	93	159	157	257	250
06:45		81	77	127	156	208	233		117	90	166	171	283	261
07:00		91	71	136	114	227	185		104	79	170	171	274	250
07:15		103	74	163	149	266	223		112	72	162	137	274	209
07:30		112	71	164	131	276	202		112	53	164	112	276	165
07:45		104	69	132	136	236	205	_	66	81	84	156	150	237
08:00		115	70	168	130	283	200		92	57	112	113	204	170
		98			118				122	52		102		154
08:15		83	59	118		216 194	177			52 46	156 116	102	278	146
08:30			67	111	135		202		104				220	
08:45		86	46	83	98	169	144		85	39	147	90	232	129
09:00		79	56	106	109	185	165		86	39	132	88	218	127
09:15		106	58	145	99	251	157		106	43	165	88	271	131
09:30		91	36	144	80	235	116		84	38	140	78	224	116
09:45		91	35	148	78	239	113		85	28	140	75	225	103
10:00		93	29	157	73	250	102		79	38	133	84	212	122
10:15		82	24	146	63	228	87		86	26	153	61	239	87
10:30		79	29	137	58	216	87		77	20	120	50	197	70
10:45		90	20	159	45	249	65		89	26	135	55	224	81
11:00		74	11	119	38	193	49		73	20	144	46	217	66
11:15		88	14	169	43	257	57		87	14	144	32	231	46
11:30		81	13	161	29	242	42		93	16	174	37	267	53
11:45		79	9	133	24	212	33		99	14	168	35	267	49
Total		2392	3407	3815	6014	6207	9421		2412	3348	3878	6059	6290	9407
Day Tota			799		829		628			5760		9937	156	
% Total		5.3%	21.8%	24.4%	38.5%		0_0		15.4%	21.3%	24.7%	38.6%		
Peak	- (	07:15	12:00	07:15	01:15	07:15	01:15	-	06:45	02:00	06:45	02:00	06:45	02:00
Vol.	-	434	387	627	656	1061	1033	_	445	392	662	661	1107	1053
P.H.F.	(	0.943	0.880	0.933	0.965	0.937	0.975		0.951	0.875	0.974	0.939	0.978	0.914
ADT	ADT 1	5,662	AADT	15,662										

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City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 10-Oct-18

A1810002E

Start	10-Oct-18	EAS	STBOUND	) EAS	TBOUND <sup>.</sup>	1 Co	ombined	11-00	ct- EAS	STBOUND	) EAS	TBOUND1	Co	mbined
Time	Wed	A.M				A.M							A.M.	P.M.
12:00		11	100	15	97	26	197		17	99	13	90	30	189
12:15		10	88	8	79	18	167		17	114	19	105	36	219
12:30		21	105	10	89	31	194		18	111	9	93	27	204
12:45		8	96	6	90	14	186		10	104	4	87	14	191
01:00		11	113	3	90	14	203		8	118	10	85	18	203
01:15		9	105	10	94	19	199		12	116	3	94	15	210
01:30		4	124	9	97	13	221		9	88	7	95	16	183
01:45		8	98	7	88	15	186		16	116	7	83	23	199
02:00		7	112	7	97	14	209		11	130	3	90	14	220
02:15		14	138	4	100	18	238		10	123	6	97	16	220
02:13		1	113	8	100	9	213		3	96	5	100		196
02:45		3	125	3	100	6	234		2	119	3	93	8 5	212
03:00		6	120	8	97		217			134	4	93	6	
03.00						14			2					227
03:15		4	136	4	128	8	264		4	147	4	113	8	260
03:30		2 7	122	5	108	7	230		3	127	2	92	5	219
03:45			133	5	93	12	226		7	106	5	92	12	198
04:00		3	126	7	110	10	236		4	129	5	120	9	249
04:15		9	118	6	99	15	217		5	138	10	127	15	265
04:30		11	145	10	123	21	268		13	108	6	69	19	177
04:45		9	123	11	101	20	224		10	113	13	102	23	215
05:00		11	136	10	105	21	241		10	127	9	103	19	230
05:15		16	128	19	115	35	243		22	129	14	114	36	243
05:30		23	143	20	127	43	270		28	111	16	101	44	212
05:45		36	118	25	115	61	233		26	150	22	144	48	294
06:00		33	164	20	126	53	290		35	131	27	113	62	244
06:15		39	126	26	93	65	219		33	145	32	115	65	260
06:30		45	116	36	73	81	189		48	110	38	91	86	201
06:45		53	122	69	81	122	203		58	126	37	103	95	229
07:00		58	140	49	117	107	257		70	129	72	105	142	234
07:15		61	111	60	82	121	193		65	120	60	90	125	210
07:30		72	99	69	87	141	186		83	109	69	81	152	190
07:45		63	86	57	73	120	159		87	90	65	71	152	161
08:00		77	100	87	82	164	182		88	100	83	77	171	177
08:15		110	88	102	74	212	162		91	101	80	73	171	174
08:30		87	91	69	77	156	168		95	88	92	60	187	148
08:45		98	78	81	72	179	150		99	74	85	60	184	134
09:00		95	80	86	72	181	152		93	81	63	75	156	156
09:15		91	70	65	56	156	126		89	66	79	74	168	140
09:30		82	54	56	54	138	108		85	50	63	50	148	100
09:45		100	55	82	35	182	90		98	57	75	45	173	102
10:00		97	47	68	28	165	75		104	49	93	36	197	85
10:15		97	44	84	43	181	87		113	40	75	32	188	72
10:30		93	43	82	34	175	77		91	38	74	34	165	72
10:45		116	37	79	32	195	69		107	38	76	37	183	75
11:00		86	34	90	29	176	63		83	30	77	26	160	56
11:15		101	30	91	23	192	53		102	22	81	22	183	44
11:30		107	25	77	15	184	40		101	39	82	18	183	57
11:45		118	24	88	17	206	41		105	17	80	12	185	29
Total		2223	4729	1893	3926	4116	8655		2290	4703	1857	3882	4147	8585
Day Total			952		819		2771			6993		739		732
% Total		17.4%	37.0%	14.8%	30.7%	12	-771		18.0%	36.9%	14.6%	30.5%	12	132
/0 I Ulal		17.7/0	J1 .U /0	17.0 /0	JU.1 /0				10.0 /0	JU. 9 /0	17.0 /0	JU.J /0		
Peak		11:00	05:15	11:00	05:15	11:00	05:15		10:00	05:30	08:00	05:30	10:00	05:30
Vol.	-	412	553	346	483	758	1036	_	415	537	340	473	733	1010
P.H.F.	-	0.873	0.843	0.951	0.951	0.920	0.893	-	0.918	0.895	0.924	0.821	0.930	0.859
1 .11.1 .		0.070	0.040	0.331	0.001	0.520	0.030		0.910	0.000	0.324	0.021	0.000	0.009
ADT	ADT 1	12,752	AADT	12,752										

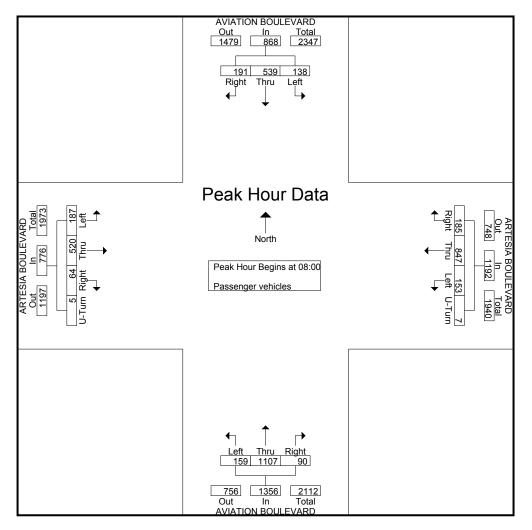
File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

Grouns	Printed-	Passenger	vehicles

	AVIATIO	N BOULE	VARD	ART	ESIA BO	ÜLEVAR	D	AVIATIO	N BOULE	VARD	ART	ESIA BO	ULEVAR	RD	
	So	uthbound			Westbo	ound		No	orthbound			Eastbo	ound		
Start Time	Right	Thru	Left	Right	Thru	Left l	J-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00	23	144	12	47	142	27	0	21	333	26	6	83	26	1	891
07:15	40	158	20	46	141	39	0	16	271	32	10	102	41	0	916
07:30	39	187	15	55	205	34	0	20	321	35	10	84	41	1	1047
07:45	55	160	18	58	213	32	1	20	314	35	18	108	42	0	1074
Total	157	649	65	206	701	132	1	77	1239	128	44	377	150	2	3928
	i.							1							
08:00	40	144	31	36	187	46	1	25	292	35	18	115	48	1	1019
08:15	52	137	38	56	202	33	2	20	298	34	12	119	44	0	1047
08:30	42	105	31	50	232	40	2	18	241	56	13	149	45	0	1024
08:45	57	153	38	43	226	34	2	27	276	34	21	137	50	4	1102
Total	191	539	138	185	847	153	7	90	1107	159	64	520	187	5	4192
*** BREAK ***															
16:00	26	230	47	36	143	50	2	33	183	42	43	204	46	0	1085
16:15	27	285	53	27	121	52	3	52	171	35	38	174	53	0	1091
16:30	25	290	47	30	151	59	2	51	163	35	36	196	36	0	1121
16:45	39	268	53	36	152	64	3	38	149	33	41	187	42	0	1105
Total	117	1073	200	129	567	225	10	174	666	145	158	761	177	0	4402
17:00	25	321	46	31	128	63	2	38	175	27	31	191	57	0	1135
17:15	30	249	38	34	149	64	2	52	154	31	23	248	40	0	1114
17:30	22	289	48	36	134	49	0	35	166	30	35	192	52	1	1089
17:45	23	261	51	29	144	61	2	28	150	33	42	214	41	1	1080
Total	100	1120	183	130	555	237	6	153	645	121	131	845	190	2	4418
· Otal			.55				Ū		0.0	,		0.0		- 1	3
Grand Total	565	3381	586	650	2670	747	24	494	3657	553	397	2503	704	9	16940
Apprch %	12.5	74.6	12.9	15.9	65.3	18.3	0.6	10.5	77.7	11.8	11	69.3	19.5	0.2	
Total %	3.3	20	3.5	3.8	15.8	4.4	0.1	2.9	21.6	3.3	2.3	14.8	4.2	0.1	

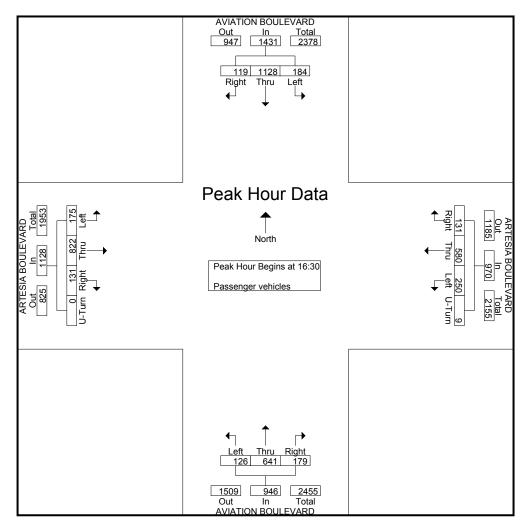
File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

	AVIA	TION E	OULE	VARD	А	RTESI	A BOU	ILEVAF	RD	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOL	JLEVAF	RD	
		South	bound			W	estbοι	ınd			North	bound			E	astbou	ınd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 07:	00 to 0	8:45 - Pe	ak 1 of	1													
Peak Hour for	Entire II	ntersect	tion Be	gins at 08	3:00														
08:00	40	144	31	215	36	187	46	1	270	25	292	35	352	18	115	48	1	182	1019
08:15	52	137	38	227	56	202	33	2	293	20	298	34	352	12	119	44	0	175	1047
08:30	42	105	31	178	50	232	40	2	324	18	241	56			149	45	0	207	1024
08:45	57	153	38	248	43	226	34	2	305	27				21	137	50	4	212	1102
Total Volume	191	539	138	868	185	847	153	7	1192	90	1107	159	1356	64	520	187	5	776	4192
% App. Total	22	62.1	15.9		15.5	71.1	12.8	0.6		6.6	81.6	11.7		8.2	67	24.1	0.6		
PHF	.838	.881	.908	.875	.826	.913	.832	.875	.920	.833	.929	.710	.963	.762	.872	.935	.313	.915	.951



File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

	AVIA	TION E	BOULE	VARD	А	RTESI	A BOU	LEVAF	RD	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOL	ILEVAF	RD	
		South	bound			W	estbou	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Ana	alysis F	rom 16:	00 to 1	7:45 - Pe	ak 1 of	1													
Peak Hour for	Entire I	ntersect	tion Be	gins at 16	3:30														
16:30	25	290	47	362	30	151	59	2	242	51	163	35	249	36	196	36	0	268	1121
16:45	39	268	53	360	36	152	64	3	255	38	149	33	220	41	187	42	0	270	1105
17:00	25	321	46	392	31	128	63	2	224	38	175	27	240	31	191	57	0	279	1135
17:15	30	249	38	317	34	149	64	2	249	52					248	40	0	311	1114
Total Volume	119	1128	184	1431	131	580	250	9	970	179	641	126	946	131	822	175	0	1128	4475
% App. Total	8.3	78.8	12.9		13.5	59.8	25.8	0.9		18.9	67.8	13.3		11.6	72.9	15.5	0		
PHF	.763	.879	.868	.913	.910	.954	.977	.750	.951	.861	.916	.900	.950	.799	.829	.768	.000	.907	.986



File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

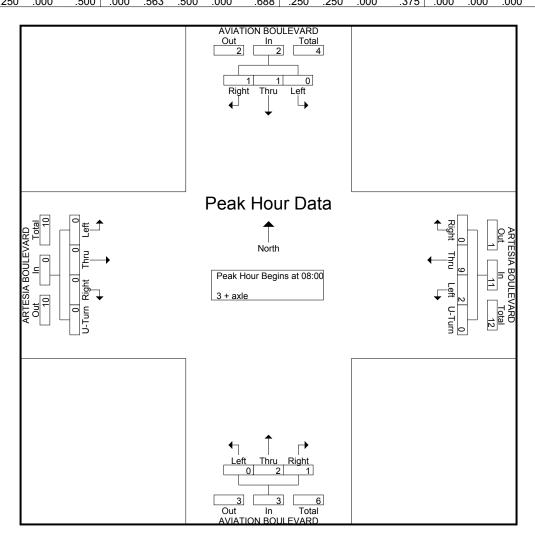
Page No : 1

Groups Printed- 3 + axle

						Стоиро	· iiiiicou	O · UNIC							
	AVIATION	N BOULE	VARD	ART	ESIA BO	ULEVÁRI	)	<b>AVIATIO</b>	N BOULE	VARD	ART	ESIA BOI	JLEVA	RD	
	Sou	uthbound			Westbo	und		No	rthbound			Eastbo	und		
Start Time	Right	Thru	Left	Right	Thru	Left L	J-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
07:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
07:30	0	1	0	0	2	1	0	0	0	0	0	1	0	0	5
07:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	6	1	0	0	0	0	0	1	0	0	10
08:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
08:15	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
08:30	0	0	0	0	3	1	0	0	2	0	0	0	0	0	6
08:45	0	11	0	0	1	11	0	11	0	0	0	0	0	0	4
Total	1	1	0	0	9	2	0	1	2	0	0	0	0	0	16
*** BREAK ***  16:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK *** Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK *** 17:30   *** BREAK ***	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
Grand Total Apprch % Total %	1 16.7 3.4	5 83.3 17.2	0 0 0	0 0 0	15 83.3 51.7	3 16.7 10.3	0 0 0	1 25 3.4	3 75 10.3	0 0 0	0 0 0	1 100 3.4	0 0 0	0 0 0	29

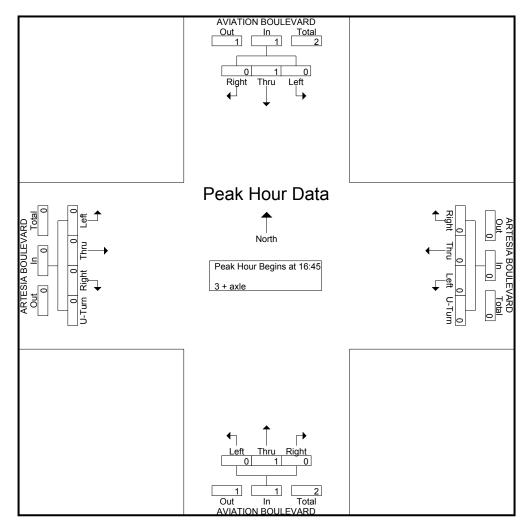
File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOU	ILEVAF	RD	AVIA	TION E	BOULE	VARD	А	RTESI	A BOU	LEVAF	RD	
		South	bound			W	estboι/	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 07:	00 to 0	8:45 - Pe	ak 1 of	1													
Peak Hour for	Entire I	ntersect	ion Beg	gins at 08	3:00														
08:00	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
08:15	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	4
08:30	0	0	0	0	0	3	1	0	4	0	2	0	2	0	0	0	0	0	6
08:45	0	1	0	1	0	1_	1_	0	2	1									
Total Volume	1	1	0	2	0	9	2	0	11	1	2	0	3	0	0	0	0	0	16
_% App. Total	50	50	0		0	81.8	18.2	0		33.3	66.7	0		0	0	0	0		
PHF	.250	.250	.000	.500	.000	.563	.500	.000	.688	.250	.250	.000	.375	.000	.000	.000	.000	.000	.667



File Name: h1810002wed Site Code : 00000000 Start Date : 10/10/2018

	AVIA	TION E	BOULE	VARD	А	RTESI	A BOU	LEVAF	RD	AVIA	TION E	OULE	VARD	Α	RTESI	A BOU	LEVAF	RD	
		South	bound			W	estbou	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Tum	App. Total	Int. Total
Peak Hour Ana						1													
Peak Hour for	Entire Ir	ntersect	tion Be	gins at 16	3:45														
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	1	0	0	0	0	0	0	1_	0	1	0	0	0	0	0	2
Total Volume	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0	0		0	100	0		0	0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250



File Name: H1810002TUE

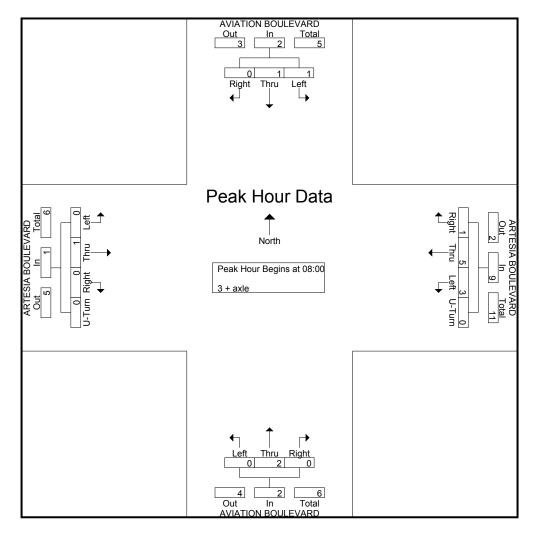
Site Code : 00000000 Start Date : 10/9/2018

Groups Print	ted- 3	+	axle
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	AVIATIO	N DOLLI E	\/\DD	۸DT	ECIV DO	ULEVARD		AVIATIO	N POLILE	NADD	۸DT	ESIA BO	III EVAD	n	
		uthbound		AKI	Westbo		ا ر		orthbound		AKI	Eastbo		ט	
Ota at Time				Dimba			I T				Dialet			I T	Lat Tatal
Start Time	Right	Thru	Left	Right	Thru	Left U		Right	Thru	Left	Right	Thru		J-Turn	Int. Total
07:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
07:15	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
07:30	0	2	0	0	1	1	0	0	0	0	0	0	0	0	4
07:45	0	1_	0	0	0	00	0	0	2	0	0	0	0	0	3_
Total	0	4	0	0	4	2	0	0	2	0	0	0	0	0	12
*** BREAK ***	1							ı							
08:15	0	0	0	0	2	1	0	0	0	0	0	1	0	0	4
08:30	0	0	0	0	3	1	0	0	1	0	0	0	0	0	5 5
08:45	0	1	1	1	0	1	0	0	1	0	0	0	0	0	5
Total	0	1	1	1	5	3	0	0	2	0	0	1	0	0	14
*** BREAK ***															
16:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1
16:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1
	0	0	1	0	0	0		1	0		0	2	0 0		3 2
16:30	0	U	0	U	U	U	0	1	U	0	U	1	U	0	2
*** BREAK ***			0					-		0		4		0	
Total	0	0	0	0	0	0	0	1	1	0	0	4	0	0	6
*** BREAK ***															
17:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
17:30	0	1	0	0	0	Ö	ő	0	1	ő	0	2 0	0	0	2 2
*** BREAK ***			O	U	U	U	0	U	Į.	0	U	U	U	O	_
Total	0	1	0	0	0	0	0	0	1	0	0	2	0	0	4
Total	U	,	U I	U	U	U	U I	U	1	U I	U	2	U	U	4
Grand Total	0	6	1	1	9	5	0	1	6	0	0	7	0	0	36
Apprch %	0	85.7	14.3	6.7	60	33.3	Ō	14.3	85.7	ō	0	100	Ö	0	
Total %	0	16.7	2.8	2.8	25	13.9	Ö	2.8	16.7	ő	0	19.4	Ö	Ö	
10101 70	1		0	0			•			• 1	•		•	•	

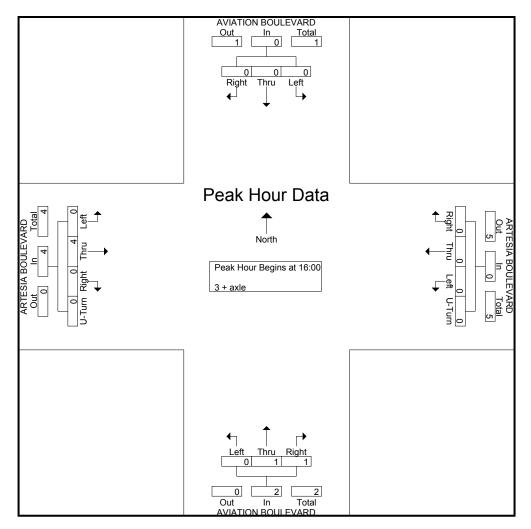
File Name: H1810002TUE Site Code : 00000000 Start Date : 10/9/2018

	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOU	LEVAF	RD	AVIA	TION E	BOULE	VARD	Д	RTESI	A BOU	LEVAF	RD	
		South	bound			V	/estboι	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Tum	App. Total	Int. Total
Peak Hour Ana	alysis Fr	om 07:	00 to 0	8:45 - Pe	ak 1 of	1													
Peak Hour for	Entire Ir	ntersect	tion Be	gins at 08	3:00														
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	2	1	0	3	0	0	0	0	0	1	0	0	1	4
08:30	0	0	0	0	0	3	1	0	4	0	1	0	1	0	0	0	0	0	5
08:45	0	1	1_	2	1	0	1_	0	2	0	1	0	1	0	0	0	0	0	5
Total Volume	0	1	1	2	1	5	3	0	9	0	2	0	2	0	1	0	0	1	14
% App. Total	0	50	50		11.1	55.6	33.3	0		0	100	0		0	100	0	0		
PHF	.000	.250	.250	.250	.250	.417	.750	.000	.563	.000	.500	.000	.500	.000	.250	.000	.000	.250	.700



File Name: H1810002TUE Site Code : 00000000 Start Date : 10/9/2018

	AVIA	TION E	BOULE	VARD	А	RTESI	A BOU	LEVAF	RD	AVIA	TION E	BOULE	VARD	Д	RTESI	A BOU	ILEVAF	RD	
		South	bound			W	estbou	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Ana	alysis Fr	om 16:	00 to 1	7:45 - Pe	ak 1 of	1													
Peak Hour for	Entire Ir	ntersect	tion Be	gins at 16	3:00														
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	3
16:30	0	0	0	0	0	0	0	0	0	1									
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	1	0	2	0	4	0	0	4	6
% App. Total	0	0	0		0	0	0	0		50	50	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.500	.500



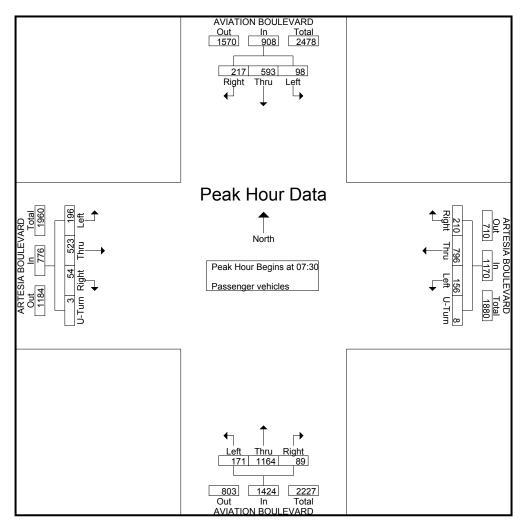
File Name: H1810002TUE Site Code : 00000000 Start Date : 10/9/2018

Groupe	Drintad	Passenger	vohicles
Caronos	Printen-	Passenger	venicies

	AVIATIO	N BOULE	VARD	ART	ESIA BO	ÜLEVAR	D	AVIATIO	N BOULE	VARD	ART	ESIA BO	ULEVAR	RD	
	So	uthbound			Westbo	ound		No	orthbound			Eastbo	ound		
Start Time	Right	Thru	Left	Right	Thru	Left l	J-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00	35	89	12	46	135	29	0	16	281	26	14	97	44	0	824
07:15	46	142	17	44	178	44	0	17	336	38	8	104	34	3	1011
07:30	48	142	19	49	223	44	1	17	314	42	8	117	43	1	1068
07:45	72	173	26	51	182	30	1	32	277	43	12	131	71	1	1102
Total	201	546	74	190	718	147	2	82	1208	149	42	449	192	5	4005
	i.														
08:00	45	136	23	59	189	37	1	20	312	44	13	141	39	0	1059
08:15	52	142	30	51	202	45	5	20	261	42	21	134	43	1	1049
08:30	52	136	15	45	180	42	4	23	292	36	21	146	55	1	1048
08:45	63	129	15	52	198	33	1	31	263	49	12	109	44	0	999
Total	212	543	83	207	769	157	11	94	1128	171	67	530	181	2	4155
*** BREAK ***															
16:00	39	250	45	28	117	51	0	36	150	26	29	202	52	0	1025
16:15	30	268	65	39	132	49	1	34	170	30	30	184	42	3	1077
16:30	23	229	55	41	149	59	0	34	139	27	41	210	53	1	1061
16:45	23	273	58	24	128	70	3	29	187	43	47	174	58	0	1117
Total	115	1020	223	132	526	229	4	133	646	126	147	770	205	4	4280
17:00	24	240	33	36	143	54	6	35	164	31	44	243	51	0	1104
17:15	27	275	47	43	153	59	0	40	195	37	44	185	41	1	1147
17:30	15	243	35	29	151	75	1	33	153	34	41	184	55	Ö	1049
17:45	11	258	46	46	142	53	1	23	140	38	50	188	43	0	1039
Total	77	1016	161	154	589	241	8		652	140	179	800	190	1	4339
			· ·												
Grand Total	605	3125	541	683	2602	774	25	440	3634	586	435	2549	768	12	16779
Apprch %	14.2	73.2	12.7	16.7	63.7	19	0.6	9.4	78	12.6	11.6	67.7	20.4	0.3	
Total %	3.6	18.6	3.2	4.1	15.5	4.6	0.1	2.6	21.7	3.5	2.6	15.2	4.6	0.1	

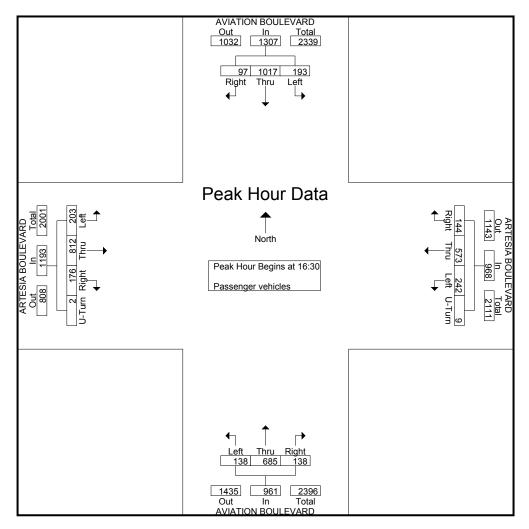
File Name: H1810002TUE Site Code : 00000000 Start Date : 10/9/2018

	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOU	LEVAF	RD	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOU	LEVAF	RD	
		South	bound			W	estbou	ınd			North	bound			E	astbou	nd		
Start Time	Right	Thru	Left	App. Total	Right	0   1   1   1   1   0				Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Ana	alysis Fi	rom 07:	00 to 0	8:45 - Pe	ak 1 of	1													
Peak Hour for	Entire II	ntersect	tion Be	gins at 07	7:30														
07:30	48	142	19	209	49	223	44	1	317	17	314	42	373	8	117	43	1	169	1068
07:45	72	173	26	271	51	182	30	1	264	32						71	1	215	1102
08:00	45	136	23	204	59	189	37	1	286	20	312	44	376	13	141	39	0	193	1059
08:15	52	142	30	224	51	202	45	5	303	20	261	42	323	21	134	43	1_	199	1049
Total Volume	217	593	98	908	210	796	156	8	1170	89	1164	171	1424	54	523	196	3	776	4278
% App. Total	23.9	65.3	10.8		17.9	68	13.3	0.7		6.2	81.7	12		7	67.4	25.3	0.4		
PHF	.753	.857	.817	.838	.890	.892	.867	.400	.923	.695	.927	.972	.947	.643	.927	.690	.750	.902	.971



File Name: H1810002TUE Site Code : 00000000 Start Date : 10/9/2018

	AVIA	TION E	BOULE	VARD	А	RTESI	A BOU	ILEVAF	RD	AVIA	TION E	BOULE	VARD	Α	RTESI	A BOL	JLEVAF	RD	
		South	bound			W	estbοι	ınd			North	bound			E	astbou	ınd		
Start Time	Right	Thru	Left	App. Total	Right						Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
	alysis From 16:00 to 17:45 - Peak 1 of 1																		
Peak Hour for	Entire I	ntersect	tion Be	gins at 16	3:30														
16:30	23	229	55	307	41	149	59	0	249	34	139	27	200	41	210	53	1	305	1061
16:45	23	273	58	354	24	128	70	3	225	29	187	43		47	174	58	0	279	1117
17:00	24	240	33	297	36	143	54	6	239	35	164	31	230	44	243	51	0	338	1104
17:15	27	275	47	349	43	153	59	0	255	40	195	37	272	44	185	41	1	271	1147
Total Volume	97	1017	193	1307	144	573	242	9	968	138	685	138	961	176	812	203	2	1193	4429
% App. Total	7.4	77.8	14.8		14.9	59.2	25	0.9		14.4	71.3	14.4		14.8	68.1	17	0.2		
PHF	.898	.925	.832	.923	.837	.936	.864	.375	.949	.863	.878	.802	.883	.936	.835	.875	.500	.882	.965



City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810001

NORTHB	OUND. I	NORTHI	BOUND <sup>2</sup>	1										
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
_Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/16/18	0	20	2	<u> </u>	6	5		<del>40</del> 8	2	3	<del>40</del> 5	<del>40</del> 1	<del>9999</del> 2	
00:15	0	0	2	2	1	0	4	7	2	3	4	1	2	28
00:30	1	ő	ō	2	8	7	8	14	6	ő	2	2	0	50
00:45	0	0	0	0	6	5	9	1	3	11	2	0	2	29
	1	2	4	5	21	17	36	30	13	7	13	4	6	159
01:00	0	2	0	0	9	4	10	3	3	2	4	7	0	44
01:15	0	0	0	0	0	2	7	4	1	9	0	0	2	25
01:30 01:45	0 0	0 2	2 0	1 2	0 2	3 1	3 3	4 2	2 5	2	3 5	1 1	0 3	21 27
01.45	0	4	2	3	11	10	23	13	11	14	12	9	5	117
02:00	Ö	0	2	Ö	1	1	5	2	1	1	0	Ō	Ö	13
02:15	4	2	3	2	12	3	4	4	5	6	0	0	1	46
02:30	0	3	0	0	0	0	0	0	1	2	1	0	1	8
02:45	0	0	2	0	0	7	0	2	0	2	0	2	0	15
03:00	4	5 0	7 0	2 0	13	11	9	8	7	11	1 2	2	2	82 22
03:00	0 0	2	2	2	0 0	6 4	8 3	3 1	1 0	1 2	1	0 2	1 0	19
03:30	0	1	0	1	0	1	9	2	2	0	1	2	0	19
03:45	ő	2	0	3	3	5	6	7	7	6	0	0	3	42
	0	5	2	6	3	16	26	13	10	9	4	4	4	102
04:00	0	0	2	2	5	4	1	14	0	6	3	5	3	45
04:15	0	0	0	3	4	5	. 4	6	2	.5	4	3	6	42
04:30	0	0	3	0 7	3	5	12	11	18	19	8	5	7	91
04:45	0	0	<u>3</u> 8	12	12 24	12 26	21 38	28 59	20 40	14 44	13 28	<u>3</u> 16	9 25	142 320
05:00	0	0	2	5	7	13	22	16	22	12	18	12	9	138
05:15	2	2	3	6	7	29	28	20	32	18	11	13	16	187
05:30	0	0	10	12	28	34	63	57	34	24	9	3	8	282
05:45	4	22	26	25	41	49	67	50	25	11	9	1	1	331
	6	24	41	48	83	125	180	143	113	65	47	29	34	938
06:00	15	10	16	35	38	65	66	34	31	10	10	4	0	334
06:15 06:30	6 27	22 29	26 35	43 48	57 49	40 60	71 49	37 34	24 26	7 7	5 6	6 3	2 2	346 375
06:45	152	42	30	32	32	34	7	9	7	2	0	0	0	347
	200	103	107	158	176	199	193	114	88	26	21	13	4	1402
07:00	145	59	42	46	30	30	17	7	5	0	1	0	0	382
07:15	156	44	22	22	27	20	10	4	1	2	0	0	0	308
07:30	176	24	29	20	14	.5	3	4	0	1	0	0	0	276
07:45	149	26	19	3	6	16	11	4	0	0	0	0	0	224
08:00	626 197	153 23	112 2	91 1	77 1	71 0	31 0	19 0	6 0	3 0	1 0	0	0 0	1190 224
08:15	141	23 1	1	0	0	0	0	0	0	0	0	0	0	143
08:30	174	28	Ö	2	1	0	0	0	0	0	0	0	0	205
08:45	184	31	33	19	20	16	12	2	5	0	1	2	0	325
	696	83	36	22	22	16	12	2	5	0	1	2	0	897
09:00	137	19	15	12	6	2	6	0	0	0	0	0	0	197
09:15	151	39	28	25	34	3	5	0	0	0	1	0	0	286
09:30 09:45	100 86	38 50	41 46	21 36	47 51	41 53	16 21	14 15	7 11	1 4	0 0	0 1	0 0	326 374
09.45	474	146	130	94	138	99	48	29	18	5	1	1	0	1183
10:00	72	67	29	34	52	33	17	11	13	6	1	0	Ő	335
10:15	44	40	53	64	50	48	24	16	6	2	Ö	2	Ő	349
10:30	68	49	41	59	38	34	20	15	11	5	3	0	0	343
10:45	39	29	31	37	40	37	26	20	8	6	2	1_	0	276
44.00	223	185	154	194	180	152	87	62	38	19	6	3	0	1303
11:00	37	39	34	47	45 36	42	22	29	11	1	4	0	2	313
11:15 11:30	49 56	42 31	43 27	38 34	36 48	23 21	27 25	14 23	14 15	6 3	4 7	0 1	5 1	301 292
11:30	31	25	27 27	3 <del>4</del> 39	48 65	47	25 32	23 20	15	3 4	3	1	0	309
	173	137	131	158	194	133	106	86	55	14	18	2	8	1215
Total	2403	847	734	793	942	875	789	578	404	217	153	85	88	8908

City: REDONDO BEACH

Location: AVIATION BOULEVARD
Segment: S/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810001

NORTHBOUND, NORTHBO	UND1

24 4	4		200112	·			~-							
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	38	38	39	55	46	43	35	15	10	4	1	0	0	324
12:15	91	33	34	32	28	28	22	33	11	5	5	0	0	322
12:30	52	38	33	35	24	50	39	16	4	4	4	3	1	303
12:45	62	42	36	48	68	44	25	21	5	7	2	1	0	361
12.70	243	151	142	170	166	165	121	85	30	20	12	4	1	1310
40.00														
13:00	58	29	48	41	43	28	27	29	13	3	2	0	0	321
13:15	80	40	25	32	46	39	25	9	5	1	0	0	0	302
13:30	33	35	35	41	41	41	40	20	6	8	2	2	1	305
13:45	52	42	31	39	42	29	23	19	12	8	0	3	0	300
	223	146	139	153	172	137	115	77	36	20	4	5	1	1228
14:00	51	22	23	29	52	38	22	26	14	9	5	2	1	294
14:15	41	25	23	33	44	50	25	21	11	7	3	1	0	284
14:30	77	22	38	40	38	28	23	8	8	2	0	0	0	284
14:45	37	30	28	33	53	46	37	22	10	11	6	0	1	314
	206	99	112	135	187	162	107	77	43	29	14	3	2	1176
15:00	65	46	41	61	44	43	30	10	5	5	1	0	0	351
15:15	78	35	31	43	38	31	10	9	4	1	2	1	Ö	283
	45											-		
15:30		24	19	24	47	60	35	19	6	7	1	2	0	289
15:45	53	50	44	27	29	29	23	20	10	3	3	0	0	291
	241	155	135	155	158	163	98	58	25	16	7	3	0	1214
16:00	66	39	42	43	29	37	37	4	4	4	3	1	1	310
16:15	98	28	24	30	56	49	32	13	3	6	0	0	0	339
16:30	74	30	29	33	26	37	37	22	4	1	2	2	2	299
16:45	110		45	40	24		20	10	7	1	0	0	4	
10.45		30				27								312
	348	127	140	146	135	150	126	49	12	12	5	3	7	1260
17:00	80	32	35	34	50	38	24	15	3	4	3	0	0	318
17:15	134	40	30	43	23	22	13	2	3	4	0	0	0	314
17:30	70	30	34	32	28	40	21	20	9	2	0	0	0	286
17:45	62	47	43	51	47	26	20	7	5	2	Ō	Ö	Ō	310
17.40	346	149	142	160	148	126	78	44	20	12	3	0	0	1228
40.00														1220
18:00	96	40	29	55	38	32	21	21	5	0	1	0	0	338
18:15	36	33	24	42	36	46	37	20	13	1	0	0	1	289
18:30	22	31	32	43	46	42	29	19	9	1	2	0	2	278
18:45	72	56	41	25	41	42	20	16	8	1	2	0	0	324
	226	160	126	165	161	162	107	76	35	3	5	0	3	1229
19:00	88	49	39	45	28	20	13	7	3	8	ő	0	0	300
											1			300
19:15	80	20	26	43	32	34	37	10	3	4	-	3	2	295
19:30	9	19	24	22	40	39	30	9	14	10	7	2	4	229
19:45	36	27	16	21	54	26	19	19	7	8	3	2	3	241
	213	115	105	131	154	119	99	45	27	30	11	7	9	1065
20:00	13	14	19	20	39	19	33	16	8	7	0	0	0	188
20:15	29	18	25	29	29	39	27	19	10	3	1	Ö	Ō	229
20:30	7	27	27	34	38	19	22	21	9	2	i	2	0	209
					34						1		1	
20:45	13	39	14	23		33	24	9	6	8		2		207
	62	98	85	106	140	110	106	65	33	20	3	4	1	833
21:00	8	14	24	34	30	34	32	18	17	2	0	0	0	213
21:15	10	11	10	30	34	28	23	14	12	4	2	0	2	180
21:30	2	4	14	23	40	33	29	11	4	2	1	0	0	163
21:45	7	8	9	26	31	20	26	16	3	7	2	6	5	166
21.40	27	37	57	113	135	115	110	59	36	15	5	6	7	722
00.00													-	
22:00	0	9	6	17	13	30	26	19	9	9	4	2	0	144
22:15	0	3	6	15	29	28	19	12	8	5	0	1	0	126
22:30	7	2	5	10	27	22	24	29	9	0	6	0	1	142
22:45	0	0	2	17	29	30	30	7	3	1	9	2	1	131
	7	14	19	59	98	110	99	67	29	15	19	5	2	543
23:00	2	1	3	15	9	12	26	17	6	7	2	1	2	103
		-										-		
23:15	0	0	7	7	23	17	14	9	7	4	4	2	3	97
23:30	3	0	2	5	6	8	11	13	5	9	3	2	1	68
23:45	2	0	3	10	7	9	10	5	4	4	5	3	3	65
	7	1	15	37	45	46	61	44	22	24	14	8	9	333_
Total	2149	1252	1217	1530	1699	1565	1227	746	348	216	102	48	42	12141
Total	4552	2099	1951	2323	2641	2440	2016	1324	752	433	255	133	130	21049
iotai	.502	_500	. 50 1	_0_0			_0.0		. 52	.50	_50	.00	100	0.0

15th Percentile : 50th Percentile : 85th Percentile : 95th Percentile : 17 MPH 31 MPH 37 MPH 41 MPH

Mean Speed(Average) : 10 MPH Pace Speed : Number in Pace : 30 MPH 29-38 MPH 11371 Statistics

Percent in Pace : 54.0% Number of Vehicles > 55 MPH: Percent of Vehicles > 55 MPH: 0.0%

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810001

NORTHB	OUND, I	NORTH	BOUND <sup>2</sup>	1										
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/17/18	2	2	1	2	7	10	14	6	4	1	2	2	0	53
00:15	4	2	0	0	5	13	19	11	4	3	4	1	1	67
00:30 00:45	2 6	2 0	6 2	6	4 3	11 2	2 7	6 7	2 3	3	2	2 1	0 1	48 41
00:45	14	6	9	4 12	<u>3</u> 19	36	42	30	13	1	4 12	6	2	209
01:00	0	2	0	2	3	2	2	4	2	0	1	0	0	18
01:15	Ō	0	2	0	2	7	2	2	8	2	1	1	Ō	27
01:30	0	0	0	2	4	3	5	6	0	2	0	2	2	26
01:45	2	0	1	3	2	5	7	0	5	2	0	0	2	29
02:00	2 0	2 0	3 0	7 2	11 1	17 3	16 2	12 9	15 0	6 0	2 2	3 1	4 0	100 20
02:00	0	0	0	0	2	1	6	2	2	2	0	1	4	20
02:30	Ō	1	Ö	Ö	2	4	1	4	3	1	1	0	0	17
02:45	0	0	0	0	4	11	11	2	0	2	0	1_	11	12
00.00	0	1	0	2	9	9	10	17	5	5	3	3	5	69
03:00 03:15	0 0	2 0	0 0	5 0	0 2	2 2	6 0	2 2	2 3	0 0	1 5	0 0	2 0	22 14
03:30	0	1	0	3	3	0	0	3	1	0	0	0	2	13
03:45	Ö	0	0	2	3	1	5	11	Ö	0	3	2	1	28
	0	3	0	10	8	5	11	18	6	0	9	2	5	77
04:00	0	0	0	6	4	0	7	10	7	1_	3	3	3	44
04:15 04:30	2 0	0 4	3 0	5 3	4 4	0	5 1	7 9	3 10	7	2 10	4 3	8 9	50 75
04:30 04:45	2	2	2	3 4	11	11 18	27	22	20	11 11	13	3 6	4	75 142
0-110	4	6	5	18	23	29	40	48	40	30	28	16	24	311
05:00	0	Ö	2	2	6	9	14	13	22	14	12	21	7	122
05:15	0	0	0	6	15	24	26	27	28	15	9	3	9	162
05:30	0	2	4	9	27	28	52	35	50	21	10	6 2	5	249
05:45	<u>15</u> 15	14 16	23 29	25 42	40 88	46 107	53 145	42 117	28 128	11 61	<u>5</u> 36	32	3 24	307 840
06:00	3	14	29	28	41	32	62	43	26	25	10	7	3	323
06:15	22	19	27	54	38	36	49	43	29	19	6	2	5	349
06:30	44	27	19	60	63	64	33	22	17	7	4	1	2	363
06:45	147 216	45 105	46 121	51	47 189	31	22	15	7 79	<u>3</u> 54	2	<u>0</u> 10	0 10	416
07:00	152	33	30	193 36	29	163 17	166 6	123 2	79 2	5 <del>4</del> 1	22 0	0	0	1451 308
07:15	87	67	51	35	50	49	27	18	8	1	4	3	0	400
07:30	149	45	48	34	38	31	25	8	3	2	0	0	0	383
07:45	151	27	16	10	7	7	6	2	1	2	2	0	0	231
00.00	539	172	145	115	124	104	64	30	14	6	6	3	0	1322
08:00 08:15	186 167	8 17	0 9	0 2	0 1	0 0	0 0	0 2	0 0	0 0	0 0	0	0 0	194 198
08:30	173	32	3	6	Ó	1	0	0	0	0	0	0	0	215
08:45	133	19	5	4	2	0	0	0	0	0	0	0	0	163
	659	76	17	12	3	1	0	2	0	0	0	0	0	770
09:00	159	45 50	37	37	37	23	12	9	9	3	1	2	0	374
09:15 09:30	93 117	50 32	39 24	43 34	31 24	26 34	22 19	16 13	6 10	2 3	0 1	0 2	2 0	330 313
09:45	97	42	35	38	39	19	12	16	3	7	3	1	0	312
	466	169	135	152	131	102	65	54	28	15	5	5	2	1329
10:00	56	41	42	44	55	37	22	21	15	9	0	0	0	342
10:15	41	38	39	39	52	44	22	17	11	10	4	0	0	317
10:30 10:45	63 79	51 48	55 33	45 40	47 44	39 35	28 21	10 19	5 12	4 0	0 1	1 0	1 0	349 332
10.43	239	178	<u></u>	168	198	<u>35</u> 155	93	67	43	23	5	1	1	1340
11:00	62	31	30	43	34	39	39	19	11	6	0	Ó	0	314
11:15	41	25	45	47	54	33	23	18	7	3	0	0	2	298
11:30	117	50	46	36	55	41	21	9	5	2	0	0	0	382
11:45	36	40	39	41	37	41	23	11	7	3	2	0	0	280
Total	256 2410	146 880	160 793	167 898	180 983	154 882	106 758	57 575	30 401	14 222	2 130	<u> </u>	<u>2</u> 79	1274 9092
iulai	4 <del>7</del> 10	000	1 30	030	900	002	1 30	313	<del>1</del> 01		130	01	13	3032

City: REDONDO BEACH

Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810001

NORTHB	OUND,													
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	55	40	46	33	36	28	37	29	12	3	1	1	0	321
12:15	37	29	41	32	38	39	38	13	10	5	4	1	0	287
12:30	34	33	29	47	40	59	29	19	12	5	0	5	0	312
12:45	60	45	29	40	44	27	36	31	9	6	2	1_	0	330
	186	147	145	152	158	153	140	92	43	19	7	8	0	1250
13:00	66	31	22	39	29	31	30	13	11	5	1	1	1	280
13:15 13:30	41 40	35 31	37 32	35 37	19 64	47 51	24 40	18 18	10 2	11 6	0 1	0 0	0 0	277 322
13:45	26	25	37	46	52	37	30	25	9	3	1	1	1	293
10.40	173	122	128	157	164	166	124	74	32	25	3	2	2	1172
14:00	61	16	29	29	26	25	14	20	11	6	3	1	0	241
14:15	38	41	19	37	40	50	21	18	11	5	2	0	0	282
14:30	51	40	20	22	26	29	34	19	15	6	0	0	0	262
14:45	24	35	30	30	33	43	34	26	9	6	4	1_	0	275
	174	132	98	118	125	147	103	83	46	23	9	2	0	1060
15:00	36	39	23	51	36	42	38	16	5	5	2	1	2	296
15:15	143	53	24	47 23	23 20	12	7	10	2	0	0 1	0 0	0	321
15:30 15:45	101 70	43 29	36 26	23 36	20 29	19 32	10 28	6 16	7 6	0 8	5	0	0 0	266 285
13.43	350	164	109	157	108	105	83	48	20	13	8	1	2	1168
16:00	103	32	28	39	35	31	11	15	5	1	1	0	0	301
16:15	70	18	33	42	25	48	26	9	8	3	1	0	1	284
16:30	64	66	31	38	52	37	18	10	6	2	1	0	0	325
16:45	113	48	34	44	21	17	13	9	9	0	2	0	0	310
	350	164	126	163	133	133	68	43	28	6	5	0	1	1220
17:00	75	54	36	51	52	32	25	14	5	0	0	0	0	344
17:15	85 129	31	35	38 32	26 23	31	24 23	7	6 4	2 1	1	1 1	0 1	287
17:30 17:45	88	26 41	46 25	32 36	23 40	21 38	23 17	9 6	2	2	2 2	0	0	318 297
17.43	377	152	142	157	141	122	89	36	17	5	5	2	1	1246
18:00	80	50	37	40	42	30	19	12	2	1	3	0	Ö	316
18:15	96	37	13	47	44	35	27	11	6	Ó	1	Ö	Ō	317
18:30	31	24	35	39	48	36	27	9	8	2	2	0	0	261
18:45	49	49	32	39	52	35	22	16	6	11	3	0	2	306
	256	160	117	165	186	136	95	48	22	4	9	0	2	1200
19:00	11	30	55	32	48	46	24	16	5	1	4	0	0	272
19:15	31 37	18 32	52 35	53 32	52 43	33	35 36	19 12	5	2	5 3	0 0	1	306
19:30 19:45	43	33	31	33	43 46	46 38	23	5	5 4	0 2	1	0	0 0	281 259
19.45	122	113	173	150	189	163	118	52	19	5	13	0	1	1118
20:00	23	20	18	28	27	33	16	16	15	11	2	2	0	211
20:15	9	23	21	32	27	50	41	14	8	5	5	2	Ō	237
20:30	2	21	32	36	31	20	35	22	9	7	5	0	0	220
20:45	7	3	23	29	30	32	30	12	11	3	0	1_	1_	182
	41	67	94	125	115	135	122	64	43	26	12	5	1	850
21:00	2	14	13	30	25	30	19	14	7	7	2	3	0	166
21:15 21:30	4 15	5 9	6 11	38 12	42 27	54 25	22 34	21 18	6 8	3 8	0 7	1 0	0 0	202 174
21:45	15 5	2	5	25	29	25 28	3 <del>4</del> 18	29	o 17	0	1	2	2	163
21.43	26	30	35	105	123	137	93	82	38	18	10	6	2	705
22:00	0	2	4	9	21	32	31	18	12	6	2	2	2	141
22:15	8	4	2	26	15	26	15	14	19	3	7	3	2	144
22:30	2	4	11	15	9	17	21	14	17	4	2	2	0	118
22:45	4	0	8	3	15	17	17	10	11	5	1	4	0	95
	14	10	25	53	60	92	84	56	59	18	12	11	4	498
23:00	2	0	0	5	12	20	20	10	11	2	3	2	2	89
23:15	5	0	0	4	11	6	19	13	13	2	5	1	2	81
23:30 23:45	2 2	0 3	2 2	6 6	5 7	12 9	12 10	3 6	5 3	7 6	1 0	1 0	4 0	60 54
23.40	11	3	4	21	35	47	61	32	32	17	9	4	8	284
Total	2080	1264	1196	1523	1537	1536	1180	710	399	179	102	41	24	11771
Total	4490	2144	1989	2421	2520	2418	1938	1285	800	401	232	122	103	20863

15th Percentile : 50th Percentile : 17 MPH 31 MPH 37 MPH 85th Percentile : 95th Percentile : 41 MPH

Mean Speed(Average) : 10 MPH Pace Speed : Number in Pace : 29 MPH 29-38 MPH 11286 Statistics

Percent in Pace : 54.1% Number of Vehicles > 55 MPH: Percent of Vehicles > 55 MPH: 0.0%

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810001S

SOUTHBO	OUND. S	SOUTHE	OUND1										0.	0100010
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/16/18	0	20	0	4	0	5	5	12	9	7	3	0	<del></del>	47
00:15	0	0	0	1	6	7	10	4	10	9	8	2	0	57
00:30	Ö	Ŏ	2	2	Ö	3	11	5	5	4	6	2	6	46
00:45	3	2	0	3	4	0	6	3	6	9	1	0	0	37
	3	4	2	10	10	15	32	24	30	29	18	4	6	187
01:00	1	2	0	0	1	2	8	3	4	3	2	3	3	32
01:15	0	0	0	2	1	2	3	5	1	4	1	1	1	21
01:30	0	0	1	1	2	0	2	2	6	2	0	2	6	24
01:45	0 1	<u>4</u> 6	<u> </u>	2 5	<u>3</u>	3 7	<u>5</u> 18	<u>2</u> 12	6 17	<u> </u>	14	<u> </u>	1_ 11	27 104
02:00	0	3	0	0	2	4	8	12	5	2	0	0	0	25
02:15	0	2	0	0	1	4	1	1	1	1	1	0	3	15
02:30	Ö	0	Ö	2	0	0	3	1	2	0	2	2	5	17
02:45	2	0	0	1	2	1	4	4	0	2	3	0	3	22
	2	5	0	3	5	9	16	7	8	5	6	2	11	79
03:00	0	0	0	0	0	0	2	2	3	0	0	3	0	10
03:15	0	0	0	2	1	2	1	3	2	1	4	5	0	21
03:30	0	0	0	0	1	1	2	6	6	3	0	2	1	22
03:45	0	0	0	0 2	2 4	1 4	<u>3</u> 8	3 14	2 13	<u>5</u> 9	6 10	2 12	<u>2</u> 3	26 79
04:00	0	0	0	0	1	0	5	4	7	9 5	10	2	0	79 25
04:15	2	0	2	0	2	0	1	1	3	2	2	0	1	16
04:30	0	0	0	1	2	4	5	2	7	1	2	4	i	29
04:45	Ö	0	2	i 1	1	2	6	4	6	10	2	3	2	39
	2	0	4	2	6	6	17	11	23	18	7	9	4	109
05:00	3	0	0	2	1	3	6	10	2	0	2	2	0	31
05:15	0	0	2	0	2	6	10	13	9	5	2	0	2	51
05:30	0	0	0	0	3	5	6	6	12	11	7	7	5	62
05:45	0	00	0	2	3	3	7	10	17	12	10	3	9	76
06:00	3 0	0 0	2 0	4 0	9 9	17 10	29 10	39 22	40 15	28 10	21 6	12 6	16 3	220 91
06:15	0	1	1	3	2	12	8	15	17	13	3	7	3	85
06:30	0	0	0	1	9	8	20	23	21	17	11	8	10	128
06:45	0	2	0	6	20	13	26	28	24	16	6	6	1	148
	0	3	1	10	40	43	64	88	77	56	26	27	17	452
07:00	0	0	0	5	14	9	22	51	35	22	5	3	2	168
07:15	13	3	3	6	41	53	36	29	20	13	10	1	9	237
07:30	0	1	2	4	16	41	60	57	45	24	14	4	8	276
07:45	8	0	3	11	23	40	56	39	38	15	17	9	10	269
00.00	21	4	8	26	94	143	174	176	138	74	46	17	29	950
08:00	5	4	7	16	25	39	64 40	43 40	37	19	8	3	0	270
08:15 08:30	5 4	2 9	3 5	13 10	32 20	43 25	40 44	40 40	27 26	24 6	2 10	3 5	3 4	237 208
08:45	8	9	14	31	45	45	51	37	21	14	5	4	0	284
	22	24	29	70	122	152	199	160	111	63	25	15	7	999
09:00	0	1	1	10	42	62	37	34	36	14	8	0	3	248
09:15	1	9	3	14	33	23	29	47	40	11	19	2	4	235
09:30	2	0	3	3	14	37	58	41	35	15	11	8	8	235
09:45	4	3	5	10	9	16	27	39	42	11	11	11	2	190
	7	13	12	37	98	138	151	161	153	51	49	21	17	908
10:00	3	1	3	10	16	27	36	35	26	12	7	8	1	185
10:15	5	0	6	10	14	36	49 45	34	24	20	11	3	3	215
10:30 10:45	2 7	2 12	17 4	22 6	28 34	36 58	45 42	46 39	33 25	18 19	10 3	9 4	10 0	278 253
10.40	17	15	30	48	92	157	172	39 154	108	69	<u>3</u> 31	24	14	931
11:00	6	3	1	<del>4</del> 0 5	18	23	31	42	41	23	11	5	8	217
11:15	6	3	10	11	29	56	50	27	26	24	12	5	4	263
11:30	6	1	4	12	22	41	40	46	29	22	14	5	5	247
11:45	4	3	5	13	37	53	53	45	28	11	0	4	3	259
	22	10	20	41	106	173	174	160	124	80	37	19	20	986
Total	100	84	109	258	593	864	1054	1006	842	491	280	168	155	6004

City: REDONDO BEACH

Location: AVIATION BOULEVARD
Segment: S/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810001S

	JUND, C		JOUIND	<u> </u>										
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
	-													
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	5	5	13	24	28	53	50	49	41	20	16	5	8	317
12:15	4	3	5	21	26	64	72	42	50	17	9	5	5	323
12:30	6	7	4	19	25	50	53	51	50	15	6	2	2	290
12:45	9	9	8	40	25	61	54	41	25	15	9	2	2	300
	24	24	30	104	104	228	229	183	166	67	40	14	17	1230
13:00	0	0	1	6	14	57	69	55	43	21	21	1	2	290
			11		26				29			1		290
13:15	10	8		20		56	69	37		13	6	•	4	
13:30	2	2	22	36	58	43	50	44	31	25	12	3	2	330
13:45	5	20	18	28	49	58	41	38	18	10	6	5	2	298
	17	30	52	90	147	214	229	174	121	69	45	10	10	1208
14:00	5	1	4	10	34	47	75	43	34	11	10	3	0	277
14:15	7	2	4	31	55	57	64	69	33	16	7	3	3	351
14:30	10	3	10	21	29	64	71	56	44	27	12	8	4	359
14:45	11	6	7	19	44	57	76	81	39	18	4	2	1	365
	33	12	25	81	162	225	286	249	150	72	33	16	8	1352
15:00	3	4	4	30	82	74	70	54	14	19	5	2	7	368
15:15		12	28	48	73	63	96	48	31	9	10	0	0	419
	1													
15:30	8	17	35	43	72	50	62	57	25	21	5	1	5	401
15:45	3	28	16	38	67	90	113	55	28	22	19	3	6	488
	15	61	83	159	294	277	341	214	98	71	39	6	18	1676
16:00	14	17	12	44	57	62	78	45	25	19	5	8	5	391
16:15	10	9	20	27	90	96	87	69	35	20	5	8	2	478
16:30	35	37	41	49	66	115	70	20	14	3	1	1	0	452
16:45	20	18	24	39	58	79	85	58	24	16	4	6	7	438
	79	81	97	159	271	352	320	192	98	58	15	23	14	1759
17:00			23		60			53	29	9		23		434
	15	6		41		111	84				1		0	
17:15	25	12	27	44	79	73	67	46	32	19	4	3	2	433
17:30	29	10	23	35	68	84	88	46	29	5	8	6	5	436
17:45	12	16	25	46	75	60	77	64	24	15	8	5	4	431
	81	44	98	166	282	328	316	209	114	48	21	16	11	1734
10.00	8	21	22		93	92				7	12	5		449
18:00				38			70	55	25				1	
18:15	5	5	5	41	85	88	67	71	29	15	10	3	3	427
18:30	12	15	20	32	82	94	78	61	28	11	4	2	2	441
18:45	6	11	4	26	55	94	106	56	41	14	2	3	3	421
	31	52	51	137	315	368	321	243	123	47	28	13	9	1738
40.00														
19:00	14	25	20	49	57	78	82	38	33	9	8	6	5	424
19:15	0	17	20	33	77	78	85	57	28	13	8	6	5	427
19:30	2	1	10	27	34	83	82	49	43	12	16	1	9	369
19:45	2	1	10	22	40	58	64	72	45	28	15	6	10	373
10.10	18	44	60	131	208	297	313	216	149	62	47	19	29	1593
00.00														
20:00	1	5	4	15	32	88	97	41	34	6	.5	3	1	332
20:15	1	3	1	11	29	48	79	70	48	16	12	8	7	333
20:30	2	3	1	7	24	49	59	49	43	18	14	7	12	288
20:45	4	3	2	12	23	36	45	59	36	9	3	9	2	243
	8	14	8	45	108	221	280	219	161	49	34	27	22	1196
24.00											5			
21:00	1	1	3	10	20	40	48	48	37	22		4	5	244
21:15	0	0	0	8	12	24	28	33	28	15	7	5	2	162
21:30	4	3	0	1	8	17	41	37	33	22	13	9	7	195
21:45	0	0	0	3	4	30	39	26	35	18	8	6	3	172
	5	4	3	22	44	111	156	144	133	77	33	24	17	773
00.00		0								30		3		
22:00	1		2	5	8	26	37	40	31		14		8	205
22:15	1	0	0	4	6	9	31	27	28	14	15	2	7	144
22:30	1	4	1	7	7	16	16	21	29	16	14	8	4	144
22:45	2	0	1	3	10	8	20	20	24	15	16	5	9	133
10	5	4	4	19	31	59	104	108	112	75	59	18	28	626
00.00		•												
23:00	1	0	1	5	4	12	14	17	18	17	9	10	1	109
23:15	1	4	0	0	7	6	13	12	13	6	7	1	1	71
23:30	0	0	1	2	1	15	8	7	6	7	4	2	5	58
23:45	2	Ö	0	2	1	8	10	10	12	15	9	2	Ö	71
	4	4	2	9	12	41							7	
					13	41	45	46	49	45	29	15		309
Total	320	374	513	1122	1979	2721	2940	2197	1474	740	423	201	190	15194
Total	420	458	622	1380	2572	3585	3994	3203	2316	1231	703	369	345	21198

15th Percentile : 32 MPH 50th Percentile : 36 MPH 85th Percentile : 41 MPH 95th Percentile : 44 MPH

 Statistics
 Mean Speed(Average) : 10 MPH Pace Speed : 33-42 MPH Number in Pace : 15670

 Number in Pace :
 15670

 Percent in Pace :
 73.9%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

City: REDONDO BEACH Location: AVIATION BOULEVARD Segment: S/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810001S

SOUTHBO	OUND S	SOUTHE	ROUND1										\$1	810001S
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/17/18	0	0	1	0	2	6	9	10	6	9	10	5	1	59
00:15	0	0	2	2	2	2	2	12	7	11	4	5	2	51
00:30	0 0	1 0	0 0	0 4	1 5	3 0	8 3	1 4	7 8	9 6	3 5	0 1	0 0	33
00:45	0	1	3	6	10	11	22	27	<u>8</u> 	35	22	11	3	<u>36</u> 179
01:00	Õ	1	1	0	4	7	4	3	1	0	1	0	2	24
01:15	0	0	0	0	5	0	2	7	5	1	4	0	2	26
01:30	0	2	0	0	0	5	2	2	1	2	1	1	1	17
01:45	0	<u>0</u> 3	1 2	3 3	<u>7</u> 16	0 12	2 10	2 14	1 8	<u>2</u> 5	<u>1</u> 7	0 1	7	21 88
02:00	2	0	2	0	1	3	1	2	1	1	2	2	1	18
02:15	0	0	2	0	0	2	0	0	2	0	2	1	1	10
02:30	2	0	0	0	2	2	2	5	0	2	1	0	0	16
02:45	0 4	0	0 4	0	<u>1</u> 4	0 7	<u> </u>	9	<u>3</u>	<u>1</u> 4	3 8	1 4	2 4	13 57
03:00	0	0	1	0	2	1	0	0	1	0	0	0	2	7
03:15	Ö	1	0	Ö	2	1	1	2	1	1	3	Ö	0	12
03:30	0	0	0	0	1	1	1	1	3	3	3	0	0	13
03:45	0	0	1	11	0	11	4	6	3	13	5	0	0	34
04:00	0 0	1 0	2 0	1 1	5 2	4 1	6 5	9 4	8 3	17 4	11 1	0 0	2 1	66 22
04:15	1	0	0	Ö	3	3	1	5	3	2	1	0	0	19
04:30	0	2	3	1	1	4	1	3	1	5	0	2	1	24
04:45	5	0	0	1		5	6	14	2	3	9	5_	6	61
05:00	6 0	2 0	3 0	3 1	11 3	13 4	13 5	26 4	9 4	14 2	11 0	7 0	8 2	126 25
05.00 05:15	0	0	2	2	3	8	6	4	12	6	1	2	7	53
05:30	Ö	Ö	0	2	7	6	3	12	6	6	0	1	6	49
05:45	0	1	0	0	0	6	11	10	13	16	6	5	8	76
06.00	0	1	2	5	13	24	25	30	35	30	7	8	23	203
06:00 06:15	0 2	0 0	3 1	1 4	5 2	8 6	8 24	9 20	9 12	8 11	5 4	2 1	4 3	62 90
06:30	1	0	0	3	4	12	25	16	31	21	12	5	16	146
06:45	2	6	3	9	5	17	27	40	30	9	7	5	0	160
07.00	5	6	7	17	16	43	84	85	82	49	28	13	23	458
07:00 07:15	2 1	3 0	2 3	1 7	11 28	29 35	33 46	32 51	25 36	10 26	12 12	5 6	7 3	172 254
07:30	2	5	5	15	9	41	70	64	29	19	15	5	5	284
07:45	8	2	17	11	17	32	48	49	35	31	13	6	3	272
	13	10	27	34	65	137	197	196	125	86	52	22	18	982
08:00 08:15	7 5	7 2	10 4	6	16 9	48 46	52 42	37 44	24 34	10 17	10 7	1 8	2	230 233
08:30	3	4	4	11 10	16	43	58	44	42	18	6	3	4 2	253 253
08:45	3	2	2	17	35	35	53	47	30	15	4	1	4	248
	18	15	20	44	76	172	205	172	130	60	27	13	12	964
09:00	7	1 0	3 1	11	17 19	34	30 61	45 66	22	25	15 10	13	6	229
09:15 09:30	6 10	4	1	9 5	11	29 24	62	66 33	32 34	25 24	10 21	2 7	8 4	268 240
09:45	1	2	2	8	20	43	46	60	32	24	9	6	11	264
	24	7	7	33	67	130	199	204	120	98	55	28	29	1001
10:00	2	5	1	7	12	28	43	36	44	21	9	6	1	215
10:15 10:30	0 8	0 3	3 2	10 5	11 20	30 29	38 42	41 51	37 27	11 18	11 8	8 8	13 4	213 225
10:30	3	5 6	11	11	20 27	43	42	51 51	36	22	10	8	8	279
	13	14	17	33	70	130	166	179	144	72	38	30	26	932
11:00	1	0	1	7	22	31	49	39	33	27	4	3	3	220
11:15	6	1	12 15	16 10	25 41	48	38 61	37 46	21	17	6 12	6	0	233
11:30 11:45	1 4	2 0	15 6	10 14	41 26	42 59	61 61	46 54	37 33	23 18	12 8	3	6 4	299 290
	12	3	34	47	114	180	209	176	124	85	30	15	13	1042
Total	95	63	128	226	467	863	1139	1127	819	555	296	152	168	6098

City: REDONDO BEACH

Location: AVIATION BOULEVARD
Segment: S/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810001S

SOUTHBOUND.	SOUTHBOUND1

CCCTTIB	00,10,	3001112	300.10							-				
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
													-	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	6	0	10	15	45	56	47	52	27	11	7	5	1	282
12:15	Ö	2	8	21	19	36	59	46	37	12	13	5	1	259
12:30	8	9	5		52	40	60	54	41	5		2	1	301
				11							13		-	
12:45	2	3	16	27	39	47	60	43	40	23	20	3	4	327
	16	14	39	74	155	179	226	195	145	51	53	15	7	1169
13:00	9	2	4	17	40	60	59	62	32	19	8	6	5	323
13:15	1	13	8	31	34	34	92	75	25	21	12	3	2	351
13:30	2	4	6	25	28	83	81	55	23	18	3	2	1	331
13:45	3	6	9	13	32	55	82	75	49	23	16	6	4	373
13.43														
	15	25	27	86	134	232	314	267	129	81	39	17	12	1378
14:00	3	2	12	20	35	63	72	51	20	19	3	3	0	303
14:15	4	8	15	21	49	62	73	53	22	18	8	3	1	337
14:30	2	1	3	15	40	81	76	65	42	8	3	6	2	344
14:45	5	17	17	30	24	82	90	62	49	12	8	2	2	400
	14	28	47	86	148	288	311	231	133	57	22	14	5	1384
45.00							97							
15:00	1	1	8	9	49	67		73	38	21	6	4	2	376
15:15	1	4	15	19	45	92	65	73	30	39	19	3	4	409
15:30	58	24	21	18	32	48	59	51	26	16	3	8	3	367
15:45	4	6	9	32	69	57	88	78	35	12	7	2	4	403
	64	35	53	78	195	264	309	275	129	88	35	17	13	1555
16:00	6	23	16	26	56	85	102	54	37	27	6	2	1	441
16:15								70						
	9	16	18	36	75	65	63		36	11	4	5	5	413
16:30	10	13	20	24	70	92	71	71	26	12	5	0	2	416
16:45	4	23	26	56	64	75	75	66	29	13	7	0	3	441
	29	75	80	142	265	317	311	261	128	63	22	7	11	1711
17:00	13	26	25	58	70	67	55	47	24	18	8	3	4	418
17:15	21	18	28	42	76	78	86	42	21	16	4	3	4	439
17:13	16	23	31	53	86	87	74	39	25	9	6	5	2	456
17:45	4	6	15	33	68	101	95	64	25	11	5	2	1	430
	54	73	99	186	300	333	310	192	95	54	23	13	11	1743
18:00	11	15	26	48	78	82	109	60	26	13	6	1	3	478
18:15	38	25	22	41	72	71	49	37	23	7	7	1	2	395
18:30	12	22	40	50	102	105	78	60	29	9	2	1	2	512
18:45	4	1	9	26	58	87	92	67	34	23	8	4	6	419
10.43														
	65	63	97	165	310	345	328	224	112	52	23	7	13	1804
19:00	5	8	14	27	86	69	70	63	31	10	7	5	5	400
19:15	2	4	12	38	45	108	78	54	26	8	16	0	5	396
19:30	4	13	12	25	34	66	84	46	34	17	17	16	12	380
19:45	4	7	5	22	45	68	72	73	43	27	11	4	4	385
	15	32	43	112	210	311	304	236	134	62	51	25	26	1561
20:00	7		0		39		59	62	36		7			331
		0		15		56				36		8	6	
20:15	14	8	16	25	42	59	62	85	49	22	9	3	2	396
20:30	1	1	8	18	26	37	30	44	11	22	11	3	4	216
20:45	3	0	1	9	30	38	53	49	47	13	16	8	11	278
	25	9	25	67	137	190	204	240	143	93	43	22	23	1221
21:00	2	3	5	9	16	48	36	37	27	10	9	5	3	210
21:15	0	2	0	2	10	29	43	44	46	21	13	1	8	219
21:30	0	0	0	4	12		37	35	21		8			
						31				13		2	1	164
21:45	1	0	2	4	3	13	25	39	43	10	11	4	5_	160_
	3	5	7	19	41	121	141	155	137	54	41	12	17	753
22:00	2	2	9	7	12	19	27	37	26	16	10	4	5	176
22:15	0	0	Ö	4	9	28	24	32	22	18	4	6	8	155
22:30	0	0	0	0	6	15	32	33	27	8	12	6	8	147
	2	0	3		5	15	32 18	23				0		
22:45				11					14	21	14		10	126
	4	2	12	12	32	77	101	125	89	63	40	16	31	604
23:00	0	0	0	5	4	13	15	27	16	10	12	4	4	110
23:15	0	0	0	2	4	23	21	16	12	4	10	7	5	104
23:30	Ō	2	2	0	3	9	14	7	14	3	6	3	1	64
23:45	0	2	1	1	6	9	5	7	7	9	8	1	8	64
	0	4	3		17	<u>9</u> 54	55	57	49	26		1	<u>o</u> 18	
T				8							36	15		342
Total	304	365	532	1035	1944	2711	2914	2458	1423	744	428	180	187	15225
Total	399	428	660	1261	2411	3574	4053	3585	2242	1299	724	332	355	21323

 15th Percentile:
 32 MPH

 50th Percentile:
 36 MPH

 85th Percentile:
 41 MPH

 95th Percentile:
 44 MPH

 Statistics
 Mean Speed(Average) :
 37 MPH

 10 MPH Pace Speed :
 33-42 MPH

 Number in Pace :
 15865

 Number in Pace :
 15865

 Percent in Pace :
 74.4%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810002E

EASTBO	UND, EA	STBOU	ND1											
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/16/18	4	5	0	1	8	6	3	1	0	0	0	0	0	28
00:15	2	2	4	0	3	4	0	1	0	0	2	0	0	18
00:30	7	1	5	4	6	2	2	2	3	1	0	0	0	33
00:45	0 13	1 9	<u>1</u> 10	<u>4</u> 9	3 20	<u>1</u> 13	3 8	0 4	1 4	0 1	0 2	0	0	14 93
01:00	4	5	0	2	0	2	0	1	0	0	0	0	0	14
01:15	2	Ő	2	7	3	3	0	1	ő	0	1	ő	Ö	19
01:30	2	0	1	2	1	3	1	1	1	0	1	0	0	13
01:45	3	3	1	2	2	2	1	0	1	0	0	0	0	15_
02:00	11 2	8 0	4 3	13 1	6 1	10 3	2 2	3 1	2 0	0 1	2 0	0 0	0 0	61 14
02:00 02:15	4	3	3	2	2	3 1	1	2	0	0	0	0	0	18
02:30	Ö	2	1	2	0	i	0	1	1	1	Ö	ő	Ö	9
02:45	0	1	11	2	0	11	0	1	0	0	0	0	0	6_
	6	6	8	7	3	6	3	5	1	2	0	0	0	47
03:00	2	2	1	2	1	1	1	1	2	0	1	0	0	14
03:15 03:30	6 1	0 0	2 0	1 0	1 0	0 2	0 1	0 1	0 0	0 1	0 0	0 1	0 0	10 7
03:45	3	1	1	3	1	1	1	1	0	0	0	0	0	12
	12	3	4	6	3	4	3	3	2	1	1	1	0	43
04:00	0	0	0	3	2	1	0	0	2	0	1	1	0	10
04:15	7	1	1	0	2	1	0	0	1	0	1	1	0	15
04:30 04:45	4 3	5 4	1 2	1 4	2 3	2 1	2 1	1 0	1 0	2 0	0 1	0 1	0 0	21 20
04.45	14	10	4	8	9	5	3	1	4	2	3	3	0	66
05:00	Ö	0	3	8	3	3	2	Ö	Ö	2	Ö	ő	Ö	21
05:15	4	0	7	2	8	4	1	2	1	2	0	0	4	35
05:30	5	4	5	7	5	7	1	2	1	0	1	0	5	43
05:45	11 20	<u>3</u>	7 22	<u>4</u> 21	11 27	6 20	9 13	<u>2</u>	6	<u>0</u>	2	1 1	1	63 162
06:00	10	1	22 7	5	9	20 7	6	5	8 1	1	3 0	0	10 1	53
06:15	11	4	8	11	6	7	11	1	1	3	1	ő	1	65
06:30	19	6	12	12	16	13	2	3	0	0	0	0	1	84
06:45	34	10	17	17	16	11	6	6	2	4	1	1	2	127
07.00	74 16	21 14	44 18	45 18	47 20	38	25	15 5	4 0	8	2 0	1 0	5 0	329
07:00 07:15	26	26	20	12	20 18	10 9	8 4	4	3	1 2	0	1	0	110 125
07:30	46	28	18	23	19	10	5	i	ő	0	Ö	0	0	150
07:45	27	23	19	20	10	7	9	4	3	5	0	0	1	128
	115	91	75	73	67	36	26	14	6	8	0	1	1	513
08:00	37	24	28	24	17	14	5	9	7	3	0	0	0	168
08:15 08:30	79 58	38 31	19 17	29 22	20 16	17 8	9 7	6 4	1 5	1 0	1 0	0 0	0 0	220 168
08:45	73	22	21	17	18	15	8	3	2	1	1	0	0	181
	247	115	85	92	71	54	29	22	15	5	2	0	0	737
09:00	39	35	14	30	30	26	4	6	3	1	2	0	0	190
09:15	66	24	18	18	11	10	11	3	1	2	0	0	0	164
09:30 09:45	50 70	22 32	26 17	18 19	13 28	9 13	7 13	4 3	3 0	0 1	1 0	0 0	0 0	153 196
09.43	225	113	75	85	82	58	35	16	7	4	3	0	0	703
10:00	71	37	20	15	18	9	9	3	2	2	1	Ö	Ö	187
10:15	54	45	30	23	20	8	5	2	1	0	1	0	0	189
10:30	78	17	14	26	24	13	11	4	3	0	0	0	0	190
10:45	<u>75</u> 278	42 141	28 92	32 96	17 79	9 39	2 27	3 12	<u> </u>	0 2	0 2	0	0	208 774
11:00	278 97	24	92 26	96 23	79 16	39 12	27 1	2	0	0	0	0	0	774 201
11:15	47	37	30	27	25	14	8	7	2	0	0	0	0	197
11:30	82	30	35	25	20	6	2	0	0	Ō	0	0	0	200
11:45	77	36	32	29	17	11	5	3	2	2	11	2	0	217
Total	303	127	123 546	104	78 492	43	16 190	12 113	- 4	2	1 21	9	0 16	815
Total	1318	651	546	559	492	326	190	113	63	39	21	9	10	4343

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O ARTESIA BOULEVARD

Date Start: 16-Oct-18

S1810002E

FASTROUND	EASTBOUND1

			וטוונ											
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
				-						_	_			T - ( - )
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	86	31	27	18	20	5	4	5	1	3	1	0	0	201
12:15	118	25	18	15	6	3	2	2	0	0	0	0	0	189
12:30	69	43	34	25	13	12	4	2	2	Õ	ŏ	0	ő	204
				30				2						
12:45	86	34	33		13	5	6		0	0	0	0	0	209
	359	133	112	88	52	25	16	11	3	3	1	0	0	803
13:00	92	31	27	33	18	11	9	4	0	0	1	1	0	227
13:15	71	28	42	24	24	13	3	3	3	1	1	0	0	213
13:30	76	43	43	28	18	12	7	1	1	0	1	0	0	230
13:45	98	34	29	22	8	9	4	2	i	ő	Ó	0	ŏ	207
	337		141	107			23	10	5	1	3	1	0	877
		136			68	45						-		
14:00	54	28	35	36	27	23	10	3	3	0	0	0	0	219
14:15	78	34	44	32	28	8	8	5	2	3	2	0	0	244
14:30	117	24	13	26	29	7	12	3	0	1	0	0	1	233
14:45	104	38	36	36	19	10	4	2	0	1	0	0	0	250
	353	124	128	130	103	48	34	13	5	5	2	0	1	946
15:00	78	54	45	30	19	6	2	3	5	0	0	0	0	242
										1				
15:15	94	48	40	44	28	17	8	4	1		0	0	1	286
15:30	102	35	24	28	27	19	9	5	3	1	0	0	0	253
15:45	65	45	39	29	25	14	13	7	1	11	11	0	0	240
	339	182	148	131	99	56	32	19	10	3	1	0	1	1021
16:00	115	35	19	35	18	13	6	3	2	1	1	0	0	248
16:15	99	44	28	21	18	12	8	1	1	1	2	Ö	1	236
16:30	135	42	34	23	22	14	13	8	3	1	0	0	0	295
										•				
16:45	120	32	34	20	13	12	7	2	0	0	0	0	0	240
	469	153	115	99	71	51	34	14	6	3	3	0	1	1019
17:00	104	40	33	40	16	12	10	1	0	0	0	0	0	256
17:15	119	39	28	25	22	11	4	5	0	0	1	0	0	254
17:30	101	50	43	29	33	15	11	3	1	2	0	0	0	288
17:45	68	54	33	47	18	16	4	2	i 1	0	ő	0	ő	243
17.45														
40.00	392	183	137	141	89	54	29	11	2	2	1	0	0	1041
18:00	133	61	32	39	14	8	14	3	1	0	0	0	0	305
18:15	127	37	23	16	13	12	6	2	1	0	0	1	0	238
18:30	88	42	21	17	20	5	2	1	0	0	0	0	0	196
18:45	94	24	33	38	17	6	1	0	1	0	0	0	0	214
	442	164	109	110	64	31	23	6	3	0	0	1	0	953
19:00	110	48	33	29	29	13	3	4	2	1	1	Ó	0	273
										•	•	-		2/3
19:15	75	27	33	24	25	9	4	4	1	2	0	0	0	204
19:30	56	38	22	24	21	13	9	8	3	1	0	0	0	195
19:45	45	25	32	20	26	8	6	2	2	2	0	0	11	169
	286	138	120	97	101	43	22	18	8	6	1	0	1	841
20:00	36	26	31	36	25	15	8	5	3	1	1	0	0	187
20:15	41	31	18	30	19	11	2	5	4	0	3	1	1	166
20:30	29	22	35	29	26	15	10	4	1	Ö	ő	Ó	Ö	171
20:45	50	24	22	22	17	9	6	2	3	1	0	0	0	
20.45														<u>156</u>
	156	103	106	117	87	50	26	16	11	2	4	1	1	680
21:00	20	20	26	36	19	21	6	3	0	2	0	0	1	154
21:15	18	26	19	24	13	12	6	4	3	3	1	1	0	130
21:30	30	17	16	17	8	4	6	3	5	2	1	2	1	112
21:45	15	8	10	23	15	6	4	8	3	0	3	1	0	96_
	83	71	71	100	55	43	22	18	11	7	5	4	2	492
00.00										1		1		
22:00	12	15	9	9	9	9	7	1	1	•	1	•	1	76
22:15	9	7	17	10	19	9	3	5	3	2	1	0	1	86
22:30	11	3	8	14	8	15	10	2	3	3	0	1	1	79
22:45	10	6	11	14	13	6	2	2	3	1	1	0	0	69
	42	31	45	47	49	39	22	10	10	7	3	2	3	310
23:00	7	8	7	8	12	6	8	1	3	2	1	0	1	64
23:15	13	8	7	3	5	10	4	4	1	1	0	1	1	58
									•	•		•		
23:30	8	3	6	12	5	2	2	2	2	0	0	1	0	43
23:45	4	10	6	6	4	0	4	4	2	0	0	0	1_	41_
	32	29	26	29	26	18	18	11	8	3	1	2	3	206
Total	3290	1447	1258	1196	864	503	301	157	82	42	25	11	13	9189
Total	4608	2098	1804	1755	1356	829	491	270	145	81	46	20	29	13532
					00					٥.				

 15th Percentile:
 10 MPH

 50th Percentile:
 28 MPH

 85th Percentile:
 33 MPH

 95th Percentile:
 37 MPH

 Statistics
 Mean Speed(Average) :
 25 MPH

 10 MPH Pace Speed :
 26-35 MPH

 Number in Pace :
 7427

 Number in Pace :
 7427

 Percent in Pace :
 54.9%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

## **Transportation Studies, Inc.** 2640 Walnut Avenue Suite L Tustin, CA. 92780

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810002E

Start	EASTBO	UND FA	STROU	ND1										31	810002E
Time					31	33	35	37	39	41	43	45	47	49	
TOPTITIES															Total
00:15 13 3 2 2 2 7 3 2 2 1 0 0 0 1 0 36 00:36 2 0 0:36 2 1 1 3 1 4 7 2 1 1 0 1 1 0 0 0 0 0 0 0 0 1 1 0 36 00:36 2 1 1 3 1 4 7 2 1 1 0 1 1 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0															
00.030												•			
1100   5											-				
01:100 5 1 3 3 1 3 1 1 1 1 2 2 0 1 1 0 0 1 20 0 1:15 0 1:30 2 3 2 2 2 4 4 3 3 2 0 0 0 1 1 0 0 0 0 15 0 1:30 2 3 3 2 4 3 3 1 1 1 1 1 2 2 0 1 1 0 0 0 0 1 5 0 1:30 2 3 3 2 4 4 3 3 1 0 2 0 0 0 0 1 0 0 0 0 1 6 1 0 0 0 0 1 6 1 0 0 0 0	00:45	2	1	3	4	2	1	0	1	0	0	0	0	0	14_
01:16		21	11	14	17	17	12	4	9	1	0	1	1	0	108
01:30															
O			-												
10															
Decomposition   Color   Colo	01:45														
02:15	03:00														
02:30         0         1         1         1         1         0         2         0         0         0         0         1         1         8           02:45         1         0         0         1         2         1         4         3         0															
Q2-45							-				•	•	•		
5         6         3         5         5         4         8         2         0         1         1         1         1         43           03:15         0         1         1         1         1         1         1         1         0         12         0 </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></td> <td></td>															
03:15 0 1 1 2 1 0 2 0 0 1 1 0 0 0 8 8 03:30 1 0 0 0 0 2 1 1 0 0 0 0 5 5 03:45 4 0 0 3 0 0 2 1 1 0 0 0 0 0 1 0 0 0 0 5 5 03:45 4 0 0 3 0 0 2 0 1 1 1 1 1 0 0 0 0 0 0 1 1 0 0 0 0		5	6	3	5	5	4	8	2	0	1	1	2	1	
03:30         1         0         0         0         2         1         0         0         0         1         0         0         0         0         1         2         0         0         0         0         1         2         0 <td>03:00</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td>	03:00	1	1	1	1	1	0	0	1	0	0	0	0	0	
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0445         4         2         2         5         5         3         0         1         1         0         0         0         23           05:00         1         2         1         3         3         2         1         1         2         0         0         0         66           05:00         1         2         1         3         3         2         1         1         2         1         2         0         0         0         36           05:30         3         3         3         9         6         5         5         4         0         3         1         0         2         44           18         10         8         17         24         21         18         11         9         7         6         1         3         153         66         6         6         3         12         4         9         4         5         2         0         1         6         6         1         3         153         3         1         1         1         0         0         1         6         0         1         1				•						-					
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59         36         33         38         38         34         25         29         9         8         4         2         1         316           07:00         44         14         14         16         18         18         7         7         6         3         0         1         1         149           07:15         67         12         24         10         9         12         3         1         0         0         1         0         0         139           07:30         48         21         26         17         18         13         9         6         4         1         2         0         0         0         165           07:45         44         23         18         20         24         9         12         2         2         0         0         0         165           08:00         72         28         18         28         14         12         5         1         2         2         0         0         0         182           08:15         97         29         25         14         15         5         1															
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08:00         72         28         18         28         14         12         5         1         2         2         0         0         0         182           08:15         97         29         25         14         15         4         4         3         1         2         0         0         0         194           08:30         66         32         24         21         23         11         8         6         2         1         0         0         0         194           08:45         63         48         35         21         15         8         6         6         2         2         0         0         1         207           298         137         102         84         67         35         23         16         7         7         0         0         1         777           09:00         75         23         18         23         15         6         2         2         3         1         0         0         0         188           09:15         46         17         15         34         30         15         8 <td>07:45</td> <td></td>  <td></td> <td></td>	07:45												0		
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08:45         63         48         35         21         15         8         6         6         2         2         0         0         1         207           09:00         75         23         18         23         15         6         2         2         3         1         0         0         0         1         777           09:05         46         17         15         34         30         15         6         2         2         2         3         1         0         0         0         1         176           09:30         67         21         16         23         7         5         4         5         5         2         0         0         0         155           09:45         69         27         20         25         16         6         7         3         4         3         0         0         0         180           10:00         78         33         18         24         18         13         8         5         7         2         2         2         0         0         0         1679           10:00															
298         137         102         84         67         35         23         16         7         7         0         0         1         777           09:00         75         23         18         23         15         6         2         2         3         1         0         0         0         168           09:15         46         17         15         34         30         15         8         7         2         1         0         0         1         176           09:30         67         21         16         23         7         5         4         5         5         2         0         0         0         155           09:45         69         27         20         25         16         6         7         3         4         3         0         0         0         180           257         88         69         105         68         32         21         17         14         7         0         0         1         679           10:00         78         33         18         24         18         13         8         5 <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> <td></td>															
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10:00         78         33         18         24         18         13         8         5         7         2         2         0         0         208           10:15         65         38         19         26         14         2         10         9         5         8         2         1         3         202           10:30         82         33         16         22         14         9         3         2         2         0         1         0         0         184           10:45         71         23         26         31         29         11         7         1         3         1         1         0         0         204           296         127         79         103         75         35         28         17         17         11         6         1         3         798           11:00         65         21         29         20         16         10         4         2         1         0         1         1         0         170           11:15         84         47         25         15         15         8         3<	09:45														
10:15         65         38         19         26         14         2         10         9         5         8         2         1         3         202           10:30         82         33         16         22         14         9         3         2         2         0         1         0         0         184           10:45         71         23         26         31         29         11         7         1         3         1         1         0         0         204           296         127         79         103         75         35         28         17         17         11         6         1         3         798           11:00         65         21         29         20         16         10         4         2         1         0         1         1         0         170           11:15         84         47         25         15         15         8         3         1         0         0         0         0         0         198           11:30         68         27         31         26         23         7         7 </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></td> <td></td>															
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296         127         79         103         75         35         28         17         17         11         6         1         3         798           11:00         65         21         29         20         16         10         4         2         1         0         1         1         0         170           11:15         84         47         25         15         15         8         3         1         0         0         0         0         0         198           11:30         68         27         31         26         23         7         7         3         3         3         1         0         0         199           11:45         73         24         27         24         22         10         7         4         5         0         0         0         0         196           290         119         112         85         76         35         21         10         9         3         2         1         0         763											-				
11:00     65     21     29     20     16     10     4     2     1     0     1     1     0     170       11:15     84     47     25     15     15     8     3     1     0     0     0     0     0     0     198       11:30     68     27     31     26     23     7     7     3     3     3     1     0     0     199       11:45     73     24     27     24     22     10     7     4     5     0     0     0     0     0     196       290     119     112     85     76     35     21     10     9     3     2     1     0     763	10.45														
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11:45 73 24 27 24 22 10 7 4 5 0 0 0 0 196 290 119 112 85 76 35 21 10 9 3 2 1 0 763															
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Total 1473 622 526 538 468 280 189 135 85 53 25 9 12 4415		290	119	112	85	76	35					2			763
	Total	1473	622	526	538	468	280	189	135	85	53	25	9	12	4415

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O ARTESIA BOULEVARD

Date Start: 17-Oct-18

S1810002E

EASTBOUND, E	EASTBOUND1
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<u> </u>	511D, L	10100	71101											
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
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Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	84	31	25	30	19	11	4	1	1	0	1	1	0	208
12:15	74	38	36	37	21	11	7	3	2	1	2	0	Ö	232
										-				
12:30	85	36	22	18	22	11	13	3	2	0	0	0	0	212
12:45	90	31	27	23	19	11	3	1	2	1	0	0	0	208
	333	136	110	108	81	44	27	8	7	2	3	1	0	860
13:00	75	34	26	43	21	21	0	1	1	0	Ö	0	Ö	222
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13:15	103	40	28	24	17	11	5	2	1	1	0	0	0	232
13:30	67	40	19	27	9	18	9	1	3	1	1	0	0	195
13:45	75	25	38	33	20	8	7	2	3	1	1	0	0	213
	320	139	111	127	67	58	21	6	8	3	2	0	0	862
44.00														
14:00	90	46	30	21	22	13	10	1	0	1	0	0	0	234
14:15	96	42	39	23	22	4	3	1	3	3	0	0	0	236
14:30	71	36	24	26	14	18	3	7	4	3	2	0	0	208
14:45	66	46	36	33	16	12	7	6	1	Ö	0	Ö	Ō	223
										7				901
	323	170	129	103	74	47	23	15	8	•	2	0	0	
15:00	58	43	42	32	27	18	6	4	2	1	1	0	1	235
15:15	86	60	43	41	21	12	2	6	0	0	0	0	0	271
15:30	107	20	30	27	27	12	8	2	2	Ö	0	1	1	237
											1			
15:45	58	34	40	26	23	11	7	6	1	0		0	0	207
	309	157	155	126	98	53	23	18	5	1	2	1	2	950
16:00	118	33	40	34	17	12	6	1	1	0	0	0	0	262
16:15	94	53	53	32	24	12	2	5	1	0	0	0	0	276
16:30	80		19	27	18	9	5	3	Ö		ő	0	Ö	203
		41								1				
16:45	120	34	25	18	17	12	8	3	0	0	0	0	0	237
	412	161	137	111	76	45	21	12	2	1	0	0	0	978
17:00	82	43	43	43	24	13	2	3	0	2	0	0	0	255
17:15	102	54	40	27	22	15	2	2	ő	1	ő	ő	Ö	265
17:30	79	61	27	20	15	9	2	2	2	0	1	0	0	218
17:45	112	52	43	37	34	15	7	2	1	0	0	0	0	303
	375	210	153	127	95	52	13	9	3	3	1	0	0	1041
18:00	96	43	38	39	18	9	6	5	ő	Õ	Ö	1	ő	255
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18:15	119	57	30	39	26	6	3	2	1	1	0	0	0	284
18:30	68	30	36	28	26	8	5	2	0	0	0	0	0	203
18:45	67	48	50	32	19	18	9	3	0	0	0	0	1	247
	350	178	154	138	89	41	23	12	1	1	0	1	1	989
40.00														
19:00	69	60	25	38	29	12	6	3	2	1	1	1	0	247
19:15	78	25	30	32	33	12	11	1	1	0	0	0	0	223
19:30	63	27	27	24	25	19	9	8	3	1	0	0	0	206
19:45	35	31	34	21	23	9	7	1	2	2	1	1	1	168
13.73														
	245	143	116	115	110	52	33	13	8	4	2	2	1	844
20:00	52	45	19	21	14	13	10	6	3	1	0	0	0	184
20:15	43	30	29	24	26	15	8	2	0	0	0	0	0	177
20:30	27	34	28	24	14	11	9	2	3	Ö	0	Ö	Ō	152
20:45	37	15	27	23	15	8	5	6	2	1	0	0	0	
20.43														139
	159	124	103	92	69	47	32	16	8	2	0	0	0	652
21:00	59	21	25	18	17	10	4	2	3	2	0	0	0	161
21:15	38	18	20	23	15	9	11	3	3	3	0	0	1	144
21:30	23	13	19	22	11	5	4	2	2	1	ŏ	ő	0	102
21:45	12	20	22	20	12	4	5	3	2	2	00	0	0	102
	132	72	86	83	55	28	24	10	10	8	0	0	1	509
22:00	28	11	5	17	11	7	5	2	3	2	0	0	1	92
22:15	7	10	8	14	11	11	7	3	1	0	1	0	0	73
											-			
22:30	15	7	10	11	9	8	7	5	1	1	1	1	0	76
22:45	11	11	12	16	10	7	6	3	0	11	1	0	11	79_
	61	39	35	58	41	33	25	13	5	4	3	1	2	320
23:00	8	3	10	11	6	5	5	4	1	3	2	Ö	1	59
									-					
23:15	6	3	2	12	6	9	3	3	0	0	1	0	0	45
23:30	6	6	9	10	10	10	2	2	1	0	1	0	0	57
23:45	8	0	5	3	6	3	1	3	2	0	0	0	0	31
	28	12	26	36	28	27	11	12	4	3	4	0	1	192
Tatal	3047	1541		1224	883	527			69	39			8	0000
Total			1315				276	144			19	6		9098
Total	4520	2163	1841	1762	1351	807	465	279	154	92	44	15	20	13513

15th Percentile : 11 MPH 50th Percentile : 28 MPH 85th Percentile : 33 MPH 95th Percentile : 37 MPH

 Statistics
 Mean Speed(Average) : 10 MPH Pace Speed : 26-35 MPH Number in Pace : 7520

 Number in Pace :
 7520

 Percent in Pace :
 55.7%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

### Transportation Studies, Inc. 2640 Walnut Avenue Suite L Tustin, CA. 92780

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 16-Oct-18

S1810002W

WESTBO	N CINIC	ESTRO!	UND1										S18	310002W
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/16/18	2	3	0	2	4	2	1	0	0	0	1	1	0	16
00:15	0	0	1	2	2	3	3	1	2	2	0	2	0	18
00:30	1	0	0	2	5	2	8	8	2	2	2	0	2	34
00:45	<u> </u>	6 9	1 2	6	<u>5</u> 16	<u>2</u> 9	0 12	<u> </u>	0 4	0 4	1	0 3	2	21
01:00	0	0	0	12 2	3	9 5	6	10	2	0	4 0	0	0	89 28
01:15	Ö	1	3	0	0	0	0	2	0	0	0	0	0	6
01:30	2	0	1	1	0	2	0	2	0	2	0	0	0	10
01:45	6	3	0	4	2	3	0	1	2	2	0	0	0	23_
02:00	8	4	4	7	5	10	6	15	4	4	0	0	0	67
02:00 02:15	0 0	1 4	3 0	1 0	0 2	1 3	1 0	0 1	2 0	0 1	0 0	0	0 0	9 11
02:30	2	2	0	0	1	2	0	0	2	1	0	0	0	10
02:45	0	0	1	0	0	3	2	2	0	1	0	0	3	12
	2	7	4	1	3	9	3	3	4	3	0	0	3	42
03:00	0	0	0	0	0	1	0	2	1	2	0	0	2	8
03:15 03:30	0 2	0 0	0 0	0 2	1 5	2 4	2 0	2 0	0 0	0 1	0 0	0 1	1 1	8 16
03:45	2	1	0	3	2	6	1	3	3	3	0	0	0	24
	4	1	0	5	8	13	3	7	4	6	0	1	4	56
04:00	0	0	0	0	5	2	2	4	4	1	1	0	0	19
04:15	2	0	0	0	4	6	6	4	0	0	2	1	1	26
04:30 04:45	0 7	2 2	1 1	3 4	4 13	13 15	4 5	4 10	4 2	1 6	2 2	2	1 5	41 75
04.45	9	4	2	7	26	36	17	22	10	8	7	<u>3</u> 6	<u>5</u> 7	161
05:00	2	2	4	5	1	4	3	3	5	3	1	2	3	38
05:15	0	3	7	8	9	4	4	13	5	5	4	3	4	69
05:30	10	2	8	12	10	19	24	12	6	2	0	0	1	106
05:45	10	10	10	13	16	29	23	13	9	5	4	3	8	153
06:00	22 37	17 11	29 14	38 26	36 20	56 15	54 9	41 9	25 11	15 4	9 2	8 2	16 5	366 165
06:15	45	26	26	13	25	25	18	12	3	4	1	2	4	204
06:30	99	44	18	18	18	18	10	7	4	3	1	0	1	241
06:45	131	44	10	11	8	4	2	11	1	11	0	0	0	213
	312	125	68	68	71	62	39	29	19	12	4	4	10	823
07:00 07:15	111 146	38 45	43 30	22 20	18 22	6 8	5 5	1 1	1 0	0 0	1 0	1 0	0 0	247 277
07:15	231	28	11	7	2	2	1	0	0	0	0	0	0	282
07:45	163	32	24	11	11	3	2	1	Ö	0	Ö	0	ő	247
	651	143	108	60	53	19	13	3	1	0	1	1	0	1053
08:00	227	19	5	19	10	8	8	2	2	0	0	0	0	300
08:15	227	4	0	0	0	1	0	0	0	0	0	0	0	232
08:30 08:45	181 156	23 18	5 2	2 2	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0	0 0	212 178
00.45	791	64	12	23	11	9	8	2	2	0	0	0	0	922
09:00	176	11	4	2	0	1	Ö	0	0	0	1	0	Ő	195
09:15	167	44	22	12	15	5	4	2	2	1	0	0	0	274
09:30	150	39	19	14	15	6	2	1	0	0	0	0	0	246
09:45	139	43	24	19	14	5	2	4	0	0	0	0	0	250
10:00	632 165	137 27	69 35	47 13	44 13	17 5	8 2	7 2	2 1	1 1	1 0	0 0	0 0	965 264
10:00	172	38	35 17	3	3	1	0	0	0	0	0	0	0	234
10:30	114	31	37	15	17	6	2	2	0	0	0	0	0	224
10:45	127	51	26	19	10	5	6	5	1	0	0	0	0	250
	578	147	115	50	43	17	10	9	2	1	0	0	0	972
11:00	135	20	14	18	6	4	2	0	1	0	0	0	0	200
11:15 11:30	106 111	46 51	39 10	29 17	28 21	7 16	2 11	1 2	2 0	0 1	0 0	1 0	1 1	262 250
11:45	122	51 33	19 16	17	14	6	4	6	3	0	0	0	0	215
	474	150	88	75	69	33	19	9	6	1	0	1	2	927
Total	3486	808	501	393	385	290	192	156	83	55	26	24	44	6443

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 16-Oct-18

S1810002W

MESIBO		VE21BO												
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
														<b>-</b>
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
12 PM	159	29	13	6	12	2	4	1	0	0	0	0	0	226
12:15	108	55	51	30	11	9	5	2	3	1	0	0	0	275
12:30	113	43	21	22	18	5	7	1	3	Ó	Ö	Ō	Ō	233
12:45	181	35	29	24	11	8	3	Ö	2	Ö	1	ő	0	294
12.40			114	82		24	19	4	8	1	1	0	0	1028
40.00	561	162			52							-		
13:00	111	42	24	16	9	5	3	7	0	0	1	0	0	218
13:15	168	28	31	26	5	6	1	0	0	2	0	0	0	267
13:30	158	33	23	13	7	13	7	1	8	2	0	0	1	266
13:45	144	36	24	21	9	11	6	0	1	1	0	0	0	253
	581	139	102	76	30	35	17	8	9	5	1	0	1	1004
14:00	141	22	17	32	25	15	10	5	1	Ö	1	Ö	0	269
14:15	84	33	32	37	29	19	8	6	3	1	0	0	0	252
										•		-		
14:30	141	18	26	21	24	17	12	4	1	1	0	1	1	267
14:45	147	42	22	12	9	8	3	7	4	2	0	0	0	256
	513	115	97	102	87	59	33	22	9	4	1	1	1	1044
15:00	139	33	29	19	16	7	6	6	1	0	0	0	0	256
15:15	125	38	15	25	16	0	0	2	0	0	0	0	0	221
15:30	140	42	22	20	13	9	7	1	1	Ö	Ö	1	0	256
15:45	134	28	24	11	11	4	5	3	Ó	1	0	Ö	0	221
15.45	538	141	90	75	56	20	18	12	2	1	0	1	0	954
40.00												-		
16:00	163	26	13	8	16	12	7	9	1	1	0	1	1	258
16:15	82	57	30	23	22	12	10	3	1	3	2	0	1	246
16:30	151	34	17	16	27	14	12	1	1	2	1	0	0	276
16:45	130	33	19	24	24	15	9	7	3	2	0	1	0	267
	526	150	79	71	89	53	38	20	6	8	3	2	2	1047
17:00	135	26	26	22	12	9	4	5	Ö	2	Ö	1	2	244
17:15	98	27	25	24	13	18	14	5	5	2	Ö	2	2	235
17:30	160	29	32	29	14	4	6	7	3	0	0	0	0	284
17:45	142	16	2	4	1	5	1	3	0	0	11	1	0	176_
	535	98	85	79	40	36	25	20	8	4	1	4	4	939
18:00	168	33	10	25	13	11	0	0	0	0	0	0	0	260
18:15	145	37	17	21	8	7	7	6	2	1	0	0	2	253
18:30	168	33	8	16	15	5	3	1	0	1	0	0	0	250
18:45	131	30	18	17	16	10	6	7	4	Ö	1	Ö	0	240
10.70	612	133	53	79	52	33	16	14	6	2	1	0	2	1003
40.00														
19:00	119	21	10	13	12	3	3	5	0	1	1	0	1	189
19:15	73	47	40	22	23	10	8	4	0	0	1	0	0	228
19:30	93	38	8	13	15	12	11	8	2	1	2	3	1	207
19:45	64	31	28	21	23	18	11	5	3	0	1	0	3	208
	349	137	86	69	73	43	33	22	5	2	5	3	5	832
20:00	58	37	19	29	13	17	9	10	4	2	0	1	1	200
20:15	73	26	24	22	16	4	12	2	3	0	Ö	0	0	182
20:30	59	30	30	24	17	23	13	4	2	1	2	0	0	205
20:45	21	17	15	27	18	10	12	10	5	3	1	1	6	
∠0.45											<u>.</u>			146
<b></b>	211	110	88	102	64	54	46	26	14	6	3	2	7	733
21:00	32	20	29	19	20	15	13	5	7	2	1	1	1	165
21:15	29	24	14	22	16	20	12	6	5	2	4	2	2	158
21:30	24	8	12	10	9	8	7	13	11	9	3	3	1	118
21:45	16	21	27	14	8	11	4	4	3	3	0	1	1	113
	101	73	82	65	53	54	36	28	26	16	8	7	5	554
22:00	6	8	19	14	10	16	5	5	9	6	0	1	3	102
22:15	8	18	9	10	12	4	6	6	4	3	2	2	3	87
22:30	9	1	7	9	11	7	14	8	6	2	5	6	2	87
22:45	2	16	10	9	5	5	8	3	5	11	3	0	0	67_
	25	43	45	42	38	32	33	22	24	12	10	9	8	343
23:00	5	0	3	6	9	4	6	6	5	1	1	1	1	48
23:15	10	7	6	2	1	8	8	1	4	6	3	0	2	58
23:30	4	0	3	3	8	11	7	3	2	Ö	1	Ö	0	42
23:45	2	0	1	7	3	4	3	3	0	3	3	2	2	33_
		7							11	<u>3</u> 10	<u>3</u> 8			
<del></del>	21		13	18	21	27	24	13				3	5	181
Total	4573	1308	934	860	655	470	338	211	128	71	42	32	40	9662
Total	8059	2116	1435	1253	1040	760	530	367	211	126	68	56	84	16105

 15th Percentile:
 7 MPH

 50th Percentile:
 24 MPH

 85th Percentile:
 33 MPH

 95th Percentile:
 38 MPH

 Statistics
 Mean Speed(Average) : 10 MPH Pace Speed : 26-35 MPH Number in Pace : 6224

 Number in Pace :
 6224

 Percent in Pace :
 38.6%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

### Transportation Studies, Inc. 2640 Walnut Avenue Suite L Tustin, CA. 92780

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 17-Oct-18

S1810002W

WESTBOU	IND W	ESTROI	UND1										518	10002W
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
Time	25	28	30	32	34	36	38	40	42	44	46	48	9999	Total
10/17/18	0	0	0	4	5	7	4	4	3	0	0	1	1	29
00:15	2	1	4	2	8	7	2	3	2	0	1	0	0	32
00:30	2	0	2	2	2	1	3	4	1	1	0	0	2	20
00:45	15	0 1	<u> </u>	<u>1</u> 9	<u>5</u> 20	3 18	<u>1</u> 10	0 11	<u>4</u> 10	0 1	0 1	0 1	0 3	<u>15</u> 96
01:00	0	0	2	2	20	2	10	0	10	1	1	0	3 1	13
01:15	1	0	4	2	3	1	1	3	0	1	0	ő	0	16
01:30	2	0	4	1	1	0	3	0	2	2	0	0	0	15
01:45	2	0	0	1	3	3	1	4	2	2	0	0	0	18_
02:00	5	0 0	10	6 3	9	6 1	6	7 0	5 0	6 2	1 0	0 0	1 0	62
02:00	4 0	0	2 1	3 1	4 1	1	3 0	3	0	0	0	0	0	19 7
02:30	Õ	0	2	1	3	0	2	0	1	1	0	ő	0	10
02:45	2	0	0	11	1	0	11	3	0	0	0	0	0	8_
	6	0	5	6	9	2	6	6	1	3	0	0	0	44
03:00	0	1	0	0	2	1	0	1	1	0	0	0	0	6
03:15 03:30	0 2	2 0	0 2	2 1	0 1	0 0	1 3	1 1	0 0	1 0	0 2	0 0	0	7 12
03:45	1	0	3	Ö	3	5	7	1	2	3	1	1	4	31
	3	3	5	3	6	6	11	4	3	4	3	1	4	56
04:00	0	3	2	0	2	4	2	3	2	1	1	1	0	21
04:15	0	1	1	4	4	3	2	3	1	0	1	1	0	21
04:30 04:45	2 1	1 2	5 5	0 4	3 3	3 10	6 7	2 6	3 5	0 1	0 1	1 4	1 4	27 53
	3	7	13	8	12	20	17	14	11	2	3	7	5	122
05:00	3	2	4	5	4	12	1	5	4	2	4	3	Ö	49
05:15	4	2	1	6	3	9	9	3	2	4	5	0	2	50
05:30	8	8	4	12	14	5	7	7	10	1	1	0	1	78
05:45	24 39	17 29	19 28	15 38	14 35	14 40	17 34	7 22	<u>5</u> 21	10 17	2 12	<u>4</u> 7	<u>8</u> 11	<u>156</u> 333
06:00	12	26	26 15	20	19	12	8	14	15	5	1	3	3	153
06:15	59	27	15	21	20	15	14	10	6	6	3	Ö	Ö	196
06:30	89	60	22	29	31	14	5	2	3	4	2	1	4	266
06:45	134	44	24	15	28	19	12	7	1	1	0	1	2	288
07.00	294	157	76 26	85	98	60	39	33	25	16	6	5 1	9	903
07:00 07:15	137 166	35 44	20	23 24	21 10	19 8	6 7	6 3	2 0	2 0	2 0	0	1 0	281 282
07:30	221	36	10	12	7	2	0	2	0	0	0	0	0	290
07:45	124	28	4	11	2	2	11	0	0	0	0	0	0	162
	648	143	60	60	40	31	14	11	2	2	2	1	1	1015
08:00	192	20	5	4	0	0	1	0	0	0	0	0	0	222
08:15 08:30	236 193	48 22	18 12	4 4	1 6	0 5	0 2	0 1	0 0	0 0	0 0	0	0	307 245
08:45	162	36	10	9	11	7	5	Ó	0	1	0	0	0	241
	783	126	45	21	18	12	8	1	0	1	0	0	0	1015
09:00	173	41	8	6	4	0	1	1	0	0	0	0	0	234
09:15	159	49	26	21	14	3	2	4	3	0	0	0	0	281
09:30 09:45	147 134	32 28	8 22	8 21	15 20	7 3	8 2	5 1	0 2	1	1 0	1 0	0	233 234
03.43	613	150	64	56	53	13	13	11	5	2	1	1	0	982
10:00	136	23	16	12	14	11	1	2	1	0	0	0	Ō	216
10:15	111	41	24	29	10	10	6	7	3	0	1	1	0	243
10:30	127	23	12	10	11	5	5	4	0	3	0	0	0	200
10:45	117	38	19	21	18	6 32	4	0 13	<u>1</u> 5	0	0	1 2	0	225
11:00	491 129	125 35	71 17	72 20	53 7	32 6	16 3	3	5 1	3 2	1 1	1	0 1	884 226
11:15	129	42	23	19	16	6	2	1	0	0	0	1	0	236
11:30	132	54	31	15	17	9	11	2	1	1	Ö	0	Ö	273
11:45	141	43	30	20	17	10	3	3	2	0	0	0	0	269
	528	174	101	74	57	31	19	9	4	3	1	2	1	1004
Total	3418	915	484	438	410	271	193	142	92	60	31	27	35	6516

City: REDONDO BEACH Location: ARTESIA BOULEVARD Segment: E/O AVIATION BOULEVARD

Date Start: 17-Oct-18

S1810002W

MESIBO		/E21BO												
Start	1	26	29	31	33	35	37	39	41	43	45	47	49	
			30			36							9999	Total
Time	25	28		32	34		38	40	42	44	46	48		Total
12 PM	148	27	10	9	7	6	3	1	2	1	0	0	0	214
12:15	170	29	13	22	11	8	5	2	0	0	0	0	0	260
12:30	155	32	19	13	16	12	8	2	1	1	2	0	0	261
12:45	122	47	26	20	16	10	3	4	2	1	1	1	0	253
	595	135	68	64	50	36	19	9	5	3	3	1	0	988
13:00	131	58	27	12	13	9	4	4	3	1	0	0	0	262
13:15	135	22	22	22	17	11	3	3	1	1	2	0	0	239
13:30	140	39	17	19	22	8	6	0	0	0	0	0	1	252
13:45	125	42	22	14	11	4	2	2	2	1	0	0	0	225
	531	161	88	67	63	32	15	9	6	3	2	0	1	978
14:00	156	36	24	25	11	9	7	5	2	3	0	0	0	278
14:15	160	46	31	22	22	7	4	1	0	1	1	0	0	295
14:30	105	24	15	40	32	14	7	5	3	5	1	0	0	251
14:45	157	44	13	19	8	2	5	1	Ö	2	Ó	0	Ō	251
	578	150	83	106	73	32	23	12	5	11	2	0	0	1075
15:00	170	31	14	9	5	8	4	5	Ö	1	ō	Ö	Ö	247
15:15	125	28	25	16	14	11	10	4	7	i	1	ő	0	242
15:30	179	37	16	6	10	1	1	3	Ó	Ö	Ö	0	0	253
15:45	121	47	39	27	20	11	13	5	0	2	2	1	1	289
10.40	595	143	94	58	49	31	28	17	7	4	3	1	1	1031
16:00	130	29	8	12	23	7	4	5	4	3	0	Ó	0	225
16:15	141	38	16	13	18	7	7	6	3	0	0	0	0	249
16:30	133	40	15	18	19	7	2	4	1	0	0	0	0	239
16:45				14			8	5	3	0	1	0	0	
10.45	131	58	13	57	<u>15</u> 75	19	<u>8</u> 21	20			<u> </u>			267 980
17.00	535 140	165	52		75 12	40 8	2	20	11	3 0	1 1	0 1	0	281
17:00		50	35	28					2	-	•	•		
17:15	162	34	6	8	4	5	2	1	0	0	1	0	1	224
17:30	162	21	28	15	9	6	3	2	1	2	0	0	0	249
17:45	155	35	26	14	9	7	7	3	1	2	1	0	0	260_
	619	140	95	65	34	26	14	8	4	4	3	1	1	1014
18:00	152	25	24	23	18	11	10	4	0	1	0	0	0	268
18:15	109	31	24	23	21	23	7	2	4	2	1	0	1	248
18:30	164	49	17	10	7	5	5	1	2	0	0	0	2	262
18:45	118	49	29	19	18	14	9	7	5	0	0	0	0	268
	543	154	94	75	64	53	31	14	11	3	1	0	3	1046
19:00	133	55	20	18	9	10	2	5	1	1	1	1	0	256
19:15	87	30	28	25	19	11	5	2	0	3	2	0	0	212
19:30	47	32	22	19	19	8	6	6	3	3	1	0	1	167
19:45	94	37	29	27	16	21	11	4	0	0	0	0	3	242
	361	154	99	89	63	50	24	17	4	7	4	1	4	877
20:00	46	28	27	26	15	13	4	9	0	1	0	0	1	170
20:15	51	19	11	11	22	16	12	9	2	3	0	0	1	157
20:30	25	18	20	15	17	12	8	11	5	8	2	3	2	146
20:45	35	18	10	20	21	7	9	7	2	0	0	0	1	130
	157	83	68	72	75	48	33	36	9	12	2	3	5	603
21:00	58	19	15	11	6	6	3	2	2	1	3	1	0	127
21:15	18	13	22	24	19	10	8	11	3	3	Ö	0	0	131
21:30	16	11	14	17	17	8	11	9	5	5	ž	1	0	116
21:45	25	20	15	9	5	11	8	3	3	1	2	1	1	104
	117	63	66	61	47	35	30	25	13	10	7	3	1	478
22:00	20	20	15	22	21	7	5	2	4	1	2	2	1	122
22:15	16	14	19	8	6	11	9	2	3	Ö	0	0	Ö	88
22:30	10	7	4	8	10	4	4	5	5	4	3	3	2	69
22:45	10	3	6	14	11	11	9	11	5	1	1	0	0	82
	56	44	44	52	48	33	27	20	17	6	6	5	3	361
23:00	9	10	8	7	13	2	7	5	2	4	0	0	0	67
23:15	6	3	3	1	13 5	5	9	3	5	2	1	1	2	46
		3 4	ა 8		5 17		10			0	0	0	0	
23:30	2			3 4		6		3 7	2	2			4	55 40
23:45	17	3	3		7	3	11		3		2	<u> </u>		49
Tatal	17	20	22	15	42	16	37	18	12	8 74	3		6	217
Total	4704	1412	873	781	683	432	302	205	104	74	37	16	25	9648
Total	8122	2327	1357	1219	1093	703	495	347	196	134	68	43	60	16164

 15th Percentile:
 7 MPH

 50th Percentile:
 24 MPH

 85th Percentile:
 33 MPH

 95th Percentile:
 37 MPH

 Statistics
 Mean Speed(Average) : 10 MPH Pace Speed : 26-35 MPH Number in Pace : 6348

 Number in Pace :
 6348

 Percent in Pace :
 39.3%

 Number of Vehicles > 55 MPH :
 0

 Percent of Vehicles > 55 MPH :
 0.0%

Future without project AM 2030

2030BaselineAM	Mon	Mar 9, 200	09 15:4	0:50		Page 27	7-1
•••••	Level Of	Service Co	omputat	ion Report	Alterna	ative)	
Intersection #25 Ar	etecia/Aviat	ion Blvd					
Cycle (sec): Loss Time (sec): Optimal Cycle:	100 10 (Y+R= 180	4.0 sec)	Critica Average Level (	ll Vol./Cap Delay (se Of Service:	.(X): c/veh):	1.21 xxxx	12 (X F
Street Name: Approach: North Movement: L -	Aviation th Bound T - R	Blvd South Bo	und - R	East Bo	Artes: und - R	West Book	und - R
Control: Programment.  Rights: Min. Green: 0 Lanes: 1 0	otected Include	Protect Inclu	ed de 0	Protect Inclu	ed de 0	Protecto Include 0 0	ed de 0
Volume Module:							27
Base Vol: 170 Growth Adj: 1.00 Initial Bse: 170 User Adj: 1.00 PHF Adj: 1.00 PHF Volume: 170 Reduct Vol: 0 Reduced Vol: 170 PCE Adj: 1.00 MLF Adj: 1.00 FinalVolume: 170	1350 190 1.00 1.00 1350 190 1.00 1.00 1.00 1.00 1350 190 0 0 1350 190 1.00 1.00 1.00 1.00 1.350 190	50 700 1.00 1.00 50 700 1.00 1.00 1.00 1.00 50 700 0 0 50 700 1.00 1.00 1.00 1.00 50 700	1.00 80 1.00 1.00 80 0 80 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 140 1080 0 0 140 1080 1.00 1.00 1.00 1.00 1.00 1.00	1.00 200 1.00 1.00 200 0 200 1.00 1.00	1.00 1.00 320 740 1.00 1.00 1.00 1.00 320 740 0 0 320 740 1.00 1.00 1.00 1.00 320 740	1.00 240 1.00 1.00 240 0 240 1.00 1.00
Saturation Flow Mo	dule:					1600 1600	1600
Sat/Lane: 1600 Adjustment: 1.00 Lanes: 1.00 Final Sat.: 1600	1.75 0.25 2805 395	1.00 1.79	0.21 328	1.00 1.69	500	1.00 1.00 1.00 1.51 1600 2416	1.00 0.49 784
Capacity Analysis Vol/Sat: 0.11 Crit Moves:	Module:	0.00.0.04	0.04	0 00 0 40	0.40	n 20 n 31	0.31

```
Future without project
 PM 2030
2030BaselinePM
            Mon Mar 9, 2009 15:40:29
          Level Of Service Computation Report
    ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
Intersection #25 Artesia/Aviation Blvd
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx Optimal Cycle: 180 Level Of Service: F
Street Name: Aviation Blvd Artesia Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R
Control: Protected Protected Protected Protected Rights: Include Include Include Include Min. Green: 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0
Volume Module:
Base Vol: 180 900 270 190 1070 180 140 1050 200 530 930 190
FinalVolume: 180 900 270 190 1070 180 140 1050 200 530 930 190
Saturation Flow Module:
Lanes: 1.00 1.54 0.46 1.00 1.71 0.29 1.00 1.68 0.32 1.00 1.66 0.34
Final Sat.: 1600 2462 738 1600 2739 461 1600 2688 512 1600 2657 543
_____
Capacity Analysis Module:
Vol/Sat: 0.11 0.37 0.37 0.12 0.39 0.39 0.09 0.39 0.39 0.33 0.35 0.35
Crit Moves: **** **** ****
```

\*

### ATTACHMENT 4

### **CAPACITY ANALYSIS**

	<b></b>	۶	<b>→</b>	•	F	•	<b>←</b>	•	•	<b>†</b>	<b>/</b>	<b>/</b>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>^</b>	7		Ä	<b>∱</b> 1>		ሻ	<b>∱</b> 1≽		٦
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	872	229	90	1286	98	84
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2775	729	1774	3333	255	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	672	692	108
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1734	1774	1770	1818	1774
Q Serve(g_s), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Cycle Q Clear(g_c), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		0.14	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	545	90	683	701	84
V/C Ratio(X)		2.00	0.50	0.12		1.93	1.00	1.00	2.08	0.98	0.99	1.28
Avail Cap(c_a), veh/h		106	1146	513		90	556	545	90	683	701	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	24.9		49.8	36.0	36.0	49.8	31.9	32.0	50.0
Incr Delay (d2), s/veh		482.1	0.3	0.1		457.6	37.7	38.4	520.8	30.7	31.1	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.7	1.2		14.0	21.9	21.6	15.5	25.0	25.9	6.9
LnGrp Delay(d),s/veh		531.4	28.9	25.0		507.4	73.7	74.4	570.6	62.6	63.1	239.9
LnGrp LOS		F	С	С		F	Ε	Ε	F	Е	Е	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			155.8				132.9			123.8		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	45.9	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s	7.0	41.7	7.3	15.6	7.3	24.1	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.0	4.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			117.4									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turn	ing mov	/ement										
oser approved ignoring 0-1011	iiriy iii0\	vernent.										

Existing Conditions - Tues AM Peak Hour Rick Engineering Company

Synchro 10 Report Page 3

	<b></b>	4
Movement	SBT	SBR
Lane Configurations	<b>†</b>	-02.0
Traffic Volume (veh/h)	594	217
Future Volume (veh/h)	594	217
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	646	236
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	973	355
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2541	928
Grp Volume(v), veh/h	450	432
Grp Sat Flow(s), veh/h/ln	1770	1699
Q Serve(g_s), s	22.1	22.1
Cycle Q Clear(g_c), s	22.1	22.1
Prop In Lane		0.55
Lane Grp Cap(c), veh/h	678	650
V/C Ratio(X)	0.66	0.66
Avail Cap(c_a), veh/h	678	650
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	26.8	26.8
Incr Delay (d2), s/veh	5.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.3
LnGrp Delay(d),s/veh	31.9	32.1
LnGrp LOS	С	С
Approach Vol, veh/h	990	
Approach Delay, s/veh	54.7	
Approach LOS	D	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	<b></b>	۶	<b>→</b>	•	F	•	<b>←</b>	•	1	†	<i>&gt;</i>	<u> </u>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>†</b> †	7		ă	ተኈ		ሻ	<b>∱</b> Ъ		ሻ
Traffic Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Future Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		221	887	191		263	623	157	150	746	151	210
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		237	878	393		274	753	190	160	925	187	214
Arrive On Green		0.13	0.25	0.25		0.15	0.27	0.27	0.09	0.32	0.32	0.12
Sat Flow, veh/h		1774	3539	1583		1774	2803	705	1774	2934	594	1774
Grp Volume(v), veh/h		221	887	191		263	393	387	150	450	447	210
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1738	1774	1770	1758	1774
Q Serve(g_s), s		15.4	31.0	12.9		18.4	26.1	26.2	10.5	29.2	29.2	14.8
Cycle Q Clear(g_c), s		15.4	31.0	12.9		18.4	26.1	26.2	10.5	29.2	29.2	14.8
Prop In Lane		1.00		1.00		1.00		0.41	1.00		0.34	1.00
Lane Grp Cap(c), veh/h		237	878	393		274	476	467	160	558	554	214
V/C Ratio(X)		0.93	1.01	0.49		0.96	0.83	0.83	0.94	0.81	0.81	0.98
Avail Cap(c_a), veh/h		237	878	393		274	476	467	160	558	554	214
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		53.6	47.0	40.2		52.5	43.0	43.0	56.5	39.3	39.3	54.8
Incr Delay (d2), s/veh		40.3	33.0	0.9		43.4	11.4	11.8	52.2	11.8	11.9	55.5
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
%ile BackOfQ(50%),veh/ln		10.2	19.1	5.7		12.4	14.3	14.1	7.5	16.1	16.0	10.5
LnGrp Delay(d),s/veh		93.9	80.0	41.1		95.9	54.4	54.8	108.7	51.1	51.2	110.3
LnGrp LOS		F	F	D		F	D	D	F	D	D	F
Approach Vol, veh/h			1299				1043			1047		
Approach Delay, s/veh			76.7				65.0			59.4		
Approach LOS			Е				Е			Е		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	44.8	24.0	36.4	16.0	48.6	21.4	39.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	39.4	* 19	31.0	* 11	43.2	* 17	33.6				
Max Q Clear Time (g_c+I1), s	16.8	31.2	20.4	33.0	12.5	43.9	17.4	28.2				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	0.0	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			70.6									
HCM 2010 LOS			Е									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing Conditions - Tues PM Peak Hour Rick Engineering Company

Synchro 10 Report Page 3

Movement SBT SBR  Lane Configurations Traffic Volume (veh/h) 1017 97  Future Volume (veh/h) 1017 97  Number 6 16  Initial Q (Qb), veh 0 0 0  Ped-Bike Adj(A_pbT) 1.00  Parking Bus, Adj 1.00 1.00  Adj Sat Flow, veh/h/ln 1863 1900  Adj Flow Rate, veh/h 1105 105  Adj No. of Lanes 2 0  Peak Hour Factor 0.92 0.92  Percent Heavy Veh, % 2 2  Cap, veh/h 1129 107  Arrive On Green 0.35 0.35  Sat Flow, veh/h 3267 310  Grp Volume(v), veh/h 598 612  Grp Sat Flow(s),veh/h/ln 1770 1808  Q Serve(g_s), s 41.7 41.9  Cycle Q Clear(g_c), s 41.7 41.9  Prop In Lane 0.17  Lane Grp Cap(c), veh/h 612 625  V/C Ratio(X) 0.98 0.98  Avail Cap(c_a), veh/h 612 625  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d2), s/veh 31.3 31.3  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 25.8 26.3  LnGrp LOS E E  Approach LOS E  Timer			
Movement         SBT         SBR           Lane Configurations         ↑↑           Traffic Volume (veh/h)         1017         97           Future Volume (veh/h)         1017         97           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1900           Adj Sat Flow, veh/h/In         1863         1900           Adj No. of Lanes         2         0           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s),veh/h         170         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         612         625           V/C Ratio(X)         0.98         0.98           Avail Ca		Ţ	1
Lane Configurations         ↑↑           Traffic Volume (veh/h)         1017         97           Future Volume (veh/h)         1017         97           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/hIn         1863         1900           Adj Flow Rate, veh/h         1105         105           Adj No. of Lanes         2         0           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s), veh/h         170         1808           Q Serve(g_s), s         41.7         41.9           Prop In Lane         0.17         1.00           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h<		007	
Traffic Volume (veh/h) 1017 97 Future Volume (veh/h) 1017 97 Number 6 16 Initial Q (Qb), veh 0 0 0 Ped-Bike Adj(A_pbT) 1.00 Parking Bus, Adj 1.00 1.00 Adj Sat Flow, veh/h/ln 1863 1900 Adj Flow Rate, veh/h 1105 105 Adj No. of Lanes 2 0 Peak Hour Factor 0.92 0.92 Percent Heavy Veh, % 2 2 Cap, veh/h 1129 107 Arrive On Green 0.35 0.35 Sat Flow, veh/h 3267 310 Grp Volume(v), veh/h 598 612 Grp Sat Flow(s),veh/h/ln 1770 1808 Q Serve(g_s), s 41.7 41.9 Cycle Q Clear(g_c), s 41.7 41.9 Prop In Lane 0.17 Lane Grp Cap(c), veh/h 612 625 W/C Ratio(X) 0.98 0.98 Avail Cap(c_a), veh/h 612 625 HCM Platoon Ratio 1.00 1.00 Upstream Filter(I) 1.00 1.00 Uniform Delay (d), s/veh 1.00 1.00 Uniform Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d), s/veh 71.8 LnGrp LOS E Approach LOS E			SBR
Future Volume (veh/h)         1017         97           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1900           Adj Sat Flow, veh/h/In         1863         1900           Adj No. of Lanes         2         0           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s), veh/h/In         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         2.1           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00			
Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1900           Adj Flow Rate, veh/h         1105         105           Adj No. of Lanes         2         0           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s), veh/h         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         2.1           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00 <td< td=""><td></td><td></td><td></td></td<>			
Initial Q (Ob), veh 0 0 Ped-Bike Adj(A_pbT) 1.00 Parking Bus, Adj 1.00 1.00 Adj Sat Flow, veh/h/ln 1863 1900 Adj Flow Rate, veh/h 1105 105 Adj No. of Lanes 2 0 Peak Hour Factor 0.92 0.92 Percent Heavy Veh, % 2 2 Cap, veh/h 1129 107 Arrive On Green 0.35 0.35 Sat Flow, veh/h 3267 310 Grp Volume(v), veh/h 598 612 Grp Sat Flow(s), veh/h/ln 1770 1808 Q Serve(g_s), s 41.7 41.9 Cycle Q Clear(g_c), s 41.7 41.9 Prop In Lane 0.17 Lane Grp Cap(c), veh/h 612 625 V/C Ratio(X) 0.98 0.98 Avail Cap(c_a), veh/h 612 625 HCM Platoon Ratio 1.00 1.00 Upstream Filter(l) 1.00 1.00 Upstream Filter(l) 1.00 1.00 Uniform Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3), s/veh 0.0 0.0 %ile BackOfQ(50%), veh/ln 25.8 26.3 LnGrp Delay(d), s/veh 71.8 71.8 LnGrp LOS E Approach LOS E	, ,		
Ped-Bike Adj(A_pbT)         1.00           Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/In         1863           Adj Flow Rate, veh/h         1105           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1129           Arrive On Green         0.35           Sat Flow, veh/h         3267           Grp Volume(v), veh/h         598           Grp Sat Flow(s),veh/h/In         1770           Q Serve(g_s), s         41.7           Cycle Q Clear(g_c), s         41.7           Prop In Lane         0.17           Lane Grp Cap(c), veh/h         612           V/C Ratio(X)         0.98           Avail Cap(c_a), veh/h         612           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         31.3           Initial Q Delay(d3),s/veh         0.0           %ile BackOfQ(50%),veh/ln         25.8           LnGrp Delay(d),s/veh         71.8           LnGrp Delay(d),s/veh         71.8           Approach Delay, s/veh         77.5           Approach LOS </td <td></td> <td></td> <td></td>			
Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/ln         1863         1900           Adj Flow Rate, veh/h         1105         105           Adj No. of Lanes         2         0           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s),veh/h         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8<	, , ,	0	
Adj Sat Flow, veh/h/ln       1863       1900         Adj Flow Rate, veh/h       1105       105         Adj No. of Lanes       2       0         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1129       107         Arrive On Green       0.35       0.35         Sat Flow, veh/h       3267       310         Grp Volume(v), veh/h       598       612         Grp Sat Flow(s),veh/h/ln       1770       1808         Q Serve(g_s), s       41.7       41.9         Cycle Q Clear(g_c), s       41.7       41.9         Prop In Lane       0.17       14.9         Lane Grp Cap(c), veh/h       612       625         V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3), s/veh       0.0       0.0         %ile BackOfQ(50%), veh/ln       25.8       26.3         LnGrp LOS       E       E			
Adj Flow Rate, veh/h       1105       105         Adj No. of Lanes       2       0         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1129       107         Arrive On Green       0.35       0.35         Sat Flow, veh/h       3267       310         Grp Volume(v), veh/h       598       612         Grp Sat Flow(s), veh/hIn       1770       1808         Q Serve(g_s), s       41.7       41.9         Cycle Q Clear(g_c), s       41.7       41.9         Prop In Lane       0.17       2.1         Lane Grp Cap(c), veh/h       612       625         W/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E <t< td=""><td></td><td></td><td></td></t<>			
Adj No. of Lanes       2       0         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1129       107         Arrive On Green       0.35       0.35         Sat Flow, veh/h       3267       310         Grp Volume(v), veh/h       598       612         Grp Sat Flow(s), veh/h       1770       1808         Q Serve(g_s), s       41.7       41.9         Cycle Q Clear(g_c), s       41.7       41.9         Prop In Lane       0.17       2.1         Lane Grp Cap(c), veh/h       612       625         V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(l)       1.00       1.00         Uniform Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Delay, s/veh       77.5         Approach LOS			
Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s), veh/h/In         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Dol         E         E           Approach Vol, veh/h         77.5           Approach LOS         E	Adj Flow Rate, veh/h		105
Percent Heavy Veh, %         2         2           Cap, veh/h         1129         107           Arrive On Green         0.35         0.35           Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s),veh/h/ln         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(l)         1.00         1.00           Uniform Delay (d), s/veh         40.4         40.5           Incr Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Delay(d),s/veh         71.8         71.8           LnGrp LOS         E         E           Approach Vol, veh/h         77.5           Approach LOS         E			
Cap, veh/h       1129       107         Arrive On Green       0.35       0.35         Sat Flow, veh/h       3267       310         Grp Volume(v), veh/h       598       612         Grp Sat Flow(s),veh/h/In       1770       1808         Q Serve(g_s), s       41.7       41.9         Cycle Q Clear(g_c), s       41.7       41.9         Prop In Lane       0.17       612       625         V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       40.4       40.5         Incr Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Vol, veh/h       77.5         Approach Delay, s/veh       77.5         Approach LOS       E	Peak Hour Factor		
Arrive On Green 0.35 0.35  Sat Flow, veh/h 3267 310  Grp Volume(v), veh/h 598 612  Grp Sat Flow(s), veh/h/ln 1770 1808  Q Serve(g_s), s 41.7 41.9  Cycle Q Clear(g_c), s 41.7 41.9  Prop In Lane 0.17  Lane Grp Cap(c), veh/h 612 625  V/C Ratio(X) 0.98 0.98  Avail Cap(c_a), veh/h 612 625  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 40.4 40.5  Incr Delay (d2), s/veh 31.3 31.3  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 25.8 26.3  LnGrp Delay(d), s/veh 71.8 71.8  LnGrp LOS E  Approach Vol, veh/h 1420  Approach Delay, s/veh 77.5  Approach LOS E	Percent Heavy Veh, %		
Sat Flow, veh/h         3267         310           Grp Volume(v), veh/h         598         612           Grp Sat Flow(s),veh/h/ln         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         40.4         40.5           Incr Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Delay(d),s/veh         71.8         71.8           LnGrp LOS         E         E           Approach Vol, veh/h         1420           Approach Delay, s/veh         77.5           Approach LOS         E	Cap, veh/h	1129	
Grp Volume(v), veh/h 598 612 Grp Sat Flow(s), veh/h/ln 1770 1808 Q Serve(g_s), s 41.7 41.9 Cycle Q Clear(g_c), s 41.7 41.9 Prop In Lane 0.17 Lane Grp Cap(c), veh/h 612 625 W/C Ratio(X) 0.98 0.98 Avail Cap(c_a), veh/h 612 625 HCM Platoon Ratio 1.00 1.00 Upstream Filter(l) 1.00 1.00 Uniform Delay (d), s/veh 40.4 40.5 Incr Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d), s/veh 71.8 71.8 LnGrp LOS E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E	Arrive On Green	0.35	0.35
Grp Sat Flow(s),veh/h/ln         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(l)         1.00         1.00           Uniform Delay (d), s/veh         40.4         40.5           Incr Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Delay(d),s/veh         71.8         71.8           LnGrp LOS         E         E           Approach Vol, veh/h         1420           Approach Delay, s/veh         77.5           Approach LOS         E	Sat Flow, veh/h	3267	310
Grp Sat Flow(s),veh/h/ln         1770         1808           Q Serve(g_s), s         41.7         41.9           Cycle Q Clear(g_c), s         41.7         41.9           Prop In Lane         0.17           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(l)         1.00         1.00           Uniform Delay (d), s/veh         40.4         40.5           Incr Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Delay(d),s/veh         71.8         71.8           LnGrp LOS         E         E           Approach Vol, veh/h         1420           Approach Delay, s/veh         77.5           Approach LOS         E	Grp Volume(v), veh/h	598	612
Q Serve(g_s), s 41.7 41.9 Cycle Q Clear(g_c), s 41.7 41.9 Prop In Lane 0.17 Lane Grp Cap(c), veh/h 612 625 V/C Ratio(X) 0.98 0.98 Avail Cap(c_a), veh/h 612 625 HCM Platoon Ratio 1.00 1.00 Upstream Filter(I) 1.00 1.00 Uniform Delay (d), s/veh 40.4 40.5 Incr Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E		1770	1808
Cycle Q Clear(g_c), s       41.7       41.9         Prop In Lane       0.17         Lane Grp Cap(c), veh/h       612       625         V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       40.4       40.5         Incr Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Vol, veh/h       1420         Approach Delay, s/veh       77.5         Approach LOS       E		41.7	41.9
Prop In Lane         0.17           Lane Grp Cap(c), veh/h         612         625           V/C Ratio(X)         0.98         0.98           Avail Cap(c_a), veh/h         612         625           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         40.4         40.5           Incr Delay (d2), s/veh         31.3         31.3           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         25.8         26.3           LnGrp Delay(d),s/veh         71.8         71.8           LnGrp LOS         E         E           Approach Vol, veh/h         1420           Approach Delay, s/veh         77.5           Approach LOS         E		41.7	41.9
Lane Grp Cap(c), veh/h       612       625         V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       40.4       40.5         Incr Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Vol, veh/h       1420         Approach Delay, s/veh       77.5         Approach LOS       E			0.17
V/C Ratio(X)       0.98       0.98         Avail Cap(c_a), veh/h       612       625         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       40.4       40.5         Incr Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Vol, veh/h       1420         Approach Delay, s/veh       77.5         Approach LOS       E		612	625
Avail Cap(c_a), veh/h 612 625  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 40.4 40.5  Incr Delay (d2), s/veh 31.3 31.3  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 25.8 26.3  LnGrp Delay(d),s/veh 71.8 71.8  LnGrp LOS E E  Approach Vol, veh/h 1420  Approach Delay, s/veh 77.5  Approach LOS E		0.98	0.98
HCM Platoon Ratio 1.00 1.00 Upstream Filter(I) 1.00 1.00 Uniform Delay (d), s/veh 40.4 40.5 Incr Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/In 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E		612	625
Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       40.4       40.5         Incr Delay (d2), s/veh       31.3       31.3         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/In       25.8       26.3         LnGrp Delay(d),s/veh       71.8       71.8         LnGrp LOS       E       E         Approach Vol, veh/h       1420         Approach Delay, s/veh       77.5         Approach LOS       E			
Uniform Delay (d), s/veh 40.4 40.5 Incr Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E			
Incr Delay (d2), s/veh 31.3 31.3 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E			
Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E E  Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E			
%ile BackOfQ(50%),veh/ln 25.8 26.3 LnGrp Delay(d),s/veh 71.8 71.8 LnGrp LOS E E  Approach Vol, veh/h 1420  Approach Delay, s/veh 77.5  Approach LOS E			
LnGrp Delay(d),s/veh  Character Delay(d),s/veh  The second Second			
LnGrp LOS E E Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E			
Approach Vol, veh/h 1420 Approach Delay, s/veh 77.5 Approach LOS E			
Approach Delay, s/veh 77.5 Approach LOS E			
Approach LOS E	•		
Timer		_	
	Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	•	•	<b>→</b>	•	F	•	<b>←</b>	•	1	<b>†</b>	<b>/</b>	<b>/</b>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>†</b> †	7		ă	ተኈ		ሻ	<b>∱</b> Ъ		ሻ
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	900	205	90	1267	105	90
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2863	654	1774	3309	275	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	642	661	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1747	1774	1770	1814	1774
Q Serve(g_s), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Cycle Q Clear(g_c), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		0.15	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	549	90	678	695	90
V/C Ratio(X)		1.91	0.49	0.14		1.85	1.03	1.03	1.93	0.95	0.95	1.68
Avail Cap(c_a), veh/h		106	1146	513		90	556	549	90	678	695	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	25.1		49.8	36.0	36.0	49.8	31.4	31.4	49.8
Incr Delay (d2), s/veh		441.1	0.3	0.1		423.8	44.7	45.4	457.6	24.0	24.1	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.6	1.5		13.1	23.0	22.8	14.0	22.5	23.2	11.2
LnGrp Delay(d),s/veh		490.5	28.9	25.2		473.6	80.7	81.4	507.4	55.4	55.5	397.3
LnGrp LOS		F	С	С		F	F	F	F	Е	Е	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			140.4				131.2			108.4		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s	7.3	39.1	7.3	15.5	7.3	21.3	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.6	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			116.6									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turi	ning mov	ement.										

Existing Conditions - Wed AM Peak Hour Rick Engineering Company

	<del> </del>	4
Movement	SBT	SBR
Lane Configurations	<b>†</b>	Jan
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	981	348
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2562	910
Grp Volume(v), veh/h	405	391
Grp Sat Flow(s), veh/h/ln	1770	1702
Q Serve(g_s), s	19.2	19.3
Cycle Q Clear(g_c), s	19.2	19.3
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	678	652
V/C Ratio(X)	0.60	0.60
Avail Cap(c_a), veh/h	678	652
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	25.9	26.0
Incr Delay (d2), s/veh	3.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	9.7
LnGrp Delay(d),s/veh	29.8	30.0
LnGrp LOS	С	С
Approach Vol, veh/h	946	
Approach Delay, s/veh	88.2	
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	F	•	<b>—</b>	•	1	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b></b>
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ă	<b>†</b> †	7		ă	<b>∱</b> 1>		ሻ	<b>†</b> 1>		ሻ	<b>↑</b> ₽
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		1	2	0	1	2	0	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	215	855	382		272	787	177	141	900	251	224	1217
Arrive On Green	0.12	0.24	0.24		0.15	0.27	0.27	0.08	0.33	0.33	0.13	0.38
Sat Flow, veh/h	1774	3539	1583		1774	2872	646	1774	2734	764	1774	3233
Grp Volume(v), veh/h	190	893	142		272	388	384	137	452	441	200	670
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1774	1770	1749	1774	1770	1728	1774	1770
Q Serve(q_s), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	31.0	31.1	15.0	50.8
Cycle Q Clear(g_c), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	31.0	31.1	15.0	50.8
Prop In Lane	1.00		1.00		1.00		0.37	1.00		0.44	1.00	
Lane Grp Cap(c), veh/h	215	855	382		272	485	479	141	582	569	224	666
V/C Ratio(X)	0.89	1.04	0.37		1.00	0.80	0.80	0.97	0.78	0.78	0.89	1.01
Avail Cap(c_a), veh/h	242	855	382		272	485	479	141	582	569	251	666
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	51.2	42.7		57.1	45.6	45.6	62.0	40.8	40.8	58.0	42.1
Incr Delay (d2), s/veh	28.0	43.1	0.6		54.5	9.3	9.5	67.8	9.8	10.0	28.3	36.4
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
%ile BackOfQ(50%),veh/ln	8.6	21.0	4.5		14.2	14.7	14.6	7.7	16.8	16.4	9.1	31.5
LnGrp Delay(d),s/veh	86.4	94.3	43.3		111.7	54.8	55.1	129.9	50.6	50.8	86.3	78.5
LnGrp LOS	F	F	D		F	D	Е	F	D	D	F	F
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		87.2				69.8			61.2			79.9
Approach LOS		F				Е			Е			E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.8	49.8	25.4	38.0	15.4	56.2	21.0	42.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 19	42.4	* 21	32.6	* 11	50.8	* 18	34.9				
Max Q Clear Time (g_c+l1), s	17.0	33.1	22.7	34.6	12.4	52.8	16.2	29.6				
Green Ext Time (p_c), s	0.1	3.8	0.0	0.0	0.0	0.0	0.1	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			75.6									
HCM 2010 LOS			E									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing Conditions -Wed PM Peak Hour Rick Engineering Company

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Movement	SBR
Land Configurations	ODIC
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	1900
Adj No. of Lanes	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	0.92
Cap, veh/h	128
Arrive On Green	0.38
Sat Flow, veh/h	339
Grp Volume(v), veh/h	686
Grp Sat Flow(s), veh/h/ln	1803
Q Serve(g_s), s	50.8
Cycle Q Clear(g_c), s	50.8
Prop In Lane	0.19
Lane Grp Cap(c), veh/h	678
V/C Ratio(X)	1.01
Avail Cap(c_a), veh/h	678
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	42.1
Incr Delay (d2), s/veh	37.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	32.3
LnGrp Delay(d),s/veh	79.5
LnGrp LOS	F
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	
HIHICI	

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	<b></b>	•	<b>→</b>	•	F	•	<b>—</b>	•	•	†	<i>&gt;</i>	<u> </u>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>†</b> †	7		ሻ	ተኈ		7	<b>†</b> †	7	ሻ
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		1	2	0	1	2	1	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	872	229	90	1365	611	84
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2775	729	1774	3539	1583	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	1267	97	108
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1734	1774	1770	1583	1774
Q Serve(g_s), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	36.0	4.2	5.0
Cycle Q Clear(g_c), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	36.0	4.2	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	545	90	1365	611	84
V/C Ratio(X)		2.00	0.50	0.12		1.93	1.00	1.00	2.08	0.93	0.16	1.28
Avail Cap(c_a), veh/h		106	1146	513		90	556	545	90	1365	611	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	24.9		49.8	36.0	36.0	49.8	30.9	21.1	50.0
Incr Delay (d2), s/veh		482.1	0.3	0.1		457.6	37.7	38.4	520.8	12.3	0.6	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.7	1.2		14.0	21.9	21.6	15.5	19.8	1.9	6.9
LnGrp Delay(d),s/veh		531.4	28.9	25.0		507.4	73.7	74.4	570.6	43.2	21.7	239.9
LnGrp LOS		F	С	С		F	Е	Е	F	D	С	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			155.8				132.9			105.1		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	45.9	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s	7.0	38.0	7.3	15.6	7.3	24.1	8.3	35.0				
Green Ext Time (p_c), s	0.0	1.9	0.0	3.6	0.0	4.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			111.2									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	/ement.										

Existing + PSR - Tues AM Peak Hour Rick Engineering Company

	<b></b>	4
Movement	SBT	SBR
Lane Configurations	<b>†</b>	
Traffic Volume (veh/h)	594	217
Future Volume (veh/h)	594	217
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	646	236
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	973	355
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2541	928
Grp Volume(v), veh/h	450	432
Grp Sat Flow(s), veh/h/ln	1770	1699
Q Serve(g_s), s	22.1	22.1
Cycle Q Clear(g_c), s	22.1	22.1
Prop In Lane		0.55
Lane Grp Cap(c), veh/h	678	650
V/C Ratio(X)	0.66	0.66
Avail Cap(c_a), veh/h	678	650
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	26.8	26.8
Incr Delay (d2), s/veh	5.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.3
LnGrp Delay(d),s/veh	31.9	32.1
LnGrp LOS	С	С
Approach Vol, veh/h	990	
Approach Delay, s/veh	54.7	
Approach LOS	D	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement Lane Configurations Traffic Volume (veh/h) 2 Future Volume (veh/h) 2 Future Volume (veh/h) 2 Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(l) Uniform Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Max Green Setting (Gmax), s * 4.7 Max Green Ext Time (p_c), s Intersection Summary	۶	-	•	F	•	←	•	•	<b>†</b>	/	<b>&gt;</b>
Traffic Volume (veh/h)  Future Volume (veh/h)  Number  Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/In  Adj Flow Rate, veh/h  Adj No. of Lanes  Peak Hour Factor  Percent Heavy Veh, %  Cap, veh/h  Arrive On Green  Sat Flow, veh/h  Grp Volume(v), veh/h  Grp Sat Flow(s), veh/h/In  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  W/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Initial Q Delay(d3), s/veh  %ile BackOfQ(50%), veh/ln  LnGrp Delay(d), s/veh  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  Approach LOS  Timer  1  Assigned Phs  1  Phs Duration (G+Y+Rc), s  1  Max Green Setting (Gmax), s  * 4.7  Max Green Setting (Gmax), s  * 15  Max Q Clear Time (g_c+I1), s  16.8  Green Ext Time (p_c), s  0.0	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Future Volume (veh/h)  Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h W/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Initial Q Delay(d3),s/veh Initial Q Delay(d3),s/veh Sile BackOfQ(50%),veh/ln LnGrp Delay (d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer  1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0	ሻ	<b>†</b> †	7		ሻ	<b>∱</b> Ъ		ሻ	<b>†</b> †	7	ሻ
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h/In Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d2), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  1 Assigned Phs 1 Phs Duration (G+Y+Rc), s Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0	203	816	176	9	242	573	144	138	686	139	193
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	203	816	176	9	242	573	144	138	686	139	193
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h/In Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d2), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	7	4	14		3	8	18	5	2	12	1
Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d2), s/veh Initial Q Delay(d3),s/veh Mile BackOfQ(50%),veh/ln LnGrp Delay (d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	0	0	0		0	0	0	0	0	0	0
Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1.00		1.00		1.00		1.00	1.00		1.00	1.00
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0	1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	221	887	191		263	623	157	150	746	151	210
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1	2	1		1	2	0	1	2	1	1
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d2), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer  1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0	2	2	2		2	2	2	2	2	2	2
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	237	878	393		274	753	190	160	1116	499	214
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	0.13	0.25	0.25		0.15	0.27	0.27	0.09	0.32	0.32	0.12
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1774	3539	1583		1774	2803	705	1774	3539	1583	1774
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	221	887	191		263	393	387	150	746	151	210
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1774	1770	1583		1774	1770	1738	1774	1770	1583	1774
Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	15.4	31.0	12.9		18.4	26.1	26.2	10.5	22.9	9.0	14.8
Prop In Lane Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS  Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	15.4	31.0	12.9		18.4	26.1	26.2	10.5	22.9	9.0	14.8
Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS  Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1.00		1.00		1.00		0.41	1.00		1.00	1.00
V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS  Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	237	878	393		274	476	467	160	1116	499	214
Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	0.93	1.01	0.49		0.96	0.83	0.83	0.94	0.67	0.30	0.98
HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	237	878	393		274	476	467	160	1116	499	214
Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	53.6	47.0	40.2		52.5	43.0	43.0	56.5	37.1	32.4	54.8
Initial Q Delay(d3),s/veh  %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS  Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	40.3	33.0	0.9		43.4	11.4	11.8	52.2	3.2	1.6	55.5
%ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+11), s 16.8 Green Ext Time (p_c), s 0.0	10.2	19.1	5.7		12.4	14.3	14.1	7.5	11.7	4.1	10.5
Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1  Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+11), s 16.8 Green Ext Time (p_c), s 0.0	93.9	80.0	41.1		95.9	54.4	54.8	108.7	40.3	34.0	110.3
Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer 1 Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	F	F	D		F	D	D	F	D	С	F
Approach Delay, s/veh Approach LOS  Timer  Assigned Phs 1 Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Max Green Setting (Gmax), s Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0		1299				1043			1047		
Approach LOS  Timer  Assigned Phs 1 Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Max Green Setting (Gmax), s Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s 0.0		76.7				65.0			49.2		
Timer 1  Assigned Phs 1  Phs Duration (G+Y+Rc), s 19.8  Change Period (Y+Rc), s * 4.7  Max Green Setting (Gmax), s * 15  Max Q Clear Time (g_c+I1), s 16.8  Green Ext Time (p_c), s 0.0		Е				Е			D		
Assigned Phs 1 Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s 19.8 Change Period (Y+Rc), s * 4.7 Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+I1), s 16.8 Green Ext Time (p_c), s 0.0	2	3	4	5	6	7	8				
Change Period (Y+Rc), s * 4.7  Max Green Setting (Gmax), s * 15  Max Q Clear Time (g_c+I1), s 16.8  Green Ext Time (p_c), s 0.0	44.8	24.0	36.4	16.0	48.6	21.4	39.0				
Max Green Setting (Gmax), s * 15 Max Q Clear Time (g_c+l1), s 16.8 Green Ext Time (p_c), s 0.0	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Q Clear Time (g_c+l1), s 16.8 Green Ext Time (p_c), s 0.0	39.4	* 19	31.0	* 11	43.2	* 17	33.6				
Green Ext Time (p_c), s 0.0	24.9	20.4	33.0	12.5	43.9	17.4	28.2				
Intersection Summary	4.8	0.0	0.0	0.0	0.0	0.0	2.2				
intersection Summary											
HCM 2010 Ctrl Delay		68.4									
HCM 2010 LOS		E									
Notes											
User approved ignoring U-Turning move	ement.										

Existing + PSR- Tues PM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>∱</b> î≽	
Traffic Volume (veh/h)	1017	97
Future Volume (veh/h)	1017	97
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	1105	105
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1129	107
Arrive On Green	0.35	0.35
Sat Flow, veh/h	3267	310
Grp Volume(v), veh/h	598	612
Grp Sat Flow(s), veh/h/ln	1770	1808
Q Serve(q_s), s	41.7	41.9
Cycle Q Clear(q_c), s	41.7	41.9
Prop In Lane	71.7	0.17
Lane Grp Cap(c), veh/h	612	625
V/C Ratio(X)	0.98	0.98
Avail Cap(c_a), veh/h	612	625
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	40.4	40.5
Incr Delay (d2), s/veh	31.3	31.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.8	26.3
		71.8
LnGrp Delay(d),s/veh	71.8	
LnGrp LOS	E 1400	E
Approach Vol, veh/h	1420	
Approach Delay, s/veh	77.5	
Approach LOS	Е	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>^</b>	7		ř	<b>∱</b> 1≽		ሻ	<b>^</b>	7	۲
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		1	2	0	1	2	1	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	900	205	90	1355	606	90
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2863	654	1774	3539	1583	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	1203	100	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1747	1774	1770	1583	1774
Q Serve(g_s), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	33.4	4.4	5.3
Cycle Q Clear(g_c), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	33.4	4.4	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	549	90	1355	606	90
V/C Ratio(X)		1.91	0.49	0.14		1.85	1.03	1.03	1.93	0.89	0.16	1.68
Avail Cap(c_a), veh/h		106	1146	513		90	556	549	90	1355	606	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	25.1		49.8	36.0	36.0	49.8	30.3	21.3	49.8
Incr Delay (d2), s/veh		441.1	0.3	0.1		423.8	44.7	45.4	457.6	8.9	0.6	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.6	1.5		13.1	23.0	22.8	14.0	17.9	2.0	11.2
LnGrp Delay(d),s/veh		490.5	28.9	25.2		473.6	80.7	81.4	507.4	39.2	21.9	397.3
LnGrp LOS		F	С	С		F	F	F	F	D	С	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			140.4				131.2			92.9		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s	7.3	35.4	7.3	15.5	7.3	21.3	8.3	35.0				
Green Ext Time (p_c), s	0.0	3.3	0.0	3.6	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			111.6									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing + PSR - Wed AM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>↑</b> 1>	
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	981	348
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2562	910
Grp Volume(v), veh/h	405	391
Grp Sat Flow(s), veh/h/ln	1770	1702
Q Serve(q_s), s	19.2	19.3
Cycle Q Clear(q_c), s	19.2	19.3
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	678	652
V/C Ratio(X)	0.60	0.60
Avail Cap(c_a), veh/h	678	652
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	25.9	26.0
Incr Delay (d2), s/veh	3.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	9.7
LnGrp Delay(d),s/veh	29.8	30.0
LnGrp LOS	29.0 C	30.0 C
Approach Vol, veh/h	946	U
•	946 88.2	
Approach LOS		
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	<b>†</b> †	7		ħ	<b>∱</b> 1≽		ň	<b>†</b> †	7	ሻ	<b>∱</b> }
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		1	2	0	1	2	1	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	215	855	382		272	787	177	141	1164	521	225	1217
Arrive On Green	0.12	0.24	0.24		0.15	0.27	0.27	0.08	0.33	0.33	0.13	0.38
Sat Flow, veh/h	1774	3539	1583		1774	2872	646	1774	3539	1583	1774	3233
Grp Volume(v), veh/h	190	893	142		272	388	384	137	698	195	200	670
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1774	1770	1749	1774	1770	1583	1774	1770
Q Serve(g_s), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	22.3	12.7	15.0	50.8
Cycle Q Clear(g_c), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	22.3	12.7	15.0	50.8
Prop In Lane	1.00		1.00		1.00		0.37	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	215	855	382		272	485	479	141	1164	521	225	666
V/C Ratio(X)	0.89	1.04	0.37		1.00	0.80	0.80	0.97	0.60	0.37	0.89	1.01
Avail Cap(c_a), veh/h	242	855	382		272	485	479	141	1164	521	256	666
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	51.2	42.7		57.1	45.6	45.6	62.0	37.9	34.7	58.0	42.1
Incr Delay (d2), s/veh	28.0	43.1	0.6		54.5	9.3	9.5	67.8	2.3	2.1	27.4	36.4
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
%ile BackOfQ(50%),veh/ln	8.6	21.0	4.5		14.2	14.7	14.6	7.7	11.2	5.9	9.0	31.5
LnGrp Delay(d),s/veh	86.4	94.3	43.3		111.7	54.8	55.1	129.9	40.2	36.7	85.4	78.5
LnGrp LOS	F	F	D		F	D	Ε	F	D	D	F	F
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		87.2				69.8			51.4			79.8
Approach LOS		F				Е			D			Е
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.8	49.8	25.4	38.0	15.4	56.2	21.0	42.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 20	42.0	* 21	32.6	* 11	50.8	* 18	34.9				
Max Q Clear Time (g_c+l1), s	17.0	24.3	22.7	34.6	12.4	52.8	16.2	29.6				
Green Ext Time (p_c), s	0.1	5.1	0.0	0.0	0.0	0.0	0.1	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			73.5									
HCM 2010 LOS			E									
Notes												
User approved ignoring U-Turi	ning mov	ement.										

Existing + PSR- Wed PM Peak Hour Rick Engineering Company

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Movement	SBR
Land Configurations	ODIC
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	1900
Adj No. of Lanes	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	0.92
Cap, veh/h	128
Arrive On Green	0.38
Sat Flow, veh/h	339
Grp Volume(v), veh/h	686
Grp Sat Flow(s), veh/h/ln	1803
Q Serve(g_s), s	50.8
Cycle Q Clear(g_c), s	50.8
Prop In Lane	0.19
Lane Grp Cap(c), veh/h	678
V/C Ratio(X)	1.01
Avail Cap(c_a), veh/h	678
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	42.1
Incr Delay (d2), s/veh	37.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	32.3
LnGrp Delay(d),s/veh	79.5
LnGrp LOS	F
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	
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<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>^</b>	7		۲	<b>∱</b> 1>		۲	<b>∱</b> Љ		٦
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	872	229	90	1286	98	84
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2775	729	1774	3333	255	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	672	692	108
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1734	1774	1770	1818	1774
Q Serve(g_s), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Cycle Q Clear(g_c), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		0.14	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	545	90	683	701	84
V/C Ratio(X)		2.00	0.50	0.12		1.93	1.00	1.00	2.08	0.98	0.99	1.28
Avail Cap(c_a), veh/h		106	1146	513		90	556	545	90	683	701	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	24.9		49.8	36.0	36.0	49.8	31.9	32.0	50.0
Incr Delay (d2), s/veh		482.1	0.3	0.1		457.6	37.7	38.4	520.8	30.7	31.1	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.7	1.2		14.0	21.9	21.6	15.5	25.0	25.9	6.9
LnGrp Delay(d),s/veh		531.4	28.9	25.0		507.4	73.7	74.4	570.6	62.6	63.1	239.9
LnGrp LOS		F	С	С		F	Е	Е	F	Е	Е	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			155.8				132.9			123.8		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	45.9	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (q_c+l1), s	7.0	41.7	7.3	15.6	7.3	16.5	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.0	5.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			116.2									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turn	ning mov	/ement.										

Existing + GenPlan - Tues AM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<u>↑</u>	7
Traffic Volume (veh/h)	594	217
Future Volume (veh/h)	594	217
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	646	236
Adj No. of Lanes	2	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1355	606
Arrive On Green	0.38	0.38
Sat Flow, veh/h	3539	1583
Grp Volume(v), veh/h	646	236
Grp Sat Flow(s), veh/h/ln	1770	1583
Q Serve(g_s), s	14.5	11.4
Cycle Q Clear(g_c), s	14.5	11.4
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1355	606
V/C Ratio(X)	0.48	0.39
Avail Cap(c_a), veh/h	1355	606
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	24.5	23.5
Incr Delay (d2), s/veh	1.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	5.3
LnGrp Delay(d),s/veh	25.7	25.4
LnGrp LOS	С	С
Approach Vol, veh/h	990	
Approach Delay, s/veh	49.0	
Approach LOS	D	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	•	۶	<b>→</b>	•	F	•	<b>←</b>	•	1	†	<i>&gt;</i>	<u> </u>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		7	<b>†</b> †	7		ሻ	ተኈ		ሻ	<b>∱</b> Ъ		ሻ
Traffic Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Future Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		221	887	191		263	623	157	150	746	151	210
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		237	895	400		274	767	193	165	906	183	217
Arrive On Green		0.13	0.25	0.25		0.15	0.27	0.27	0.09	0.31	0.31	0.12
Sat Flow, veh/h		1774	3539	1583		1774	2803	705	1774	2934	594	1774
Grp Volume(v), veh/h		221	887	191		263	393	387	150	450	447	210
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1738	1774	1770	1758	1774
Q Serve(g_s), s		15.4	31.2	12.8		18.4	25.9	26.0	10.5	29.5	29.5	14.7
Cycle Q Clear(g_c), s		15.4	31.2	12.8		18.4	25.9	26.0	10.5	29.5	29.5	14.7
Prop In Lane		1.00		1.00		1.00		0.41	1.00		0.34	1.00
Lane Grp Cap(c), veh/h		237	895	400		274	484	476	165	546	543	217
V/C Ratio(X)		0.93	0.99	0.48		0.96	0.81	0.81	0.91	0.82	0.82	0.97
Avail Cap(c_a), veh/h		237	895	400		274	484	476	165	546	543	217
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		53.6	46.6	39.7		52.5	42.4	42.4	56.2	40.0	40.0	54.6
Incr Delay (d2), s/veh		40.3	27.9	0.9		43.4	10.1	10.4	45.3	13.2	13.3	51.6
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
%ile BackOfQ(50%),veh/ln		10.2	18.7	5.7		12.3	14.0	13.8	7.2	16.4	16.3	10.3
LnGrp Delay(d),s/veh		93.9	74.4	40.6		95.9	52.5	52.8	101.4	53.2	53.3	106.2
LnGrp LOS		F	Е	D		F	D	D	F	D	D	F
Approach Vol, veh/h			1299				1043			1047		
Approach Delay, s/veh			72.8				63.6			60.2		
Approach LOS			Е				Е			Е		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	44.0	24.0	37.0	16.3	47.7	21.4	39.6				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	38.6	* 19	31.6	* 12	42.3	* 17	34.2				
Max Q Clear Time (g_c+l1), s	16.7	31.5	20.4	33.2	12.5	39.5	17.4	28.0				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	1.8	0.0	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			64.0									
HCM 2010 LOS			E									
Notes												
User approved ignoring U-Turn	ning mov	ement										

Existing + GenPlan- Tues PM Peak Hour Rick Engineering Company

Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj 1.00 Adj Sat Flow, veh/h/ln 1863 Adj Flow Rate, veh/h 1105 Adj No. of Lanes 2 Peak Hour Factor 0.92 Percent Heavy Veh, % 2 Cap, veh/h 1198 Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s), veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 13.0 Initial Q Delay(d3), s/veh 0.0 %ile BackOfQ(50%), veh/ln 20.4 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			
Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green O.34 Sat Flow, veh/h Grp Sat Flow(s), veh/h Grp Sat Flow(s), veh/h Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Nile BackOfQ(50%), veh/ln LnGrp Delay(d), s/veh Sile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 59.0	ļ	<b>↓</b>	4
Traffic Volume (veh/h)  Future Volume (veh/h)  Number  Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/In  Adj Flow Rate, veh/h  Adj No. of Lanes  Peak Hour Factor  Percent Heavy Veh, %  Cap, veh/h  Arrive On Green  Sat Flow, veh/h  Grp Sat Flow(s), veh/h  Grp Sat Flow(s), veh/h  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Nile BackOfQ(50%), veh/ln  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  1017  1017  1017  1017  1017  1017  1018  1019  10	·	CDT	
Traffic Volume (veh/h) Future Volume (veh/h) Number 6 Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Sat Flow(s), veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Nile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 1017 1017 1017 1018 1017 1017 1017 1018 1019 1019 1019 1019 1019 1019 1019			SBR
Future Volume (veh/h)  Number  Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/ln  Adj Flow Rate, veh/h  Adj No. of Lanes  Peak Hour Factor  Percent Heavy Veh, %  Cap, veh/h  Arrive On Green  Sat Flow, veh/h  Grp Sat Flow(s), veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  HCM Platoon Ratio  Upstream Filter(l)  Uniform Delay (d2), s/veh  %ile BackOfQ(50%), veh/ln  LnGrp LOS  Approach Vol, veh/h  1017  Approach Delay, s/veh  D  O  O  O  O  O  O  O  O  O  O  O  O			7
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Sat Flow(s), veh/h Inos Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 59.0			97
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj 1.00 Adj Sat Flow, veh/h/ln 1863 Adj Flow Rate, veh/h 1105 Adj No. of Lanes 2 Peak Hour Factor 0.92 Percent Heavy Veh, % 2 Cap, veh/h 1198 Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s),veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d), s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			97
Ped-Bike Adj(A_pbT)           Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/ln         1863           Adj Flow Rate, veh/h         1105           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         1105           Grp Volume(v), veh/h         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         59.0	6		16
Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/ln         1863           Adj Flow Rate, veh/h         1105           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	0	0	0
Adj Sat Flow, veh/h/ln       1863         Adj Flow Rate, veh/h       1105         Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s), veh/h/ln       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       39.8         Incr Delay (d2), s/veh       13.0         Initial Q Delay(d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp Delay(d), s/veh       52.8         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1.00
Adj Flow Rate, veh/h       1105         Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s),veh/h/In       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       13.0         Initial Q Delay (d2), s/veh       13.0         Initial Q Delay (d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1.00
Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s),veh/h/In       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       39.8         Incr Delay (d2), s/veh       13.0         Initial Q Delay(d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1863
Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s), veh/h/In         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0			105
Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s),veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	2		1
Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s),veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0			0.92
Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s),veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/In 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	2		2
Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s), veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	198		536
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(l) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%),veh/ln LnGrp Delay(d3),s/veh LnGrp Delay(d), s/veh Delay LoS Delay(d2), s/veh Delay LoS Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh	.34	0.34	0.34
Grp Sat Flow(s),veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Nile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  LnGrp LOS  Approach Vol, veh/h  1770  1198  1198  1198  1200  12	539	3539	1583
Grp Sat Flow(s),veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Nile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  LnGrp LOS  Approach Vol, veh/h  1770  1198  1198  1198  1200  12	105	1105	105
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5	770	1770	1583
Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5	7.5	37.5	5.9
Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X)  Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3), s/veh %ile BackOfQ(50%), veh/In LnGrp Delay(d), s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh  1198 1198 1198 1198 1198 1198 1198 11	7.5	37.5	5.9
Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh  Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  EnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  1198  1198  1209			1.00
V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	198	1198	536
Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Initial Q Delay(d3),s/veh  %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  52.8  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  59.0			0.20
HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/In 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	198	1198	536
Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh D 1.00 13.0 13.0 10.0 10.0 10.0 10.0 10.0			1.00
Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh  39.8 39.8 13.0 12.0 12.0 12.4 12.0 14.20 14.20 14.20 14.20 14.20 15.20 15.20 16.20 16.20 17.20 18			1.00
Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			29.3
Initial Q Delay(d3),s/veh  %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  52.8  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  59.0			0.8
%ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0		0.0	0.0
LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			2.7
LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			30.1
Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	D		С
Approach Delay, s/veh 59.0			
	F.0		
	_	_	
Timer			

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>†</b> †	7		ሻ	<b>∱</b> 1>		ሻ	<b>∱</b> ∱		ሻ
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	900	205	90	1267	105	90
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2863	654	1774	3309	275	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	642	661	150
Grp Sat Flow(s),veh/h/ln		1774	1770	1583		1774	1770	1747	1774	1770	1814	1774
Q Serve(g_s), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Cycle Q Clear(g_c), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		0.15	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	549	90	678	695	90
V/C Ratio(X)		1.91	0.49	0.14		1.85	1.03	1.03	1.93	0.95	0.95	1.68
Avail Cap(c_a), veh/h		106	1146	513		90	556	549	90	678	695	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	25.1		49.8	36.0	36.0	49.8	31.4	31.4	49.8
Incr Delay (d2), s/veh		441.1	0.3	0.1		423.8	44.7	45.4	457.6	24.0	24.1	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.6	1.5		13.1	23.0	22.8	14.0	22.5	23.2	11.2
LnGrp Delay(d),s/veh		490.5	28.9	25.2		473.6	80.7	81.4	507.4	55.4	55.5	397.3
LnGrp LOS		F	С	С		F	F	F	F	E	E	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			140.4				131.2			108.4		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.3	39.1	7.3	15.5	7.3	14.9	8.3	35.0				
Green Ext Time (p_c), s	0.0	8.0	0.0	3.6	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			115.7									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	vement.										

Existing + GenPlan - Wed AM Peak Hour Rick Engineering Company

	<b>↓</b>	4
Movement	SBT	SBR
Lane Configurations	<u> </u>	الماد الم
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)	U	1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	209
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	0.92	0.92
Cap, veh/h	1355	606
Arrive On Green	0.38	0.38
Sat Flow, veh/h	3539	1583
Grp Volume(v), veh/h	587	209
Grp Sat Flow(s), veh/h/ln	1770	1583
Q Serve(g_s), s	12.9	9.9
Cycle Q Clear(g_c), s	12.9	9.9
Prop In Lane	1055	1.00
Lane Grp Cap(c), veh/h	1355	606
V/C Ratio(X)	0.43	0.34
Avail Cap(c_a), veh/h	1355	606
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	24.0	23.0
Incr Delay (d2), s/veh	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	4.5
LnGrp Delay(d),s/veh	25.0	24.6
LnGrp LOS	С	С
Approach Vol, veh/h	946	
Approach Delay, s/veh	83.9	
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	<b>^</b>	7		ሻ	<b>∱</b> 1>		ሻ	<b>∱</b> 1>		ሻ	<b>^</b>
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		1	2	0	1	2	0	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	215	881	394		281	823	185	143	881	246	214	1282
Arrive On Green	0.12	0.25	0.25		0.16	0.29	0.29	0.08	0.32	0.32	0.12	0.36
Sat Flow, veh/h	1774	3539	1583		1774	2872	646	1774	2734	764	1774	3539
Grp Volume(v), veh/h	190	893	142		272	388	384	137	452	441	200	1227
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1774	1770	1749	1774	1770	1728	1774	1770
Q Serve(g_s), s	14.2	33.6	10.0		20.6	27.0	27.1	10.4	31.4	31.4	15.1	45.7
Cycle Q Clear(g_c), s	14.2	33.6	10.0		20.6	27.0	27.1	10.4	31.4	31.4	15.1	45.7
Prop In Lane	1.00		1.00		1.00		0.37	1.00		0.44	1.00	
Lane Grp Cap(c), veh/h	215	881	394		281	507	501	143	570	557	214	1282
V/C Ratio(X)	0.88	1.01	0.36		0.97	0.77	0.77	0.96	0.79	0.79	0.93	0.96
Avail Cap(c_a), veh/h	246	881	394		281	507	501	143	570	557	214	1282
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	50.7	41.8		56.5	44.0	44.1	61.8	41.6	41.6	58.8	42.0
Incr Delay (d2), s/veh	27.2	33.8	0.6		44.6	6.9	7.0	61.9	10.8	11.0	43.3	16.8
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/ln	8.6	20.5	4.4		13.6	14.2	14.1	7.6	17.0	16.7	10.0	25.3
LnGrp Delay(d),s/veh	85.6	84.5	42.4		101.0	50.9	51.1	123.7	52.4	52.7	102.1	58.8
LnGrp LOS	F	F	D		F	D	D	F	D	D	F	Е
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		79.8				64.0			62.0			62.0
Approach LOS		Е				Е			Е			Е
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	48.9	26.1	39.0	15.6	54.3	21.0	44.1				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 16	43.5	* 21	33.6	* 11	48.9	* 19	36.3				
Max Q Clear Time (g_c+l1), s	17.1	33.4	22.6	35.6	12.4	47.7	16.2	29.1				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.0	0.0	0.9	0.1	2.7				
Intersection Summary							• • •					
HCM 2010 Ctrl Delay			66.9									
HCM 2010 LOS			00.9 E									
Notes												
User approved ignoring U-Turn	ning mov	rement.										

Existing + GenPlan- Wed PM Peak Hour Rick Engineering Company

	4
Movement	SBR
Land Configurations	3DK
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
	1.00
Parking Bus, Adj	
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	129
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	574
Arrive On Green	0.36
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	129
Grp Sat Flow(s),veh/h/ln	1583
Q Serve(g_s), s	7.6
Cycle Q Clear(g_c), s	7.6
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	574
V/C Ratio(X)	0.22
Avail Cap(c_a), veh/h	574
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	29.9
Incr Delay (d2), s/veh	0.9
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.5
LnGrp Delay(d),s/veh	30.8
LnGrp LOS	С
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
••	
Timer	

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	<b>^</b>	7	ሻ	<b>∱</b> 1≽		ř	<b>∱</b> 1>		ň	<b>∱</b> 1>		
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80	
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
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	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900	
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80	
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	163	967	432	273	881	286	193	1246	174	61	1041	119	
Arrive On Green	0.09	0.27	0.27	0.15	0.34	0.34	0.11	0.40	0.40	0.03	0.33	0.33	
Sat Flow, veh/h	1774	3539	1583	1774	2629	853	1774	3120	436	1774	3202	366	
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	761	779	50	387	393	
Grp Sat Flow(s), veh/h/ln	1774	1770	1583	1774	1770	1712	1774	1770	1786	1774	1770	1798	
Q Serve(g_s), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	27.4	27.4	
Cycle Q Clear(g_c), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	27.4	27.4	
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.24	1.00		0.20	
Lane Grp Cap(c), veh/h	163	967	432	273	593	574	193	707	713	61	575	584	
V/C Ratio(X)	0.86	1.12	0.46	1.17	0.84	0.84	0.88	1.08	1.09	0.82	0.67	0.67	
Avail Cap(c_a), veh/h	184	967	432	273	593	574	219	707	713	61	575	584	
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	64.9	52.7	43.8	61.4	44.6	44.6	63.7	43.5	43.6	69.5	42.3	42.3	
Incr Delay (d2), s/veh	29.3	66.8	8.0	109.6	10.4	10.7	29.1	56.5	61.7	55.9	6.2	6.1	
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	6.9	28.3	6.8	19.2	20.1	19.5	8.3	39.4	40.7	3.0	14.3	14.6	
LnGrp Delay(d),s/veh	94.3	119.5	44.6	170.9	55.0	55.3	92.8	100.1	105.2	125.5	48.4	48.4	
LnGrp LOS	F	F	D	F	D	E	F	F	F	F	D	D	
Approach Vol, veh/h		1420			1300			1710			830		
Approach Delay, s/veh		106.5			83.6			101.7			53.0		
Approach LOS		F			F			F			D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	9.7	63.3	27.0	45.0	20.5	52.5	18.0	54.0					
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4					
Max Green Setting (Gmax), s	* 5	57.9	* 22	39.6	* 18	45.0	* 15	46.9					
Max Q Clear Time (q_c+l1), s	6.1	59.9	24.3	41.6	15.7	29.4	13.3	39.8					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.1	0.1	3.5					
Intersection Summary													
HCM 2010 Ctrl Delay			90.8										
HCM 2010 LOS			F										
Notes													
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.					

2030 Conditions - AM Peak Hour Rick Engineering Company

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	<b>^</b>	7	ň	<b>∱</b> Ъ		۲	<b>∱</b> Ъ		Ŋ	<b>∱</b> Ъ		
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180	
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
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	
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900	
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180	
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	159	893	400	358	1069	218	138	882	264	138	996	167	
Arrive On Green	0.09	0.25	0.25	0.20	0.36	0.36	0.08	0.33	0.33	0.08	0.33	0.33	
Sat Flow, veh/h	1774	3539	1583	1774	2929	598	1774	2686	804	1774	3033	509	
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	592	578	190	623	627	
Grp Sat Flow(s), veh/h/ln	1774	1770	1583	1774	1770	1757	1774	1770	1721	1774	1770	1773	
Q Serve(g_s), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	47.6	47.6	11.3	47.6	47.6	
Cycle Q Clear(g_c), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	47.6	47.6	11.3	47.6	47.6	
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.47	1.00		0.29	
Lane Grp Cap(c), veh/h	159	893	400	358	646	641	138	581	565	138	581	582	
V/C Ratio(X)	0.88	1.18	0.50	1.48	0.87	0.87	1.30	1.02	1.02	1.37	1.07	1.08	
Avail Cap(c_a), veh/h	159	893	400	358	646	641	138	581	565	138	581	582	
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	65.2	54.2	46.4	57.8	42.8	42.9	66.9	48.7	48.7	66.9	48.7	48.7	
Incr Delay (d2), s/veh	39.1	90.7	1.0	229.8	12.3	12.5	178.6	42.4	43.7	207.3	58.4	59.7	
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	7.3	29.1	7.0	37.2	23.1	23.0	12.4	30.1	29.5	13.5	32.7	32.9	
LnGrp Delay(d),s/veh	104.4	144.9	47.4	287.7	55.1	55.3	245.4	91.1	92.4	274.1	107.1	108.4	
LnGrp LOS	F	F	D	F	E	E	F	F	F	F	F	F	
Approach Vol, veh/h		1390			1650			1350			1440		
Approach Delay, s/veh		126.8			129.9			112.2			129.7		
Approach LOS		F			F			F			F		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	16.0	53.0	34.0	42.0	16.0	53.0	17.7	58.3					
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4					
Max Green Setting (Gmax), s	* 11	47.6	* 29	36.6	* 11	47.6	* 13	52.9					
Max Q Clear Time (g_c+l1), s	13.3	49.6	31.3	38.6	13.3	49.6	13.3	44.9					
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3					
Intersection Summary													
HCM 2010 Ctrl Delay			125.0										
HCM 2010 LOS	1CM 2010 LOS F												
Notes Control of the													
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cro	ssing the	barrier.					

2030 Conditions - PM Peak Hour Rick Engineering Company

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	<b>^</b>	7	ሻ	<b>∱</b> Ъ		Ŋ	<b>†</b> †	7	ሻ	<b>∱</b> β	
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	C
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1015	454	310	972	315	193	1291	578	61	930	106
Arrive On Green	0.09	0.29	0.29	0.17	0.37	0.37	0.11	0.36	0.36	0.03	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	2629	853	1774	3539	1583	1774	3202	366
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	1350	190	50	387	393
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1712	1774	1770	1583	1774	1770	1798
Q Serve(g_s), s	11.3	41.6	14.9	25.3	35.8	35.8	13.7	52.9	12.6	4.1	28.8	28.8
Cycle Q Clear(g_c), s	11.3	41.6	14.9	25.3	35.8	35.8	13.7	52.9	12.6	4.1	28.8	28.8
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	163	1015	454	310	654	633	193	1291	578	61	514	522
V/C Ratio(X)	0.86	1.06	0.44	1.03	0.76	0.76	0.88	1.05	0.33	0.82	0.75	0.75
Avail Cap(c_a), veh/h	192	1015	454	310	654	633	219	1291	578	61	514	522
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	51.7	42.2	59.8	40.1	40.1	63.7	46.0	33.2	69.5	46.7	46.7
Incr Delay (d2), s/veh	27.2	46.8	0.7	60.2	5.2	5.4	29.1	37.8	1.5	55.9	9.8	9.7
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	6.8	26.9	6.6	17.6	18.4	17.8	8.3	32.6	5.7	3.0	15.5	15.7
LnGrp Delay(d),s/veh	92.2	98.5	42.9	120.0	45.3	45.5	92.8	83.9	34.8	125.5	56.5	56.4
LnGrp LOS	F	F	D	F	D	D	F	F	С	F	E	E
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		90.0			63.8			79.3			60.6	
Approach LOS		F			Е			Е			Е	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	58.3	30.0	47.0	20.5	47.5	18.0	59.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	52.9	* 25	41.6	* 18	40.0	* 16	51.2				
Max Q Clear Time (g_c+I1), s	6.1	54.9	27.3	43.6	15.7	30.8	13.3	37.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	3.1	0.1	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			75.4									
HCM 2010 LOS			Е									
Notes												
* HCM 2010 computational eng	aine rea	uires equi	al clearar	ce times	for the ph	ases cros	ssina the	barrier				
110M 2010 computational crit	gino roqu	an os eque	ar Glourul		ioi tilo pii	4303 0100	Joing the	-amon				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>∱</b> 1>		7	<b>^</b>	7	ሻ	<b>↑</b> ↑	
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	893	400	358	1069	218	138	1040	465	199	996	167
Arrive On Green	0.09	0.25	0.25	0.20	0.36	0.36	0.08	0.29	0.29	0.11	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2929	598	1774	3539	1583	1774	3033	509
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	900	270	190	623	627
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1757	1774	1770	1583	1774	1770	1773
Q Serve(g_s), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	34.9	21.1	15.4	47.6	47.6
Cycle Q Clear(g_c), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	34.9	21.1	15.4	47.6	47.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	159	893	400	358	646	641	138	1040	465	199	581	582
V/C Ratio(X)	0.88	1.18	0.50	1.48	0.87	0.87	1.30	0.87	0.58	0.95	1.07	1.08
Avail Cap(c_a), veh/h	159	893	400	358	646	641	138	1040	465	199	581	582
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	54.2	46.4	57.8	42.8	42.9	66.9	48.5	43.6	64.0	48.7	48.7
Incr Delay (d2), s/veh	39.1	90.7	1.0	229.8	12.3	12.5	178.6	9.6	5.2	50.2	58.4	59.7
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	7.3	29.1	7.0	37.2	23.1	23.0	12.4	18.4	9.9	10.4	32.7	32.9
LnGrp Delay(d),s/veh	104.4	144.9	47.4	287.7	55.1	55.3	245.4	58.1	48.8	114.1	107.1	108.4
LnGrp LOS	F	F	D	F	E	E	F	Е	D	F	F	F
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		126.8			129.9			81.2			108.6	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	48.0	34.0	42.0	16.0	53.0	17.7	58.3				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 16	42.6	* 29	36.6	* 11	47.6	* 13	52.9				
Max Q Clear Time (g_c+l1), s	17.4	36.9	31.3	38.6	13.3	49.6	13.3	44.9				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	0.0	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay			112.6									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>	7	ሻ	<b>∱</b> 1≽		Ĭ	<b>∱</b> 1>		ሻ	<b>^</b>	7
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	967	432	273	881	286	193	1246	174	61	1150	515
Arrive On Green	0.09	0.27	0.27	0.15	0.34	0.34	0.11	0.40	0.40	0.03	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2629	853	1774	3120	436	1774	3539	1583
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	761	779	50	700	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1712	1774	1770	1786	1774	1770	1583
Q Serve(g_s), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	24.1	5.2
Cycle Q Clear(g_c), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	24.1	5.2
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	163	967	432	273	593	574	193	707	713	61	1150	515
V/C Ratio(X)	0.86	1.12	0.46	1.17	0.84	0.84	0.88	1.08	1.09	0.82	0.61	0.16
Avail Cap(c_a), veh/h	184	967	432	273	593	574	219	707	713	61	1150	515
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	52.7	43.8	61.4	44.6	44.6	63.7	43.5	43.6	69.5	41.2	34.8
Incr Delay (d2), s/veh	29.3	66.8	0.8	109.6	10.4	10.7	29.1	56.5	61.7	55.9	2.4	0.6
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	6.9	28.3	6.8	19.2	20.1	19.5	8.3	39.4	40.7	3.0	12.1	2.4
LnGrp Delay(d),s/veh	94.3	119.5	44.6	170.9	55.0	55.3	92.8	100.1	105.2	125.5	43.6	35.4
LnGrp LOS	F	F	D	F	D	E	F	F	F	F	D	<u>D</u>
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		106.5			83.6			101.7			47.7	
Approach LOS		F			F			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	63.3	27.0	45.0	20.5	52.5	18.0	54.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	57.9	* 22	39.6	* 18	45.0	* 15	46.9				
Max Q Clear Time (q_c+l1), s	6.1	59.9	24.3	41.6	15.7	26.1	13.3	39.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.6	0.1	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			90.0									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.				

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	۶	<b>→</b>	•	•	+	•	1	<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	ሻ	<b>†</b> †	7	ሻ	<b>†</b> 1>		ሻ	<b>∱</b> 1>		*	<b>†</b> †	7
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	893	400	371	1089	222	138	845	253	150	1137	509
Arrive On Green	0.09	0.25	0.25	0.21	0.37	0.37	0.08	0.31	0.31	0.08	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	2929	598	1774	2686	804	1774	3539	1583
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	592	578	190	1070	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1757	1774	1770	1721	1774	1770	1583
Q Serve(g_s), s	11.3	36.6	15.7	30.3	42.4	42.4	11.3	45.6	45.6	12.3	42.6	12.6
Cycle Q Clear(g_c), s	11.3	36.6	15.7	30.3	42.4	42.4	11.3	45.6	45.6	12.3	42.6	12.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	159	893	400	371	658	653	138	557	541	150	1137	509
V/C Ratio(X)	0.88	1.18	0.50	1.43	0.85	0.85	1.30	1.06	1.07	1.26	0.94	0.35
Avail Cap(c_a), veh/h	159	893	400	371	658	653	138	557	541	150	1137	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	54.2	46.4	57.3	41.9	41.9	66.9	49.7	49.7	66.4	47.9	37.7
Incr Delay (d2), s/veh	39.1	90.7	1.0	208.3	10.6	10.8	178.6	56.4	58.0	160.5	15.8	1.9
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	7.3	29.1	7.0	36.3	22.5	22.6	12.4	31.0	30.4	12.7	23.3	5.8
LnGrp Delay(d),s/veh	104.4	144.9	47.4	265.7	52.5	52.7	245.4	106.1	107.7	226.8	63.6	39.6
LnGrp LOS	F	F	D	F	D	D	F	F	F	F	<u>E</u>	D
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		126.8			121.1			125.3			82.2	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	51.0	35.0	42.0	16.0	52.0	17.7	59.3				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 12	45.6	* 30	36.6	* 11	46.6	* 13	53.9				
Max Q Clear Time (g_c+I1), s	14.3	47.6	32.3	38.6	13.3	44.6	13.3	44.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.4	0.0	4.8				
Intersection Summary												
HCM 2010 Ctrl Delay			113.8									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.				

2030 + General Plan - PM Peak Hour Rick Engineering Company

# ATTACHMENT 5

# **TIMING PRINTOUTS**

	<b></b>	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		ă	<b>^</b>	7	ă	<b>∱</b> 1≽	ř	<b>∱</b> 1≽	ř	<b>∱</b> ∱	
Traffic Volume (vph)	3	196	524	54	159	801	171	1166	99	594	
Future Volume (vph)	3	196	524	54	159	801	171	1166	99	594	
Turn Type	custom	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases		7	4		3	8	5	2	1	6	
Permitted Phases	7			4							
Detector Phase	7	7	4	4	3	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	11.0	11.0	39.4	39.4	10.0	38.4	10.0	45.9	9.7	45.6	
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	36.6%	9.5%	43.7%	9.2%	43.4%	
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)		6.3	34.0	34.0	5.3	33.0	5.3	40.5	5.0	40.2	
Actuated g/C Ratio		0.06	0.32	0.32	0.05	0.31	0.05	0.39	0.05	0.38	
v/c Ratio		3.09	0.50	0.10	2.04	1.00	2.09	1.01	1.29	0.66	
Control Delay		993.5	30.4	0.3	533.9	62.8	553.0	58.7	234.3	27.7	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		993.5	30.4	0.3	533.9	62.8	553.0	58.7	234.3	27.7	
LOS		F	С	Α	F	Е	F	Е	F	С	
Approach Delay			274.5			129.7		118.0		50.3	
Approach LOS			F			F		F		D	

Cycle Length: 105

Actuated Cycle Length: 105

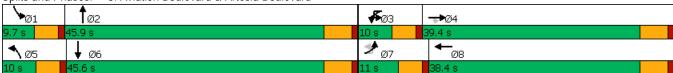
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 135.2 Intersection LOS: F
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	ă	<b>†</b> †	7	ă	<b>∱</b> Ъ	۲	<b>∱</b> ⊅	ħ	<b>∱</b> Ъ	
Traffic Volume (vph)	203	816	176	242	573	138	686	193	1017	
Future Volume (vph)	203	816	176	242	573	138	686	193	1017	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	21.4	36.4	36.4	24.0	39.0	16.0	44.8	19.8	48.6	
Total Split (%)	17.1%	29.1%	29.1%	19.2%	31.2%	12.8%	35.8%	15.8%	38.9%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	16.7	31.0	31.0	19.3	33.6	11.3	39.4	15.1	43.2	
Actuated g/C Ratio	0.13	0.25	0.25	0.15	0.27	0.09	0.32	0.12	0.35	
v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.81	0.99	1.00	
Control Delay	99.8	79.9	20.1	107.4	50.4	112.9	45.6	113.1	65.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	79.9	20.1	107.4	50.4	112.9	45.6	113.1	65.9	
LOS	F	Е	С	F	D	F	D	F	Е	
Approach Delay		74.5			65.2		55.2		72.9	
Approach LOS		Е			Е		Е		Е	

Cycle Length: 125

Actuated Cycle Length: 125

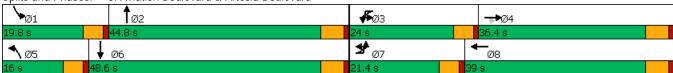
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 67.8 Intersection LOS: E
Intersection Capacity Utilization 92.1% ICU Level of Service F

Analysis Period (min) 15



## 3: Aviation Boulevard & Artesia Boulevard

	₾	•	-	•	•	←	•	<b>†</b>	-	<b>↓</b>	
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		ă	<b>^</b>	7	ă	<b>∱</b> }	ř	<b>∱</b> }	ሻ	<b>∱</b> β	
Traffic Volume (vph)	5	187	520	64	153	849	159	1107	138	540	
Future Volume (vph)	5	187	520	64	153	849	159	1107	138	540	
Turn Type	custom	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases		7	4		3	8	5	2	1	6	
Permitted Phases	7			4							
Detector Phase	7	7	4	4	3	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	11.0	11.0	39.4	39.4	10.0	38.4	10.0	45.6	10.0	45.6	
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	36.6%	9.5%	43.4%	9.5%	43.4%	
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)		6.3	34.0	34.0	5.3	33.0	5.3	40.2	5.3	40.2	
Actuated g/C Ratio		0.06	0.32	0.32	0.05	0.31	0.05	0.38	0.05	0.38	
v/c Ratio		2.97	0.49	0.12	1.97	1.03	1.94	0.97	1.69	0.60	
Control Delay		943.3	30.4	1.1	500.6	71.0	491.2	50.5	384.2	26.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		943.3	30.4	1.1	500.6	71.0	491.2	50.5	384.2	26.2	
LOS		F	С	А	F	Е	F	D	F	С	
Approach Delay			253.2			128.4		102.2		83.0	
Approach LOS			F			F		F		F	

#### Intersection Summary

Cycle Length: 105

Actuated Cycle Length: 105

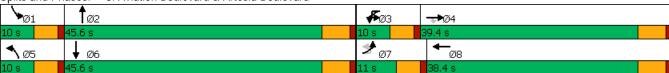
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 133.5 Intersection LOS: F
Intersection Capacity Utilization 98.3% ICU Level of Service F

Analysis Period (min) 15



## 3: Aviation Boulevard & Artesia Boulevard

	•	-	•	•	←	•	<b>†</b>	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	ă	<b>†</b> †	7	ă	<b>∱</b> ∱	ň	<b>↑</b> ↑	7	<b>∱</b> 1≽	
Traffic Volume (vph)	175	822	131	250	580	126	642	184	1129	
Future Volume (vph)	175	822	131	250	580	126	642	184	1129	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	23.1	38.0	38.0	25.4	40.3	15.4	47.8	23.8	56.2	
Total Split (%)	17.1%	28.1%	28.1%	18.8%	29.9%	11.4%	35.4%	17.6%	41.6%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	17.3	32.6	32.6	20.7	36.0	10.7	43.5	18.0	50.8	
Actuated g/C Ratio	0.13	0.24	0.24	0.15	0.27	0.08	0.32	0.13	0.38	
v/c Ratio	0.84	1.05	0.29	1.04	0.83	0.98	0.80	0.85	1.03	
Control Delay	87.0	92.5	9.5	120.3	54.4	131.9	46.9	87.0	73.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	87.0	92.5	9.5	120.3	54.4	131.9	46.9	87.0	73.5	
LOS	F	F	Α	F	D	F	D	F	Е	
Approach Delay		82.0			72.0		58.2		75.2	
Approach LOS		F			E		E		E	

#### Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

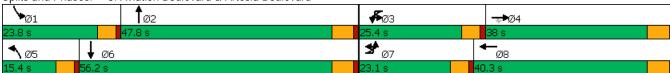
Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 72.6 Intersection LOS: E
Intersection Capacity Utilization 95.9% ICU Level of Service F

Analysis Period (min) 15



	<b>±</b>	•	-	•	F	•	<b>←</b>	•	<b>†</b>	~	<b>\</b>	<b>↓</b>
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		ă	<b>†</b> †	7		ሻ	<b>∱</b> β	7	<b>†</b> †	7	Ŋ	<b>↑</b> ↑
Traffic Volume (vph)	3	196	524	54	8	159	801	171	1166	89	99	594
Future Volume (vph)	3	196	524	54	8	159	801	171	1166	89	99	594
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases		7	4			3	8	5	2		1	6
Permitted Phases	7			4	3					2		
Detector Phase	7	7	4	4	3	3	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	43.4	9.7	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.9	45.9	9.7	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.7%	43.7%	9.2%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	4.4	3.7	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	5.4	4.7	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	None	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.5	40.5	5.0	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.39	0.39	0.05	0.38
v/c Ratio		3.09	0.50	0.10		2.60	1.00	2.09	0.93	0.14	1.29	0.66
Control Delay		993.5	30.4	0.3		781.2	62.8	553.0	43.8	2.6	234.3	27.7
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		993.5	30.4	0.3		781.2	62.8	553.0	43.8	2.6	234.3	27.7
LOS		F	С	Α		F	Е	F	D	Α	F	С
Approach Delay			274.5				164.8		102.3			50.3
Approach LOS			F				F		F			D

Cycle Length: 105

Actuated Cycle Length: 105

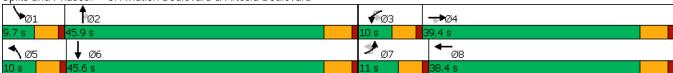
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 139.6 Intersection LOS: F
Intersection Capacity Utilization 94.5% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	<b>†</b> †	7	۲	<b>∱</b> 1≽	٦	<b>^</b>	7	ň	<b>∱</b> Ъ	
Traffic Volume (vph)	203	816	176	242	573	138	686	139	193	1017	
Future Volume (vph)	203	816	176	242	573	138	686	139	193	1017	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	21.4	36.4	36.4	24.0	39.0	16.0	44.8	44.8	19.8	48.6	
Total Split (%)	17.1%	29.1%	29.1%	19.2%	31.2%	12.8%	35.8%	35.8%	15.8%	38.9%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	16.7	31.0	31.0	19.3	33.6	11.3	39.4	39.4	15.1	43.2	
Actuated g/C Ratio	0.13	0.25	0.25	0.15	0.27	0.09	0.32	0.32	0.12	0.35	
v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.67	0.27	0.99	1.00	
Control Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
LOS	F	E	С	F	D	F	D	В	F	E	
Approach Delay		74.5			65.2		47.0			72.9	
Approach LOS		Е			Е		D			Е	

Cycle Length: 125

Actuated Cycle Length: 125

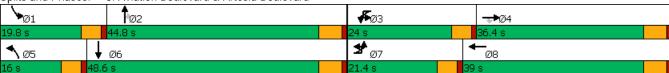
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 66.0 Intersection LOS: E
Intersection Capacity Utilization 92.1% ICU Level of Service F

Analysis Period (min) 15



	<b></b>	•	<b>→</b>	•	F	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		ă	<b>†</b> †	7		ሻ	<b>†</b> 1>	7	<b>†</b> †	7	¥	<b>↑</b> ↑
Traffic Volume (vph)	5	187	520	64	8	153	849	159	1107	92	138	540
Future Volume (vph)	5	187	520	64	8	153	849	159	1107	92	138	540
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases		7	4			3	8	5	2		1	6
Permitted Phases	7			4	3					2		
Detector Phase	7	7	4	4	3	3	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	43.4	9.7	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.6	45.6	10.0	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.4%	43.4%	9.5%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	4.4	3.7	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	5.4	4.7	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	None	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.2	40.2	5.3	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.38	0.38	0.05	0.38
v/c Ratio		2.97	0.49	0.12		2.50	1.03	1.94	0.89	0.15	1.69	0.60
Control Delay		943.3	30.4	1.1		737.8	71.0	491.2	39.9	2.9	384.2	26.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		943.3	30.4	1.1		737.8	71.0	491.2	39.9	2.9	384.2	26.2
LOS		F	С	А		F	Е	F	D	Α	F	С
Approach Delay			253.2				160.1		90.3			83.0
Approach LOS			F				F		F			F

Cycle Length: 105

Actuated Cycle Length: 105

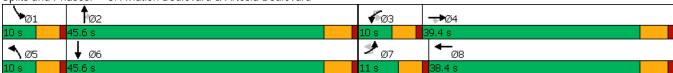
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 138.8 Intersection LOS: F
Intersection Capacity Utilization 95.4% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ř	<b>†</b> †	7	۲	<b>∱</b> 1≽	٦	<b>^</b>	7	¥	<b>∱</b> Ъ	
Traffic Volume (vph)	175	822	131	250	580	126	642	179	184	1129	
Future Volume (vph)	175	822	131	250	580	126	642	179	184	1129	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	23.1	38.0	38.0	25.4	40.3	15.4	47.4	47.4	24.2	56.2	
Total Split (%)	17.1%	28.1%	28.1%	18.8%	29.9%	11.4%	35.1%	35.1%	17.9%	41.6%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	17.3	32.6	32.6	20.7	36.0	10.7	43.3	43.3	18.2	50.8	
Actuated g/C Ratio	0.13	0.24	0.24	0.15	0.27	0.08	0.32	0.32	0.13	0.38	
v/c Ratio	0.84	1.05	0.29	1.04	0.83	0.98	0.61	0.33	0.84	1.03	
Control Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
LOS	F	F	Α	F	D	F	D	В	F	E	
Approach Delay		82.0			72.0		48.5			75.0	
Approach LOS		F			Е		D			Е	

Cycle Length: 135

Actuated Cycle Length: 135

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 70.5 Intersection LOS: E
Intersection Capacity Utilization 95.9% ICU Level of Service F

Analysis Period (min) 15



	<b></b>	٠	<b>→</b>	•	F	•	←	4	<b>†</b>	<b>&gt;</b>	ļ	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>†</b> †	7		٦	<b>↑</b> 1>	7	<b>∱</b> ∱	7	<b>^</b>	7
Traffic Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Future Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.9	9.7	45.6	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.7%	9.2%	43.4%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.5	5.0	40.2	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.39	0.05	0.38	0.38
v/c Ratio		3.09	0.50	0.10		2.60	1.00	2.09	1.01	1.29	0.48	0.34
Control Delay		993.5	30.4	0.3		781.2	62.8	553.0	58.7	234.3	25.9	10.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		993.5	30.4	0.3		781.2	62.8	553.0	58.7	234.3	25.9	10.4
LOS		F	C	А		F	E	F	E	F	C	В
Approach Delay			274.5				164.8		118.0		44.9	
Approach LOS			F				F		F		D	

Cycle Length: 105

Actuated Cycle Length: 105

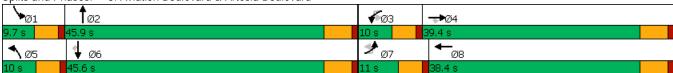
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 143.7 Intersection LOS: F
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	Ť	<b>†</b> †	7	ሻ	<b>∱</b> 1≽	ň	<b>↑</b> ↑	¥	<b>†</b> †	7	
Traffic Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Future Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	21.4	37.0	37.0	24.0	39.6	16.3	44.0	20.0	47.7	47.7	
Total Split (%)	17.1%	29.6%	29.6%	19.2%	31.7%	13.0%	35.2%	16.0%	38.2%	38.2%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	16.7	31.6	31.6	19.3	34.2	11.6	38.6	15.3	42.3	42.3	
Actuated g/C Ratio	0.13	0.25	0.25	0.15	0.27	0.09	0.31	0.12	0.34	0.34	
v/c Ratio	0.94	0.99	0.40	1.00	0.82	0.91	0.83	0.97	0.92	0.17	
Control Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
LOS	F	Е	В	F	D	F	D	F	D	А	
Approach Delay		71.1			64.2		55.7		58.0		
Approach LOS		Е			Е		Е		Е		

Cycle Length: 125

Actuated Cycle Length: 125

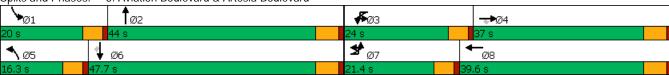
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 62.4 Intersection LOS: E
Intersection Capacity Utilization 89.1% ICU Level of Service E

Analysis Period (min) 15



	<b></b>	•	-	•	F	•	•	•	<b>†</b>	<b>&gt;</b>	ţ	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>†</b> †	7		ň	<b>†</b> 1>	7	<b>∱</b> ∱	Ĭ	<b>†</b> †	7
Traffic Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Future Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.6	10.0	45.6	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.4%	9.5%	43.4%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.2	5.3	40.2	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.38	0.05	0.38	0.38
v/c Ratio		2.97	0.49	0.12		2.50	1.03	1.94	0.97	1.69	0.43	0.30
Control Delay		943.3	30.4	1.1		737.8	71.0	491.2	50.5	384.2	25.2	9.7
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		943.3	30.4	1.1		737.8	71.0	491.2	50.5	384.2	25.2	9.7
LOS		F	С	Α		F	E	F	D	F	С	Α
Approach Delay			253.2				160.1		102.2		78.7	
Approach LOS			F				F		F		Е	

Cycle Length: 105

Actuated Cycle Length: 105

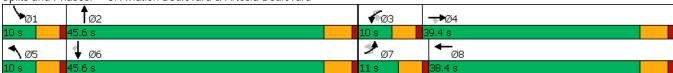
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 141.7 Intersection LOS: F
Intersection Capacity Utilization 98.3% ICU Level of Service F

Analysis Period (min) 15



	۶	-	•	•	•	4	<b>†</b>	<b>&gt;</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	Ĭ,	<b>†</b> †	7	ሻ	<b>∱</b> ∱	ħ	<b>↑</b> ↑	ħ	<b>†</b> †	7	
Traffic Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Future Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	23.4	39.0	39.0	26.1	41.7	15.6	48.9	21.0	54.3	54.3	
Total Split (%)	17.3%	28.9%	28.9%	19.3%	30.9%	11.6%	36.2%	15.6%	40.2%	40.2%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	17.4	33.6	33.6	21.4	37.6	10.9	43.5	16.3	48.9	48.9	
Actuated g/C Ratio	0.13	0.25	0.25	0.16	0.28	0.08	0.32	0.12	0.36	0.36	
v/c Ratio	0.83	1.01	0.29	1.01	0.80	0.96	0.80	0.94	0.96	0.20	
Control Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
LOS	F	F	Α	F	D	F	D	F	Е	В	
Approach Delay		75.5			67.5		57.5		61.0		
Approach LOS		Е			Е		Е		Е		

#### Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

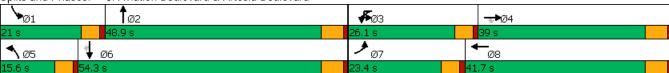
Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 65.3 Intersection LOS: E
Intersection Capacity Utilization 92.1% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	←	1	<b>†</b>	-	ţ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	ň	<b>†</b> †	7	ሻ	<b>∱</b> ∱	¥	<b>†</b> 1>	Ŋ	<b>∱</b> 1≽	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	50	700	
Future Volume (vph)	140	1080	200	320	740	170	1350	50	700	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	19.7	45.0	45.0	27.0	52.3	22.6	63.3	9.7	50.4	
Total Split (%)	13.6%	31.0%	31.0%	18.6%	36.1%	15.6%	43.7%	6.7%	34.8%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	14.2	39.6	39.6	22.3	47.7	16.8	57.9	5.0	46.1	
Actuated g/C Ratio	0.10	0.27	0.27	0.15	0.33	0.12	0.40	0.03	0.32	
v/c Ratio	0.81	1.12	0.37	1.18	0.86	0.83	1.10	0.82	0.70	
Control Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	47.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	47.1	
LOS	F	F	В	F	D	F	F	F	D	
Approach Delay		98.4			79.9		98.0		52.7	
Approach LOS		F			Е		F		D	

Cycle Length: 145

Actuated Cycle Length: 145

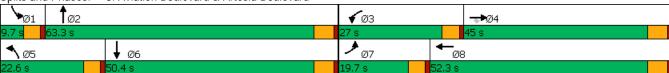
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 86.5 Intersection LOS: F
Intersection Capacity Utilization 112.0% ICU Level of Service H

Analysis Period (min) 15



	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	ļ
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	7	<b>†</b> †	7	ሻ	<b>∱</b> Ъ	۲	<b>∱</b> ⊅	ሻ	<b>∱</b> 1≽
Traffic Volume (vph)	140	1050	200	530	930	180	900	190	1070
Future Volume (vph)	140	1050	200	530	930	180	900	190	1070
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4
Total Split (s)	17.7	42.0	42.0	34.0	58.3	16.0	53.0	16.0	53.0
Total Split (%)	12.2%	29.0%	29.0%	23.4%	40.2%	11.0%	36.6%	11.0%	36.6%
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	13.0	36.6	36.6	29.3	52.9	11.3	47.6	11.3	47.6
Actuated g/C Ratio	0.09	0.25	0.25	0.20	0.36	0.08	0.33	0.08	0.33
v/c Ratio	0.89	1.18	0.41	1.48	0.88	1.31	1.03	1.39	1.09
Control Delay	111.5	137.6	19.9	272.0	51.6	232.8	79.8	259.2	100.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.5	137.6	19.9	272.0	51.6	232.8	79.8	259.2	100.0
LOS	F	F	В	F	D	F	Е	F	F
Approach Delay		118.0			122.4		100.2		121.0
Approach LOS		F			F		F		F

#### Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

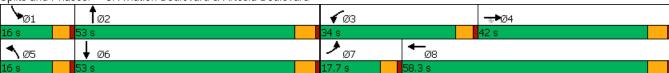
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.48

Intersection Signal Delay: 115.9 Intersection LOS: F
Intersection Capacity Utilization 120.5% ICU Level of Service H

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>∱</b> ∱	ň	<b>^</b>	7	ሻ	<b>∱</b> ⊅	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	190	50	700	
Future Volume (vph)	140	1080	200	320	740	170	1350	190	50	700	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	20.4	47.0	47.0	30.0	56.6	22.6	58.3	58.3	9.7	45.4	
Total Split (%)	14.1%	32.4%	32.4%	20.7%	39.0%	15.6%	40.2%	40.2%	6.7%	31.3%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	14.6	41.6	41.6	25.3	52.3	16.8	52.9	52.9	5.0	41.1	
Actuated g/C Ratio	0.10	0.29	0.29	0.17	0.36	0.12	0.36	0.36	0.03	0.28	
v/c Ratio	0.79	1.06	0.35	1.04	0.78	0.83	1.05	0.29	0.82	0.79	
Control Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
LOS	F	F	В	F	D	F	F	В	F	D	
Approach Delay		83.6			63.5		75.6			59.4	
Approach LOS		F			Е		Е			Е	

Cycle Length: 145

Actuated Cycle Length: 145

Natural Cycle: 145

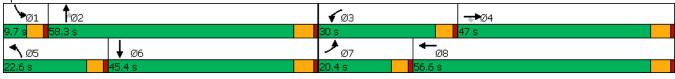
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 72.2 Intersection Capacity Utilization 105.9% Intersection LOS: E

ICU Level of Service G

Analysis Period (min) 15



	•	<b>→</b>	•	•	<b>←</b>	•	<b>†</b>	~	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	۲	<b>†</b> †	7	۲	<b>∱</b> Ъ	ħ	<b>^</b>	7	ሻ	<b>∱</b> ∱	
Traffic Volume (vph)	140	1050	200	530	930	180	900	270	190	1070	
Future Volume (vph)	140	1050	200	530	930	180	900	270	190	1070	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	17.7	42.0	42.0	34.0	58.3	16.0	48.0	48.0	21.0	53.0	
Total Split (%)	12.2%	29.0%	29.0%	23.4%	40.2%	11.0%	33.1%	33.1%	14.5%	36.6%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	13.0	36.6	36.6	29.3	52.9	11.3	42.6	42.6	16.3	47.6	
Actuated g/C Ratio	0.09	0.25	0.25	0.20	0.36	0.08	0.29	0.29	0.11	0.33	
v/c Ratio	0.89	1.18	0.39	1.48	0.88	1.31	0.87	0.47	0.96	1.09	
Control Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
LOS	F	F	В	F	D	F	Е	В	F	F	
Approach Delay		117.1			122.4		73.9			102.3	
Approach LOS		F			F		Е			F	

Cycle Length: 145

Actuated Cycle Length: 145

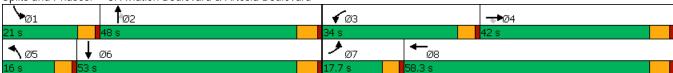
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.48

Intersection Signal Delay: 104.9 Intersection LOS: F
Intersection Capacity Utilization 120.5% ICU Level of Service H

Analysis Period (min) 15



	٠	-	•	•	←	•	<b>†</b>	-	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	Ť	<b>†</b> †	7	ሻ	<b>∱</b> 1≽	ħ	<b>↑</b> Ъ	7	<b>†</b> †	7	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Future Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	19.7	45.0	45.0	27.0	52.3	22.6	63.3	9.7	50.4	50.4	
Total Split (%)	13.6%	31.0%	31.0%	18.6%	36.1%	15.6%	43.7%	6.7%	34.8%	34.8%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	14.2	39.6	39.6	22.3	47.7	16.8	57.9	5.0	46.1	46.1	
Actuated g/C Ratio	0.10	0.27	0.27	0.15	0.33	0.12	0.40	0.03	0.32	0.32	
v/c Ratio	0.81	1.12	0.37	1.18	0.86	0.83	1.10	0.82	0.62	0.13	
Control Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
LOS	F	F	В	F	D	F	F	F	D	Α	
Approach Delay		98.4			79.9		98.0		46.6		
Approach LOS		F			Е		F		D		

Cycle Length: 145

Actuated Cycle Length: 145

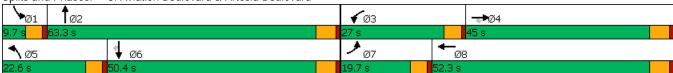
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 85.5 Intersection LOS: F
Intersection Capacity Utilization 112.0% ICU Level of Service H

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	7	<b>†</b> †	7	ሻ	<b>∱</b> Ъ	ħ	<b>∱</b> 1>	7	<b>†</b> †	7	
Traffic Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Future Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	17.7	42.0	42.0	35.0	59.3	16.0	51.0	17.0	52.0	52.0	
Total Split (%)	12.2%	29.0%	29.0%	24.1%	40.9%	11.0%	35.2%	11.7%	35.9%	35.9%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	13.0	36.6	36.6	30.3	53.9	11.3	45.6	12.3	46.6	46.6	
Actuated g/C Ratio	0.09	0.25	0.25	0.21	0.37	0.08	0.31	0.08	0.32	0.32	
v/c Ratio	0.89	1.18	0.41	1.44	0.86	1.31	1.07	1.27	0.94	0.30	
Control Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
LOS	F	F	В	F	D	F	F	F	Е	В	
Approach Delay		118.0			114.6		112.4		77.2		
Approach LOS		F			F		F		Е		

#### Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

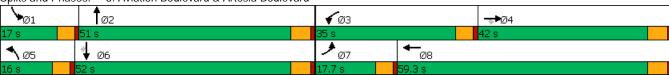
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.44

Intersection Signal Delay: 105.7 Intersection LOS: F
Intersection Capacity Utilization 119.2% ICU Level of Service H

Analysis Period (min) 15



# ATTACHMENT 6

# **QUEUEING PRINTOUTS**

	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	216	570	59	182	1100	186	1364	108	882	
v/c Ratio	3.09	0.50	0.10	2.04	1.00	2.09	1.01	1.29	0.66	
Control Delay	993.5	30.4	0.3	533.9	62.8	553.0	58.7	234.3	27.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	993.5	30.4	0.3	533.9	62.8	553.0	58.7	234.3	27.7	
Queue Length 50th (ft)	~253	161	0	~193	377	~198	~480	~92	237	
Queue Length 95th (ft)	#402	214	0	#332	#530	#337	#643	#203	307	
Internal Link Dist (ft)		1590			300		1020		820	
Turn Bay Length (ft)	225		145	265		100		300		
Base Capacity (vph)	70	1145	595	89	1100	89	1355	84	1336	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	3.09	0.50	0.10	2.04	1.00	2.09	1.01	1.29	0.66	

#### Intersection Summary

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	Ţ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Group Flow (vph)	223	887	191	273	780	150	897	210	1210	
v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.81	0.99	1.00	
Control Delay	99.8	79.9	20.1	107.4	50.4	112.9	45.6	113.1	65.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	79.9	20.1	107.4	50.4	112.9	45.6	113.1	65.9	
Queue Length 50th (ft)	181	~386	54	223	304	123	344	172	509	
Queue Length 95th (ft)	#339	#527	125	#404	383	#256	426	#331	#670	
Internal Link Dist (ft)		1590			300		1020		820	
Turn Bay Length (ft)	225		145	265		100		300		
Base Capacity (vph)	236	877	473	273	940	160	1101	213	1213	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.81	0.99	1.00	

#### Intersection Summary

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	ļ
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	565	70	175	1134	173	1303	150	796
v/c Ratio	2.97	0.49	0.12	1.97	1.03	1.94	0.97	1.69	0.60
Control Delay	943.3	30.4	1.1	500.6	71.0	491.2	50.5	384.2	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	943.3	30.4	1.1	500.6	71.0	491.2	50.5	384.2	26.2
Queue Length 50th (ft)	~242	160	0	~183	~424	~180	443	~148	206
Queue Length 95th (ft)	#388	212	6	#319	#558	#316	#601	#276	270
Internal Link Dist (ft)		1590			300		1020		820
Turn Bay Length (ft)	225		145	265		100		300	
Base Capacity (vph)	70	1145	595	89	1099	89	1344	89	1336
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.97	0.49	0.12	1.97	1.03	1.94	0.97	1.69	0.60

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	٦	<b>→</b>	•	•	←	•	<b>†</b>	<b>&gt;</b>	<b>↓</b>
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	190	893	142	282	772	137	893	200	1356
v/c Ratio	0.84	1.05	0.29	1.04	0.83	0.98	0.80	0.85	1.03
Control Delay	87.0	92.5	9.5	120.3	54.4	131.9	46.9	87.0	73.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.0	92.5	9.5	120.3	54.4	131.9	46.9	87.0	73.5
Queue Length 50th (ft)	164	~446	6	~266	333	122	369	172	~665
Queue Length 95th (ft)	#283	#579	61	#450	#416	#258	453	#296	#806
Internal Link Dist (ft)		1590			300		1020		820
Turn Bay Length (ft)	225		145	265		100		300	
Base Capacity (vph)	241	854	483	271	931	140	1121	250	1318
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.05	0.29	1.04	0.83	0.98	0.80	0.80	1.03

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	٦	<b>→</b>	•	•	<b>←</b>	•	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	216	570	59	182	1100	186	1267	97	108	882	
v/c Ratio	3.09	0.50	0.10	2.60	1.00	2.09	0.93	0.14	1.29	0.66	
Control Delay	993.5	30.4	0.3	781.2	62.8	553.0	43.8	2.6	234.3	27.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	993.5	30.4	0.3	781.2	62.8	553.0	43.8	2.6	234.3	27.7	
Queue Length 50th (ft)	~253	161	0	~206	377	~198	422	0	~92	237	
Queue Length 95th (ft)	#402	214	0	#345	#530	#337	#566	21	#203	307	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	70	1145	595	70	1100	89	1365	686	84	1336	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	3.09	0.50	0.10	2.60	1.00	2.09	0.93	0.14	1.29	0.66	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	٠	-	•	•	<b>←</b>	4	†	<i>&gt;</i>	<b>&gt;</b>	<b></b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	223	887	191	273	780	150	746	151	210	1210	
v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.67	0.27	0.99	1.00	
Control Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
Queue Length 50th (ft)	181	~386	54	223	304	123	274	27	172	509	
Queue Length 95th (ft)	#339	#527	125	#404	383	#256	344	79	#331	#670	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	236	877	473	273	940	160	1115	569	213	1213	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.67	0.27	0.99	1.00	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	٦	-	•	•	←	•	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	208	565	70	175	1134	173	1203	100	150	796	
v/c Ratio	2.97	0.49	0.12	2.50	1.03	1.94	0.89	0.15	1.69	0.60	
Control Delay	943.3	30.4	1.1	737.8	71.0	491.2	39.9	2.9	384.2	26.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	943.3	30.4	1.1	737.8	71.0	491.2	39.9	2.9	384.2	26.2	
Queue Length 50th (ft)	~242	160	0	~196	~424	~180	392	0	~148	206	
Queue Length 95th (ft)	#388	212	6	#332	#558	#316	#521	22	#276	270	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	70	1145	595	70	1099	89	1354	681	89	1336	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	2.97	0.49	0.12	2.50	1.03	1.94	0.89	0.15	1.69	0.60	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	<b>→</b>	•	•	←	•	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	190	893	142	282	772	137	698	195	200	1356	
v/c Ratio	0.84	1.05	0.29	1.04	0.83	0.98	0.61	0.33	0.84	1.03	
Control Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
Queue Length 50th (ft)	164	~446	6	~266	333	122	276	39	171	~665	
Queue Length 95th (ft)	#283	#579	61	#450	#416	#258	344	104	#292	#806	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	241	854	483	271	931	140	1135	598	255	1318	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.79	1.05	0.29	1.04	0.83	0.98	0.61	0.33	0.78	1.03	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	<b>→</b>	•	•	•	4	<b>†</b>	<b>&gt;</b>	<b>↓</b>	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	216	570	59	182	1100	186	1364	108	646	236	
v/c Ratio	3.09	0.50	0.10	2.60	1.00	2.09	1.01	1.29	0.48	0.34	
Control Delay	993.5	30.4	0.3	781.2	62.8	553.0	58.7	234.3	25.9	10.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	993.5	30.4	0.3	781.2	62.8	553.0	58.7	234.3	25.9	10.4	
Queue Length 50th (ft)	~253	161	0	~206	377	~198	~480	~92	170	39	
Queue Length 95th (ft)	#402	214	0	#345	#530	#337	#643	#203	223	97	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	70	1145	595	70	1100	89	1355	84	1354	695	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	3.09	0.50	0.10	2.60	1.00	2.09	1.01	1.29	0.48	0.34	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	-	•	•	←	•	<b>†</b>	<b>&gt;</b>	ţ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	223	887	191	273	780	150	897	210	1105	105	
v/c Ratio	0.94	0.99	0.40	1.00	0.82	0.91	0.83	0.97	0.92	0.17	
Control Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
Queue Length 50th (ft)	181	378	54	223	302	122	347	172	450	1	
Queue Length 95th (ft)	#339	#520	124	#404	380	#252	431	#329	#583	41	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	236	894	480	273	957	164	1079	216	1197	603	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.94	0.99	0.40	1.00	0.82	0.91	0.83	0.97	0.92	0.17	

Intersection Summary

<sup>95</sup>th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

	۶	-	•	•	←	4	<b>†</b>	<b>&gt;</b>	<b>↓</b>	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	208	565	70	175	1134	173	1303	150	587	209	
v/c Ratio	2.97	0.49	0.12	2.50	1.03	1.94	0.97	1.69	0.43	0.30	
Control Delay	943.3	30.4	1.1	737.8	71.0	491.2	50.5	384.2	25.2	9.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	943.3	30.4	1.1	737.8	71.0	491.2	50.5	384.2	25.2	9.7	
Queue Length 50th (ft)	~242	160	0	~196	~424	~180	443	~148	151	32	
Queue Length 95th (ft)	#388	212	6	#332	#558	#316	#601	#276	200	84	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	70	1145	595	70	1099	89	1344	89	1354	689	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	2.97	0.49	0.12	2.50	1.03	1.94	0.97	1.69	0.43	0.30	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>\</b>	ļ	1	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	190	893	142	282	772	137	893	200	1227	129	
v/c Ratio	0.83	1.01	0.29	1.01	0.80	0.96	0.80	0.94	0.96	0.20	
Control Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
Queue Length 50th (ft)	163	~424	6	~252	327	122	364	176	549	19	
Queue Length 95th (ft)	#279	#566	60	#442	407	#256	448	#330	#701	64	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	245	880	493	280	971	142	1121	213	1281	633	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.78	1.01	0.29	1.01	0.80	0.96	0.80	0.94	0.96	0.20	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	<b>→</b>	•	•	←	4	<b>†</b>	-	<b>↓</b>
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	1080	200	320	980	170	1540	50	780
v/c Ratio	0.81	1.12	0.37	1.18	0.86	0.83	1.10	0.82	0.70
Control Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	47.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	47.1
Queue Length 50th (ft)	131	~615	29	~360	447	158	~866	48	341
Queue Length 95th (ft)	#238	#753	97	#556	539	#274	#1009	#130	417
Internal Link Dist (ft)		1590			300		1020		820
Turn Bay Length (ft)	225		145	265		100		300	
Base Capacity (vph)	183	966	547	272	1141	218	1394	61	1114
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	1.12	0.37	1.18	0.86	0.78	1.10	0.82	0.70

#### Intersection Summary

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	•	<b>→</b>	•	•	←	•	<b>†</b>	<b>&gt;</b>	<b>↓</b>
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	1050	200	530	1120	180	1170	190	1250
v/c Ratio	0.89	1.18	0.41	1.48	0.88	1.31	1.03	1.39	1.09
Control Delay	111.5	137.6	19.9	272.0	51.6	232.8	79.8	259.2	100.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.5	137.6	19.9	272.0	51.6	232.8	79.8	259.2	100.0
Queue Length 50th (ft)	133	~622	57	~688	512	~218	~608	~237	~694
Queue Length 95th (ft)	#262	#760	132	#917	611	#376	#749	#400	#836
Internal Link Dist (ft)		1590			300		1020		820
Turn Bay Length (ft)	225		145	265		100		300	
Base Capacity (vph)	158	893	492	357	1272	137	1140	137	1145
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.18	0.41	1.48	0.88	1.31	1.03	1.39	1.09

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	<b>→</b>	•	•	←	4	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	140	1080	200	320	980	170	1350	190	50	780	
v/c Ratio	0.79	1.06	0.35	1.04	0.78	0.83	1.05	0.29	0.82	0.79	
Control Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
Queue Length 50th (ft)	130	~590	28	~324	425	158	~726	41	48	359	
Queue Length 95th (ft)	#230	#728	95	#520	513	#274	#866	101	#130	440	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	191	1015	567	308	1250	218	1291	656	61	993	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.73	1.06	0.35	1.04	0.78	0.78	1.05	0.29	0.82	0.79	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	۶	<b>→</b>	•	•	<b>←</b>	•	†	<b>/</b>	<b>/</b>	ţ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	140	1050	200	530	1120	180	900	270	190	1250	
v/c Ratio	0.89	1.18	0.39	1.48	0.88	1.31	0.87	0.47	0.96	1.09	
Control Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
Queue Length 50th (ft)	133	~622	30	~688	512	~218	425	82	181	~694	
Queue Length 95th (ft)	#262	#760	100	#917	611	#376	512	171	#340	#836	
Internal Link Dist (ft)		1590			300		1020			820	
Turn Bay Length (ft)	225		145	265		100		130	300		
Base Capacity (vph)	158	893	518	357	1272	137	1039	577	198	1145	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.89	1.18	0.39	1.48	0.88	1.31	0.87	0.47	0.96	1.09	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	•	<b>→</b>	•	•	<b>←</b>	•	<b>†</b>	<b>\</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	140	1080	200	320	980	170	1540	50	700	80	
v/c Ratio	0.81	1.12	0.37	1.18	0.86	0.83	1.10	0.82	0.62	0.13	
Control Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
Queue Length 50th (ft)	131	~615	29	~360	447	158	~866	48	300	0	
Queue Length 95th (ft)	#238	#753	97	#556	539	#274	#1009	#130	369	0	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	183	966	547	272	1141	218	1394	61	1125	611	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.77	1.12	0.37	1.18	0.86	0.78	1.10	0.82	0.62	0.13	

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

	٦	<b>→</b>	•	•	•	•	<b>†</b>	<b>&gt;</b>	<b>↓</b>	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Group Flow (vph)	140	1050	200	530	1120	180	1170	190	1070	180	_
v/c Ratio	0.89	1.18	0.41	1.44	0.86	1.31	1.07	1.27	0.94	0.30	
Control Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
Queue Length 50th (ft)	133	~622	57	~676	506	~218	~633	~225	517	37	
Queue Length 95th (ft)	#262	#760	132	#905	603	#376	#774	#388	#655	99	
Internal Link Dist (ft)		1590			300		1020		820		
Turn Bay Length (ft)	225		145	265		100		300		150	
Base Capacity (vph)	158	893	492	369	1295	137	1093	150	1137	592	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.89	1.18	0.41	1.44	0.86	1.31	1.07	1.27	0.94	0.30	

#### Intersection Summary

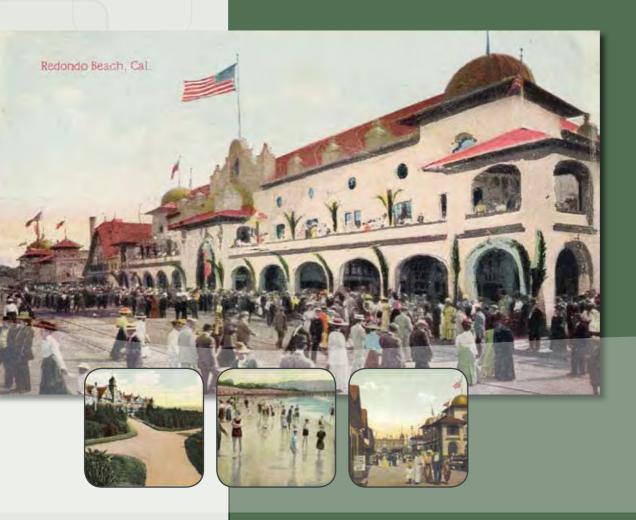
Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

<sup># 95</sup>th percentile volume exceeds capacity, queue may be longer.

# ATTACHMENT 7

# GENERAL PLAN CIRCULATION ELEMENT EXCERPTS REDONDO BEACH

# **REDONDO BEACH CIRCULATION ELEMENT**





Submitted by:

FEHR & PEERS TRANSPORTATION CONSULTANTS

FEHR & PEERS 201 Santa Monica Blvd., Suite 500 Santa Monica, CA 90401 (310) 458-9916

November 2009

				TABLE 3								
EXISTING (YEAR 2007) AND FUTURE (YEAR 2030) INTERSECTION LEVELS OF SERVICE												
				20			20	30				
		ection		AM		PM		AM		PM		
Number	Street	Cross Street	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay		
	Pacific Coast Hwy	Aviation Blvd	F	1.026	D	0.892	F	1.109	F	1.163		
	Hermosa Av	8th St	В	10.8	В	11.0	В	11.5	В	13.0		
	Hermosa Av	Pier Av	Α	0.413	Α	0.419	Α	0.434	Α	0.469		
	Kingsdale Av	Artesia Blvd	Α	0.577	В	0.645	С	0.709	D	0.806		
	Kingsdale Av	Grant Av	Α	0.479	Α	0.587	Α	0.569	В	0.694		
	Kingsdale Av	182nd St	В	12.1	С	17.5	С	21.9	F	69.1		
	Redondo Beach Blvd	Artesia Blvd	В	0.623	D	0.854	D	0.884	E	0.958		
	Inglewood Av	Grant Av	С	0.799	D	0.849	E	0.906	F	1.053		
	Inglewood Av	Ripley Av	E	45.3	D	30.1	F	103.8	F	668.7		
	Felton Ln	Grant Av	С	0.715	В	0.639	С	0.763	С	0.725		
	Aviation Blvd	Grant Av	С	0.765	С	0.706	D	0.834	D	0.894		
	Felton Av	Artesia Blvd	В	0.697	С	0.754	С	0.781	D	0.859		
	Kingsdale Av	Target Driveway	A	0.243	A	0.501	A	0.259	A	0.581		
	N Gertruda Av	Catalina Av	A	0.413	В	0.601	A	0.544	С	0.763		
	N Francisca Av	Beryl St	В	11.3	В	14.5	В	11.9	D	26.9		
	N Harbor Dr	Pacific Av	A	8.0	Α	8.9	A	8.7	В	10.6		
	Carnelian St	Catalina Av	A	0.420	Α	0.429	Α	0.503	Α	0.512		
	Diamond St	Catalina Av	Α	0.408	Α	0.463	Α	0.494	Α	0.525		
	Emerald St	Catalina Av	Α	0.440	Α	0.445	Α	0.541	Α	0.550		
	Pearl St	Catalina Av	A	0.408	Α	0.353	A	0.472	A	0.563		
	Camino Real	Torrance Blvd	Α	0.494	Α	0.523	В	0.600	С	0.703		
	Camino Real	S Juanita Av	Α	9.7	Α	9.2	В	10.2	В	10.4		
82	Camino Real	S Prospect Av	A	0.551	A	0.522	В	0.669	A	0.581		
	Palos Verdes Blvd	Torrance Blvd	С	0.728	С	0.707	С	0.776	D	0.846		
	Anza Av	Torrance Blvd	E	0.926	E	0.999	F	1.044	F	1.225		
	Sepulveda Blvd	Palos Verdes Blvd	С	0.730	В	0.620	E	0.916	С	0.738		
	Anza Av	190th St	E	0.952	E	0.947	F	1.055	F	1.082		
	Firmona Av	190th St	F	198.8	F	231.9	F	OVRFL *	F	939.5		
	Flagler Ln	190th St	E	42.9	F	57.5	F	136.8	F	124.3		
	Flagler Ln	Beryl St	С	16.3	С	17.9	C	22.0	F	58.0		
	Harkness Ln	Beryl St	D	33.2	С	21.2	E	39.4	E	44.0		
	Prospect Av	Knob Hill Av	Α	0.403	Α	0.419	Α	0.484	A	0.481		
	Prospect Av	Del Amo Blvd	С	0.785	В	0.685	F	1.147	F	1.144		
	Prospect Av	Pearl St	Α	0.456	Α	0.377	A	0.475	A	0.444		
	Pacific Coast Hwy	Saphire St	В	0.629	В	0.688	В	0.681	С	0.766		
	Pacific Coast Hwy	Garnet St	В	0.670	В	0.696	С	0.722	С	0.766		
	Pacific Coast Hwy	Avenue F	A	0.565	Α	0.598	В	0.612	В	0.656		
	Pacific Coast Hwy	Avenue C	В	0.626	В	0.638	С	0.709	С	0.728		
	Green Ln	Artesia Blvd	A	0.534	A	0.548	A	0.575	В	0.612		
	Elena Av	Avenue I	A	9.4	В	11.6	В	10.5	В	13.6		
	Green Ln	Grant Av	A	0.573	A	0.562	В	0.637	В	0.637		
	Prospect Av	Palos Verdes Blvd	A	0.453	A	0.455	A	0.531	A	0.519		
	Ford Av	Aviation Blvd	В	0.665	В	0.682	В	0.700	С	0.747		
	Ford Av	Artesia Blvd	В	0.657	Α	0.562	В	0.669	В	0.634		
	Camino Real	Pearl St	A	8.6	A	8.4	A	9.0	A	9.0		
	190th St	Rindge Ln	В	0.640	В	0.690	<u>c</u>	0.775	С	0.775		
	190th St	Meyer Ln	С	0.793	В	0.688	E	0.972	D	0.828		
107		Harkness Ln	A	0.526	A	0.462	В	0.662	A	0.538		
	Manhattan Beach	Hawthorne	D	0.808	E	0.955	F	1.026	F	1.073		
109	Harbor Dr	Yacht Club Wy	Α	0.402	Α	0.506	В	0.669	Ε	0.925		

notes:

Future year Intersection LOS in **bold** indicates that the intersection is forecast to exceed the target LOS of D or better in the future

Future year Intersection LOS in **bold italics** indicates that the intersection is forecast to exceed the target LOS of D or better in the future and was meeting that target in 2007 or the intersection was not meeting the target in 2007 and is forecast to operate at a worse LOS in the future

<sup>\*</sup> Overflow conditions - Delay cannot be accurately calculated.

Reconfigure both the southbound and eastbound approaches from one left-turn lane, one through lane, and one shared through/right lane to one left-turn lane, two through lanes, and one right-turn lane.

Prairie Avenue & Redondo Beach Boulevard (#28)

Reconfigure the southbound approach from one left-turn lane, one through lane, and one shared through/right lane to one left-turn lane, two through lanes, and one right-turn lane.

405 Northbound On-ramp/Off-ramp & 182<sup>nd</sup> Street (#35)

Reconfigure eastbound approach from one through lane and one shared through/right lane to two through lanes and one right-turn lane.

Pacific Coast Highway & Palos Verdes Boulevard (#37)

Reconfigure both the southbound and eastbound approaches from one left-turn lane, one through lane, and one shared through/right lane to one left-turn lane, two through lanes, and one right-turn lane.

Pacific Coast Highway & Torrance Boulevard (#39)

Reconfigure the northbound approach from one left-turn lane, one through lane, and one shared through/right lane to one left-turn lane, two through lanes, and one right-turn lane.

Manhattan Beach Boulevard & Hawthorne Boulevard (#108)

Add a protected left-turn phase for the eastbound approach. Also, reconfigure the northbound approach from two left-turn lanes, two through lanes, and one shared through/right lane to two left-turn lanes, three through lanes, and one right-turn lane.

Macro Effects Test

A hypothetical future model run scenario was conducted to estimate the impact of two large changes in land use and transportation:

- 1) What would occur if 25% of all 2030 traffic generated in Redondo Beach used alternative modes?
- 2) What would occur if 50% of all new development in Redondo Beach did not take place?

Figures 8 and 9 show the effect of these scenarios on LOS at unmitigated and mitigated study intersections. This exercise illustrates the fact that no single policy action has the power to resolve the issue of traffic congestion in Redondo Beach. Ultimately, increasing mobility will rely on a combination of smart growth development, the utilization of non-auto modes, and the mitigation of traffic impacts.

# ATTACHMENT 8

# HIGHWAY CAPACITY MANUAL EXCLUSIVE LANE EXCERPTS

#### **Geometric Design Data**

This subsection describes the geometric design data listed in Exhibit 19-11. These data describe the geometric elements of the intersection that influence traffic operation.

#### Number of Lanes

The number of lanes represents the count of lanes provided for each intersection traffic movement. For a turn movement, this count represents the lanes reserved for the exclusive use of turning vehicles. Turn-movement lanes include turn lanes that extend backward for the length of the segment and lanes in a turn bay. Lanes that are shared by two or more movements are included in the count of through lanes and are described as *shared lanes*. If no exclusive turn lanes are provided, then the turn movement is indicated to have zero lanes.

The number of lanes on an approach depends on approach volume and signal timing. A single exclusive left-turn lane is often provided when the left-turn volume ranges between 100 and 300 veh/h. Similarly, a dual exclusive left-turn lane is often provided when the left-turn volume exceeds 300 veh/h. An exclusive right-turn lane is often provided when the right-turn volume exceeds 300 veh/h and the adjacent through volume exceeds 300 veh/h/ln.

#### Average Lane Width

The average lane width represents the average width of the lanes represented in a movement group. The minimum average lane width is 8 ft. Standard lane widths are 12 ft. Lane widths greater than 16 ft can be included; however, the analyst should consider whether the wide lane actually operates as two narrow lanes. The analysis should reflect the way in which the lane width is actually used or expected to be used.

#### Number of Receiving Lanes

The number of receiving lanes represents the count of lanes departing the intersection. This number should be separately determined for each left-turn and right-turn movement. Experience indicates proper turning cannot be executed at some intersections because a receiving lane is frequently blocked by double-parked vehicles. For this reason, the number of receiving lanes should be determined from field observation when possible.

#### Turn Bay Length

Turn bay length represents the length of the bay for which the lanes have full width and in which queued vehicles can be stored. Bay length is measured parallel to the roadway centerline. If there are multiple lanes in the bay and they have different lengths, then the length entered should be an average value.

If a two-way left-turn lane is provided for left-turn vehicle storage and adjacent access points exist, then the bay length entered should represent the "effective" storage length available to the left-turn movement. The determination of effective length is based on consideration of the adjacent access points and the associated left-turning vehicles that can be stored in the two-way left-turn lane.



January 4, 2021

Mr. Glenn L. Block, Esq. California Eminent Domain Law Group, APC 3429 Ocean View Blvd., Suite L Glendale, CA 91208

SUBJECT: ADDENDUM TO AVIATION BOULEVARD RIGHT TURN LANE

IMPROVEMENT PROJECT IN THE CITY OF REDONDO BEACH

(RICK ENGINEERING COMPANY JOB NUMER 17989)

Dear Mr. Glenn L. Block:

Rick Engineering Company (RICK) has prepared a supplemental analysis to the Aviation Boulevard Right Turn Lane Improvement project in the City of Redondo Beach letter, which determined that an exclusive northbound right-turn lane is not warranted at the intersection of Aviation Boulevard and Artesia Boulevard, and would provide a minimal benefit. Other options for geometric and signal phasing improvements at the Aviation Boulevard and Artesia Boulevard intersection were reviewed to determine if the intersection could function better with alternative improvements.

Based on this review of alternative improvements, it was determined that the results obtained from the implementation of a second left-turn lane for the westbound approach provide an overall better level of service with less delay at the Aviation Boulevard and Artesia Boulevard intersection when compared to the improvement of a northbound right-turn lane as shown in the PSRE.

#### Existing Transportation Conditions and Traffic Data

Traffic counts at the study intersection were performed by Transportation Studies Inc. on October 9, 10 and 11<sup>th</sup> 2018. The turning movement counts were conducted on October 9 and 10<sup>th</sup> during the A.M. (7-9) and P.M. (4-6) peak periods. Daily machine counts were conducted on October 10<sup>th</sup> and 11<sup>th</sup>, for a total of forty-eight (48) hours.

The conducted counts show existing traffic movement volumes exceeding some of the forecasted (2030) traffic movement volumes contained within the PSRE report. The following movements reflect higher counts for at least one of the peak hours when compared to those shown under the 2030 baseline volumes:

- Southbound (SB): left-turn volumes, through volumes, and right-turn volumes.
- Westbound (WB): through volumes
- Northbound (NB): left-turn volumes
- Eastbound (EB): left-turn volumes

**Exhibit 1** shows the existing traffic movement volumes and intersection conditions.

Mr. Glenn L. Block, Esq. January 4, 2021 Page 2 of 4

#### Studied Scenarios

The study intersection was analyzed under the following scenarios using existing traffic data and forecasted volumes reported under the Project Study Report Equivalent (PSRE) document:

- Existing (2018) Conditions + PSRE geometric improvements
- Existing (2018) Conditions + Westbound Dual Left-Turn Lanes
- Existing (2018) Conditions + General Plan improvements
- Existing (2018) Conditions + General Plan improvements + WB Dual Left-Turn Lanes.
- Forecast Year (2030) + PSRE geometric improvements
- Forecast Year (2030) + WB Dual Left-Turn Lanes
- Forecast Year (2030) + General Plan improvements
- Forecast Year (2030) + General Plan improvements + WB Dual Left-Turn Lanes.

Exhibit 2 shows the traffic volumes and intersection lane conditions used for the study intersection.

#### *Methodologies*

The Level of Service (LOS) results for signalized intersections were calculated using the methodologies described in Chapter 18 of the 2010 HCM, using Synchro Version 10 software. The LOS for signalized intersections is defined in terms of control delay, which is made up of several factors that relate to right-of-way control, geometrics and traffic volumes. LOS ranges from LOS A (excellent conditions) to LOS F (overloaded conditions). The City's General Plan Circulation Element Policy P9 states "Where feasible, maintain or achieve LOS D at City intersections."

#### Traffic Operation Results

Based on the methodologies described above, the study intersection is anticipated to operate at LOS of F and E for the AM and PM peak respectively for the year 2018 scenario. When comparing the operational results within the year 2018 scenario, it was found that the implementation of the dual westbound left-turn lanes results in a lower overall delay with a reduction of 5.8 to 10.9 seconds when compared to the plus PSRE scenario.

For the forecast year 2030 the study intersection is anticipated to operate at a LOS of E and F, respectively. When comparing the operational results within the year 2030 scenario, it was found that the dual westbound left-turn lane result in a lower overall delay with a reduction of 2.1 to 18.5 seconds when compared to the plus PSRE scenario.

The anticipated geometrical improvements within the City's general plan, plus the addition of a second westbound left-turn lane are anticipated to operate better in terms of delay reduction for both the 2018 and 2030 scenarios. The overall intersection delay is anticipated to be reduced 7.8 to 16.8 seconds during the Year 2018 scenario when compared to the plus PSRE geometric improvements, similarly a reduction of overall delay of 2.8 to 28.3 seconds for the Year 2030 when compared to the plus PSRE geometric improvements.

**Table 1** summaries the intersection operation results as it relates to Level of Service for the studied scenarios.

Mr. Glenn L. Block, Esq. January 4, 2021 Page 3 of 4

#### Conclusion

Based on the traffic analysis shown in the PSRE (LOS F to LOS F), the follow-up counts and analysis performed in 2015 and again in 2018 (which shows a minimal improvement to LOS E during the AM peak hour, likely due to the addition of the eastbound right turn lane; and a degradation to LOS F during the PM peak hour), and the City's buildout projections for 2030 (which show a 3.5% degradation of the v/c ratio for PM conditions with the right-turn lane), an exclusive northbound right turn lane does not appear to be warranted at this location, and any potential improvements are offset.

The PSRE and General Plan improvement scenarios are shown to have negligible improvements related to delay; however, these are not anticipated to have a significant improvement to the intersection LOS as all scenarios are shown to operate at LOS F (except for the PSRE scenario, which swapped LOS F and E for the AM and PM peak hours of existing conditions to LOS E and LOS F for the AM and PM peak hours of Forecast Year (2030) conditions).

The westbound dual left-turn lane analysis contained within this supplemental analysis shows a greater improvement in terms of LOS and delay when compared to the PSRE analysis. Additionally, important to note is that the dual left-turn lanes can be constructed within the existing curb-to-curb width along Artesia Boulevard, without the need to acquire any private property, and still maintaining the raised median to maintain safety along the roadway.

The standard contained within the Highway Capacity Manual 6<sup>th</sup> Edition describes the relationship between left-turn volumes and the probable need for exclusive turn lanes. Single left-turn lanes are typically needed when left-turning volumes are at least 100 vehicles per hour, and dual left-turn lanes are typically needed when there are over 300 vehicles per hour. Based on the City's General Plan Circulation Element, the forecasted volumes for the westbound left-turn movement are shown to exceed 300 turning vehicles during the PM peak hour (530 left-turning vehicles are projected), and the analysis contained within this letter report shows that the overall intersection delay can be further improved with the addition of a second westbound left-turn lane.

**Exhibit 3** illustrates a conceptual layout with the implementation of dual left turn lanes for the westbound approach.

Sincerely,

RICK ENGINEERING COMPANY

Brian R. Stephenson, P.E., T.E., P.T.O.E.

RCE No. 69471 Associate Principal

Bir.R. Spot

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Mr. Glenn L. Block, Esq. January 4, 2021 Page 4 of 4

### Attachments:

- 1. Exhibits
- 2. Table
- 3. Capacity Analysis- Westbound Dual Left turn lanes4. Timing Printouts- Westbound Dual Left turn lanes

## Brian Stephenson PE, TE, PTOE

Brian Stephenson is an Associate Principal at RICK, where he manages a team of traffic engineers who provide a variety of engineering and planning services, including the preparation and review of traffic control plans, traffic signal plans, signing and striping plans, traffic impact studies, optimized network timing plans, and collision analysis. Brian is well-versed with municipal traffic engineering and currently serves as the Contract City Traffic Engineer for the City of Murrieta. Through his public agency work as an extension of staff for the City of Murrieta, and his public works project experience within the San Diego region, he has designed and managed traffic control PS&E for large scale pipeline projects, which typically include sidewalk and ADA improvements, traffic signal upgrades, and utility lateral installations and relocations.

As part of Rick Engineering Company's expert witness services, Mr. Stephenson is responsible for performing review of traffic analysis reports and design plans, and providing expert opinions on conformance to State and local agency analysis and design requirements. A few of these projects include the following:

- Keiper, et al v. USA, et al County of San Bernardino
- Caltrans v. Janet Gale Hubbard County of San Bernardino, CA
- SANBAG v. Hakimian San Bernardino, CA
- RCTC v. Pearl Street Properties Corona, CA
- San Bernardino County Transportation Commission v. Ehab Atatlla Colton, CA
- South Milliken Avenue Grade Separation (Sears/Kmart)

CONSULTANT TRAFFIC ENGINEER — CITY OF MURRIETA, CA: As part of Rick Engineering Company's contract services to the City of Murrieta, Mr. Stephenson is the City's Consulting Traffic Engineer responsible for reviewing traffic signal plans, traffic impact studies, and Environmental Impact Report (EIR) traffic analysis submitted to the City of Murrieta by developers. He also responds to citizens concerns with traffic related issues, and represents the City at Traffic Commission, Planning Commission, and City Council meetings.

University Avenue Mobility Plan – City of San Diego, CA: Traffic Engineer responsible for the preparation of traffic related plans for the mobility improvement project within the North Park community of San Diego, which included a transit only lane. The traffic plans included 10 traffic signal/signal modification plans, 3 RRFB plans, 5 street lighting plans, 5 signing and striping plans and 18 traffic control plans, as well as an Intersection Control Evaluation (ICE) study and conceptual layout evaluating a roundabout at one of the study intersections.

**INTERSECTION SAFETY STUDIES – CITY OF SACRAMENTO, CA:** Project engineer responsible for the preparation of an Intersection Safety Studies report for five intersections within the City of Sacramento. Tasks performed include site visits, analyzing accident history, preparation of accident rates, recommending potential mitigation, preparation of cost estimates for mitigation, and preparation of a report summarizing the collision patterns and mitigation.

Pacific Beach Pipeline South – City of San Diego, CA: Traffic Engineer responsible for the preparation of traffic control plans for the replacement of approximately 7.6 miles of 8-inch to 24-inch water transmission and distribution lines and approximately 1.6 miles of sewer gravity lines and force mains in the Mission Bay Park area and Midway/Pacific



PROJECT ASSIGNMENT Expert Witness

YEARS OF EXPERIENCE 22

#### **EDUCATION**

B.S. in Civil Engineering 1998, University of New York at Buffalo

#### **REGISTRATION**

Registered Professional Engineer California, #69471 Arizona, #42520 New York, #080635 Colorado, #0048708

Registered Traffic Engineer California, #2419

Professional Traffic Operations Engineer, #2169

PROFESSIONAL
AFFILIATIONS
Institute of
Transportation
Engineering (ITE)

American Society of Civil Engineers (ASCE)

International Municipal Signal Association (IMSA)

American Public Works Association (APWA) Highway Corridor. The traffic control plans include 200 sheets of traffic control, within both City and Caltrans right-of-way, and included a separate encroachment permit submittal through Caltrans. The traffic control plans were designed to minimize impacts to the travelling public, area businesses, and residents, as well as to maintain the safety for bicyclists and pedestrians maneuvering through the traffic control.

AZUSA WASTE MANAGEMENT MATERIAL RECOVERY FACILITY — CITY OF AZUSA, CA: Project engineer responsible for the traffic signal modification design at 2 City intersections, and traffic signal design at 3 on-site private intersections. Tasks unique to this project included design within the Waste Management facility, accounting for both horizontal and vertical curve approaches to the signals, as well as designing for primarily large vehicles.

**TRAFFIC ENGINEERING PLAN CHECKING — MURRIETA, ONTARIO, LAKE ELSINORE, PLACENTIA, CA:** As part of Rick Engineering's contract services to Bureau Veritas for the Cities of Murrieta, Ontario, Lake Elsinore, and Placentia, Mr. Stephenson is the project engineer responsible for the review of various traffic engineering design related plans, including traffic signal plan, signing & striping plans, and traffic control plans.

CALIFORNIA BAPTIST UNIVERSITY TRAFFIC IMPACT ANALYSIS — CITY OF RIVERSIDE, CA: Project Engineer responsible for preparing a Traffic Impact Analysis for the California Baptist University Specific Plan, which calls for an estimated enrollment of 8,080 students by year 2020. The project is an expansion to the existing university, and will ultimately consist of 13 academic buildings, 2 parking structures along with additional surface lots, an event center, and an athletic area and recreation center. The study analyzed impacts of vehicular traffic on the adjacent City and Caltrans roadways, as well as internal to the site. Tasks included performing trip generation, capacity analysis, queuing analysis, ramp merge/diverge analysis, internal truck turning templates, mitigation for buildout of the project, and preparation of a report summarizing the findings of the analysis.

Harmony Grove Traffic Signal, Signing & Striping, Traffic Control, & Detour Plans – County of San Diego, CA: Provided project engineering services for all traffic-related PS&E including traffic signal plans, signing and striping plans, traffic control plans, and detour plans for the mixed-use community 0f 742 dwelling units, commercial uses, an equestrian facility, and a fire station. The traffic related PS&E included 4 traffic signals, 12 sheets of signing and striping, 6 sheets of traffic control, and 2 detour plans.

RANCHO PARKWAY AND SPORTS PARK TRAFFIC SIGNAL — CITY OF LAKE FOREST, CA: Project manager responsible for the traffic related PS&E for a new traffic signal at the intersection of Rancho Parkway and Sports Park/Nursery. The design for this project included meeting all necessary City and MUTCD requirements for ADA accessibility, including truncated domes for all pedestrian ramps, countdown pedestrian timers, and bicycle detection loops.

## Robert Stockton PE, LEED AP

**Mr. Stockton** has been Principal-in-Charge of Rick Engineering Company's (RICK) Riverside office since opening it in 1987. He received his Bachelor of Science in Construction Engineering in 1978 at California State Polytechnic University, Pomona. He is a Registered Civil Engineer in the states of California and Arizona, and a LEED Accredited Professional. Mr. Stockton has been Principal-in-Charge of numerous large and complex private and public sector projects. He directs and supervises a staff of project engineers, designers, a landscape architect, a mapping director, and surveyors. His responsibilities include coordination of projects with clients and public agencies, as well as supervision of all work performed by his team.

Mr. Stockton is highly experienced in all aspects of civil engineering and surveying related to land and site development. His 41 years of experience include the design of roads, drainage systems, sewer systems, water systems, grading, and right-of-way surveys and mapping.

Mr. Stockton is a board member of the California Board for Professional Engineers, Land Surveyors and Geologists, is a board member Western Municipal Water District representing Division 1, is a past Chair of the Greater Riverside Chamber of Commerce and the City of Riverside's Board of Public Utilities, and is active in national, state, and regional power and water issues. He was the Riverside Public Utilities representative on the Western Municipal Water District and served City of Riverside Ad Hoc Committee for six years. Mr. Stockton also serves on the Path of Life Ministries Board, and the California Baptist University School of Engineering Advisory Committee, is a past Chair of Leadership Riverside and served two terms as planning commissioner for the City of Riverside.

A few of Mr. Stockton's representative projects include:

- SBCTC v. Arrowhead Central Credit Union Provided expert witness services in connection with eminent domain action by the San Bernardino County Transportation Commission. SBCTC sought to condemn a large portion of the credit union's property for the construction of a detention basin for its Downtown San Bernardino Passenger Rail Project. Case settled before trial.
- RCTC v. 2410 Wardlow Property, LLC Provided expert witness services in connection
  with eminent domain action brought by Riverside County Transportation Commission.
  RCTC sought to condemn a portion of the multi-tenant commercial/retail property to
  widen the 91 Freeway in Corona. Case settled before trial.
- Caltrans v. Javad N. Sani Provided expert witness services in connection with eminent domain action brought by Caltrans for three ocean and pastoral view parcels totaling 13.47 acres of Highway 1 in San Simeon. Caltrans sought to condemn portions of two of the three parcels for its State Route 1 Realignment Project. Settlement for full takes of two of the parcels, preserved the owner's ability to seek compensation for the taking of, and damages to the third parcel.
- Caltrans District 08 Provided expert witness testimony and forensic engineering on condemnation proceedings at Highway 330, Route 30 and Highland Avenue for the State of California.
- Ku, Fong, Larsen & Chen, LLP, Bradbury Estates, Bradubury, CA Provided expert
  witness testimony for an arbitration hearing regarding the development potential and
  corresponding value for 190-acres in the City of Bradbury
- Caltrans District 08 Provided expert witness and forensic engineering for development potential and costs for a site at Oleander Drive and Interstate 215
- City of San Dimas Provided expert witness planning and civil engineering to defend the City of San Dimas in a case concerning the General Plan and Hillside Ordinances

**PROJECT ASSIGNMENT**Principal-in-Charge

YEARS OF EXPERIENCE

#### **EDUCATION**

California State Polytechnic University, Pomona B.S. Construction Engineering, 1978

#### **REGISTRATION**

Registered Professional Engineer California, No. 33591 Arizona, No. 20021

U.S. Green Building Council Leadership in Energy and Environmental Design Accredited Professional

#### **PROFESSIONAL AFFILIATIONS**

California Board for Professional Engineers, Land Surveyors, and Geologists, V.P., Board Member

American Society of Civil Engineers (ASCE)

American Council of Engineering Companies – California (ACEC-CA)

Greater Riverside Chamber of Commerce, Past Chair

California Baptist University, School of Engineering Advisory Committee

Leadership Riverside, Past Chairman

Monday Morning Group, Director

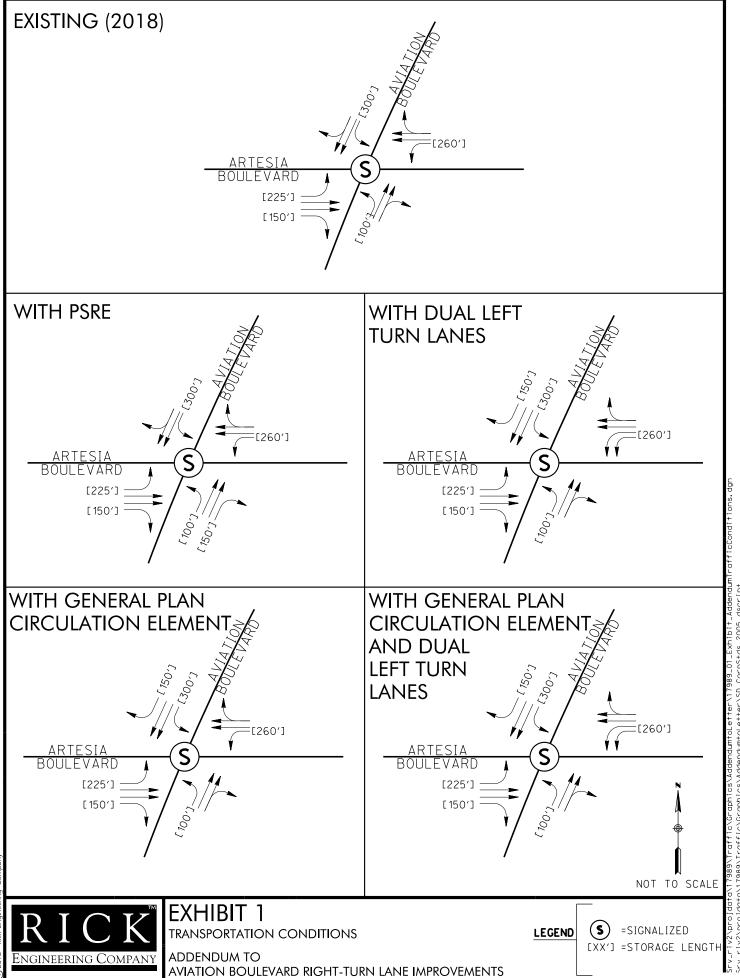
Path of Life Ministries Board Member

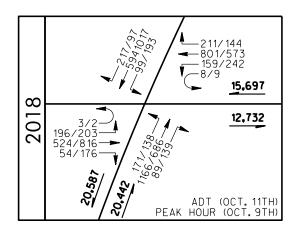
Western Municipal Water District, Past Director Board Member

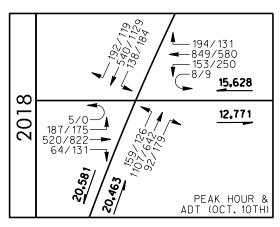


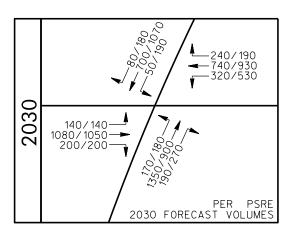
## ATTACHMENT 1

## **EXHIBITS**









NOT TO SCALE

**LEGEND** 

AM/PM=PEAK VOLUMES X,XXX =DIRECTIONAL ADT

**EXHIBIT 2** TRAFFIC VOLUMES

ADDENDUM TO

AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

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 $RICK^{^{\mathrm{m}}}$ Engineering Company

EXHIBIT 3

CONCEPT LAYOUT- WESTBOUND DUAL LEFT TURN LANE

ADDENDUM TO

AVIATION BOULEVARD RIGHT-TURN LANE IMPROVEMENTS

## ATTACHMENT 2

## **TABLE**



## TABLE 1 INTERSECTION OPERATION RESULTS

ARTESIA BOULEVARD & AVIATION BOULEVARD		RESU	LTS
Scenarios (Traffic Signal)		DELAY <sup>1</sup>	LOS <sup>2</sup>
Existing (2018) Tuesday + PSRE <sup>3</sup>	AM	111.2	F
	PM	68.4	Е
Existing (2018) Wednesday + PSRE <sup>3</sup>	AM	111.6	F
	PM	73.5	Е
Existing (2018) Tuesday + WB Dual LT Lanes <sup>4</sup>	AM	100.9	F
	PM	59.9	Е
Existing (2018) Wednesday + WB Dual LT Lanes <sup>4</sup>	AM	101.6	F
	PM	62.6	E
Existing (2018) Tuesday + General Plan <sup>5</sup>	AM	116.2	F
	PM	64.0	E
Existing (2018) Wednesday + General Plan <sup>5</sup>	AM	115.7	F
	PM	66.9	E
Existing (2018) Tuesday + General Plan +WB Dual LT Lanes <sup>6</sup>	AM	94.4	F
	PM	60.6	Е
Existing (2018) Wednesday + General Plan + WB Dual LT Lanes <sup>6</sup>	AM	100.9	F
	PM	57.0	Е
Forecast Year (2030) + PSRE <sup>3</sup>	AM	75.4	E
	PM	112.6	F
Forecast Year (2030) + WB Dual LT Lanes <sup>4</sup>	AM	73.3	E
	PM	94.1	F
Forecast Year (2030) + General Plan <sup>5</sup>	AM	90.0	F
	PM	113.8	F
Forecast Year (2030) + General Plan + WB Dual LT Lanes <sup>6</sup>	AM	72.6	E
	PM	84.3	F

#### Footnotes:

Results calculated utilizing the methodologies described in Chapters 18 of the HCM 2010.

- 1) Delay is measured in seconds per vehicle.
- 2) Level of Service
- 3) The "+PSRE" scenario consists of geometrical improvements of a dedicated right-turn lane for the northbound approach.
- 4) The "+WB Dual LT Lanes" scenario consists of geometrical improvements of an additional left-turn lane for the westbound approach.
- 5) The "+ General Plan" scenario consists of geometrical improvements of a dedicated right-turn lane for southbound approach.
- 6) Incorporates the geometrical improvements described in the General Plan and westbound dual left turn lanes.

## ATTACHMENT 3

# CAPACITY ANALYSIS WORKSHEETS WESTBOUND DUAL LEFT TURN LANES

	<b></b>	•	<b>→</b>	•	F	•	<b>←</b>	•	•	<b>†</b>	<i>&gt;</i>	<b>/</b>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>^</b>	7		ň	<b>↑</b> Ъ		ħ	<b>†</b> †	7	7
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		1	2	0	1	2	1	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	872	229	90	1365	611	84
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2775	729	1774	3539	1583	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	1267	97	108
Grp Sat Flow(s),veh/h/ln		1774	1770	1583		1774	1770	1734	1774	1770	1583	1774
Q Serve(g_s), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	36.0	4.2	5.0
Cycle Q Clear(g_c), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	36.0	4.2	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	545	90	1365	611	84
V/C Ratio(X)		2.00	0.50	0.12		1.93	1.00	1.00	2.08	0.93	0.16	1.28
Avail Cap(c_a), veh/h		106	1146	513		90	556	545	90	1365	611	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	24.9		49.8	36.0	36.0	49.8	30.9	21.1	50.0
Incr Delay (d2), s/veh		482.1	0.3	0.1		457.6	37.7	38.4	520.8	12.3	0.6	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.7	1.2		14.0	21.9	21.6	15.5	19.8	1.9	6.9
LnGrp Delay(d),s/veh		531.4	28.9	25.0		507.4	73.7	74.4	570.6	43.2	21.7	239.9
LnGrp LOS		F	С	С		F	E	E	F	D	С	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			155.8				132.9			105.1		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	45.9	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.0	38.0	7.3	15.6	7.3	24.1	8.3	35.0				
Green Ext Time (p_c), s	0.0	1.9	0.0	3.6	0.0	4.9	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			111.2									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	/ement.										

Existing + PSR - Tues AM Peak Hour Rick Engineering Company

	Ţ	1
	057	
Movement	SBT	SBR
Lane Configurations	<b>∱</b> ⊅	
Traffic Volume (veh/h)	594	217
Future Volume (veh/h)	594	217
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	646	236
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	973	355
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2541	928
Grp Volume(v), veh/h	450	432
Grp Sat Flow(s), veh/h/ln	1770	1699
Q Serve(g_s), s	22.1	22.1
Cycle Q Clear(g_c), s	22.1	22.1
Prop In Lane		0.55
Lane Grp Cap(c), veh/h	678	650
V/C Ratio(X)	0.66	0.66
Avail Cap(c_a), veh/h	678	650
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	26.8	26.8
Incr Delay (d2), s/veh	5.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.3
LnGrp Delay(d),s/veh	31.9	32.1
LnGrp LOS	C	C
Approach Vol, veh/h	990	
Approach Delay, s/veh	54.7	
Approach LOS	D D	
• •	D	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	•	۶	<b>→</b>	•	F	•	<b>←</b>	•	•	†	<b>/</b>	<b>/</b>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ř	<b>†</b> †	7		7	<b>∱</b> 1≽		ሻ	<b>†</b> †	7	ሻ
Traffic Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Future Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h		221	887	191		263	623	157	150	746	151	210
Adj No. of Lanes		1	2	1		1	2	0	1	2	1	1
Peak Hour Factor		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
Cap, veh/h		237	878	393		274	753	190	160	1116	499	214
Arrive On Green		0.13	0.25	0.25		0.15	0.27	0.27	0.09	0.32	0.32	0.12
Sat Flow, veh/h		1774	3539	1583		1774	2803	705	1774	3539	1583	1774
Grp Volume(v), veh/h		221	887	191		263	393	387	150	746	151	210
Grp Sat Flow(s),veh/h/ln		1774	1770	1583		1774	1770	1738	1774	1770	1583	1774
Q Serve(g_s), s		15.4	31.0	12.9		18.4	26.1	26.2	10.5	22.9	9.0	14.8
Cycle Q Clear(g_c), s		15.4	31.0	12.9		18.4	26.1	26.2	10.5	22.9	9.0	14.8
Prop In Lane		1.00		1.00		1.00		0.41	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		237	878	393		274	476	467	160	1116	499	214
V/C Ratio(X)		0.93	1.01	0.49		0.96	0.83	0.83	0.94	0.67	0.30	0.98
Avail Cap(c_a), veh/h		237	878	393		274	476	467	160	1116	499	214
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		53.6	47.0	40.2		52.5	43.0	43.0	56.5	37.1	32.4	54.8
Incr Delay (d2), s/veh		40.3	33.0	0.9		43.4	11.4	11.8	52.2	3.2	1.6	55.5
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
%ile BackOfQ(50%),veh/ln		10.2	19.1	5.7		12.4	14.3	14.1	7.5	11.7	4.1	10.5
LnGrp Delay(d),s/veh		93.9	80.0	41.1		95.9	54.4	54.8	108.7	40.3	34.0	110.3
LnGrp LOS		F	F	D		F	D	D	F	D	С	F
Approach Vol, veh/h			1299				1043			1047		
Approach Delay, s/veh			76.7				65.0			49.2		
Approach LOS			Е				Е			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	44.8	24.0	36.4	16.0	48.6	21.4	39.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	39.4	* 19	31.0	* 11	43.2	* 17	33.6				
Max Q Clear Time (g_c+l1), s	16.8	24.9	20.4	33.0	12.5	43.9	17.4	28.2				
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	0.0	0.0	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			68.4									
HCM 2010 Cur belay			E									
Notes												
User approved ignoring U-Turn	ing mov	ement										
osor approved ignoring of full	iirig iii0V	omont.										

Existing + PSR- Tues PM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>∱</b> î≽	
Traffic Volume (veh/h)	1017	97
Future Volume (veh/h)	1017	97
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	1105	105
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1129	107
Arrive On Green	0.35	0.35
Sat Flow, veh/h	3267	310
Grp Volume(v), veh/h	598	612
Grp Sat Flow(s), veh/h/ln	1770	1808
Q Serve(q_s), s	41.7	41.9
Cycle Q Clear(q_c), s	41.7	41.9
Prop In Lane	71.7	0.17
Lane Grp Cap(c), veh/h	612	625
V/C Ratio(X)	0.98	0.98
Avail Cap(c_a), veh/h	612	625
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	40.4	40.5
Incr Delay (d2), s/veh	31.3	31.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.8	26.3
		71.8
LnGrp Delay(d),s/veh	71.8	
LnGrp LOS	E	E
Approach Vol, veh/h	1420	
Approach Delay, s/veh	77.5	
Approach LOS	Е	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>†</b> †	7		ሻ	<b>∱</b> ⊅		ሻ	<b>†</b> †	7	ሻ
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		1	2	0	1	2	1	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	900	205	90	1355	606	90
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2863	654	1774	3539	1583	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	1203	100	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1747	1774	1770	1583	1774
Q Serve(g_s), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	33.4	4.4	5.3
Cycle Q Clear(g_c), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	33.4	4.4	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	549	90	1355	606	90
V/C Ratio(X)		1.91	0.49	0.14		1.85	1.03	1.03	1.93	0.89	0.16	1.68
Avail Cap(c_a), veh/h		106	1146	513		90	556	549	90	1355	606	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	25.1		49.8	36.0	36.0	49.8	30.3	21.3	49.8
Incr Delay (d2), s/veh		441.1	0.3	0.1		423.8	44.7	45.4	457.6	8.9	0.6	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.6	1.5		13.1	23.0	22.8	14.0	17.9	2.0	11.2
LnGrp Delay(d),s/veh		490.5	28.9	25.2		473.6	80.7	81.4	507.4	39.2	21.9	397.3
LnGrp LOS		F	С	С		F	F	F	F	D	С	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			140.4				131.2			92.9		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.3	35.4	7.3	15.5	7.3	21.3	8.3	35.0				
Green Ext Time (p_c), s	0.0	3.3	0.0	3.6	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			111.6									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turi	ning mov	ement.										

Existing + PSR - Wed AM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>↑</b> 1>	
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	981	348
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2562	910
Grp Volume(v), veh/h	405	391
Grp Sat Flow(s), veh/h/ln	1770	1702
Q Serve(q_s), s	19.2	19.3
Cycle Q Clear(q_c), s	19.2	19.3
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	678	652
V/C Ratio(X)	0.60	0.60
Avail Cap(c_a), veh/h	678	652
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	25.9	26.0
Incr Delay (d2), s/veh	3.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	9.7
LnGrp Delay(d),s/veh	29.8	30.0
LnGrp LOS	29.0 C	30.0 C
Approach Vol, veh/h	946	U
•	946 88.2	
Approach LOS		
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	<b>†</b> †	7		Ŋ	<b>∱</b> 1≽		ሻ	<b>^</b>	7	ሻ	<b>∱</b> }
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		1	2	0	1	2	1	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	215	855	382		272	787	177	141	1164	521	225	1217
Arrive On Green	0.12	0.24	0.24		0.15	0.27	0.27	0.08	0.33	0.33	0.13	0.38
Sat Flow, veh/h	1774	3539	1583		1774	2872	646	1774	3539	1583	1774	3233
Grp Volume(v), veh/h	190	893	142		272	388	384	137	698	195	200	670
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1774	1770	1749	1774	1770	1583	1774	1770
Q Serve(g_s), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	22.3	12.7	15.0	50.8
Cycle Q Clear(g_c), s	14.2	32.6	10.1		20.7	27.5	27.6	10.4	22.3	12.7	15.0	50.8
Prop In Lane	1.00		1.00		1.00		0.37	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	215	855	382		272	485	479	141	1164	521	225	666
V/C Ratio(X)	0.89	1.04	0.37		1.00	0.80	0.80	0.97	0.60	0.37	0.89	1.01
Avail Cap(c_a), veh/h	242	855	382		272	485	479	141	1164	521	256	666
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	51.2	42.7		57.1	45.6	45.6	62.0	37.9	34.7	58.0	42.1
Incr Delay (d2), s/veh	28.0	43.1	0.6		54.5	9.3	9.5	67.8	2.3	2.1	27.4	36.4
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
%ile BackOfQ(50%),veh/ln	8.6	21.0	4.5		14.2	14.7	14.6	7.7	11.2	5.9	9.0	31.5
LnGrp Delay(d),s/veh	86.4	94.3	43.3		111.7	54.8	55.1	129.9	40.2	36.7	85.4	78.5
LnGrp LOS	F	F	D		F	D	Е	F	D	D	F	F
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		87.2				69.8			51.4			79.8
Approach LOS		F				Е			D			Е
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.8	49.8	25.4	38.0	15.4	56.2	21.0	42.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 20	42.0	* 21	32.6	* 11	50.8	* 18	34.9				
Max Q Clear Time (g_c+I1), s	17.0	24.3	22.7	34.6	12.4	52.8	16.2	29.6				
Green Ext Time (p_c), s	0.1	5.1	0.0	0.0	0.0	0.0	0.1	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			73.5									
HCM 2010 LOS			E									
Notes	aina ma	(omont										
User approved ignoring U-Turr	ing mov	cilicili.										

Existing + PSR- Wed PM Peak Hour Rick Engineering Company

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Movement	SBR
Land Configurations	ODIC
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	1900
Adj No. of Lanes	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	0.92
Cap, veh/h	128
Arrive On Green	0.38
Sat Flow, veh/h	339
Grp Volume(v), veh/h	686
Grp Sat Flow(s), veh/h/ln	1803
Q Serve(g_s), s	50.8
Cycle Q Clear(g_c), s	50.8
Prop In Lane	0.19
Lane Grp Cap(c), veh/h	678
V/C Ratio(X)	1.01
Avail Cap(c_a), veh/h	678
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	42.1
Incr Delay (d2), s/veh	37.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	32.3
LnGrp Delay(d),s/veh	79.5
LnGrp LOS	F
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	
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<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>†</b> †	7		<b>ሽ</b> ች	<b>∱</b> ∱		ሻ	<b>∱</b> ⊅		ሻ
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		2	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1083	485		235	872	229	90	1286	98	84
Arrive On Green		0.06	0.31	0.31		0.07	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		3442	2775	729	1774	3333	255	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	672	692	108
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1721	1770	1734	1774	1770	1818	1774
Q Serve(g_s), s		6.3	14.0	2.8		5.2	32.9	33.0	5.3	39.4	39.7	5.0
Cycle Q Clear(g_c), s		6.3	14.0	2.8		5.2	32.9	33.0	5.3	39.4	39.7	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		0.14	1.00
Lane Grp Cap(c), veh/h		106	1083	485		235	556	545	90	683	701	84
V/C Ratio(X)		2.00	0.53	0.12		0.74	1.00	1.00	2.08	0.98	0.99	1.28
Avail Cap(c_a), veh/h		106	1083	485		252	556	545	90	683	701	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	30.1	26.3		48.0	36.0	36.0	49.8	31.9	32.0	50.0
Incr Delay (d2), s/veh		482.1	0.5	0.1		10.1	37.7	38.4	520.8	30.7	31.1	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.9	1.2		2.8	21.9	21.6	15.5	25.0	25.9	6.9
LnGrp Delay(d),s/veh		531.4	30.6	26.4		58.0	73.7	74.4	570.6	62.6	63.1	239.9
LnGrp LOS		F	С	С		Е	Е	Е	F	Е	Е	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			157.0				71.9			123.8		
Approach LOS			F				E			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5		7	8				
•	9.7		11.9			6 4E 4						
Phs Duration (G+Y+Rc), s		45.9		37.5	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7 * 7.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 7.7	31.6	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s Green Ext Time (p_c), s	7.0	41.7	7.2 0.0	16.0 3.4	7.3 0.0	24.1 4.9	8.3	35.0				
	0.0	0.0	0.0	3.4	0.0	4.9	0.0	0.0				
Intersection Summary			100.0									
HCM 2010 Ctrl Delay			100.9									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	nina mov	/ement.										

Existing + Dual Left - Tues AM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>†</b>	
Traffic Volume (veh/h)	594	217
Future Volume (veh/h)	594	217
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	646	236
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	973	355
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2541	928
Grp Volume(v), veh/h	450	432
Grp Sat Flow(s),veh/h/ln	1770	1699
Q Serve(g_s), s	22.1	22.1
Cycle Q Clear(g_c), s	22.1	22.1
Prop In Lane		0.55
Lane Grp Cap(c), veh/h	678	650
V/C Ratio(X)	0.66	0.66
Avail Cap(c_a), veh/h	678	650
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	26.8	26.8
Incr Delay (d2), s/veh	5.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.3
LnGrp Delay(d),s/veh	31.9	32.1
LnGrp LOS	С	С
Approach Vol, veh/h	990	
Approach Delay, s/veh	54.7	
Approach LOS	D	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBI
Lane Configurations		ă	<b>^</b>	7		<b>ሕ</b> ኻ	<b>∱</b> 1>		ሻ	<b>∱</b> Ъ		,
Traffic Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Future Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Number		7	4	14		3	8	18	5	2	12	1
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	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
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		221	887	191		263	623	157	150	746	151	210
Adj No. of Lanes		1	2	1		2	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		236	1022	457		318	695	175	164	950	192	231
Arrive On Green		0.13	0.29	0.29		0.09	0.25	0.25	0.09	0.32	0.32	0.13
Sat Flow, veh/h		1774	3539	1583		3442	2803	705	1774	2934	594	1774
Grp Volume(v), veh/h		221	887	191		263	393	387	150	450	447	210
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1721	1770	1738	1774	1770	1758	1774
Q Serve(q_s), s		15.1	29.1	11.9		9.2	26.3	26.4	10.3	28.2	28.2	14.3
Cycle Q Clear(g_c), s		15.1	29.1	11.9		9.2	26.3	26.4	10.3	28.2	28.2	14.3
Prop In Lane		1.00		1.00		1.00		0.41	1.00		0.34	1.00
Lane Grp Cap(c), veh/h		236	1022	457		318	439	431	164	573	569	231
V/C Ratio(X)		0.93	0.87	0.42		0.83	0.90	0.90	0.92	0.79	0.79	0.91
Avail Cap(c_a), veh/h		236	1070	479		346	477	469	164	573	569	231
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		52.5	41.3	35.2		54.6	44.5	44.5	55.0	37.5	37.5	52.5
Incr Delay (d2), s/veh		41.0	7.5	0.6		14.3	18.3	18.9	46.4	10.4	10.5	36.1
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
%ile BackOfQ(50%),veh/ln		10.1	15.2	5.3		5.0	15.1	14.9	7.2	15.4	15.3	9.3
LnGrp Delay(d),s/veh		93.4	48.8	35.8		68.9	62.8	63.4	101.5	47.9	48.0	88.6
LnGrp LOS		F	D	D		Е	Е	Е	F	D	D	F
Approach Vol, veh/h			1299				1043			1047		
Approach Delay, s/veh			54.5				64.6			55.6		
Approach LOS			D				Е			Е		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.6	45.0	16.0	40.7	16.0	49.6	21.0	35.7				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 16	39.6	* 12	37.0	* 11	44.2	* 16	33.0				
Max Q Clear Time (g_c+l1), s	16.3	30.2	11.2	31.1	12.3	42.0	17.1	28.4				
Green Ext Time (p_c), s	0.0	3.8	0.1	3.1	0.0	1.5	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			59.9									
HCM 2010 LOS			E									
Notes												
User approved ignoring U-Turr	nina mov	ement.										

Existing + Dual Lefts - Tues PM Peak Hour Rick Engineering Company

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M	CDT	
Movement	SBT	SBR
Lane Configurations	<b>∱</b> ⊅	
Traffic Volume (veh/h)	1017	97
Future Volume (veh/h)	1017	97
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	1105	105
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1181	112
Arrive On Green	0.36	0.36
Sat Flow, veh/h	3267	310
Grp Volume(v), veh/h	598	612
Grp Sat Flow(s), veh/h/ln	1770	1808
Q Serve(q_s), s	39.9	40.0
Cycle Q Clear(q_c), s	39.9	40.0
Prop In Lane		0.17
Lane Grp Cap(c), veh/h	639	653
V/C Ratio(X)	0.94	0.94
Avail Cap(c_a), veh/h	639	653
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	37.7	37.7
Incr Delay (d2), s/veh	22.8	22.7
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.5	24.0
LnGrp Delay(d),s/veh	60.5	60.4
LnGrp LOS	60.5 E	E
Approach Vol, veh/h	1420	<u> </u>
Approach Delay, s/veh	64.6	
Approach LOS	04.0 E	
Approach LOS	Ľ	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>†</b> †	7		<b>ሽ</b> ች	<b>∱</b> Ъ		ሻ	<b>∱</b> ⊅		ሻ
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		2	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1090	488		228	900	205	90	1267	105	90
Arrive On Green		0.06	0.31	0.31		0.07	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		3442	2863	654	1774	3309	275	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	642	661	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1721	1770	1747	1774	1770	1814	1774
Q Serve(g_s), s		6.3	13.8	3.4		5.0	33.0	33.0	5.3	36.9	37.1	5.3
Cycle Q Clear(g_c), s		6.3	13.8	3.4		5.0	33.0	33.0	5.3	36.9	37.1	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		0.15	1.00
Lane Grp Cap(c), veh/h		106	1090	488		228	556	549	90	678	695	90
V/C Ratio(X)		1.91	0.52	0.14		0.73	1.03	1.03	1.93	0.95	0.95	1.68
Avail Cap(c_a), veh/h		106	1090	488		265	556	549	90	678	695	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	29.9	26.3		48.1	36.0	36.0	49.8	31.4	31.4	49.8
Incr Delay (d2), s/veh		441.1	0.4	0.1		8.1	44.7	45.4	457.6	24.0	24.1	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.8	1.5		2.6	23.0	22.8	14.0	22.5	23.2	11.2
LnGrp Delay(d),s/veh		490.5	30.4	26.4		56.2	80.7	81.4	507.4	55.4	55.5	397.3
LnGrp LOS		F	С	С		Е	F	F	F	Е	Ε	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			141.5				77.9			108.4		
Approach LOS			F				Е			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	11.7	37.7	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 8.1	31.2	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.3	39.1	7.0	15.8	7.3	21.3	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.8	0.1	3.3	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	-		101.6									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing + Dual Left - Wed AM Peak Hour Rick Engineering Company

	<del> </del>	4
Movement	SBT	SBR
Lane Configurations	<b>†</b>	Jan
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	0
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	981	348
Arrive On Green	0.38	0.38
Sat Flow, veh/h	2562	910
Grp Volume(v), veh/h	405	391
Grp Sat Flow(s), veh/h/ln	1770	1702
Q Serve(g_s), s	19.2	19.3
Cycle Q Clear(g_c), s	19.2	19.3
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	678	652
V/C Ratio(X)	0.60	0.60
Avail Cap(c_a), veh/h	678	652
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	25.9	26.0
Incr Delay (d2), s/veh	3.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	9.7
LnGrp Delay(d),s/veh	29.8	30.0
LnGrp LOS	С	С
Approach Vol, veh/h	946	
Approach Delay, s/veh	88.2	
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ă	<b>^</b>	7		ሽኘ	<b>∱</b> Ъ		7	<b>∱</b> 1>		۲	ħβ
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		2	2	0	1	2	0	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	200	968	433		325	733	165	149	932	260	227	1244
Arrive On Green	0.11	0.27	0.27		0.09	0.26	0.26	0.08	0.34	0.34	0.13	0.38
Sat Flow, veh/h	1774	3539	1583		3442	2872	646	1774	2734	764	1774	3233
Grp Volume(v), veh/h	190	893	142		272	388	384	137	452	441	200	670
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1721	1770	1749	1774	1770	1728	1774	1770
Q Serve(g_s), s	13.1	30.3	8.8		9.6	25.8	25.9	9.5	27.9	27.9	13.7	46.3
Cycle Q Clear(g_c), s	13.1	30.3	8.8		9.6	25.8	25.9	9.5	27.9	27.9	13.7	46.3
Prop In Lane	1.00		1.00		1.00		0.37	1.00		0.44	1.00	
Lane Grp Cap(c), veh/h	200	968	433		325	452	446	149	603	589	227	681
V/C Ratio(X)	0.95	0.92	0.33		0.84	0.86	0.86	0.92	0.75	0.75	0.88	0.98
Avail Cap(c_a), veh/h	200	997	446		337	473	467	149	603	589	261	681
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	43.6	35.8		55.0	43.9	43.9	56.1	36.0	36.0	52.9	37.6
Incr Delay (d2), s/veh	49.8	13.4	0.4		16.3	14.2	14.6	49.7	8.3	8.5	25.3	30.9
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/ln	9.2	16.6	3.9		5.3	14.4	14.3	6.7	15.1	14.8	8.3	28.4
LnGrp Delay(d),s/veh	104.3	57.0	36.3		71.3	58.1	58.5	105.9	44.3	44.5	78.2	68.6
LnGrp LOS	F	Е	D		Е	Е	Е	F	D	D	Е	Е
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		62.0				61.7			52.6			70.2
Approach LOS		E				Е			D			E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.5	47.5	16.4	39.2	15.1	52.9	18.6	36.9				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 18	39.7	* 12	34.8	* 10	47.5	* 14	33.0				
Max Q Clear Time (g_c+I1), s		29.9	11.6	32.3	11.5	48.7	15.1	27.9				
Green Ext Time (p_c), s	0.1	3.9	0.1	1.5	0.0	0.0	0.0	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			62.6									
HCM 2010 LOS			E									
Notes												
User approved ignoring U-Turi	ning mov	ement.										

Existing + Dual Lefts -Wed PM Peak Hour Rick Engineering Company

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Movement	SBR
Land Configurations	JUIN
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	1900
Adj No. of Lanes	0
Peak Hour Factor	0.92
Percent Heavy Veh, %	0.92
Cap, veh/h	130
Arrive On Green	0.38
Sat Flow, veh/h	339
Grp Volume(v), veh/h	686
Grp Sat Flow(s), veh/h/ln	1803
Q Serve(g_s), s	46.7
Cycle Q Clear(g_c), s	46.7
Prop In Lane	0.19
Lane Grp Cap(c), veh/h	693
V/C Ratio(X)	0.99
Avail Cap(c_a), veh/h	693
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	37.8
Incr Delay (d2), s/veh	31.7
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	29.4
LnGrp Delay(d),s/veh	69.5
LnGrp LOS	Е
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	
TITTEL	

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		Ä	<b>†</b> †	7		7	ተኈ		ሻ	<b>∱</b> Ъ		ሻ
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	872	229	90	1286	98	84
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.39	0.39	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2775	729	1774	3333	255	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	672	692	108
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1734	1774	1770	1818	1774
Q Serve(g_s), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Cycle Q Clear(g_c), s		6.3	13.6	2.7		5.3	32.9	33.0	5.3	39.4	39.7	5.0
Prop In Lane		1.00		1.00		1.00		0.42	1.00		0.14	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	545	90	683	701	84
V/C Ratio(X)		2.00	0.50	0.12		1.93	1.00	1.00	2.08	0.98	0.99	1.28
Avail Cap(c_a), veh/h		106	1146	513		90	556	545	90	683	701	84
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	24.9		49.8	36.0	36.0	49.8	31.9	32.0	50.0
Incr Delay (d2), s/veh		482.1	0.3	0.1		457.6	37.7	38.4	520.8	30.7	31.1	189.9
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
%ile BackOfQ(50%),veh/ln		17.3	6.7	1.2		14.0	21.9	21.6	15.5	25.0	25.9	6.9
LnGrp Delay(d),s/veh		531.4	28.9	25.0		507.4	73.7	74.4	570.6	62.6	63.1	239.9
LnGrp LOS		F	С	С		F	Ε	Ε	F	Е	Ε	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			155.8				132.9			123.8		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	45.9	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	40.5	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.0	41.7	7.3	15.6	7.3	16.5	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6	0.0	5.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			116.2									_
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	/ement.										

Existing + GenPlan - Tues AM Peak Hour Rick Engineering Company

Movement SBT SBR  Lane Configurations Traffic Volume (veh/h) 594 217  Future Volume (veh/h) 594 217  Number 6 16  Initial Q (Qb), veh 0 0 0  Ped-Bike Adj(A_pbT) 1.00  Parking Bus, Adj 1.00 1.00  Adj Sat Flow, veh/h/ln 1863 1863  Adj Flow Rate, veh/h 646 236  Adj No. of Lanes 2 1  Peak Hour Factor 0.92 0.92  Percent Heavy Veh, % 2 2  Cap, veh/h 1355 606  Arrive On Green 0.38 0.38  Sat Flow, veh/h/h 3539 1583  Grp Volume(v), veh/h 646 236  Grp Sat Flow(s), veh/h/ln 1770 1583  Q Serve(g_s), s 14.5 11.4  Cycle Q Clear(g_c), s 14.5 11.4  Prop In Lane 1.00  Lane Grp Cap(c), veh/h 1355 606  V/C Ratio(X) 0.48 0.39  Avail Cap(c_a), veh/h 1355 606  HCM Platoon Ratio 1.00 1.00  Upstream Filter(l) 1.00 1.00  Upstream Filter(l) 1.00 1.00  Uniform Delay (d2), s/veh 1.2 1.9  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 7.3 5.3  LnGrp Delay(d), s/veh 25.7 25.4  LnGrp LOS C C  Approach LOS D  Timer			
Movement         SBT         SBR           Lane Configurations         ↑↑         ↑           Traffic Volume (veh/h)         594         217           Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, Adj         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         1770         1583           Grp Volume(v), veh/h         646         236           Grp Volume(v), veh/h         1355         606           W/C Ratio(X)         0.48         0.39           Avai		Ţ	1
Lane Configurations         ↑↑         ₹           Traffic Volume (veh/h)         594         217           Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         170         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         170         1583           Grp Volume(v), veh/h         170         1583           Grp Cap(c), s         14.5         11.4           Prop In Lane         1.00         1.00		057	
Traffic Volume (veh/h)         594         217           Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/ln         1863         1863           Adj Sat Flow, veh/h/ln         1863         1863           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Grp Volume(v), veh/h         1583         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00			
Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/In         1770         1583           Grp Volume(v), veh/h         1355         606           V/C Ratio(X)         0.48         0.39			
Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         1770         1583           Grp Volume(v), veh/h         1770         1583           Grp Sat Flow(s), veh/hIn         1770         1583           Grp Volume(v), veh/h         1770         1583           Grp Sat Flow(s), veh/hIn         1770         1583           Grp Volume(v), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606 </td <td></td> <td></td> <td></td>			
Initial Q (Ob), veh 0 0 Ped-Bike Adj(A_pbT) 1.00 Parking Bus, Adj 1.00 1.00 Adj Sat Flow, veh/h/ln 1863 1863 Adj Flow Rate, veh/h 646 236 Adj No. of Lanes 2 1 Peak Hour Factor 0.92 0.92 Percent Heavy Veh, % 2 2 Cap, veh/h 1355 606 Arrive On Green 0.38 0.38 Sat Flow, veh/h 3539 1583 Grp Volume(v), veh/h 646 236 Grp Sat Flow(s), veh/h/ln 1770 1583 Q Serve(g_s), s 14.5 11.4 Cycle Q Clear(g_c), s 14.5 11.4 Prop In Lane 1.00 Lane Grp Cap(c), veh/h 1355 606 V/C Ratio(X) 0.48 0.39 Avail Cap(c_a), veh/h 1355 606 HCM Platoon Ratio 1.00 1.00 Upstream Filter(l) 1.00 1.00 Upstream Filter(l) 1.00 1.00 Uniform Delay (d2), s/veh 1.2 1.9 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 7.3 5.3 LnGrp Delay(d),s/veh 25.7 25.4 LnGrp LOS C Approach Vol, veh/h 990 Approach Delay, s/veh Approach LOS D			
Ped-Bike Adj(A_pbT)         1.00           Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/In         1863           Adj Flow Rate, veh/h         646           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1355           Arrive On Green         0.38           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         646           Grp Sat Flow(s), veh/h/In         1770           Q Serve(g_s), s         14.5           Cycle Q Clear(g_c), s         14.5           Prop In Lane         1.00           Lane Grp Cap(c), veh/h         1355           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp Delay(d),s/veh         25.7         25.4           L			
Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/ln         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h         1770         1583           Grp Sat Flow(s),veh/h         170         1583           Grp Sat Flow(s),veh/h         170         1583           Grp Sat Flow(s),veh/h         1355         606           W/C Ratio(X)         0.48         0.39           Avail Cap(c_s), s         14.5         11.4           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.	. ,	0	
Adj Sat Flow, veh/h/ln       1863       1863         Adj Flow Rate, veh/h       646       236         Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1355       606         Arrive On Green       0.38       0.38         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s),veh/h/ln       1770       1583         Grp Sat Flow(s),veh/h/ln       1770       1583         Q Serve(g_s), s       14.5       11.4         Cycle Q Clear(g_c), s       14.5       11.4         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3), s/veh       0.0       0.0         %ile BackOfQ(50%), veh/ln       7.3       5.3			
Adj Flow Rate, veh/h       646       236         Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1355       606         Arrive On Green       0.38       0.38         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s), veh/hIn       1770       1583         Q Serve(g_s), s       14.5       11.4         Cycle Q Clear(g_c), s       14.5       11.4         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3), s/veh       0.0       0.0         %ile BackOfQ(50%), veh/ln       7.3       5.3         LnGrp LOS       C       C         Approach Vol, veh/h       49.0         Approach LOS			
Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1355       606         Arrive On Green       0.38       0.38         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s), veh/h       1770       1583         Q Serve(g_s), s       14.5       11.4         Cycle Q Clear(g_c), s       14.5       11.4         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(l)       1.00       1.00         Uniform Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3), s/veh       0.0       0.0         %ile BackOfQ(50%), veh/ln       7.3       5.3         LnGrp Delay(d), s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Delay, s/veh       49.0         Approach LOS <td></td> <td></td> <td></td>			
Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h/In         1770         1583           Q Serve(g_s), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         24.5         23.5           Incr Delay (d2), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp LOS         C         C           Approach Vol, veh/h         49.0 <t< td=""><td>Adj Flow Rate, veh/h</td><td></td><td>236</td></t<>	Adj Flow Rate, veh/h		236
Percent Heavy Veh, %         2         2           Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         1770         1583           Q Serve(g_s), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         24.5         23.5           Incr Delay (d2), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp Delay(d),s/veh         25.7         25.4           LnGrp LOS         C         C           Approach Delay, s/veh         49.0			
Cap, veh/h         1355         606           Arrive On Green         0.38         0.38           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h         1770         1583           Q Serve(g_s), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         24.5         23.5           Incr Delay (d2), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp Delay(d),s/veh         25.7         25.4           LnGrp LOS         C         C           Approach Vol, veh/h         49.0           Approach LOS         D	Peak Hour Factor		
Arrive On Green 0.38 0.38  Sat Flow, veh/h 3539 1583  Grp Volume(v), veh/h 646 236  Grp Sat Flow(s), veh/h/ln 1770 1583  Q Serve(g_s), s 14.5 11.4  Cycle Q Clear(g_c), s 14.5 11.4  Prop In Lane 1.00  Lane Grp Cap(c), veh/h 1355 606  V/C Ratio(X) 0.48 0.39  Avail Cap(c_a), veh/h 1355 606  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 24.5 23.5  Incr Delay (d2), s/veh 1.2 1.9  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 7.3 5.3  LnGrp Delay(d), s/veh 25.7 25.4  LnGrp LOS C C  Approach Vol, veh/h 990  Approach Delay, s/veh 49.0  Approach LOS D	Percent Heavy Veh, %	2	
Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         24.5         23.5           Incr Delay (d2), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         49.0           Approach LOS         D	Cap, veh/h	1355	
Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/ln 1770 1583 Q Serve(g_s), s 14.5 11.4 Cycle Q Clear(g_c), s 14.5 Prop In Lane Lane Grp Cap(c), veh/h 1355 606 W/C Ratio(X) 0.48 0.39 Avail Cap(c_a), veh/h 1355 606 HCM Platoon Ratio 1.00 1.00 Upstream Filter(I) 1.00 1.00 Uniform Delay (d), s/veh 1.2 Incr Delay (d2), s/veh 1.2 Ingr Delay(d3), s/veh 0.0 %ile BackOfQ(50%), veh/ln 25.7 LnGrp Delay(d), s/veh 25.7 25.4 LnGrp LOS C Approach Vol, veh/h Approach Delay, s/veh Approach LOS D	Arrive On Green	0.38	0.38
Grp Sat Flow(s),veh/h/ln       1770       1583         Q Serve(g_s), s       14.5       11.4         Cycle Q Clear(g_c), s       14.5       11.4         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(l)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       49.0         Approach LOS       D	Sat Flow, veh/h	3539	1583
Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         14.5         11.4           Cycle Q Clear(g_c), s         14.5         11.4           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1355         606           V/C Ratio(X)         0.48         0.39           Avail Cap(c_a), veh/h         1355         606           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         24.5         23.5           Incr Delay (d2), s/veh         1.2         1.9           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.3         5.3           LnGrp Delay(d),s/veh         25.7         25.4           LnGrp LOS         C         C           Approach Vol, veh/h         49.0           Approach LOS         D	Grp Volume(v), veh/h	646	236
Q Serve(g_s), s 14.5 11.4  Cycle Q Clear(g_c), s 14.5 11.4  Prop In Lane 1.00  Lane Grp Cap(c), veh/h 1355 606  V/C Ratio(X) 0.48 0.39  Avail Cap(c_a), veh/h 1355 606  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 24.5 23.5  Incr Delay (d2), s/veh 1.2 1.9  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/In 7.3 5.3  LnGrp Delay(d),s/veh 25.7 25.4  LnGrp LOS C C  Approach Vol, veh/h 990  Approach Delay, s/veh 49.0  Approach LOS D			
Cycle Q Clear(g_c), s       14.5       11.4         Prop In Lane       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       49.0         Approach LOS       D			
Prop In Lane       1.00         Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       49.0         Approach LOS       D			
Lane Grp Cap(c), veh/h       1355       606         V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       49.0         Approach LOS       D			1.00
V/C Ratio(X)       0.48       0.39         Avail Cap(c_a), veh/h       1355       606         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       49.0         Approach LOS       D		1355	
Avail Cap(c_a), veh/h 1355 606  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 24.5 23.5  Incr Delay (d2), s/veh 1.2 1.9  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/In 7.3 5.3  LnGrp Delay(d),s/veh 25.7 25.4  LnGrp LOS C C  Approach Vol, veh/h 990  Approach Delay, s/veh 49.0  Approach LOS D			
HCM Platoon Ratio 1.00 1.00 Upstream Filter(I) 1.00 1.00 Uniform Delay (d), s/veh 24.5 23.5 Incr Delay (d2), s/veh 1.2 1.9 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/In 7.3 5.3 LnGrp Delay(d),s/veh 25.7 25.4 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 49.0 Approach LOS D			
Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       24.5       23.5         Incr Delay (d2), s/veh       1.2       1.9         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/In       7.3       5.3         LnGrp Delay(d),s/veh       25.7       25.4         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       49.0         Approach LOS       D			
Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh Sile BackOfQ(50%),veh/ln InGrp Delay(d),s/veh InGrp Delay(d),s/veh InGrp LOS InGrp LOS InGrp LOS InGrp LOS Ingr			
Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 7.3 LnGrp Delay(d),s/veh 25.7 LnGrp LOS C Approach Vol, veh/h Approach Delay, s/veh 49.0 Approach LOS D			
Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 7.3 5.3 LnGrp Delay(d),s/veh 25.7 25.4 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 49.0 Approach LOS D			
%ile BackOfQ(50%),veh/ln 7.3 5.3 LnGrp Delay(d),s/veh 25.7 25.4 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 49.0 Approach LOS D			
LnGrp Delay(d),s/veh LnGrp LOS C C Approach Vol, veh/h Approach Delay, s/veh Approach LOS D			
LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 49.0 Approach LOS D			
Approach Vol, veh/h 990 Approach Delay, s/veh 49.0 Approach LOS D			
Approach Delay, s/veh 49.0 Approach LOS D			
Approach LOS D			
Timer	•		
	Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ň	<b>†</b> †	7		ሻ	<b>∱</b> 1≽		ሻ	<b>∱</b> 1≽		ሻ
Traffic Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Future Volume (veh/h)	2	203	816	176	9	242	573	144	138	686	139	193
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		221	887	191		263	623	157	150	746	151	210
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		237	895	400		274	767	193	165	906	183	217
Arrive On Green		0.13	0.25	0.25		0.15	0.27	0.27	0.09	0.31	0.31	0.12
Sat Flow, veh/h		1774	3539	1583		1774	2803	705	1774	2934	594	1774
Grp Volume(v), veh/h		221	887	191		263	393	387	150	450	447	210
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1738	1774	1770	1758	1774
Q Serve(g_s), s		15.4	31.2	12.8		18.4	25.9	26.0	10.5	29.5	29.5	14.7
Cycle Q Clear(g_c), s		15.4	31.2	12.8		18.4	25.9	26.0	10.5	29.5	29.5	14.7
Prop In Lane		1.00		1.00		1.00		0.41	1.00		0.34	1.00
Lane Grp Cap(c), veh/h		237	895	400		274	484	476	165	546	543	217
V/C Ratio(X)		0.93	0.99	0.48		0.96	0.81	0.81	0.91	0.82	0.82	0.97
Avail Cap(c_a), veh/h		237	895	400		274	484	476	165	546	543	217
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		53.6	46.6	39.7		52.5	42.4	42.4	56.2	40.0	40.0	54.6
Incr Delay (d2), s/veh		40.3	27.9	0.9		43.4	10.1	10.4	45.3	13.2	13.3	51.6
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
%ile BackOfQ(50%),veh/ln		10.2	18.7	5.7		12.3	14.0	13.8	7.2	16.4	16.3	10.3
LnGrp Delay(d),s/veh		93.9	74.4	40.6		95.9	52.5	52.8	101.4	53.2	53.3	106.2
LnGrp LOS		F	Е	D		F	D	D	F	D	D	F
Approach Vol, veh/h			1299				1043			1047		
Approach Delay, s/veh			72.8				63.6			60.2		
Approach LOS			Е				Е			Е		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	44.0	24.0	37.0	16.3	47.7	21.4	39.6				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	38.6	* 19	31.6	* 12	42.3	* 17	34.2				
Max Q Clear Time (g_c+I1), s	16.7	31.5	20.4	33.2	12.5	39.5	17.4	28.0				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	1.8	0.0	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			64.0									_
HCM 2010 LOS			Е									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing + GenPlan- Tues PM Peak Hour Rick Engineering Company

Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj 1.00 Adj Sat Flow, veh/h/ln 1863 Adj Flow Rate, veh/h 1105 Adj No. of Lanes 2 Peak Hour Factor 0.92 Percent Heavy Veh, % 2 Cap, veh/h 1198 Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s), veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 13.0 Initial Q Delay(d3), s/veh 0.0 %ile BackOfQ(50%), veh/ln 20.4 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			
Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green O.34 Sat Flow, veh/h Grp Sat Flow(s), veh/h Grp Sat Flow(s), veh/h Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Nile BackOfQ(50%), veh/ln LnGrp Delay(d), s/veh Sile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 59.0	ļ	<b>↓</b>	4
Traffic Volume (veh/h)  Future Volume (veh/h)  Number  Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/In  Adj Flow Rate, veh/h  Adj No. of Lanes  Peak Hour Factor  Percent Heavy Veh, %  Cap, veh/h  Arrive On Green  Sat Flow, veh/h  Grp Sat Flow(s), veh/h  Grp Sat Flow(s), veh/h  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Nile BackOfQ(50%), veh/ln  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  1017  1017  1017  1017  1017  1017  1018  1019  10	·	CDT	
Traffic Volume (veh/h) Future Volume (veh/h) Number 6 Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Sat Flow(s), veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Nile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 1017 1017 1017 1018 1017 1017 1017 1018 1019 1019 1019 1019 1019 1019 1019			SBR
Future Volume (veh/h)  Number  Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/ln  Adj Flow Rate, veh/h  Adj No. of Lanes  Peak Hour Factor  Percent Heavy Veh, %  Cap, veh/h  Arrive On Green  Sat Flow, veh/h  Grp Sat Flow(s), veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  HCM Platoon Ratio  Upstream Filter(l)  Uniform Delay (d2), s/veh  %ile BackOfQ(50%), veh/ln  LnGrp LOS  Approach Vol, veh/h  1017  Approach Delay, s/veh  D  O  O  O  O  O  O  O  O  O  O  O  O			7
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Sat Flow(s), veh/h Inos Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%), veh/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 59.0			97
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj 1.00 Adj Sat Flow, veh/h/ln 1863 Adj Flow Rate, veh/h 1105 Adj No. of Lanes 2 Peak Hour Factor 0.92 Percent Heavy Veh, % 2 Cap, veh/h 1198 Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s),veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d), s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			97
Ped-Bike Adj(A_pbT)           Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/ln         1863           Adj Flow Rate, veh/h         1105           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         1105           Grp Volume(v), veh/h         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         59.0	6		16
Parking Bus, Adj         1.00           Adj Sat Flow, veh/h/ln         1863           Adj Flow Rate, veh/h         1105           Adj No. of Lanes         2           Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         1105           Grp Volume(v), veh/h         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	0	0	0
Adj Sat Flow, veh/h/ln       1863         Adj Flow Rate, veh/h       1105         Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s), veh/h/ln       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       39.8         Incr Delay (d2), s/veh       13.0         Initial Q Delay(d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp Delay(d), s/veh       52.8         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1.00
Adj Flow Rate, veh/h       1105         Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s),veh/h/In       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       13.0         Initial Q Delay (d2), s/veh       13.0         Initial Q Delay (d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1.00
Adj No. of Lanes       2         Peak Hour Factor       0.92         Percent Heavy Veh, %       2         Cap, veh/h       1198         Arrive On Green       0.34         Sat Flow, veh/h       3539         Grp Volume(v), veh/h       1105         Grp Sat Flow(s),veh/h/In       1770         Q Serve(g_s), s       37.5         Cycle Q Clear(g_c), s       37.5         Prop In Lane       1198         Lane Grp Cap(c), veh/h       1198         V/C Ratio(X)       0.92         Avail Cap(c_a), veh/h       1198         HCM Platoon Ratio       1.00         Upstream Filter(I)       1.00         Uniform Delay (d), s/veh       39.8         Incr Delay (d2), s/veh       13.0         Initial Q Delay(d3), s/veh       0.0         %ile BackOfQ(50%), veh/ln       20.4         LnGrp LOS       D         Approach Vol, veh/h       1420         Approach Delay, s/veh       59.0			1863
Peak Hour Factor         0.92           Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s), veh/h/In         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0			105
Percent Heavy Veh, %         2           Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s),veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	2		1
Cap, veh/h         1198           Arrive On Green         0.34           Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s),veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0			0.92
Arrive On Green 0.34 Sat Flow, veh/h 3539 Grp Volume(v), veh/h 1105 Grp Sat Flow(s),veh/h/ln 1770 Q Serve(g_s), s 37.5 Cycle Q Clear(g_c), s 37.5 Prop In Lane Lane Grp Cap(c), veh/h 1198 V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/In 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	2		2
Sat Flow, veh/h         3539           Grp Volume(v), veh/h         1105           Grp Sat Flow(s), veh/h/ln         1770           Q Serve(g_s), s         37.5           Cycle Q Clear(g_c), s         37.5           Prop In Lane         1198           Lane Grp Cap(c), veh/h         1198           V/C Ratio(X)         0.92           Avail Cap(c_a), veh/h         1198           HCM Platoon Ratio         1.00           Upstream Filter(I)         1.00           Uniform Delay (d), s/veh         39.8           Incr Delay (d2), s/veh         13.0           Initial Q Delay(d3), s/veh         0.0           %ile BackOfQ(50%), veh/ln         20.4           LnGrp Delay(d), s/veh         52.8           LnGrp LOS         D           Approach Vol, veh/h         1420           Approach Delay, s/veh         59.0	198		536
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(l) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%),veh/ln LnGrp Delay(d3),s/veh LnGrp Delay(d), s/veh Delay LoS Delay(d2), s/veh Delay LoS Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh Delay(d3),s/veh	.34	0.34	0.34
Grp Sat Flow(s),veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Nile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  LnGrp LOS  Approach Vol, veh/h  1770  1198  1198  1198  1200  12	539	3539	1583
Grp Sat Flow(s),veh/h/ln  Q Serve(g_s), s  Cycle Q Clear(g_c), s  Prop In Lane  Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Nile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  LnGrp LOS  Approach Vol, veh/h  1770  1198  1198  1198  1200  12	105	1105	105
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 59.0	770	1770	1583
Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Nile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5	7.5	37.5	5.9
Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X)  Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3), s/veh %ile BackOfQ(50%), veh/In LnGrp Delay(d), s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh  1198 1198 1198 1198 1198 1198 1198 11	7.5	37.5	5.9
Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh  Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  EnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  1198  1198  1209			1.00
V/C Ratio(X) 0.92 Avail Cap(c_a), veh/h 1198 HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	198	1198	536
Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh  Incr Delay (d2), s/veh  Initial Q Delay(d3),s/veh  %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  EnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  1198  1.00			0.20
HCM Platoon Ratio 1.00 Upstream Filter(I) 1.00 Uniform Delay (d), s/veh 39.8 Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/In 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	198	1198	536
Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh D 1.00 13.0 13.0 10.0 10.0 10.0 10.0 10.0			1.00
Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh EnGrp LOS Approach Vol, veh/h Approach Delay, s/veh  39.8 39.8 13.0 12.0 12.4 12.0 420 420 420 420 420 420 420 420 420 42			1.00
Incr Delay (d2), s/veh 13.0 Initial Q Delay(d3),s/veh 0.0 %ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			29.3
Initial Q Delay(d3),s/veh  %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  52.8  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  59.0			0.8
%ile BackOfQ(50%),veh/ln 20.4 LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0		0.0	0.0
LnGrp Delay(d),s/veh 52.8 LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			2.7
LnGrp LOS D Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0			30.1
Approach Vol, veh/h 1420 Approach Delay, s/veh 59.0	D		С
Approach Delay, s/veh 59.0			
. 198100011 200	F.0		
	_	_	
Timer			

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>^</b>	7		۲	<b>∱</b> 1>		ň	<b>∱</b> Ъ		ř
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		1	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1146	513		90	900	205	90	1267	105	90
Arrive On Green		0.06	0.32	0.32		0.05	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		1774	2863	654	1774	3309	275	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	642	661	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1774	1770	1747	1774	1770	1814	1774
Q Serve(g_s), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Cycle Q Clear(g_c), s		6.3	13.5	3.3		5.3	33.0	33.0	5.3	36.9	37.1	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		0.15	1.00
Lane Grp Cap(c), veh/h		106	1146	513		90	556	549	90	678	695	90
V/C Ratio(X)		1.91	0.49	0.14		1.85	1.03	1.03	1.93	0.95	0.95	1.68
Avail Cap(c_a), veh/h		106	1146	513		90	556	549	90	678	695	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	28.6	25.1		49.8	36.0	36.0	49.8	31.4	31.4	49.8
Incr Delay (d2), s/veh		441.1	0.3	0.1		423.8	44.7	45.4	457.6	24.0	24.1	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.6	1.5		13.1	23.0	22.8	14.0	22.5	23.2	11.2
LnGrp Delay(d),s/veh		490.5	28.9	25.2		473.6	80.7	81.4	507.4	55.4	55.5	397.3
LnGrp LOS		F	С	С		F	F	F	F	E	E	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			140.4				131.2			108.4		
Approach LOS			F				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	10.0	39.4	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 5.3	34.0	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+I1), s	7.3	39.1	7.3	15.5	7.3	14.9	8.3	35.0				
Green Ext Time (p_c), s	0.0	8.0	0.0	3.6	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			115.7									
HCM 2010 LOS			F									
Notes												

Existing + GenPlan - Wed AM Peak Hour Rick Engineering Company

	<b></b>	4
Movement	SBT	SBR
Lane Configurations	<u> </u>	الماد الم
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)	U	1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	209
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	0.92	0.92
Cap, veh/h	1355	606
Arrive On Green	0.38	0.38
Sat Flow, veh/h	3539	1583
Grp Volume(v), veh/h	587	209
Grp Sat Flow(s), veh/h/ln	1770	1583
Q Serve(g_s), s	12.9	9.9
Cycle Q Clear(g_c), s	12.9	9.9
Prop In Lane	1055	1.00
Lane Grp Cap(c), veh/h	1355	606
V/C Ratio(X)	0.43	0.34
Avail Cap(c_a), veh/h	1355	606
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	24.0	23.0
Incr Delay (d2), s/veh	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	4.5
LnGrp Delay(d),s/veh	25.0	24.6
LnGrp LOS	С	С
Approach Vol, veh/h	946	
Approach Delay, s/veh	83.9	
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	<b>^</b>	7		ሻ	<b>∱</b> 1>		ሻ	<b>∱</b> 1>		ሻ	<b>^</b>
Traffic Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Future Volume (veh/h)	175	822	131	9	250	580	131	126	642	179	184	1129
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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	
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
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		1	2	0	1	2	0	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	215	881	394		281	823	185	143	881	246	214	1282
Arrive On Green	0.12	0.25	0.25		0.16	0.29	0.29	0.08	0.32	0.32	0.12	0.36
Sat Flow, veh/h	1774	3539	1583		1774	2872	646	1774	2734	764	1774	3539
Grp Volume(v), veh/h	190	893	142		272	388	384	137	452	441	200	1227
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1774	1770	1749	1774	1770	1728	1774	1770
Q Serve(g_s), s	14.2	33.6	10.0		20.6	27.0	27.1	10.4	31.4	31.4	15.1	45.7
Cycle Q Clear(g_c), s	14.2	33.6	10.0		20.6	27.0	27.1	10.4	31.4	31.4	15.1	45.7
Prop In Lane	1.00		1.00		1.00		0.37	1.00		0.44	1.00	
Lane Grp Cap(c), veh/h	215	881	394		281	507	501	143	570	557	214	1282
V/C Ratio(X)	0.88	1.01	0.36		0.97	0.77	0.77	0.96	0.79	0.79	0.93	0.96
Avail Cap(c_a), veh/h	246	881	394		281	507	501	143	570	557	214	1282
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	50.7	41.8		56.5	44.0	44.1	61.8	41.6	41.6	58.8	42.0
Incr Delay (d2), s/veh	27.2	33.8	0.6		44.6	6.9	7.0	61.9	10.8	11.0	43.3	16.8
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/ln	8.6	20.5	4.4		13.6	14.2	14.1	7.6	17.0	16.7	10.0	25.3
LnGrp Delay(d),s/veh	85.6	84.5	42.4		101.0	50.9	51.1	123.7	52.4	52.7	102.1	58.8
LnGrp LOS	F	F	D		F	D	D	F	D	D	F	Е
Approach Vol, veh/h		1225				1044			1030			1556
Approach Delay, s/veh		79.8				64.0			62.0			62.0
Approach LOS		Е				Е			Е			Е
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	48.9	26.1	39.0	15.6	54.3	21.0	44.1				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 16	43.5	* 21	33.6	* 11	48.9	* 19	36.3				
Max Q Clear Time (g_c+l1), s	17.1	33.4	22.6	35.6	12.4	47.7	16.2	29.1				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.0	0.0	0.9	0.1	2.7				
Intersection Summary							• • •					
HCM 2010 Ctrl Delay			66.9									
HCM 2010 LOS			00.9 E									
Notes												
User approved ignoring U-Turn	ning mov	rement.										

Existing + GenPlan- Wed PM Peak Hour Rick Engineering Company

	4
Movement	SBR
Land Configurations	7
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	129
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	574
Arrive On Green	0.36
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	129
Grp Sat Flow(s), veh/h/ln	1583
Q Serve(g_s), s	7.6
Cycle Q Clear(g_c), s	7.6
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	574
V/C Ratio(X)	0.22
Avail Cap(c_a), veh/h	574
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	29.9
Incr Delay (d2), s/veh	0.9
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.5
LnGrp Delay(d),s/veh	30.8
LnGrp LOS	С
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	<b></b>	•	<b>→</b>	•	F	•	-	•	•	†	<i>&gt;</i>	<u> </u>
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>†</b> †	7		<b>ሕ</b> ኻ	<b>∱</b> î≽		ሻ	<b>∱</b> ∱		ሻ
Traffic Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Future Volume (veh/h)	3	196	524	54	8	159	801	211	171	1166	89	99
Number		7	4	14		3	8	18	5	2	12	1
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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		213	570	59		173	871	229	186	1267	97	108
Adj No. of Lanes		1	2	1		2	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		182	1184	530		234	832	219	85	1218	93	85
Arrive On Green		0.10	0.33	0.33		0.07	0.30	0.30	0.05	0.37	0.37	0.05
Sat Flow, veh/h		1774	3539	1583		3442	2775	729	1774	3333	255	1774
Grp Volume(v), veh/h		213	570	59		173	555	545	186	672	692	108
Grp Sat Flow(s),veh/h/ln		1774	1770	1583		1721	1770	1734	1774	1770	1818	1774
Q Serve(q_s), s		11.3	14.1	2.8		5.4	33.0	33.0	5.3	40.2	40.2	5.3
Cycle Q Clear(g_c), s		11.3	14.1	2.8		5.4	33.0	33.0	5.3	40.2	40.2	5.3
Prop In Lane		1.00		1.00		1.00		0.42	1.00		0.14	1.00
Lane Grp Cap(c), veh/h		182	1184	530		234	531	520	85	647	664	85
V/C Ratio(X)		1.17	0.48	0.11		0.74	1.05	1.05	2.18	1.04	1.04	1.26
Avail Cap(c_a), veh/h		182	1184	530		297	531	520	85	647	664	85
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	29.0	25.3		50.3	38.5	38.5	52.3	34.9	34.9	52.3
Incr Delay (d2), s/veh		119.4	0.3	0.1		7.0	51.6	52.4	565.7	45.7	46.4	183.7
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
%ile BackOfQ(50%),veh/ln		11.6	6.9	1.2		2.8	23.7	23.3	16.0	27.8	28.7	7.0
LnGrp Delay(d),s/veh		168.8	29.3	25.4		57.3	90.1	90.9	618.0	80.6	81.3	236.1
LnGrp LOS		F	С	С		Е	F	F	F	F	F	F
Approach Vol, veh/h			842				1273			1550		
Approach Delay, s/veh			64.3				86.0			145.4		
Approach LOS			Е				F			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	12.2	42.2	10.0	45.6	16.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 9.5	34.8	* 5.3	40.2	* 11	33.0				
Max Q Clear Time (g_c+l1), s	7.3	42.2	7.4	16.1	7.3	17.6	13.3	35.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	3.6	0.0	5.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			94.4									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	ning mov	ement.										

Existing + GenPlan + WB Dual Left- Tues AM Peak Hour Rick Engineering Company

Movement SBT SBR Lane Configurations ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑			
Movement         SBT         SBR           Lane Configurations         ↑↑         r           Traffic Volume (veh/h)         594         217           Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Ob), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h         170         1583           Grp Volume(v), veh/h         646         236           Grp Volume(v), veh/h         1293         579           V/C Ratio(x)         0.50         0.41           Avail		Ţ	1
Lane Configurations         ↑↑         ↑           Traffic Volume (veh/h)         594         217           Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Ob), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/In         1770         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/In         1770         1583           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00		007	
Traffic Volume (veh/h) 594 217  Future Volume (veh/h) 594 217  Number 6 16  Initial Q (Qb), veh 0 0 0  Ped-Bike Adj(A_pbT) 1.00  Parking Bus, Adj 1.00 1.00  Adj Sat Flow, veh/h/ln 1863 1863  Adj Flow Rate, veh/h 646 236  Adj No. of Lanes 2 1  Peak Hour Factor 0.92 0.92  Percent Heavy Veh, % 2 2  Cap, veh/h 1293 579  Arrive On Green 0.37 0.37  Sat Flow, veh/h 3539 1583  Grp Volume(v), veh/h 646 236  Grp Sat Flow(s),veh/h/ln 1770 1583  Q Serve(g_s), s 15.6 12.2  Cycle Q Clear(g_c), s 15.6 12.2  Prop In Lane 1.00  Lane Grp Cap(c), veh/h 1293 579  V/C Ratio(X) 0.50 0.41  Avail Cap(c_a), veh/h 1293 579  HCM Platoon Ratio 1.00 1.00  Upstream Filter(I) 1.00 1.00  Upstream Filter(I) 1.00 1.00  Uniform Delay (d), s/veh 1.4 2.1  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 7.9 5.7  LnGrp Delay(d), s/veh 28.5 28.2  LnGrp LOS C C  Approach Vol, veh/h 990  Approach Delay, s/veh 51.0  Approach LOS D			
Future Volume (veh/h)         594         217           Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h         170         1583           Grp Volume(v), veh/h         646         236           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h         170         1583           Grp Volume(v), veh/h         646         236           Grp Volume(v), veh/h         1293         579           V/C Ratio(x)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579			
Number         6         16           Initial Q (Qb), veh         0         0           Ped-Bike Adj(A_pbT)         1.00         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/In         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h         170         1583           Grp Volume(v), veh/h         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579			
Initial Q (Ob), veh			
Ped-Bike Adj(A_pbT)         1.00           Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/ln         1863         1863           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00 <t< td=""><td></td><td></td><td></td></t<>			
Parking Bus, Adj         1.00         1.00           Adj Sat Flow, veh/h/ln         1863         1863           Adj Flow Rate, veh/h         646         236           Adj No. of Lanes         2         1           Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d2), s/veh         27.1         26.0           Incr Delay(d3), s/veh         0.0         0.0 </td <td>. , ,</td> <td>0</td> <td></td>	. , ,	0	
Adj Sat Flow, veh/h/ln       1863       1863         Adj Flow Rate, veh/h       646       236         Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1293       579         Arrive On Green       0.37       0.37         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s),veh/h       1770       1583         Q Serve(g_s), s       15.6       12.2         Cycle Q Clear(g_c), s       15.6       12.2         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       28.5       28.2         LnGrp LOS       C       C <t< td=""><td></td><td></td><td></td></t<>			
Adj Flow Rate, veh/h       646       236         Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1293       579         Arrive On Green       0.37       0.37         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s), veh/h       1770       1583         Q Serve(g_s), s       15.6       12.2         Cycle Q Clear(g_c), s       15.6       12.2         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach LOS			
Adj No. of Lanes       2       1         Peak Hour Factor       0.92       0.92         Percent Heavy Veh, %       2       2         Cap, veh/h       1293       579         Arrive On Green       0.37       0.37         Sat Flow, veh/h       3539       1583         Grp Volume(v), veh/h       646       236         Grp Sat Flow(s),veh/h/In       1770       1583         Q Serve(g_s), s       15.6       12.2         Cycle Q Clear(g_c), s       15.6       12.2         Prop In Lane       1.00       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d2), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			
Peak Hour Factor         0.92         0.92           Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s), veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d2), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.9         5.7           LnGrp LOS         C         C           Approach Vol, veh/h         990 <t< td=""><td>Adj Flow Rate, veh/h</td><td></td><td>236</td></t<>	Adj Flow Rate, veh/h		236
Percent Heavy Veh, %         2         2           Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d2), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3), s/veh         0.0         0.0           %ile BackOfQ(50%), veh/ln         7.9         5.7           LnGrp Delay(d), s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Delay, s/veh         51.0 <td></td> <td></td> <td></td>			
Cap, veh/h         1293         579           Arrive On Green         0.37         0.37           Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.9         5.7           LnGrp Delay(d),s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         51.0 <t< td=""><td>Peak Hour Factor</td><td></td><td></td></t<>	Peak Hour Factor		
Arrive On Green 0.37 0.37  Sat Flow, veh/h 3539 1583  Grp Volume(v), veh/h 646 236  Grp Sat Flow(s),veh/h/ln 1770 1583  Q Serve(g_s), s 15.6 12.2  Cycle Q Clear(g_c), s 15.6 12.2  Prop In Lane 1.00  Lane Grp Cap(c), veh/h 1293 579  V/C Ratio(X) 0.50 0.41  Avail Cap(c_a), veh/h 1293 579  HCM Platoon Ratio 1.00 1.00  Upstream Filter(l) 1.00 1.00  Uniform Delay (d), s/veh 27.1 26.0  Incr Delay (d2), s/veh 1.4 2.1  Initial Q Delay(d3),s/veh 0.0 0.0  %ile BackOfQ(50%),veh/ln 7.9 5.7  LnGrp Delay(d),s/veh 28.5 28.2  LnGrp LOS C C  Approach Vol, veh/h 990  Approach Delay, s/veh 51.0  Approach LOS D	Percent Heavy Veh, %		
Sat Flow, veh/h         3539         1583           Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.9         5.7           LnGrp Delay(d),s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         51.0           Approach LOS         D	Cap, veh/h	1293	579
Grp Volume(v), veh/h         646         236           Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3),s/veh         0.0         0.0           %ile BackOfQ(50%),veh/ln         7.9         5.7           LnGrp Delay(d),s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         51.0           Approach LOS         D	Arrive On Green	0.37	0.37
Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3), s/veh         0.0         0.0           %ile BackOfQ(50%), veh/ln         7.9         5.7           LnGrp Delay(d), s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         51.0           Approach LOS         D	Sat Flow, veh/h	3539	1583
Grp Sat Flow(s),veh/h/ln         1770         1583           Q Serve(g_s), s         15.6         12.2           Cycle Q Clear(g_c), s         15.6         12.2           Prop In Lane         1.00         1.00           Lane Grp Cap(c), veh/h         1293         579           V/C Ratio(X)         0.50         0.41           Avail Cap(c_a), veh/h         1293         579           HCM Platoon Ratio         1.00         1.00           Upstream Filter(I)         1.00         1.00           Uniform Delay (d), s/veh         27.1         26.0           Incr Delay (d2), s/veh         1.4         2.1           Initial Q Delay(d3), s/veh         0.0         0.0           %ile BackOfQ(50%), veh/ln         7.9         5.7           LnGrp Delay(d), s/veh         28.5         28.2           LnGrp LOS         C         C           Approach Vol, veh/h         990           Approach Delay, s/veh         51.0           Approach LOS         D	Grp Volume(v), veh/h	646	236
Q Serve(g_s), s       15.6       12.2         Cycle Q Clear(g_c), s       15.6       12.2         Prop In Lane       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D		1770	1583
Cycle Q Clear(g_c), s       15.6       12.2         Prop In Lane       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			12.2
Prop In Lane       1.00         Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			
Lane Grp Cap(c), veh/h       1293       579         V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			1.00
V/C Ratio(X)       0.50       0.41         Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D		1293	579
Avail Cap(c_a), veh/h       1293       579         HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			0.41
HCM Platoon Ratio       1.00       1.00         Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/ln       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D		1293	579
Upstream Filter(I)       1.00       1.00         Uniform Delay (d), s/veh       27.1       26.0         Incr Delay (d2), s/veh       1.4       2.1         Initial Q Delay(d3),s/veh       0.0       0.0         %ile BackOfQ(50%),veh/In       7.9       5.7         LnGrp Delay(d),s/veh       28.5       28.2         LnGrp LOS       C       C         Approach Vol, veh/h       990         Approach Delay, s/veh       51.0         Approach LOS       D			
Uniform Delay (d), s/veh 27.1 26.0 Incr Delay (d2), s/veh 1.4 2.1 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/In 7.9 5.7 LnGrp Delay(d),s/veh 28.5 28.2 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D	Upstream Filter(I)		
Incr Delay (d2), s/veh 1.4 2.1 Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 7.9 5.7 LnGrp Delay(d),s/veh 28.5 28.2 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D			
Initial Q Delay(d3),s/veh 0.0 0.0 %ile BackOfQ(50%),veh/ln 7.9 5.7 LnGrp Delay(d),s/veh 28.5 28.2 LnGrp LOS C C  Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D			
%ile BackOfQ(50%),veh/ln 7.9 5.7 LnGrp Delay(d),s/veh 28.5 28.2 LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D			
LnGrp Delay(d),s/veh  LnGrp LOS  C  Approach Vol, veh/h  Approach Delay, s/veh  Approach LOS  D  28.5  C  C  C  Approach Vol, veh/h  51.0  Approach LOS  D			
LnGrp LOS C C Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D			
Approach Vol, veh/h 990 Approach Delay, s/veh 51.0 Approach LOS D			
Approach Delay, s/veh 51.0 Approach LOS D			
Approach LOS D			
Timer	••		
	Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp LOS Approach Vol, veh/h Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s	2 2	203 203 7 0 1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	EBT  816 816 4 0 1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	176 176 176 14 0 1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583	9 9	WBL 242 242 3 0 1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	WBT 573 573 8 0 1.00 1863 623 2 0.92 2 762 0.27 2803	144 144 18 0 1.00 1.00 1900 157 0 0.92 2 192 0.27	NBL  138  138  5  0  1.00  1.00  1863  150  1  0.92  2  131  0.07	NBT 686 686 2 0 1.00 1863 746 2 0.92 2 1021	NBR  139 139 12 0 1.00 1.00 1900 151 0 0.92 2 207	SBL 193 193 10 1.00 1.00 1863 210 0.92 2 178
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		203 203 7 0 1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	816 816 4 0 1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	176 176 14 0 1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583		242 242 3 0 1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	573 573 8 0 1.00 1863 623 2 0.92 2 762 0.27	144 18 0 1.00 1.00 1900 157 0 0.92 2 192 0.27	138 138 5 0 1.00 1.00 1863 150 1 0.92 2 131	686 686 2 0 1.00 1863 746 2 0.92 2 1021	139 12 0 1.00 1.00 1900 151 0 0.92 2 207	193 193 1 0 1.00 1.00 1863 210 1 0.92 2 178
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s  16		203 7 0 1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	816 4 0 1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	176 14 0 1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583		242 3 0 1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	573 8 0 1.00 1863 623 2 0.92 2 762 0.27	144 18 0 1.00 1.00 1900 157 0 0.92 2 192 0.27	138 5 0 1.00 1.00 1863 150 1 0.92 2 131	1.00 1863 746 2 0.92 2	139 12 0 1.00 1.00 1900 151 0 0.92 2 207	193 1 0 1.00 1.00 1863 210 1 0.92 2 178
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Volume(v), veh/h In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h W/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay LnGrp LOS Approach Vol, veh/h Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s  16	2	7 0 1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	14 0 1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583	9	3 0 1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	1.00 1863 623 2 0.92 2 762 0.27	18 0 1.00 1.00 1900 157 0 0.92 2 192 0.27	5 0 1.00 1.00 1863 150 1 0.92 2 131	2 0 1.00 1863 746 2 0.92 2 1021	12 0 1.00 1.00 1900 151 0 0.92 2 207	1 0 1.00 1.00 1863 210 1 0.92 2 178
Initial Q (Ob), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		0 1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	0 1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583		0 1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	1.00 1863 623 2 0.92 2 762 0.27	0 1.00 1.00 1900 157 0 0.92 2 192 0.27	0 1.00 1.00 1863 150 1 0.92 2 131	1.00 1863 746 2 0.92 2 1021	0 1.00 1.00 1900 151 0 0.92 2 207	0 1.00 1.00 1863 210 1 0.92 2 178
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		1.00 1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	1.00 1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	1.00 1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583		1.00 1.00 1863 263 2 0.92 2 309 0.09 3442	1.00 1863 623 2 0.92 2 762 0.27	1.00 1.00 1900 157 0 0.92 2 192 0.27	1.00 1.00 1863 150 1 0.92 2 131	1.00 1863 746 2 0.92 2 1021	1.00 1.00 1900 151 0 0.92 2 207	1.00 1.00 1863 210 1 0.92 2 178
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		1.00 1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	1.00 1863 191 1 0.92 2 447 0.28 1583 191 1583		1.00 1863 263 2 0.92 2 309 0.09 3442	1863 623 2 0.92 2 762 0.27	1.00 1900 157 0 0.92 2 192 0.27	1.00 1863 150 1 0.92 2 131	1863 746 2 0.92 2 1021	1.00 1900 151 0 0.92 2 207	1.00 1863 210 1 0.92 2 178
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		1863 221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	1863 887 2 0.92 2 1000 0.28 3539 887 1770 27.0	1863 191 1 0.92 2 447 0.28 1583 191 1583		1863 263 2 0.92 2 309 0.09 3442	1863 623 2 0.92 2 762 0.27	1900 157 0 0.92 2 192 0.27	1863 150 1 0.92 2 131	1863 746 2 0.92 2 1021	1900 151 0 0.92 2 207	1863 210 1 0.92 2 178
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		221 1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	887 2 0.92 2 1000 0.28 3539 887 1770 27.0	191 1 0.92 2 447 0.28 1583 191 1583		263 2 0.92 2 309 0.09 3442	623 2 0.92 2 762 0.27	157 0 0.92 2 192 0.27	150 1 0.92 2 131	746 2 0.92 2 1021	151 0 0.92 2 207	210 1 0.92 2 178
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		1 0.92 2 178 0.10 1774 221 1774 11.3 11.3	2 0.92 2 1000 0.28 3539 887 1770 27.0	1 0.92 2 447 0.28 1583 191 1583		2 0.92 2 309 0.09 3442	2 0.92 2 762 0.27	0 0.92 2 192 0.27	1 0.92 2 131	2 0.92 2 1021	0 0.92 2 207	1 0.92 2 178
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d), s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s  16		0.92 2 178 0.10 1774 221 1774 11.3 11.3	0.92 2 1000 0.28 3539 887 1770 27.0	0.92 2 447 0.28 1583 191 1583		0.92 2 309 0.09 3442	0.92 2 762 0.27	0.92 2 192 0.27	0.92 2 131	0.92 2 1021	0.92 2 207	0.92 2 178
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		2 178 0.10 1774 221 1774 11.3 11.3	2 1000 0.28 3539 887 1770 27.0	2 447 0.28 1583 191 1583		2 309 0.09 3442	2 762 0.27	2 192 0.27	2 131	2 1021	2 207	2 178
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		178 0.10 1774 221 1774 11.3 11.3	1000 0.28 3539 887 1770 27.0	447 0.28 1583 191 1583		309 0.09 3442	762 0.27	192 0.27	131	1021	207	178
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s  16		0.10 1774 221 1774 11.3 11.3	0.28 3539 887 1770 27.0	0.28 1583 191 1583		0.09 3442	0.27	0.27				
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		1774 221 1774 11.3 11.3	3539 887 1770 27.0	1583 191 1583		3442			በ በ7			
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		221 1774 11.3 11.3	887 1770 27.0	1 <b>91</b> 1583			ኃያበን			0.35	0.35	0.10
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s		1774 11.3 11.3	1770 27.0	1583			2003	705	1774	2934	594	1774
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s		11.3 11.3	27.0			263	393	387	150	450	447	210
Cycle Q Clear(g_c), s Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s  16		11.3				1721	1770	1738	1774	1770	1758	1774
Prop In Lane Lane Grp Cap(c), veh/h V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s 16			27.0	11.1		8.5	23.4	23.5	8.3	25.0	25.0	11.3
Lane Grp Cap(c), veh/h  V/C Ratio(X)  Avail Cap(c_a), veh/h  HCM Platoon Ratio  Upstream Filter(I)  Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/ln  LnGrp Delay(d),s/veh  LnGrp LOS  Approach Vol, veh/h  Approach Delay, s/veh  Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s 16		1.00	27.0	11.1		8.5	23.4	23.5	8.3	25.0	25.0	11.3
V/C Ratio(X) Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16				1.00		1.00		0.41	1.00		0.34	1.00
Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s 16		178	1000	447		309	481	473	131	616	612	178
HCM Platoon Ratio Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s 16		1.24	0.89	0.43		0.85	0.82	0.82	1.15	0.73	0.73	1.18
Upstream Filter(I) Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		178	1075	481		309	519	509	131	616	612	178
Uniform Delay (d), s/veh Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incr Delay (d2), s/veh Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Q Delay(d3),s/veh %ile BackOfQ(50%),veh/In LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		50.7	38.7	33.0		50.5	38.4	38.4	52.2	32.1	32.1	50.7
%ile BackOfQ(50%),veh/ln LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		147.1	8.7	0.6		19.9	9.3	9.6	123.7	7.5	7.5	124.1
LnGrp Delay(d),s/veh LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Approach LOS Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		12.8	14.4	4.9		4.9	12.7	12.5	8.5	13.5	13.4	11.6
Approach Vol, veh/h Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		197.8	47.4	33.6		70.4	47.7	48.0	175.9	39.6	39.6	174.8
Approach Delay, s/veh Approach LOS  Timer Assigned Phs Phs Duration (G+Y+Rc), s 16		F	D	С		E	D	D	F	D	D	<u> </u>
Approach LOS  Timer  Assigned Phs Phs Duration (G+Y+Rc), s 16			1299				1043			1047		
Timer Assigned Phs Phs Duration (G+Y+Rc), s 16			71.0				53.5			59.1		
Assigned Phs Phs Duration (G+Y+Rc), s 16			Е				D			Е		
Phs Duration (G+Y+Rc), s 16	1	2	3	4	5	6	7	8				
	1	2	3	4	5	6	7	8				
Change Period (Y+Rc), s * 4	.0	44.6	14.8	37.2	13.0	47.6	16.0	36.0				
	.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s * 1	11	39.2	* 10	34.2	* 8.3	42.2	* 11	33.0				
Max Q Clear Time (g_c+I1), s 13		27.0	10.5	29.0	10.3	34.0	13.3	25.5				
	.3	4.5	0.0	2.8	0.0	4.6	0.0	2.8				
Intersection Summary	.3											
HCM 2010 Ctrl Delay			60.6									
HCM 2010 LOS			Е									
Notes												
User approved ignoring U-Turning												

Existing + GenPlan + Dual Lefts - Tues PM Peak Hour Rick Engineering Company

Movement  Lane Configurations  Traffic Volume (veh/h)  Future Volume (veh/h)  Number Initial Q (Qb), veh  Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Adj Sat Flow, veh/h/ln  Adj Flow Rate, veh/h  Adj No. of Lanes	\$BT 1017 1017 6 0 1.00 1863 1105	SBR 97 97 16 0 1.00 1.00 1863
Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1017 1017 1017 6 0 1.00 1863	97 97 16 0 1.00 1.00
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1017 1017 6 0 1.00 1863	97 97 16 0 1.00
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1017 6 0 1.00 1863	97 16 0 1.00 1.00
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	6 0 1.00 1863	16 0 1.00 1.00
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1.00 1863	0 1.00 1.00
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1.00 1863	1.00
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1863	1.00
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h	1863	
Adj Flow Rate, veh/h		1003
	1100	105
Auj No. 01 Lancs	2	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1326	593
Arrive On Green	0.37	0.37
Sat Flow, veh/h	3539	1583
Grp Volume(v), veh/h	1105	105
Grp Sat Flow(s), veh/h/ln	1770	1583
Q Serve(q_s), s	32.0	5.0
Cycle Q Clear(q_c), s	32.0	5.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1326	593
V/C Ratio(X)	0.83	0.18
Avail Cap(c_a), veh/h	1326	593
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	32.0	23.6
Incr Delay (d2), s/veh	6.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	2.3
LnGrp Delay(d),s/veh	38.3	24.2
LnGrp LOS	D	С
Approach Vol, veh/h	1420	
Approach Delay, s/veh	57.4	
Approach LOS	Е	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		ă	<b>^</b>	7		ሽኘ	<b>∱</b> 1>		ň	<b>∱</b> 1>		,
Traffic Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Future Volume (veh/h)	5	187	520	64	8	153	849	194	159	1107	92	138
Number		7	4	14		3	8	18	5	2	12	1
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	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
Adj Sat Flow, veh/h/ln		1863	1863	1863		1863	1863	1900	1863	1863	1900	1863
Adj Flow Rate, veh/h		203	565	70		166	923	211	173	1203	100	150
Adj No. of Lanes		1	2	1		2	2	0	1	2	0	1
Peak Hour Factor		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
Cap, veh/h		106	1099	492		220	900	205	90	1267	105	90
Arrive On Green		0.06	0.31	0.31		0.06	0.31	0.31	0.05	0.38	0.38	0.05
Sat Flow, veh/h		1774	3539	1583		3442	2863	654	1774	3309	275	1774
Grp Volume(v), veh/h		203	565	70		166	570	564	173	642	661	150
Grp Sat Flow(s), veh/h/ln		1774	1770	1583		1721	1770	1747	1774	1770	1814	1774
Q Serve(g_s), s		6.3	13.8	3.3		5.0	33.0	33.0	5.3	36.9	37.1	5.3
Cycle Q Clear(g_c), s		6.3	13.8	3.3		5.0	33.0	33.0	5.3	36.9	37.1	5.3
Prop In Lane		1.00		1.00		1.00		0.37	1.00		0.15	1.00
Lane Grp Cap(c), veh/h		106	1099	492		220	556	549	90	678	695	90
V/C Ratio(X)		1.91	0.51	0.14		0.76	1.03	1.03	1.93	0.95	0.95	1.68
Avail Cap(c_a), veh/h		106	1099	492		220	556	549	90	678	695	90
HCM Platoon Ratio		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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		49.3	29.7	26.1		48.3	36.0	36.0	49.8	31.4	31.4	49.8
Incr Delay (d2), s/veh		441.1	0.4	0.1		13.9	44.7	45.4	457.6	24.0	24.1	347.4
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
%ile BackOfQ(50%),veh/ln		16.1	6.7	1.5		2.8	23.0	22.8	14.0	22.5	23.2	11.2
LnGrp Delay(d),s/veh		490.5	30.1	26.2		62.3	80.7	81.4	507.4	55.4	55.5	397.3
LnGrp LOS		F	С	С		Е	F	F	F	Е	Е	F
Approach Vol, veh/h			838				1300			1476		
Approach Delay, s/veh			141.3				78.6			108.4		
Approach LOS			F				Е			F		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	45.6	11.4	38.0	10.0	45.6	11.0	38.4				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	40.2	* 6.7	32.6	* 5.3	40.2	* 6.3	33.0				
Max Q Clear Time (g_c+l1), s	7.3	39.1	7.0	15.8	7.3	14.9	8.3	35.0				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.5	0.0	4.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			100.9									
HCM 2010 LOS			F									
Notes												
User approved ignoring U-Turr	nina mov	ement.										

Existing + GenPlan + Dual Lefts - Wed AM Peak Hour Rick Engineering Company

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Movement	SBT	SBR
Lane Configurations	<b>†</b> †	7
Traffic Volume (veh/h)	540	192
Future Volume (veh/h)	540	192
Number	6	16
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863
Adj Flow Rate, veh/h	587	209
Adj No. of Lanes	2	1
Peak Hour Factor	0.92	0.92
Percent Heavy Veh, %	2	2
Cap, veh/h	1355	606
Arrive On Green	0.38	0.38
Sat Flow, veh/h	3539	1583
Grp Volume(v), veh/h	587	209
Grp Sat Flow(s), veh/h/ln	1770	1583
Q Serve(q_s), s	12.9	9.9
Cycle Q Clear(q_c), s	12.9	9.9
Prop In Lane	12.7	1.00
Lane Grp Cap(c), veh/h	1355	606
V/C Ratio(X)	0.43	0.34
Avail Cap(c_a), veh/h	1355	606
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	24.0	23.0
Incr Delay (d2), s/veh	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	4.5
	25.0	24.6
LnGrp Delay(d),s/veh		24.6 C
LnGrp LOS	<u>C</u>	<u> </u>
Approach Vol, veh/h	946	
Approach Delay, s/veh	83.9	
Approach LOS	F	
Timer		

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h)	EBL 175 175 7	EBT	EBR	WBU	MDI							
Traffic Volume (veh/h)	175 175		-	WDU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
, ,	175	000	7		ሕኘ	<b>∱</b> Љ		ħ	<b>∱</b> Ъ		ሻ	<b>†</b> 1
Future Volume (veh/h)		822	131	9	250	580	131	126	642	179	184	1129
	7	822	131	9	250	580	131	126	642	179	184	1129
Number	1	4	14		3	8	18	5	2	12	1	6
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	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863		1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	190	893	142		272	630	142	137	698	195	200	1227
Adj No. of Lanes	1	2	1		2	2	0	1	2	0	1	2
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
Percent Heavy Veh, %	2	2	2		2	2	2	2	2	2	2	2
Cap, veh/h	177	988	442		329	790	178	143	948	265	177	1296
Arrive On Green	0.10	0.28	0.28		0.10	0.27	0.27	0.08	0.35	0.35	0.10	0.37
Sat Flow, veh/h	1774	3539	1583		3442	2872	646	1774	2734	764	1774	3539
Grp Volume(v), veh/h	190	893	142		272	388	384	137	452	441	200	1227
Grp Sat Flow(s), veh/h/ln	1774	1770	1583		1721	1770	1749	1774	1770	1728	1774	1770
Q Serve(g_s), s	11.3	27.5	8.0		8.8	23.0	23.1	8.7	25.3	25.3	11.3	38.0
Cycle Q Clear(g_c), s	11.3	27.5	8.0		8.8	23.0	23.1	8.7	25.3	25.3	11.3	38.0
Prop In Lane	1.00	27.0	1.00		1.00	20.0	0.37	1.00	20.0	0.44	1.00	00.0
Lane Grp Cap(c), veh/h	177	988	442		329	486	481	143	613	599	177	1296
V/C Ratio(X)	1.07	0.90	0.32		0.83	0.80	0.80	0.96	0.74	0.74	1.13	0.95
Avail Cap(c_a), veh/h	177	1039	465		338	516	510	143	613	599	177	1296
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
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	39.3	32.3		50.2	38.1	38.1	51.8	32.4	32.4	50.9	34.8
Incr Delay (d2), s/veh	88.0	10.7	0.4		15.2	8.1	8.4	62.9	7.7	7.9	106.2	15.2
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
%ile BackOfQ(50%),veh/ln	9.8	14.9	3.5		4.8	12.3	12.2	6.8	13.6	13.3	10.7	21.3
LnGrp Delay(d),s/veh	138.9	50.0	32.7		65.4	46.2	46.5	114.7	40.1	40.3	157.1	50.0
LnGrp LOS	F	D	C		E	D	D	F	D	D	F	D
Approach Vol, veh/h	<u>'</u>	1225				1044		•	1030			1556
Approach Delay, s/veh		61.8				51.3			50.1			61.7
Approach LOS		E				D			D			E
· ·	1		2	4	_		7	0	D			
Timer	1	2	3	4	5	6		8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	44.6	15.5	37.0	13.8	46.8	16.0	36.5				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 11	39.2	* 11	33.2	* 9.1	41.4	* 11	33.0				
Max Q Clear Time (g_c+l1), s	13.3	27.3	10.8	29.5	10.7	40.0	13.3	25.1				
Green Ext Time (p_c), s	0.0	4.4	0.0	2.1	0.0	1.0	0.0	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			57.0									
HCM 2010 LOS			Е									
Notes												
User approved ignoring U-Tur	ning mov	ement.										

Existing + GenPlan + Dual Lefts - Wed PM Peak Hour Rick Engineering Company

	1
Movement	SBR
Land Configurations	7
Traffic Volume (veh/h)	119
Future Volume (veh/h)	119
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1863
Adj Flow Rate, veh/h	129
Adj No. of Lanes	1
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	580
Arrive On Green	0.37
Sat Flow, veh/h	1583
Grp Volume(v), veh/h	129
Grp Sat Flow(s), veh/h/ln	1583
Q Serve(g_s), s	6.4
Cycle Q Clear(g_c), s	6.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	580
V/C Ratio(X)	0.22
Avail Cap(c_a), veh/h	580
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	24.7
Incr Delay (d2), s/veh	0.9
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	2.9
LnGrp Delay(d),s/veh	25.6
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

<sup>\*</sup> HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	-	•	1	<b>†</b>	~	<b>/</b>	<b>+</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	<b>^</b>	7	Ť	<b>↑</b> Ъ		¥	<b>†</b> †	7	ř	<b>↑</b> ₽	
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1015	454	310	972	315	193	1291	578	61	930	106
Arrive On Green	0.09	0.29	0.29	0.17	0.37	0.37	0.11	0.36	0.36	0.03	0.29	0.29
Sat Flow, veh/h	1774	3539	1583	1774	2629	853	1774	3539	1583	1774	3202	366
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	1350	190	50	387	393
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1712	1774	1770	1583	1774	1770	1798
Q Serve(g_s), s	11.3	41.6	14.9	25.3	35.8	35.8	13.7	52.9	12.6	4.1	28.8	28.8
Cycle Q Clear(g_c), s	11.3	41.6	14.9	25.3	35.8	35.8	13.7	52.9	12.6	4.1	28.8	28.8
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	163	1015	454	310	654	633	193	1291	578	61	514	522
V/C Ratio(X)	0.86	1.06	0.44	1.03	0.76	0.76	0.88	1.05	0.33	0.82	0.75	0.75
Avail Cap(c_a), veh/h	192	1015	454	310	654	633	219	1291	578	61	514	522
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	51.7	42.2	59.8	40.1	40.1	63.7	46.0	33.2	69.5	46.7	46.7
Incr Delay (d2), s/veh	27.2	46.8	0.7	60.2	5.2	5.4	29.1	37.8	1.5	55.9	9.8	9.7
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	6.8	26.9	6.6	17.6	18.4	17.8	8.3	32.6	5.7	3.0	15.5	15.7
LnGrp Delay(d),s/veh	92.2	98.5	42.9	120.0	45.3	45.5	92.8	83.9	34.8	125.5	56.5	56.4
LnGrp LOS	F	F	D	F	D	D	F	F	С	F	Е	E
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		90.0			63.8			79.3			60.6	
Approach LOS		F			Е			Е			Е	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	58.3	30.0	47.0	20.5	47.5	18.0	59.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	52.9	* 25	41.6	* 18	40.0	* 16	51.2				
Max Q Clear Time $(g_c+11)$ , s	6.1	54.9	27.3	43.6	15.7	30.8	13.3	37.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	3.1	0.1	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			75.4									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>∱</b> 1>		7	<b>^</b>	7	ሻ	<b>↑</b> ↑	
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	893	400	358	1069	218	138	1040	465	199	996	167
Arrive On Green	0.09	0.25	0.25	0.20	0.36	0.36	0.08	0.29	0.29	0.11	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2929	598	1774	3539	1583	1774	3033	509
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	900	270	190	623	627
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1757	1774	1770	1583	1774	1770	1773
Q Serve(g_s), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	34.9	21.1	15.4	47.6	47.6
Cycle Q Clear(g_c), s	11.3	36.6	15.7	29.3	42.8	42.9	11.3	34.9	21.1	15.4	47.6	47.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	159	893	400	358	646	641	138	1040	465	199	581	582
V/C Ratio(X)	0.88	1.18	0.50	1.48	0.87	0.87	1.30	0.87	0.58	0.95	1.07	1.08
Avail Cap(c_a), veh/h	159	893	400	358	646	641	138	1040	465	199	581	582
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	54.2	46.4	57.8	42.8	42.9	66.9	48.5	43.6	64.0	48.7	48.7
Incr Delay (d2), s/veh	39.1	90.7	1.0	229.8	12.3	12.5	178.6	9.6	5.2	50.2	58.4	59.7
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	7.3	29.1	7.0	37.2	23.1	23.0	12.4	18.4	9.9	10.4	32.7	32.9
LnGrp Delay(d),s/veh	104.4	144.9	47.4	287.7	55.1	55.3	245.4	58.1	48.8	114.1	107.1	108.4
LnGrp LOS	F	F	D	F	E	E	F	Е	D	F	F	F
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		126.8			129.9			81.2			108.6	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	48.0	34.0	42.0	16.0	53.0	17.7	58.3				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 16	42.6	* 29	36.6	* 11	47.6	* 13	52.9				
Max Q Clear Time (g_c+l1), s	17.4	36.9	31.3	38.6	13.3	49.6	13.3	44.9				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	0.0	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay			112.6									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cros	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>	7	ሻሻ	<b>∱</b> Ъ		7	<b>∱</b> Ъ		۲	<b>∱</b> Ъ	
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1065	476	330	807	262	195	1335	186	64	1134	130
Arrive On Green	0.09	0.30	0.30	0.10	0.31	0.31	0.11	0.43	0.43	0.04	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	3442	2629	853	1774	3120	436	1774	3202	366
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	761	779	50	387	393
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1712	1774	1770	1786	1774	1770	1798
Q Serve(g_s), s	11.3	43.6	14.7	13.4	39.3	39.3	13.7	62.0	62.0	4.1	26.2	26.2
Cycle Q Clear(g_c), s	11.3	43.6	14.7	13.4	39.3	39.3	13.7	62.0	62.0	4.1	26.2	26.2
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.24	1.00		0.20
Lane Grp Cap(c), veh/h	159	1065	476	330	543	526	195	757	764	64	627	637
V/C Ratio(X)	0.88	1.01	0.42	0.97	0.92	0.92	0.87	1.01	1.02	0.78	0.62	0.62
Avail Cap(c_a), veh/h	159	1065	476	330	543	526	283	757	764	65	627	637
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	50.7	40.6	65.3	48.4	48.4	63.5	41.5	41.5	69.3	38.7	38.7
Incr Delay (d2), s/veh	39.0	31.2	0.6	41.2	20.5	21.0	18.1	34.0	37.6	43.9	4.5	4.5
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	7.3	25.9	6.5	8.3	22.3	21.7	7.7	37.4	38.5	2.8	13.6	13.8
LnGrp Delay(d),s/veh	104.2	81.9	41.1	106.5	68.9	69.4	81.7	75.5	79.1	113.2	43.2	43.1
LnGrp LOS	F	F	D	F	E	E.	F	F	F	F	D	D
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		78.4			78.4			77.8			47.4	
Approach LOS		E			E			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	67.4	18.6	49.0	20.6	56.7	17.7	49.9				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	62.0	* 14	43.6	* 23	44.2	* 13	44.5				
Max Q Clear Time (g_c+l1), s	6.1	64.0	15.4	45.6	15.7	28.2	13.3	41.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	4.2	0.0	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			73.3									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearar	ce times	for the ph	ases cros	ssing the	barrier.				

2030 + WB Dual Left - AM Peak Hour Rick Engineering Company

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ሻሻ	<b>∱</b> ∱		ሻ	<b>∱</b> ∱		ሻ	<b>∱</b> 1>	
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	981	439	506	980	200	176	893	267	185	1023	172
Arrive On Green	0.09	0.28	0.28	0.15	0.33	0.33	0.10	0.33	0.33	0.10	0.34	0.34
Sat Flow, veh/h	1774	3539	1583	3442	2929	598	1774	2686	804	1774	3033	509
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	592	578	190	623	627
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1757	1774	1770	1721	1774	1770	1773
Q Serve(g_s), s	11.3	40.2	15.2	21.3	44.9	44.9	14.4	48.2	48.2	15.1	48.9	48.9
Cycle Q Clear(g_c), s	11.3	40.2	15.2	21.3	44.9	44.9	14.4	48.2	48.2	15.1	48.9	48.9
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.47	1.00		0.29
Lane Grp Cap(c), veh/h	159	981	439	506	592	588	176	588	572	185	597	598
V/C Ratio(X)	0.88	1.07	0.46	1.05	0.95	0.95	1.02	1.01	1.01	1.03	1.04	1.05
Avail Cap(c_a), veh/h	159	981	439	506	592	588	176	588	572	185	597	598
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	52.4	43.3	61.9	47.0	47.1	65.3	48.4	48.4	64.9	48.0	48.1
Incr Delay (d2), s/veh	39.1	49.4	0.7	53.3	24.9	25.3	73.6	38.8	40.1	73.9	48.9	50.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	26.4	6.7	13.9	25.9	25.8	10.6	29.9	29.3	11.2	32.0	32.2
LnGrp Delay(d),s/veh	104.4	101.8	44.1	115.1	71.9	72.3	139.1	87.2	88.6	139.0	96.9	98.2
LnGrp LOS	F	F	D	F	E	E	F	F	F	F	F	F
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		93.8			85.9			94.7			103.0	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	53.6	26.0	45.6	19.1	54.3	17.7	53.9				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	48.2	* 21	40.2	* 14	48.9	* 13	48.5				
Max Q Clear Time (q_c+I1), s	17.1	50.2	23.3	42.2	16.4	50.9	13.3	46.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			94.1									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	<b>^</b>	7	ሻ	<b>∱</b> 1>		Ĭ	<b>∱</b> Љ		ሻ	<b>^</b>	7
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	967	432	273	881	286	193	1246	174	61	1150	515
Arrive On Green	0.09	0.27	0.27	0.15	0.34	0.34	0.11	0.40	0.40	0.03	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	2629	853	1774	3120	436	1774	3539	1583
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	761	779	50	700	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1712	1774	1770	1786	1774	1770	1583
Q Serve(g_s), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	24.1	5.2
Cycle Q Clear(g_c), s	11.3	39.6	15.2	22.3	37.8	37.8	13.7	57.9	57.9	4.1	24.1	5.2
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	163	967	432	273	593	574	193	707	713	61	1150	515
V/C Ratio(X)	0.86	1.12	0.46	1.17	0.84	0.84	0.88	1.08	1.09	0.82	0.61	0.16
Avail Cap(c_a), veh/h	184	967	432	273	593	574	219	707	713	61	1150	515
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	52.7	43.8	61.4	44.6	44.6	63.7	43.5	43.6	69.5	41.2	34.8
Incr Delay (d2), s/veh	29.3	66.8	0.8	109.6	10.4	10.7	29.1	56.5	61.7	55.9	2.4	0.6
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	6.9	28.3	6.8	19.2	20.1	19.5	8.3	39.4	40.7	3.0	12.1	2.4
LnGrp Delay(d),s/veh	94.3	119.5	44.6	170.9	55.0	55.3	92.8	100.1	105.2	125.5	43.6	35.4
LnGrp LOS	F	F	D	F	D	E	F	F	F	F	D	<u>D</u>
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		106.5			83.6			101.7			47.7	
Approach LOS		F			F			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	63.3	27.0	45.0	20.5	52.5	18.0	54.0				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5	57.9	* 22	39.6	* 18	45.0	* 15	46.9				
Max Q Clear Time (q_c+l1), s	6.1	59.9	24.3	41.6	15.7	26.1	13.3	39.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.6	0.1	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			90.0									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ň	<b>↑</b> Ъ		ř	<b>↑</b> ₽		75	<b>†</b> †	7
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	C
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	893	400	371	1089	222	138	845	253	150	1137	509
Arrive On Green	0.09	0.25	0.25	0.21	0.37	0.37	0.08	0.31	0.31	0.08	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	2929	598	1774	2686	804	1774	3539	1583
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	592	578	190	1070	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1757	1774	1770	1721	1774	1770	1583
Q Serve(g_s), s	11.3	36.6	15.7	30.3	42.4	42.4	11.3	45.6	45.6	12.3	42.6	12.6
Cycle Q Clear(g_c), s	11.3	36.6	15.7	30.3	42.4	42.4	11.3	45.6	45.6	12.3	42.6	12.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	159	893	400	371	658	653	138	557	541	150	1137	509
V/C Ratio(X)	0.88	1.18	0.50	1.43	0.85	0.85	1.30	1.06	1.07	1.26	0.94	0.35
Avail Cap(c_a), veh/h	159	893	400	371	658	653	138	557	541	150	1137	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	54.2	46.4	57.3	41.9	41.9	66.9	49.7	49.7	66.4	47.9	37.7
Incr Delay (d2), s/veh	39.1	90.7	1.0	208.3	10.6	10.8	178.6	56.4	58.0	160.5	15.8	1.9
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	7.3	29.1	7.0	36.3	22.5	22.6	12.4	31.0	30.4	12.7	23.3	5.8
LnGrp Delay(d),s/veh	104.4	144.9	47.4	265.7	52.5	52.7	245.4	106.1	107.7	226.8	63.6	39.6
LnGrp LOS	F	F	D	F	D	D	F	F	F	F	E	D
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		126.8			121.1			125.3			82.2	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	51.0	35.0	42.0	16.0	52.0	17.7	59.3				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 12	45.6	* 30	36.6	* 11	46.6	* 13	53.9				
Max Q Clear Time (g_c+l1), s	14.3	47.6	32.3	38.6	13.3	44.6	13.3	44.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.4	0.0	4.8				
Intersection Summary												
HCM 2010 Ctrl Delay			113.8									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearar	ice times	for the ph	ases cro	ssing the	barrier.				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>	7	ሻሻ	<b>ተ</b> ኈ		ሻ	<b>∱</b> ∱		ሻ	^↑	7
Traffic Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Future Volume (veh/h)	140	1080	200	320	740	240	170	1350	190	50	700	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1080	200	320	740	240	170	1350	190	50	700	80
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1060	474	354	822	267	195	1317	184	64	1234	552
Arrive On Green	0.09	0.30	0.30	0.10	0.31	0.31	0.11	0.42	0.42	0.04	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	3442	2629	853	1774	3120	436	1774	3539	1583
Grp Volume(v), veh/h	140	1080	200	320	498	482	170	761	779	50	700	80
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1712	1774	1770	1786	1774	1770	1583
Q Serve(g_s), s	11.3	43.4	14.7	13.3	39.0	39.0	13.7	61.2	61.2	4.1	23.3	5.0
Cycle Q Clear(g_c), s	11.3	43.4	14.7	13.3	39.0	39.0	13.7	61.2	61.2	4.1	23.3	5.0
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	159	1060	474	354	553	535	195	747	754	64	1234	552
V/C Ratio(X)	0.88	1.02	0.42	0.90	0.90	0.90	0.87	1.02	1.03	0.78	0.57	0.14
Avail Cap(c_a), veh/h	159	1060	474	354	553	535	283	747	754	65	1234	552
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	50.8	40.7	64.3	47.7	47.7	63.5	41.9	41.9	69.3	38.3	32.4
Incr Delay (d2), s/veh	39.0	32.5	0.6	25.7	17.8	18.3	18.1	37.7	41.6	43.9	1.9	0.6
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	7.3	26.0	6.5	7.6	21.8	21.2	7.7	37.7	38.9	2.8	11.7	2.3
LnGrp Delay(d),s/veh	104.2	83.3	41.3	90.0	65.5	65.9	81.7	79.5	83.4	113.2	40.2	32.9
LnGrp LOS	F	F	D	F	E	E	F	F	F	F	D	С
Approach Vol, veh/h		1420			1300			1710			830	
Approach Delay, s/veh		79.5			71.7			81.5			43.9	
Approach LOS		Е			Е			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	66.6	19.6	48.8	20.6	55.9	17.7	50.7				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 5.3	61.2	* 15	43.4	* 23	43.4	* 13	45.3				
Max Q Clear Time (g_c+l1), s		63.2	15.3	45.4	15.7	25.3	13.3	41.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	4.5	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			72.6									
HCM 2010 LOS			E									
Notes												

\* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	۶	<b>→</b>	•	•	+	•	1	†	<i>&gt;</i>	<b>&gt;</b>	<b></b>	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>	7	44	ħβ		ሻ	ħβ		ሻ	<b>†</b> †	7
Traffic Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Future Volume (veh/h)	140	1050	200	530	930	190	180	900	270	190	1070	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	140	1050	200	530	930	190	180	900	270	190	1070	180
Adj No. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	981	439	539	1008	206	185	867	260	185	1142	511
Arrive On Green	0.09	0.28	0.28	0.16	0.34	0.34	0.10	0.32	0.32	0.10	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	3442	2929	598	1774	2686	804	1774	3539	1583
Grp Volume(v), veh/h	140	1050	200	530	562	558	180	592	578	190	1070	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1757	1774	1770	1721	1774	1770	1583
Q Serve(g_s), s	11.3	40.2	15.2	22.3	44.2	44.3	14.7	46.8	46.8	15.1	42.6	12.6
Cycle Q Clear(g_c), s	11.3	40.2	15.2	22.3	44.2	44.3	14.7	46.8	46.8	15.1	42.6	12.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	159	981	439	539	609	605	185	571	555	185	1142	511
V/C Ratio(X)	0.88	1.07	0.46	0.98	0.92	0.92	0.97	1.04	1.04	1.03	0.94	0.35
Avail Cap(c_a), veh/h	159	981	439	539	609	605	185	571	555	185	1142	511
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	52.4	43.3	61.0	45.7	45.7	64.8	49.1	49.1	64.9	47.7	37.5
Incr Delay (d2), s/veh	39.1	49.4	0.7	34.5	19.7	20.0	58.5	47.6	49.0	73.9	15.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	26.4	6.7	13.2	24.9	24.8	10.2	30.4	29.8	11.2	23.2	5.8
LnGrp Delay(d),s/veh	104.4	101.8	44.1	95.4	65.4	65.7	123.3	96.7	98.1	139.0	62.9	39.4
LnGrp LOS	F	F	D	F	E	E	F	F	F	F	E	D
Approach Vol, veh/h		1390			1650			1350			1440	
Approach Delay, s/veh		93.8			75.1			100.8			70.0	
Approach LOS		F			Е			F			Е	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.8	52.2	27.4	45.6	19.8	52.2	17.7	55.3				
Change Period (Y+Rc), s	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4	* 4.7	5.4				
Max Green Setting (Gmax), s	* 15	46.8	* 23	40.2	* 15	46.8	* 13	49.9				
Max Q Clear Time (q_c+I1), s	17.1	48.8	24.3	42.2	16.7	44.6	13.3	46.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.5	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			84.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cro	ssing the	barrier.				

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# ATTACHMENT 4

# TIMING PRINTOUTS WESTBOUND DUAL LEFT TURN LANES

	<b>±</b>	•	-	•	F	•	<b>←</b>	•	<b>†</b>	~	<b>\</b>	<b>↓</b>
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		ă	<b>†</b> †	7		ሻ	<b>∱</b> β	7	<b>†</b> †	7	Ŋ	<b>↑</b> ↑
Traffic Volume (vph)	3	196	524	54	8	159	801	171	1166	89	99	594
Future Volume (vph)	3	196	524	54	8	159	801	171	1166	89	99	594
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases		7	4			3	8	5	2		1	6
Permitted Phases	7			4	3					2		
Detector Phase	7	7	4	4	3	3	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	43.4	9.7	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.9	45.9	9.7	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.7%	43.7%	9.2%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	4.4	3.7	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	5.4	4.7	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	None	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.5	40.5	5.0	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.39	0.39	0.05	0.38
v/c Ratio		3.09	0.50	0.10		2.60	1.00	2.09	0.93	0.14	1.29	0.66
Control Delay		993.5	30.4	0.3		781.2	62.8	553.0	43.8	2.6	234.3	27.7
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		993.5	30.4	0.3		781.2	62.8	553.0	43.8	2.6	234.3	27.7
LOS		F	С	Α		F	Е	F	D	Α	F	С
Approach Delay			274.5				164.8		102.3			50.3
Approach LOS			F				F		F			D

Cycle Length: 105

Actuated Cycle Length: 105

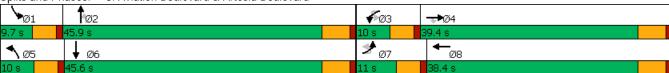
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 139.6 Intersection LOS: F
Intersection Capacity Utilization 94.5% ICU Level of Service F

Analysis Period (min) 15



	۶	-	•	•	•	4	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ř	<b>†</b> †	7	ሻ	<b>∱</b> Ъ	7	<b>†</b> †	7	ሻ	<b>∱</b> 1>	
Traffic Volume (vph)	203	816	176	242	573	138	686	139	193	1017	
Future Volume (vph)	203	816	176	242	573	138	686	139	193	1017	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	21.4	36.4	36.4	24.0	39.0	16.0	44.8	44.8	19.8	48.6	
Total Split (%)	17.1%	29.1%	29.1%	19.2%	31.2%	12.8%	35.8%	35.8%	15.8%	38.9%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	16.7	31.0	31.0	19.3	33.6	11.3	39.4	39.4	15.1	43.2	
Actuated g/C Ratio	0.13	0.25	0.25	0.15	0.27	0.09	0.32	0.32	0.12	0.35	
v/c Ratio	0.94	1.01	0.40	1.00	0.83	0.94	0.67	0.27	0.99	1.00	
Control Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	79.9	20.1	107.4	50.4	112.9	40.7	12.7	113.1	65.9	
LOS	F	Е	С	F	D	F	D	В	F	Е	
Approach Delay		74.5			65.2		47.0			72.9	
Approach LOS		Е			Е		D			Е	

Cycle Length: 125

Actuated Cycle Length: 125

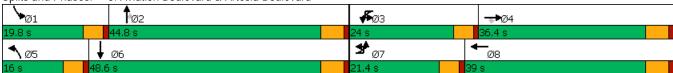
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 66.0 Intersection LOS: E
Intersection Capacity Utilization 92.1% ICU Level of Service F

Analysis Period (min) 15



	<b></b>	•	<b>→</b>	•	F	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		ă	<b>†</b> †	7		ሻ	<b>†</b> 1>	7	<b>†</b> †	7	¥	<b>↑</b> ↑
Traffic Volume (vph)	5	187	520	64	8	153	849	159	1107	92	138	540
Future Volume (vph)	5	187	520	64	8	153	849	159	1107	92	138	540
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases		7	4			3	8	5	2		1	6
Permitted Phases	7			4	3					2		
Detector Phase	7	7	4	4	3	3	8	5	2	2	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	43.4	9.7	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.6	45.6	10.0	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.4%	43.4%	9.5%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	4.4	3.7	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	5.4	4.7	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	Max	None	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.2	40.2	5.3	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.38	0.38	0.05	0.38
v/c Ratio		2.97	0.49	0.12		2.50	1.03	1.94	0.89	0.15	1.69	0.60
Control Delay		943.3	30.4	1.1		737.8	71.0	491.2	39.9	2.9	384.2	26.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		943.3	30.4	1.1		737.8	71.0	491.2	39.9	2.9	384.2	26.2
LOS		F	С	А		F	Е	F	D	Α	F	С
Approach Delay			253.2				160.1		90.3			83.0
Approach LOS			F				F		F			F

Cycle Length: 105

Actuated Cycle Length: 105

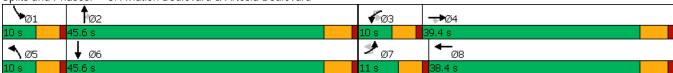
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 138.8 Intersection LOS: F
Intersection Capacity Utilization 95.4% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	<b>←</b>	•	<b>†</b>	~	-	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ň	<b>†</b> †	7	ሻ	<b>↑</b> ↑	7	<b>†</b> †	7	ሻ	<b>↑</b> ↑	_
Traffic Volume (vph)	175	822	131	250	580	126	642	179	184	1129	
Future Volume (vph)	175	822	131	250	580	126	642	179	184	1129	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	23.1	38.0	38.0	25.4	40.3	15.4	47.4	47.4	24.2	56.2	
Total Split (%)	17.1%	28.1%	28.1%	18.8%	29.9%	11.4%	35.1%	35.1%	17.9%	41.6%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	17.3	32.6	32.6	20.7	36.0	10.7	43.3	43.3	18.2	50.8	
Actuated g/C Ratio	0.13	0.24	0.24	0.15	0.27	0.08	0.32	0.32	0.13	0.38	
v/c Ratio	0.84	1.05	0.29	1.04	0.83	0.98	0.61	0.33	0.84	1.03	
Control Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	87.0	92.5	9.5	120.3	54.4	131.9	41.9	13.5	85.6	73.5	
LOS	F	F	А	F	D	F	D	В	F	Е	
Approach Delay		82.0			72.0		48.5			75.0	
Approach LOS		F			E		D			Е	

#### Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 70.5 Intersection LOS: E
Intersection Capacity Utilization 95.9% ICU Level of Service F

Analysis Period (min) 15



	<b></b>	•	-	•	•	<b>—</b>	•	<b>†</b>	<b>&gt;</b>	ļ	
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		ă	<b>†</b> †	7	ሽኘ	<b>†</b> 1>	ħ	<b>↑</b> ↑	Ť	<b>↑</b> 1>	
Traffic Volume (vph)	3	196	524	54	159	801	171	1166	99	594	
Future Volume (vph)	3	196	524	54	159	801	171	1166	99	594	
Turn Type	custom	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases		7	4		3	8	5	2	1	6	
Permitted Phases	7			4							
Detector Phase	7	7	4	4	3	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	11.0	11.0	37.0	37.0	12.4	38.4	10.0	45.9	9.7	45.6	
Total Split (%)	10.5%	10.5%	35.2%	35.2%	11.8%	36.6%	9.5%	43.7%	9.2%	43.4%	
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)		6.3	31.6	31.6	7.7	33.0	5.3	40.5	5.0	40.2	
Actuated g/C Ratio		0.06	0.30	0.30	0.07	0.31	0.05	0.39	0.05	0.38	
v/c Ratio		3.09	0.54	0.10	0.78	1.00	2.09	1.01	1.29	0.66	
Control Delay		993.5	32.8	0.4	70.6	62.8	553.0	58.7	234.3	27.7	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		993.5	32.8	0.4	70.6	62.8	553.0	58.7	234.3	27.7	
LOS		F	С	Α	Е	Е	F	Е	F	С	
Approach Delay			276.1			63.9		118.0		50.3	
Approach LOS			F			Е		F		D	

#### Intersection Summary

Cycle Length: 105

Actuated Cycle Length: 105

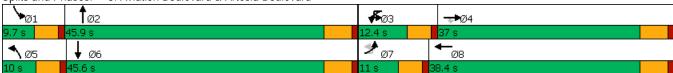
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 117.4 Intersection LOS: F
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15



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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	ă	<b>†</b> †	7	ሽኘ	<b>∱</b> Ъ	۲	<b>∱</b> }	ħ	<b>∱</b> Ъ	
Traffic Volume (vph)	203	816	176	242	573	138	686	193	1017	
Future Volume (vph)	203	816	176	242	573	138	686	193	1017	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	21.0	42.4	42.4	17.0	38.4	16.0	45.0	20.6	49.6	
Total Split (%)	16.8%	33.9%	33.9%	13.6%	30.7%	12.8%	36.0%	16.5%	39.7%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	16.3	35.2	35.2	12.3	31.2	11.3	39.6	15.9	44.2	
Actuated g/C Ratio	0.13	0.29	0.29	0.10	0.25	0.09	0.32	0.13	0.36	
v/c Ratio	0.95	0.88	0.36	0.86	0.88	0.93	0.80	0.92	0.96	
Control Delay	101.9	52.8	16.2	79.7	55.2	109.6	44.0	95.7	56.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	101.9	52.8	16.2	79.7	55.2	109.6	44.0	95.7	56.6	
LOS	F	D	В	Е	Е	F	D	F	Е	
Approach Delay		55.9			61.6		53.4		62.4	
Approach LOS		Е			Е		D		Е	

#### Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 123.2

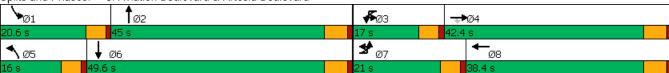
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 58.5 Intersection LOS: E
Intersection Capacity Utilization 87.5% ICU Level of Service E

Analysis Period (min) 15



	<b>±</b>	•	-	•	•	•	•	<b>†</b>	-	<b>↓</b>	
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		ă	<b>†</b> †	7	ሽኘ	<b>†</b> 1>	ħ	<b>↑</b> ↑	Ť	<b>↑</b> ↑	_
Traffic Volume (vph)	5	187	520	64	153	849	159	1107	138	540	
Future Volume (vph)	5	187	520	64	153	849	159	1107	138	540	
Turn Type	custom	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases		7	4		3	8	5	2	1	6	
Permitted Phases	7			4							
Detector Phase	7	7	4	4	3	8	5	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	11.0	11.0	36.6	36.6	12.8	38.4	10.0	45.6	10.0	45.6	
Total Split (%)	10.5%	10.5%	34.9%	34.9%	12.2%	36.6%	9.5%	43.4%	9.5%	43.4%	
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)		6.3	31.2	31.2	8.1	33.0	5.3	40.2	5.3	40.2	
Actuated g/C Ratio		0.06	0.30	0.30	0.08	0.31	0.05	0.38	0.05	0.38	
v/c Ratio		2.97	0.54	0.13	0.71	1.03	1.94	0.97	1.69	0.60	
Control Delay		943.3	33.1	1.2	63.7	71.0	491.2	50.5	384.2	26.2	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		943.3	33.1	1.2	63.7	71.0	491.2	50.5	384.2	26.2	
LOS		F	С	Α	Е	Е	F	D	F	С	
Approach Delay			255.1			70.0		102.2		83.0	
Approach LOS			F			Е		F		F	

Cycle Length: 105

Actuated Cycle Length: 105

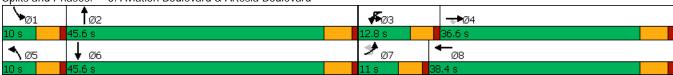
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 117.2 Intersection LOS: F
Intersection Capacity Utilization 98.3% ICU Level of Service F

Analysis Period (min) 15



	۶	<b>→</b>	•	•	←	•	<b>†</b>	-	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	Ä	<b>†</b> †	7	ሽኘ	<b>∱</b> ∱	¥	<b>↑</b> ↑	¥	<b>∱</b> }	
Traffic Volume (vph)	175	822	131	250	580	126	642	184	1129	
Future Volume (vph)	175	822	131	250	580	126	642	184	1129	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	18.6	40.2	40.2	16.8	38.4	15.1	45.1	22.9	52.9	
Total Split (%)	14.9%	32.2%	32.2%	13.4%	30.7%	12.1%	36.1%	18.3%	42.3%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	13.9	34.1	34.1	12.1	32.3	10.4	40.9	17.0	47.5	
Actuated g/C Ratio	0.11	0.27	0.27	0.10	0.26	0.08	0.33	0.14	0.38	
v/c Ratio	0.96	0.92	0.26	0.90	0.85	0.93	0.78	0.83	1.01	
Control Delay	110.5	59.1	6.6	87.3	52.6	113.7	42.4	79.6	65.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	110.5	59.1	6.6	87.3	52.6	113.7	42.4	79.6	65.8	
LOS	F	Е	Α	F	D	F	D	Е	Е	
Approach Delay		61.0			61.9		51.9		67.5	
Approach LOS		Е			Е		D		Е	

#### Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 124.3

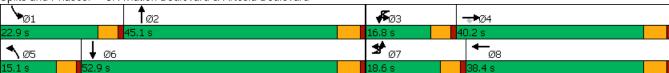
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 61.3 Intersection LOS: E
Intersection Capacity Utilization 88.9% ICU Level of Service E

Analysis Period (min) 15



	₾	•	-	•	F	•	←	•	<b>†</b>	-	Ţ	1
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>†</b> †	7		7	<b>↑</b> Ъ	ħ	<b>↑</b> ↑	, j	<b>†</b> †	7
Traffic Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Future Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.9	9.7	45.6	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.7%	9.2%	43.4%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.5	5.0	40.2	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.39	0.05	0.38	0.38
v/c Ratio		3.09	0.50	0.10		2.60	1.00	2.09	1.01	1.29	0.48	0.34
Control Delay		993.5	30.4	0.3		781.2	62.8	553.0	58.7	234.3	25.9	10.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		993.5	30.4	0.3		781.2	62.8	553.0	58.7	234.3	25.9	10.4
LOS		F	C	А		F	E	F	E	F	C	В
Approach Delay			274.5				164.8		118.0		44.9	
Approach LOS			F				F		F		D	

Cycle Length: 105

Actuated Cycle Length: 105

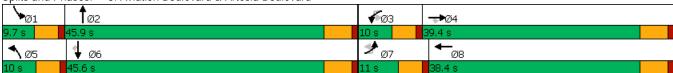
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.09

Intersection Signal Delay: 143.7 Intersection LOS: F
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	<b>↓</b>	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	ř	<b>†</b> †	7	۲	<b>∱</b> Ъ	Ŋ	<b>∱</b> ∱	Ŋ	<b>^</b>	7	
Traffic Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Future Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	21.4	37.0	37.0	24.0	39.6	16.3	44.0	20.0	47.7	47.7	
Total Split (%)	17.1%	29.6%	29.6%	19.2%	31.7%	13.0%	35.2%	16.0%	38.2%	38.2%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	16.7	31.6	31.6	19.3	34.2	11.6	38.6	15.3	42.3	42.3	
Actuated g/C Ratio	0.13	0.25	0.25	0.15	0.27	0.09	0.31	0.12	0.34	0.34	
v/c Ratio	0.94	0.99	0.40	1.00	0.82	0.91	0.83	0.97	0.92	0.17	
Control Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.8	74.9	19.7	107.4	49.0	107.1	47.1	109.2	53.2	6.3	
LOS	F	E	В	F	D	F	D	F	D	А	
Approach Delay		71.1			64.2		55.7		58.0		
Approach LOS		Е			Е		Е		E		

Cycle Length: 125

Actuated Cycle Length: 125

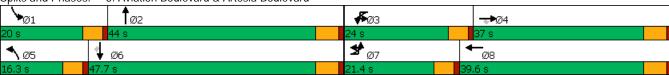
Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 62.4 Intersection LOS: E
Intersection Capacity Utilization 89.1% ICU Level of Service E

Analysis Period (min) 15



	<b>≛</b>	•	-	•	F	•	←	•	<b>†</b>	-	ţ	1
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>†</b> †	7		7	<b>∱</b> ⊅	ሻ	<b>∱</b> ⊅	ň	<b>†</b> †	7
Traffic Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Future Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	11.0	11.0	39.4	39.4	10.0	10.0	38.4	10.0	45.6	10.0	45.6	45.6
Total Split (%)	10.5%	10.5%	37.5%	37.5%	9.5%	9.5%	36.6%	9.5%	43.4%	9.5%	43.4%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		6.3	34.0	34.0		5.3	33.0	5.3	40.2	5.3	40.2	40.2
Actuated g/C Ratio		0.06	0.32	0.32		0.05	0.31	0.05	0.38	0.05	0.38	0.38
v/c Ratio		2.97	0.49	0.12		2.50	1.03	1.94	0.97	1.69	0.43	0.30
Control Delay		943.3	30.4	1.1		737.8	71.0	491.2	50.5	384.2	25.2	9.7
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		943.3	30.4	1.1		737.8	71.0	491.2	50.5	384.2	25.2	9.7
LOS		F	C	А		F	E	F	D	F	C	A
Approach Delay			253.2				160.1		102.2		78.7	
Approach LOS			F				F		F		Е	

Cycle Length: 105

Actuated Cycle Length: 105

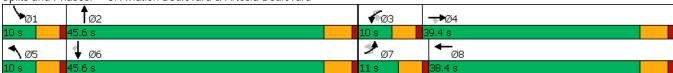
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 141.7 Intersection LOS: F
Intersection Capacity Utilization 98.3% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	ţ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>∱</b> ∱	ħ	<b>↑</b> ↑	7	<b>†</b> †	7	
Traffic Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Future Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	23.4	39.0	39.0	26.1	41.7	15.6	48.9	21.0	54.3	54.3	
Total Split (%)	17.3%	28.9%	28.9%	19.3%	30.9%	11.6%	36.2%	15.6%	40.2%	40.2%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	17.4	33.6	33.6	21.4	37.6	10.9	43.5	16.3	48.9	48.9	
Actuated g/C Ratio	0.13	0.25	0.25	0.16	0.28	0.08	0.32	0.12	0.36	0.36	
v/c Ratio	0.83	1.01	0.29	1.01	0.80	0.96	0.80	0.94	0.96	0.20	
Control Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	85.6	83.9	9.2	111.6	51.3	127.9	46.7	106.2	59.0	10.2	
LOS	F	F	Α	F	D	F	D	F	Е	В	
Approach Delay		75.5			67.5		57.5		61.0		
Approach LOS		Е			Е		Е		Е		

Cycle Length: 135

Actuated Cycle Length: 135

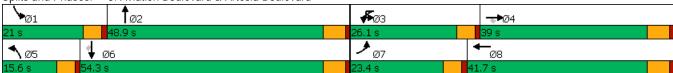
Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 65.3 Intersection LOS: E
Intersection Capacity Utilization 92.1% ICU Level of Service F

Analysis Period (min) 15



	<b>±</b>	•	-	•	F	•	<b>—</b>	•	<b>†</b>	<b>&gt;</b>	ļ	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>†</b> †	7		ሽኘ	<b>†</b> 1>	7	<b>∱</b> ∱	Ĭ	<b>†</b> †	7
Traffic Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Future Volume (vph)	3	196	524	54	8	159	801	171	1166	99	594	217
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	16.0	16.0	40.2	40.2	14.2	14.2	38.4	10.0	45.6	10.0	45.6	45.6
Total Split (%)	14.5%	14.5%	36.5%	36.5%	12.9%	12.9%	34.9%	9.1%	41.5%	9.1%	41.5%	41.5%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		11.3	34.8	34.8		9.5	33.0	5.3	40.2	5.3	40.2	40.2
Actuated g/C Ratio		0.10	0.32	0.32		0.09	0.30	0.05	0.37	0.05	0.37	0.37
v/c Ratio		3.22	0.51	0.10		1.49	1.05	2.19	1.06	1.27	0.50	0.33
Control Delay		1055.9	32.6	0.4		295.5	78.1	597.0	77.8	229.7	28.7	5.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		1055.9	32.6	0.4		295.5	78.1	597.0	77.8	229.7	28.7	5.2
LOS		F	С	А		F	E	F	E	F	C	Α
Approach Delay			291.9				108.9		140.1		45.0	
Approach LOS			F				F		F		D	

Cycle Length: 110

Actuated Cycle Length: 110

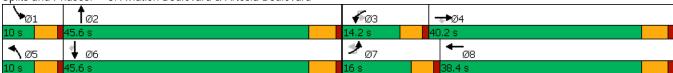
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.22

Intersection Signal Delay: 138.9 Intersection LOS: F
Intersection Capacity Utilization 97.3% ICU Level of Service F

Analysis Period (min) 15



	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	ţ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	ሻ	<b>†</b> †	7	ሽኘ	<b>∱</b> ∱	ħ	<b>↑</b> ↑	7	<b>†</b> †	7	
Traffic Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Future Volume (vph)	203	816	176	242	573	138	686	193	1017	97	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	16.0	39.6	39.6	14.8	38.4	13.0	44.6	16.0	47.6	47.6	
Total Split (%)	13.9%	34.4%	34.4%	12.9%	33.4%	11.3%	38.8%	13.9%	41.4%	41.4%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	11.3	32.6	32.6	10.1	31.4	8.3	39.2	11.3	42.2	42.2	
Actuated g/C Ratio	0.10	0.29	0.29	0.09	0.28	0.07	0.35	0.10	0.37	0.37	
v/c Ratio	1.27	0.87	0.35	0.90	0.80	1.16	0.74	1.19	0.84	0.16	
Control Delay	200.5	48.9	13.7	82.5	44.0	177.0	36.7	174.9	39.8	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	200.5	48.9	13.7	82.5	44.0	177.0	36.7	174.9	39.8	4.6	
LOS	F	D	В	F	D	F	D	F	D	Α	
Approach Delay		69.8			54.0		56.8		57.2		
Approach LOS		Е			D		Е		Е		

Cycle Length: 115

Actuated Cycle Length: 113.5

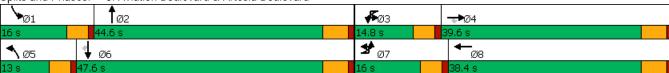
Natural Cycle: 115

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.27

Intersection Signal Delay: 59.8 Intersection LOS: E
Intersection Capacity Utilization 84.4% ICU Level of Service E

Analysis Period (min) 15



	<b></b>	•	<b>→</b>	•	F	•	<b>←</b>	4	<b>†</b>	<b>&gt;</b>	ţ	4
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		ă	<b>^</b>	7		ሽኘ	<b>∱</b> 1≽	ሻ	<b>∱</b> Ъ	ሻ	<b>^</b>	7
Traffic Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Future Volume (vph)	5	187	520	64	8	153	849	159	1107	138	540	192
Turn Type	custom	Prot	NA	Perm	custom	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases		7	4			3	8	5	2	1	6	
Permitted Phases	7			4	3							6
Detector Phase	7	7	4	4	3	3	8	5	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.7	9.7	36.4	36.4	9.7	9.7	38.4	9.7	43.4	9.7	44.4	44.4
Total Split (s)	11.0	11.0	38.0	38.0	11.4	11.4	38.4	10.0	45.6	10.0	45.6	45.6
Total Split (%)	10.5%	10.5%	36.2%	36.2%	10.9%	10.9%	36.6%	9.5%	43.4%	9.5%	43.4%	43.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	3.7	3.7	4.4	3.7	4.4	3.7	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.7	5.4	5.4		4.7	5.4	4.7	5.4	4.7	5.4	5.4
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max	None	Max	Max
Act Effct Green (s)		6.3	32.6	32.6		6.7	33.0	5.3	40.2	5.3	40.2	40.2
Actuated g/C Ratio		0.06	0.31	0.31		0.06	0.31	0.05	0.38	0.05	0.38	0.38
v/c Ratio		2.97	0.51	0.12		1.37	1.03	1.94	0.97	1.69	0.43	0.30
Control Delay		943.3	31.7	1.2		245.5	71.0	491.2	50.5	384.2	25.2	7.8
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		943.3	31.7	1.2		245.5	71.0	491.2	50.5	384.2	25.2	7.8
LOS		F	C	А		F	E 04.2	F	D	F	C 70.2	Α
Approach Delay			254.1				94.3		102.2		78.3	
Approach LOS			F				F		F		Е	

Cycle Length: 105

Actuated Cycle Length: 105

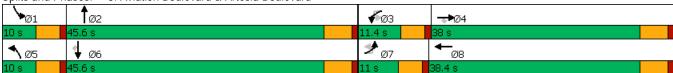
Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.97

Intersection Signal Delay: 123.0 Intersection LOS: F
Intersection Capacity Utilization 98.3% ICU Level of Service F

Analysis Period (min) 15



	۶	<b>→</b>	•	•	←	•	<b>†</b>	-	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	ň	<b>†</b> †	7	ሽኘ	<b>∱</b> ∱	7	<b>∱</b> ⊅	7	<b>†</b> †	7	
Traffic Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Future Volume (vph)	175	822	131	250	580	126	642	184	1129	119	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	16.0	38.6	38.6	15.8	38.4	13.8	44.6	16.0	46.8	46.8	
Total Split (%)	13.9%	33.6%	33.6%	13.7%	33.4%	12.0%	38.8%	13.9%	40.7%	40.7%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	11.3	32.2	32.2	11.1	32.0	9.1	39.2	11.3	41.4	41.4	
Actuated g/C Ratio	0.10	0.28	0.28	0.10	0.28	0.08	0.34	0.10	0.36	0.36	
v/c Ratio	1.09	0.89	0.27	0.90	0.79	0.97	0.75	1.14	0.95	0.20	
Control Delay	142.2	51.8	10.4	83.2	43.2	121.7	36.5	159.0	52.4	7.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	142.2	51.8	10.4	83.2	43.2	121.7	36.5	159.0	52.4	7.1	
LOS	F	D	В	F	D	F	D	F	D	А	
Approach Delay		61.0			53.9		47.8		62.4		
Approach LOS		E			D		D		E		

#### Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 114

Natural Cycle: 115

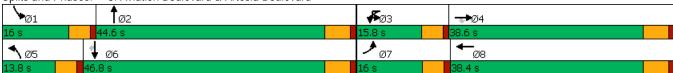
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 57.1 Intersection Capacity Utilization 85.1% Intersection LOS: E ICU Level of Service E

Analysis Period (min) 15

3: Aviation Boulevard & Artesia Boulevard Splits and Phases:



	٠	-	•	•	•	•	<b>†</b>	~	<b>&gt;</b>	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	۲	<b>†</b> †	7	ሻ	<b>∱</b> Ъ	ħ	<b>^</b>	7	٦	<b>∱</b> ∱	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	190	50	700	
Future Volume (vph)	140	1080	200	320	740	170	1350	190	50	700	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	20.4	47.0	47.0	30.0	56.6	22.6	58.3	58.3	9.7	45.4	
Total Split (%)	14.1%	32.4%	32.4%	20.7%	39.0%	15.6%	40.2%	40.2%	6.7%	31.3%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	14.6	41.6	41.6	25.3	52.3	16.8	52.9	52.9	5.0	41.1	
Actuated g/C Ratio	0.10	0.29	0.29	0.17	0.36	0.12	0.36	0.36	0.03	0.28	
v/c Ratio	0.79	1.06	0.35	1.04	0.78	0.83	1.05	0.29	0.82	0.79	
Control Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	92.5	95.7	11.8	118.6	45.4	93.2	82.2	12.9	139.4	54.3	
LOS	F	F	В	F	D	F	F	В	F	D	
Approach Delay		83.6			63.5		75.6			59.4	
Approach LOS		F			Е		Е			Е	

Cycle Length: 145

Actuated Cycle Length: 145

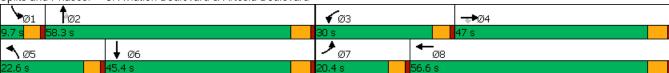
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 72.2 Intersection LOS: E
Intersection Capacity Utilization 105.9% ICU Level of Service G

Analysis Period (min) 15



	•	-	•	•	<b>←</b>	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	ሻ	<b>†</b> †	7	ň	<b>∱</b> ∱	ħ	<b>†</b> †	7	ሻ	<b>↑</b> 1>	
Traffic Volume (vph)	140	1050	200	530	930	180	900	270	190	1070	
Future Volume (vph)	140	1050	200	530	930	180	900	270	190	1070	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			
Detector Phase	7	4	4	3	8	5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	43.4	9.7	44.4	
Total Split (s)	17.7	42.0	42.0	34.0	58.3	16.0	48.0	48.0	21.0	53.0	
Total Split (%)	12.2%	29.0%	29.0%	23.4%	40.2%	11.0%	33.1%	33.1%	14.5%	36.6%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	
Act Effct Green (s)	13.0	36.6	36.6	29.3	52.9	11.3	42.6	42.6	16.3	47.6	
Actuated g/C Ratio	0.09	0.25	0.25	0.20	0.36	0.08	0.29	0.29	0.11	0.33	
v/c Ratio	0.89	1.18	0.39	1.48	0.88	1.31	0.87	0.47	0.96	1.09	
Control Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	13.2	272.0	51.6	232.8	58.4	19.5	117.3	100.0	
LOS	F	F	В	F	D	F	Е	В	F	F	
Approach Delay		117.1			122.4		73.9			102.3	
Approach LOS		F			F		Е			F	

#### Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

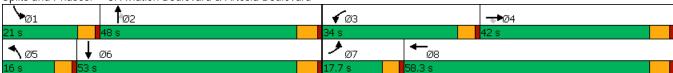
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.48

Intersection Signal Delay: 104.9 Intersection LOS: F
Intersection Capacity Utilization 120.5% ICU Level of Service H

Analysis Period (min) 15



# 3: Aviation Boulevard & Artesia Boulevard

	•	-	•	•	•	•	<b>†</b>	<b>\</b>	<b>↓</b>	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	7	<b>†</b> †	7	ሻሻ	<b>∱</b> Ъ	7	<b>∱</b> Ъ	7	<b>∱</b> ∱	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	50	700	
Future Volume (vph)	140	1080	200	320	740	170	1350	50	700	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	17.7	49.0	49.0	18.6	49.9	27.8	67.4	10.0	49.6	
Total Split (%)	12.2%	33.8%	33.8%	12.8%	34.4%	19.2%	46.5%	6.9%	34.2%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	12.9	43.6	43.6	13.9	44.7	18.4	62.1	5.3	46.9	
Actuated g/C Ratio	0.09	0.30	0.30	0.10	0.31	0.13	0.43	0.04	0.33	
v/c Ratio	0.88	1.00	0.35	0.96	0.90	0.75	1.02	0.77	0.68	
Control Delay	109.7	76.9	17.0	103.6	58.2	80.0	67.3	126.9	45.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	109.7	76.9	17.0	103.6	58.2	80.0	67.3	126.9	45.2	
LOS	F	Е	В	F	Е	Е	Е	F	D	
Approach Delay		71.7			69.4		68.5		50.1	
Approach LOS		Е			Е		Е		D	

# Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 143

Natural Cycle: 145

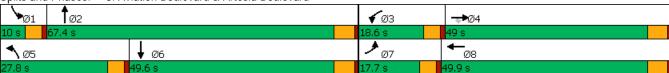
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 66.7 Intersection Capacity Utilization 103.4% Intersection LOS: E

ICU Level of Service G

Analysis Period (min) 15



# 3: Aviation Boulevard & Artesia Boulevard

	۶	-	•	•	←	1	<b>†</b>	-	ļ	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	ሻ	<b>†</b> †	7	1,4	<b>∱</b> ∱	7	<b>∱</b> ⊅	ሻ	<b>∱</b> ⊅	
Traffic Volume (vph)	140	1050	200	530	930	180	900	190	1070	
Future Volume (vph)	140	1050	200	530	930	180	900	190	1070	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							
Detector Phase	7	4	4	3	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	
Total Split (s)	17.7	45.6	45.6	26.0	53.9	19.1	53.6	19.8	54.3	
Total Split (%)	12.2%	31.4%	31.4%	17.9%	37.2%	13.2%	37.0%	13.7%	37.4%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	
Act Effct Green (s)	13.0	40.2	40.2	21.3	48.5	14.4	48.2	15.1	48.9	
Actuated g/C Ratio	0.09	0.28	0.28	0.15	0.33	0.10	0.33	0.10	0.34	
v/c Ratio	0.89	1.07	0.38	1.05	0.96	1.03	1.01	1.03	1.06	
Control Delay	111.5	98.6	18.3	112.5	64.7	137.9	76.3	136.8	89.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	98.6	18.3	112.5	64.7	137.9	76.3	136.8	89.8	
LOS	F	F	В	F	Е	F	Е	F	F	
Approach Delay		88.4			80.0		84.5		96.0	
Approach LOS		F			F		F		F	

# Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

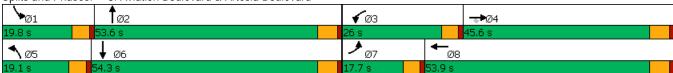
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 87.0 Intersection LOS: F
Intersection Capacity Utilization 106.3% ICU Level of Service G

Analysis Period (min) 15



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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	۲	<b>†</b> †	7	۲	<b>∱</b> 1≽	٦	<b>∱</b> 1>	7	<b>†</b> †	7	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Future Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	19.7	45.0	45.0	27.0	52.3	22.6	63.3	9.7	50.4	50.4	
Total Split (%)	13.6%	31.0%	31.0%	18.6%	36.1%	15.6%	43.7%	6.7%	34.8%	34.8%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	14.2	39.6	39.6	22.3	47.7	16.8	57.9	5.0	46.1	46.1	
Actuated g/C Ratio	0.10	0.27	0.27	0.15	0.33	0.12	0.40	0.03	0.32	0.32	
v/c Ratio	0.81	1.12	0.37	1.18	0.86	0.83	1.10	0.82	0.62	0.13	
Control Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	95.6	114.7	12.3	162.6	52.9	93.2	98.5	139.4	45.2	0.4	
LOS	F	F	В	F	D	F	F	F	D	А	
Approach Delay		98.4			79.9		98.0		46.6		
Approach LOS		F			Е		F		D		

# Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

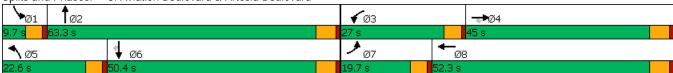
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 85.5 Intersection Capacity Utilization 112.0% ICU Level of Service H

Analysis Period (min) 15



	۶	-	•	•	•	•	<b>†</b>	<b>&gt;</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	7	<b>†</b> †	7	ሻ	<b>∱</b> Ъ	ħ	<b>∱</b> 1>	7	<b>†</b> †	7	
Traffic Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Future Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	17.7	42.0	42.0	35.0	59.3	16.0	51.0	17.0	52.0	52.0	
Total Split (%)	12.2%	29.0%	29.0%	24.1%	40.9%	11.0%	35.2%	11.7%	35.9%	35.9%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	13.0	36.6	36.6	30.3	53.9	11.3	45.6	12.3	46.6	46.6	
Actuated g/C Ratio	0.09	0.25	0.25	0.21	0.37	0.08	0.31	0.08	0.32	0.32	
v/c Ratio	0.89	1.18	0.41	1.44	0.86	1.31	1.07	1.27	0.94	0.30	
Control Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	137.6	19.9	251.7	49.7	232.8	93.9	213.1	63.7	13.7	
LOS	F	F	В	F	D	F	F	F	Е	В	
Approach Delay		118.0			114.6		112.4		77.2		
Approach LOS		F			F		F		Е		

# Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

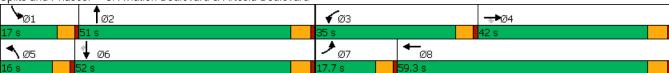
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.44

Intersection Signal Delay: 105.7 Intersection LOS: F
Intersection Capacity Utilization 119.2% ICU Level of Service H

Analysis Period (min) 15



	ၨ	<b>→</b>	•	•	<b>←</b>	4	<b>†</b>	<b>\</b>	ļ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	7	<b>^</b>	7	1,1	<b>↑</b> ↑	Ť	<b>∱</b> }	, j	<b>^</b>	7	
Traffic Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Future Volume (vph)	140	1080	200	320	740	170	1350	50	700	80	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	17.7	48.8	48.8	19.6	50.7	27.8	66.6	10.0	48.8	48.8	
Total Split (%)	12.2%	33.7%	33.7%	13.5%	35.0%	19.2%	45.9%	6.9%	33.7%	33.7%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	12.9	43.4	43.4	14.9	45.5	18.4	61.3	5.3	46.1	46.1	
Actuated g/C Ratio	0.09	0.30	0.30	0.10	0.32	0.13	0.43	0.04	0.32	0.32	
v/c Ratio	0.88	1.00	0.35	0.96	0.89	0.75	1.03	0.77	0.61	0.13	
Control Delay	109.7	78.0	17.1	103.1	56.0	80.0	71.4	126.9	44.3	1.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	109.7	78.0	17.1	103.1	56.0	80.0	71.4	126.9	44.3	1.6	
LOS	F	Е	В	F	Е	Е	Е	F	D	А	
Approach Delay		72.6			67.6		72.3		45.2		
Approach LOS		E			E		Е		D		

# **Intersection Summary**

Cycle Length: 145

Actuated Cycle Length: 143

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03 Intersection Signal Delay: 66.9

Intersection LOS: E

Intersection Capacity Utilization 103.4%

ICU Level of Service G

Analysis Period (min) 15



# 3: Aviation Boulevard & Artesia Boulevard

	•	-	•	•	<b>←</b>	•	<b>†</b>	<b>&gt;</b>	ţ	4	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	
Lane Configurations	ň	<b>†</b> †	7	77	<b>∱</b> ∱	ሻ	<b>∱</b> ⊅	ሻ	<b>†</b> †	7	
Traffic Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Future Volume (vph)	140	1050	200	530	930	180	900	190	1070	180	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm	
Protected Phases	7	4		3	8	5	2	1	6		
Permitted Phases			4							6	
Detector Phase	7	4	4	3	8	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.7	36.4	36.4	9.7	38.4	9.7	43.4	9.7	44.4	44.4	
Total Split (s)	17.7	45.6	45.6	27.4	55.3	19.8	52.2	19.8	52.2	52.2	
Total Split (%)	12.2%	31.4%	31.4%	18.9%	38.1%	13.7%	36.0%	13.7%	36.0%	36.0%	
Yellow Time (s)	3.7	4.4	4.4	3.7	4.4	3.7	4.4	3.7	4.4	4.4	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.7	5.4	5.4	4.7	5.4	4.7	5.4	4.7	5.4	5.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	Max	None	Max	Max	
Act Effct Green (s)	13.0	40.2	40.2	22.7	49.9	15.1	46.8	15.1	46.8	46.8	
Actuated g/C Ratio	0.09	0.28	0.28	0.16	0.34	0.10	0.32	0.10	0.32	0.32	
v/c Ratio	0.89	1.07	0.38	1.06	0.93	0.98	1.04	1.03	0.94	0.30	
Control Delay	111.5	98.6	18.3	113.6	59.5	124.6	85.0	136.8	62.9	13.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	111.5	98.6	18.3	113.6	59.5	124.6	85.0	136.8	62.9	13.6	
LOS	F	F	В	F	E	F	F	F	E	В	
Approach Delay		88.4			76.9		90.3		66.5		
Approach LOS		F			Е		F		Е		

# Intersection Summary

Cycle Length: 145

Actuated Cycle Length: 145

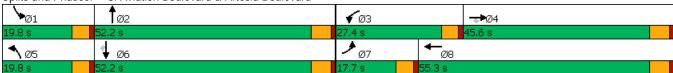
Natural Cycle: 145

Control Type: Actuated-Uncoordinated

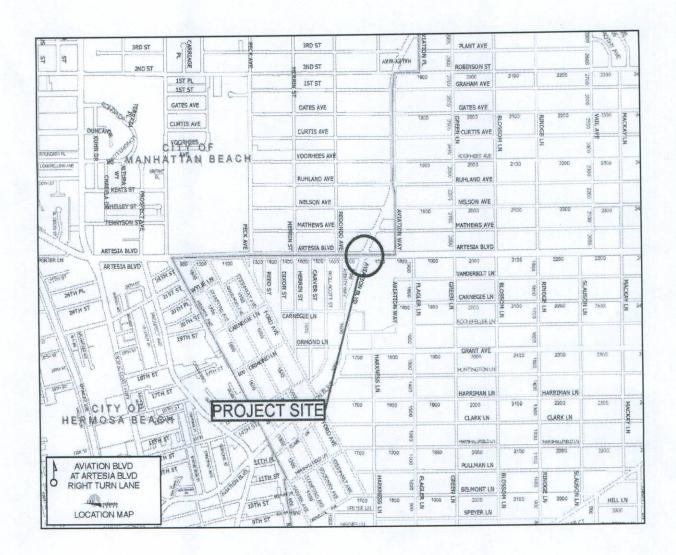
Maximum v/c Ratio: 1.07

Intersection Signal Delay: 80.2 Intersection LOS: F
Intersection Capacity Utilization 105.0% ICU Level of Service G

Analysis Period (min) 15



# PROJECT STUDY REPORT EQUIVALENT



# AVIATION BOULEVARD NORTHBOUND RIGHT TURN LANE IMPROVEMENT AT ARTESIA BOULEVARD

Approved by Local Agency:

STEVE HUANG, City Engineer/Chief Building Official

Submitted By: CITY OF REDONDO BEACH

Date

This Project Study Report Equivalent has been prepared under the direction of the following staff authorized by the sponsoring agency to sign for the work. The person signing below attests to and certifies the technical information contained herein and the engineering data upon which the recommendation, conclusions, and decisions are based.

JOHN MATE, Project Manager

Date

34150

County: Los Angeles Route: Aviation Boulevard

Date: April 20, 2009

# PROJECT STUDY REPORT EQUIVALENT

# AVIATION BOULEVARD RIGHT TURN LANE IMPROVEMENT AT ARTESIA BOULEVARD

# PROJECT DESCRIPTION

The proposed project will improve congested traffic conditions at the intersection of Aviation Boulevard and Artesia Boulevard. The project is the addition of a north bound right turn lane on Aviation Boulevard at the intersection of Artesia Boulevard. This project will assist in decreasing time travel time by commuters at this intersection of two regional arterials.

# Work Description

Project will consists of the obtaining a 10 feet wide portion of private property from an existing gas station site, relocating private property signs and replacing landscape where feasible, relocating the existing sidewalk, relocating any utilities, relocating traffic signal poles, relocating the gas island pump if required and constructing a right turn only lane along the length of the gas station site. An engineering consultant will be hired to design the road construction plans and modifications to the gas station site.

# **Project Limits**

The project is at one location, the south east corner on Aviation Boulevard at the intersection of Artesia Boulevard. The project is 0.1 miles in length. A figure showing the location of the intersection is attached. A figure is enclosed showing the existing travel lanes. The third figure shows the proposed improvement.

## **NEED AND PURPOSE**

Aviation Boulevard is a regionally significant arterial that supports the movement of commuters and goods in the South Bay region of Los Angeles County. The intersection of Aviation Boulevard and Artesia Boulevard is a major entryway into the City of Redondo Beach. This location is also the intersection of two major arterials in the South Bay. Motorists, including both commuters and goods transporters traverse Aviation Boulevard accessing many regionally significant destinations including the Los Angeles International Airport, El Segundo Employment Center, Galleria at South Bay, Del Amo Fashion Center, a host of Piers and beaches. Additionally, Aviation Boulevard is a critical link to several freeways in the South Bay including I-405, I-105, and SR-91. The residents and business owners of the City of Redondo Beach have demonstrated tremendous support for any improvements that can be accomplished at this

intersection. This improvement is listed on the Cities unfunded Capital Improvements Project list and satisfies the Cities goals of "Improve public facilities and infrastructure" and 'Enhance the livability and environmental sustainability of our community'.

The project proposes to improve the current level of service, LOS F, at the intersection, to a LOS E. This improvement will relieve intersection backup and congestion due to through and right turning vehicles having to share the same lane. The project will require the purchase of 10 feet of property from the land owner along the Aviation Boulevard side of the existing gasoline station site. The widening of the street will result in the relocation of the sidewalk and the reconfiguration of the corner.

Currently this intersection is always congested during the morning and afternoon rush hours.

The following are the approximate vehicles per day (vpd) for each street:

Aviation Boulevard major arterial 32,700 – 37,100 vpd,

Artesia Boulevard major arterial 33,000 vpd,

# Background and project history

The project was realized as necessary in the mid 80's during the time the aerospace industry in the South Bay was at its peak in regards to employment. This particular intersection is a major north-south corridor from the residential areas in the southern part of the South Bay to the employment centers to the north. The project has been on the City's CIP list the previous six years. This project is not included as a mitigation of any nearby improvement at this time. The project is supported by the local residents. The owner of the gas station property has concerns regarding the daily operations of the site during the construction of a right turn lane encroaching adjacent to the site. A review of critical dimensions concerning pumping islands and the underground storage tanks revealed minimal concerns at this time. A consultant with experience in gas station design will be hired in order to appropriately address all design and regulation issues.

# Discussion of alternatives

# 1. Alternative - No build

This project has three alternatives. The no build scenario, the intersections remain the same with no improvements and the existing LOS only worsening.

# 2. Alternative- traffic signal synchronization improvement

The second alternative is the improvement of the traffic signal timing at the intersection. The LA County Department of Public Works has been hired by the South Bay Cities COG to be the lead designer and project manager to spend Call for Projects monies received by the COG for traffic signal synchronization improvements along the major corridors of the South Bay Cities. The LA County Department of Public Works implemented new traffic signal coordination along the east-west corridor of Artesia Boulevard in March 2008. The implementation of traffic signal timing included the intersection of Aviation Boulevard at Artesia Boulevard. The improvement has recently been completed thereby removes this as an alternative.

# 3. Alternative 3 – the project - RECOMMENDED

The third alternative is the project of constructing an exclusive northbound right turn lane on Aviation Boulevard at Artesia Boulevard. This will result in the separation of northbound right turning traffic from northbound through traffic. A reduction of vehicles delays and improving the intersection operation and level of service will occur. The Level of Service will improve from the existing LOS F, v/c = 1.098 in the AM and LOS F, v/c = 1.085 in the PM and with the improvement existing conditions, to LOS F, v/c = 1.059 in the AM to LOS F, v/c = 1.085 in the PM.

The project will require the hiring of a design consultant in order to properly update the street widening plans and correlate those with the onsite improvements, such as landscaping relocation, removals, private signage relocation, traffic signal pole relocation and the possible relocation of the gas pump island. No environmental issues are foreseen, such as soil contamination, as this item was resolved in 1994/95 when new underground storage tanks were installed.

The property owner was notified and a meeting on site with the Engineering Sevices Division of the City of Redondo Beach. The owner will be requiring proper an legal compensation for the property required for the right turn only lane. The City of Redondo Beach has hired a certified appraiser in order to obtain a reasonable cost of the right of way for this grant request. A copy of the appraisal is attached,

# 4. System Planning

- This project is consistent with the General Plan of the City of Redondo Beach.
- The project is currently listed on the City's unfunded list of capital improvement projects, see attached
- The project was identified on the South Bay Transportation project List Coastal Corridor study has completed by the South Bay Cities COG. See attachment
- The project was later identified as a priority number one project for the SBCCOG Goods Movement Study along with improvements in the City of El Segundo and City of Manhattan Beach for other intersections along Aviation Boulevard. This project would be the portion of the Goods Movement Study entirely located within the City of Redondo Beach. See attachment

# 5. Environmental Determination

The City of Redondo Beach will be the lead agency. The consultant will conduct an Initial Site Assessment (ISA) of the project area currently located within the gas station site to determine the potential for encountering hazardous waste materials and/or soil contamination. There is no reason to suspect environmental contamination within the area of the private property which is purposed to become the right turn lane. The NEPA compliance result is expected to be Categorical Exclusion with required technical studies. The required technical studies will be for hazardous materials/hazardous waste and for impact to any water quality

resources. The consultant will study and investigate by sampling the ground about the project site.

6. Potential hazardous materials/waste problems

Currently the City of Redondo Beach feels there should no mitigation required at the site for soil contamination or hazardous waste. During 1994 soil remediation occurred at the site to reduce potential contaminated soil. In 1995 new underground storage tanks were installed with no soil contamination reported since those improvements.

7. Proposed sources of funding, project funding, funding eligibility and tentative schedule.

Sources of funding:

Agency: City of Redondo Beach

Source of Funding: Proposition C funds (36%)

The City of Redondo Beach will execute the agreements and be the lead.

Start Date	Finish Date
October 2011	December 2011
December 2011	February 2012
January 2012	April 2012
May 2012	September 2012
August 2012	
August 2012	November 2012
November 2012	January 2013
February 2013	April 2013
July 2013	
	October 2013
	October 2011 December 2011 January 2012 May 2012 August 2012 August 2012 November 2012 February 2013

- 8. <u>Identification of the potential programming and funding of this project.</u>
  No previous funding has been received for this project.
- 9. Partially Complete Project Programming Request enclosed

10. Appropriate Supporting Attachments

Maps of the location are attached. Also a draft plan, 3 sheets, showing the details of the right turn installation. This plan requires redesign has changes have occurred on the private property adjacent to the street.

Level of Service Calculations with resulting v/c ratios are attached for the:

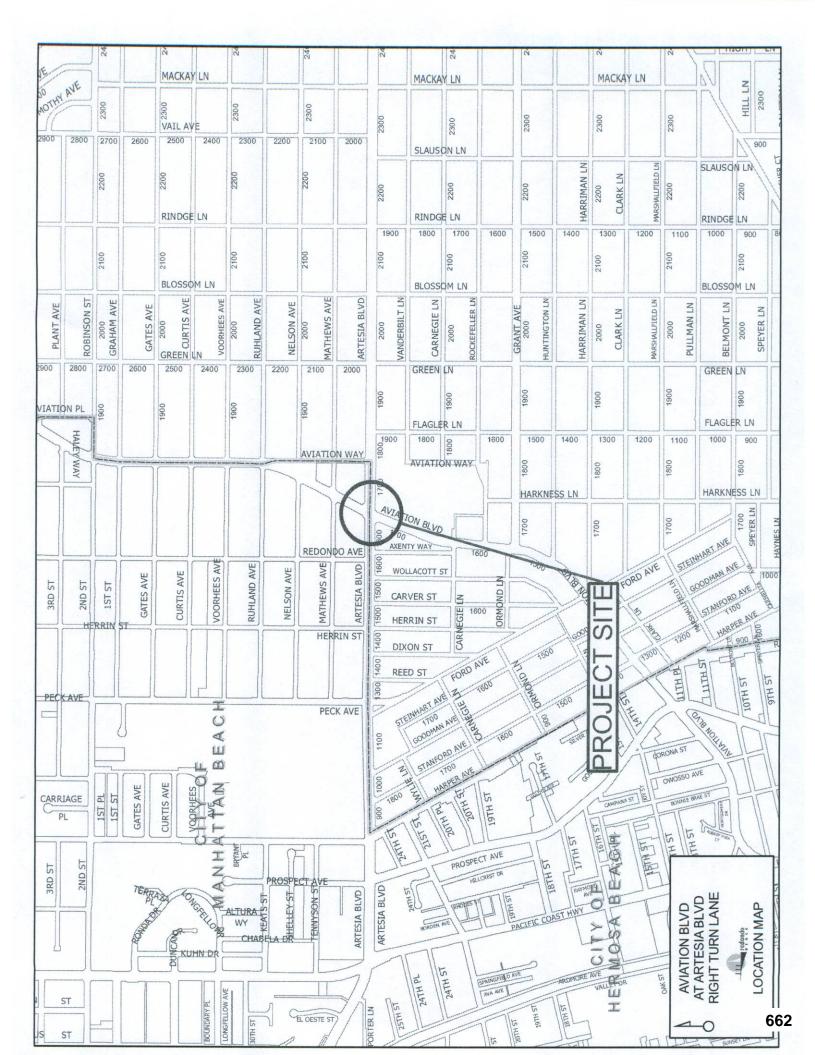
Existing conditions: AM, v/c 1.098 and PM, v/c 1.085;

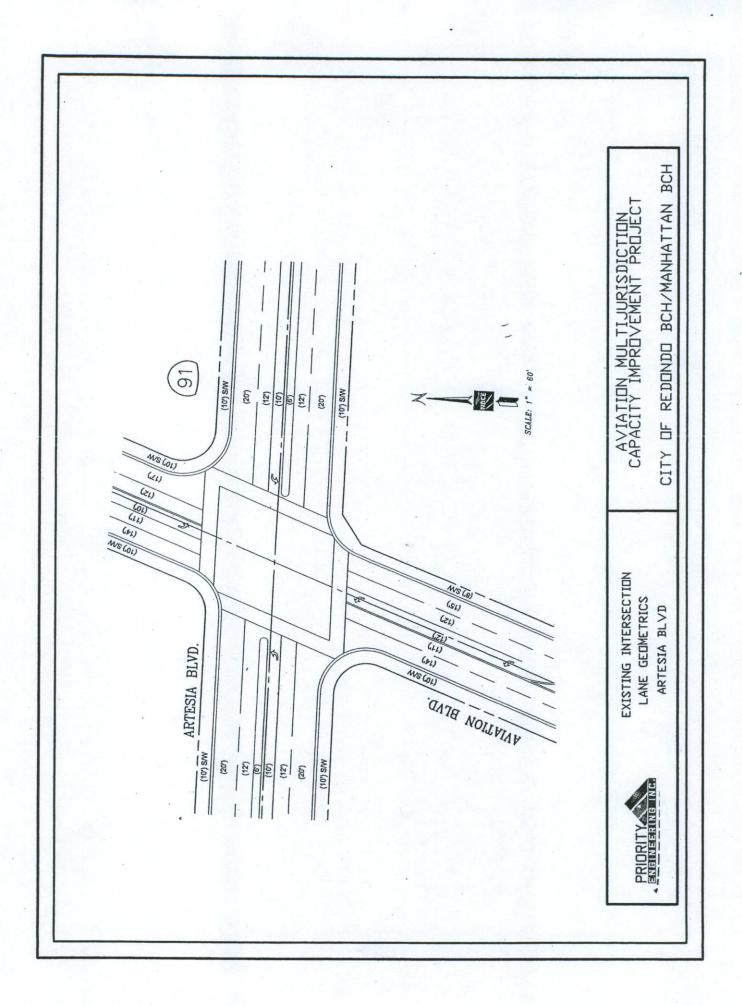
Existing with project: AM, v/c 1.059 and PM, v/c 1.085;

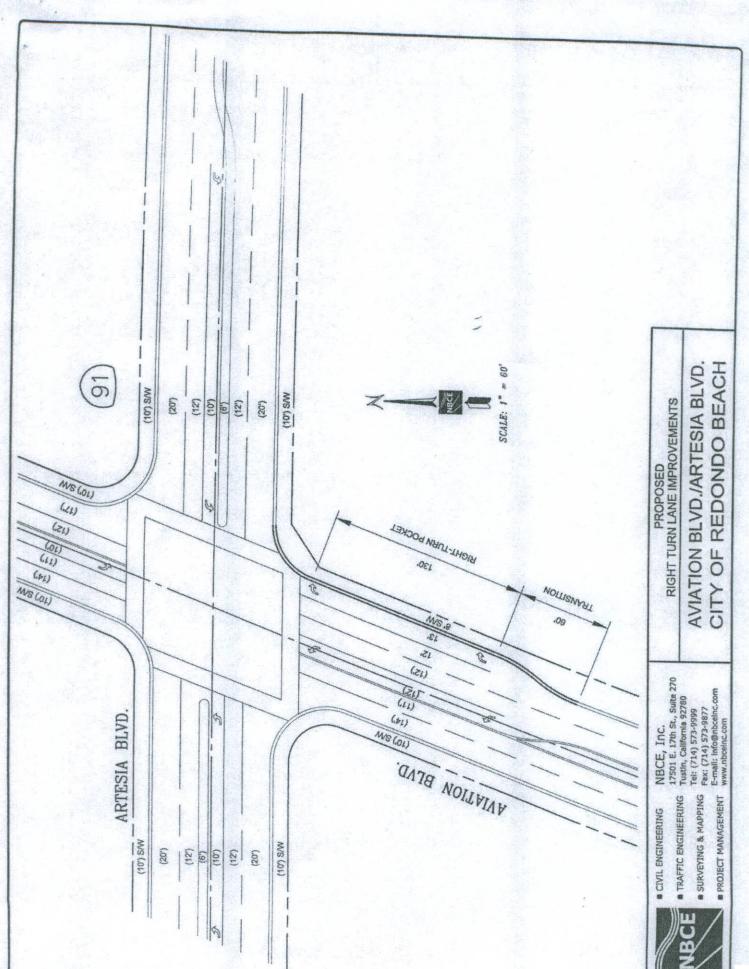
Shows an improvement of v/c of 0.0390 in the AM, a 4% improvement.

Future 2030 without project. AM, v/c 1.212 and PM, v/c 1.325; Future 2030 with project. Am, v/c 1.128 and PM, v/c 1.372.

Attachments:

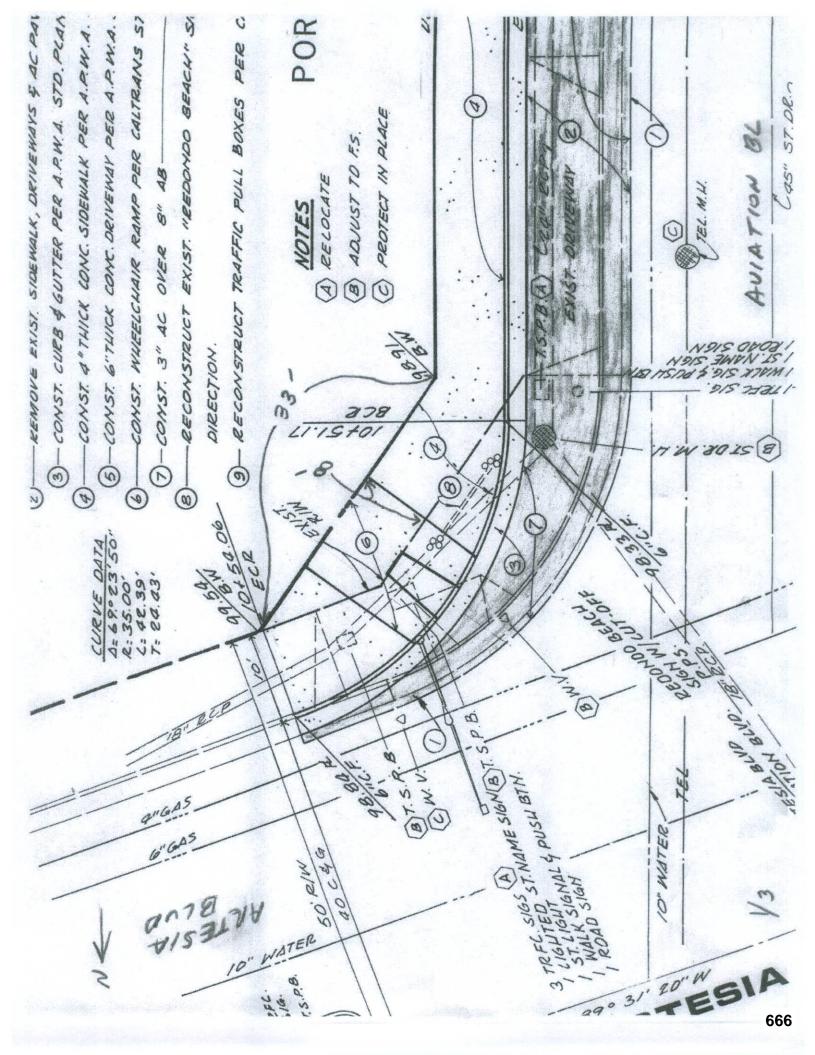




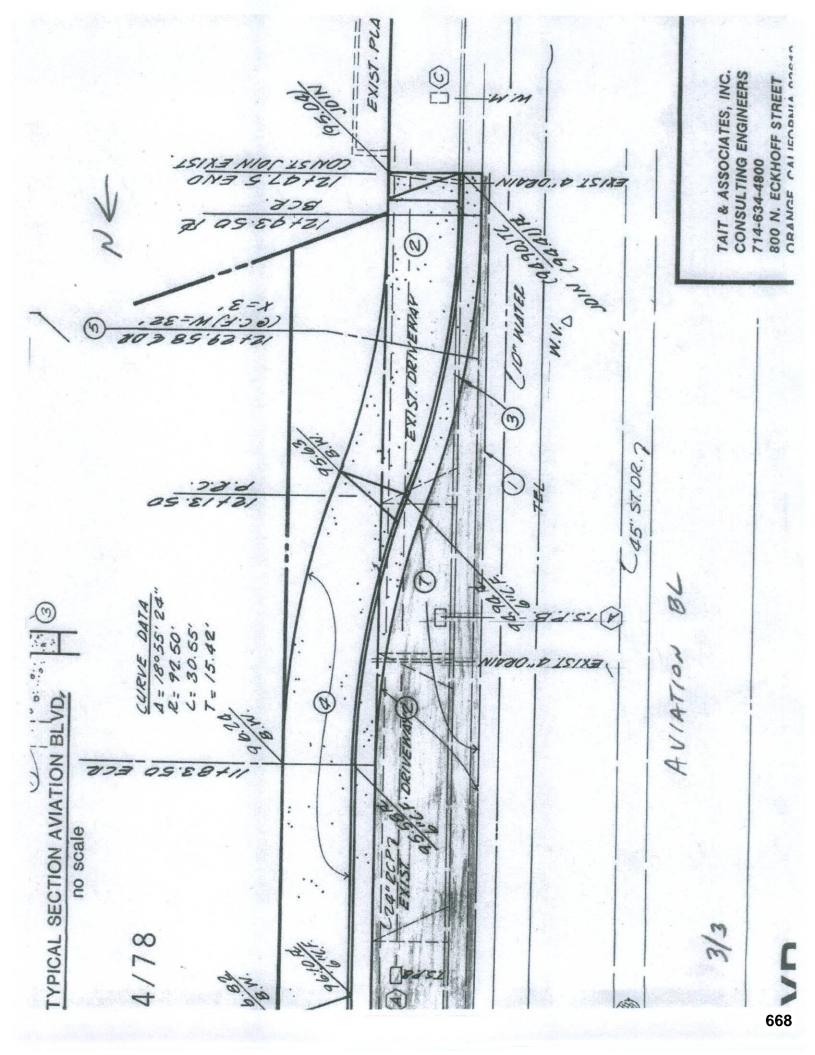


# **ENGINEER'S COST ESTIMATE**

4/20/2009 1 PROJECT TITLE: AVIATION ARTESIA RIGHT TURN LANE ESTIMATED BY: CHECKED BY: APPROVED BY: JU JM ITEM **ESTIMATED** UNIT PRICE **ESTIMATED** NO. DESCRIPTION QUANTITY UNIT MAT. & LAB. **AMOUNT** 1 Mobilization & Hauling 1 LS \$20,000.00 \$20,000.00 2 Excavation 16" SY 247 \$40.00 \$9,880.00 3 Excavation 12" SY 142 \$30.00 \$4,260.00 4 CAB 10" SY 247 \$9.00 \$2,223.00 5 4" B (PG 64/10) TON 52 \$60.00 \$3,120.00 6 2" C2 (PG 64/10) 26 TON \$60.00 \$1,560.00 7 Tack coat 247 SY \$1.00 \$247.00 8 Remove & Replace Curb and Gutter 235 LF \$40.00 \$9,400.00 9 Remove & Replace Sidewalk SF 1276 \$31.00 \$39,556.00 10 Remove & Replace D/W approach SF 623 \$54.00 \$33,642.00 11 Remove and Replace curb ramp planter 200 SF \$44.00 \$8,800.00 12 Relocate Tree LS \$13,200.00 1 \$13,200.00 13 Landscaping 200 SF \$15.00 \$3,000.00 14 EA ADA Ramp include demo relocate 1 \$2,500.00 \$2,500.00 15 Relocate "Shell" and "EZ Lube" signs 1 LS \$36,000.00 \$36,000.00 16 Adjust Manholes 3 LS \$330.00 \$990.00 17 LS Relocate Traffic Signals 1 \$22,000.00 \$22,000.00 18 Relocate Street Light Pole 1 LS \$5,500.00 \$5,500.00 Relocate Detector Loops, Advance Loops, 19 Conduit LS 1 \$22,000.00 \$22,000.00 20 Construction survey 1 LS \$22,000.00 \$22,000.00 21 Construction staging & traffic Control LS \$11,000.00 1 \$11,000.00 22 Removal/Relocation of Gas Pump Island 1 LS \$36,000.00 \$36,000.00 23 Excavation and Repiping for Gas Pumps LS 1 \$42,000.00 \$42,000.00 SUB-TOTAL \$348,878.00 10% Const Management \$47,500.00 **INCIDENTALS** 15% Contingency \$71,252.00 TOTAL \$467,630.00



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MLF Adj:		1.00	1.00		1.00			1.00		1.00		1.00	
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Existing AM Am

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2030BaselineAM Mon Mar 9, 2009 15:40:50							Page 27-1						
		Sorvice C	mnutat										
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Mon Mar 9, 2009 15:40:29

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	180	900	270	190	1070	180		1050	200	530	930	190
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Reduced Vol:			270	190	1070	180	140	1050	200	530	930	190
PCE Adj:			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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Am 2030BaselineAM

Wed Apr 15, 2009 13:33:18

		- 1	evel (	of Ser	vice	Computa	tion	Report	t			
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Optimal Cycl	e:	18	30		,	Level	Of Se	rvice	, , , , , , ,		******	F
Optimal Cycl	****	****	*****	****	****	*****	****	****	*****	****	****	*****
Street Name:		1	viatio	n Blv	d				Arte	sia		
Approach:	No					ound	E	ast Bo			est B	ound
Movement:		- T				- R			- R			- R
*****												
Control:		rotect	TELL TELL S			ted				*	rotec	The state of the s
Rights:		Inclu				ude		Inclu			Incl	
Min. Green:			0	0	0	0	0		0	0	0	0
Lanes:						1 0			1 0	1 (	0 1	1 0
Volume Modul							•			•		
Base Vol:	150	1330	200	50	660	80	150	1080	200	290	720	240
Growth Adj:		1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Initial Bse:	150	1330	200	50	660	80	150	1080	200	290	720	240
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	1330	200	50	660	80	150	1080	200	290	720	240
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	1330	200	50	660	80	150	1080	200	290	720	240
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	150	1330	200	50	660	80	150	1080	200	290	720	240
Saturation F	low M	odule:					College State					
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00	1.00	1.78	0.22	1.00	1.69	0.31	1.00	1.50	0.50
Final Sat.:	1600	3200	1600	1600	2854	346	1600	2700	500	1600	2400	800
Capacity Ana	lysis	Modu]	le:									
Vol/Sat:				0.03	0.23	0.23	0.09	0.40	0.40		0.30	0.30
Crit Moves:		****		****				****		****		

Wed Apr 15, 2009 13:33:31

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			A	· · · · ·								
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ICU ******	****	5 d5 (	ACTE F	ength	*6) M	etnoa (	ваѕе	AOTUM	e Alter	native	)	
Intersection	#25	Artes	ia/Avia	tion	Blvd							
*******											****	*****
Cycle (sec):		10	00			Critic	al Vo.	1./Cap	o.(X):		1.3	372
Loss Time (s	ec):		0 (Y+R	1=4.0	sec)	Averag	e Del	ay (se	ec/veh)	*	XXXX	(XX
Loss Time (so Optimal Cycle************************************	e:	18	30			Level	Of Se	rvice				F
						*****	****	****	******	*****	****	****
Street Name:		1	Aviatio	n Blv	d				Arte			
Approach:	No	rth Bo	ound									
Movement:					- T	- R	L	- T	- R	L -	T	- R
Control:	P	rotect	:ed	Р	rotect	ted	P	rotect	ted	Pr	otect	ed
uranto.		THETE	aue .		TUCT	1de		TUCT	age .		TUCT	ıde
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 2	0 1	1 1	0 1	1 0	1 1					
Volume Moduli												
Base Vol:	12,000	860	240	200	1040	260	140	1060	170	610		190
Growth Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:			240	200	1040	260	140	1060	170	610	930	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	160	860	240	200	1040	260	140	1060		610	930	190
Reduct Vol:	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	860	240	200	1040	260	140	1060	170	610	930	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	160	860	240	200	1040	260	140	1060	170	610	930	190
********												
Saturation F												
Sat/Lane:		1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
		2.00	1.00	1.00	1.60	0.40	1.00	1.72	0.28	1.00	1.66	
Final Sat.:			1600	1600		640			442	1600	2657	543
Capacity Ana.							95			1 10 10		
Vol/Sat:				0.13	0.41	0.41	0.09	0.38	0.38	0.38	0.35	0.35
Crit Moves:					****			****		****		

10 AUTATION BLUB. RICHTTURN ONLY LANE

8000 ARTESTA

> NOTE: INDICATE ALL AMOUNTS IN WHOLE NUMBERS AND IN FY 2008-09 DOLLARS PROJECT STUDY REPORT EQUIVALENT (PSRE)

ATTACHMENT A: PROJECT FINANCIAL PLAN

METRO PSRE GUIDELINES

PRO	PROJECT EXPENSES *	2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	TOTAL
_	CAPITAL EXPENSES:  Design and PS&E		115000				125,000
2	Construction			420,000			420,000
n	Construction Engineering			47,000			47,000
4 ı	Right-of-Way Acquisition or Lease		260,000				260,000
o 9	Equipment Purchase or Lease (e.g. computers)						0\$
	OPERATING EXPENSES:						
7	Administration			42,000			42,000
0 0	Wainfactor						04
10	Marketing						04
	OTHER EXPENSES (Specify):						3
7							\$0
12							\$0
13							\$0
4							\$0
15							\$0
16							\$0
17	TOTAL PROJECT EXPENSES	0\$	385,000	509,000	0\$	\$0	894,000

\* List only expenses to be incurred in the completion of the Scope of Services of the project for which you are applying for funding. Expense categories are not applicable for all projects.

677

#### Attachment B

<u>Transportation Problem:</u> The heavy congestion affecting the morning and evening rush hour traffic at the intersection of Aviation Boulevard at Artesia Boulevard. A major problem are north bound right turning vehicles do not have their own separate right turn lane.

## **Project Scope:**

**Route:** Aviation Boulevard, northbound lanes approaching the intersection of Artesia Boulevard.

**Project Limits:** the project is less than 0.1 miles in length, northbound #2 lane to be widen the length of the private gasoline station lot at the south east corner of the intersection.

**Description of Project Scope:** Project is to construct a 10 foot wide right turn only lane for north bound vehicles on Aviation Boulevard for the north bound approach to the intersection of Artesia Boulevard. The project will require the purchase of private property from the owner of the existing gas station site at the south east corner of the intersection. The relocation of private property signs, the possibility of relocating the gas pumping island, the relocation of traffic signal poles, adjustment of manholes and valve covers, removal/relocation of landscaping, and the reconstruction of the private driveways will be required. The existing sidewalk will be relocated to the eastern edge of the new street.

**Special conditions**: The Purchase of private property will be a special condition. A property appraisal report is attached to this document.

Will overtime be required? No

Project component costs:	Metro Requested	Total
Environmental		
Design Eng	\$ 80,000	\$125,000
R/W	\$166,400	\$260,000
Construction	\$268,800	\$420,000
Overhead	\$ 56,050	\$ 89,000
Total	\$571,250	\$894,000

Proposed Schedule	Quarter & Year
Start Environmental Studies	Dec. 2011
Draft Environmental Document	May 2012
Final Environmental Document	Sept. 2012
Begin Design Engineering	Aug. 2012
Plans, Specifications, & Estimates	Jan. 2013
Start R/W Acquisition	Aug. 2012
R/W Certification	Nov. 2012
Ready to Advertise	Feb. 2013
Start Construction (award)	July 2013
Project Completion (open for use)	Oct. 2013

Are the Project Milestones consistent with Metro lapsing policy?

Yes

**Responsible Agency** 

City of Redondo Beach

# **Contact Person and Contact Information:**

John Mate Transportation Engineer 415 Diamond Street Redondo Beach, CA 90277 (310) 318-0661 ext. 2277

# PROJECT PROGRAMMING REQUEST

DTP-0001 (REV. 3/08) General Instructions ✓ New Project Amendment (Existing Project) 04/23/09 Date: **Caltrans District** PPNO MPO ID TCRP No. EA 07 County Route/Corridor Project Sponsor/Lead Agency MPO Element LA Aviation Blvd. City of Redondo Beach **Project Title** Aviation Blvd. Right Turn Only Lane at Artesia Blvd. PM Bk PM Ahd Project Mgr/Contact Phone E-mail Address John Mate 310.318.0661 john.mate@redondo.org Location, Project Limits, Description, Scope of Work, Legislative Description Aviation Blvd. Right Turn Only Lane at Artesia Blvd. located 0.1 miles south of Artesia Boulevard. The construction of a right turn lane will require the purchase of private property adjacent to Aviation Boulevard. Project will require relocation of sidewalk, driveway, private property signs, traffic signal poles and utility covers and maholes. Component Implementing Agency AB 3090 Letter of No Prejudice PA&ED PS&E **Right of Way** Construction **Legislative Districts Assembly:** 53 (100%) Senate: 28 (100%) Congressional: 36 (100%) Purpose and Need The need is to reduce congestion at this major intersection of two principal arterials. **Project Benefits** The benefit will be improved travel for vehicular and transit system traffic through the intersection. **Project Milestone** Date Project Study Report Approved Begin Environmental (PA&ED) Phase Circulate Draft Environmental Document Document Type N/A Draft Project Report End Environmental Phase (PA&ED Milestone) Begin Design (PS&E) Phase End Design Phase (Ready to List for Advertisement Milestone) Begin Right of Way Phase End Right of Way Phase (Right of Way Certification Milestone) Begin Construction Phase (Contract Award Milestone) End Construction Phase (Construction Contract Acceptance Milestone) Begin Closeout Phase End Closeout Phase (Closeout Report)

**ADA Notice** 

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

# PROJECT PROGRAMMING REQUEST

DTP-0001 (REV. 3/08)

County	CT District	PPNO	TCRP Project No.	EA
LA	07			
Project Title: Aviation Blvd. Right Tur	n Only Lane at Artesia E	Blvd.		

			Existing T	otal Project	Cost				
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	Implementing Agency
E&P (PA&ED)		ownership	40000		11 60 00 mg	SHOW SHOW	ari kanana	treffester disk	
PS&E				50.55	Alabara a	Declaração (etc.)		P (\$ 10 10 10 11	
R/W SUP (CT)					2500	2000000		1968	
CON SUP (CT)					28.00	US-512		10 2 2 2	
R/W									
CON			44.66		2596				
TOTAL		19-15-13-13			6-3-3-5				
			Proposed 1	otal Projec	t Cost				
E&P (PA&ED)									
PS&E		3.0.24	4.52.6		125,000			125,000	
R/W SUP (CT)		A THE STANK	and the same	200			0.000		
CON SUP (CT)		10000000			1000	1000		1000000	
R/W		100000	<b>***</b> ***		260,000			260,000	
CON						509,000		509,000	
TOTAL		2.6.6.0			385,000	509,000		894,000	

Fund No. 1:									Program Code
			Exist	ng Funding	3				
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	Funding Agency
E&P (PA&ED)	kasa sa c			1645	0.000		0.000	1	
PS&E		44-4-19-6		10000		4-7-6-6	3-1-14-15-1		
R/W SUP (CT)	77.7				70000	2 - 12 - 15 - 15 - 15 - 15 - 15 - 15 - 1			
CON SUP (CT)									
R/W					242.00				
CON					3.000		Security		
TOTAL	400 %		9.3 (9.5)	Springers	0.000000	0.000000		1 6 7 7 1	
			Propo	sed Fundin	g				Notes
E&P (PA&ED)					T the said				Includes local match from
PS&E					125,000			125,000	City of 36%.
R/W SUP (CT)		1 111							
CON SUP (CT)				11		121,394			
R/W					260,000			260,000	
CON		ar and a				509,000		509,000	
TOTAL					385,000	509,000		894,000	

Fund No. 2:									Program Code
			Exist	ing Funding	9				
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	Funding Agency
E&P (PA&ED)					2000	distribution.			
PS&E		100000000000000000000000000000000000000	+ + 11	****		0.40		0.40.00	
R/W SUP (CT)			77.7		777				
CON SUP (CT)									
R/W	A constant	100000			A				
CON					8-8-6-8		1.00		
TOTAL	T 1911			907	1000000	The Contract			
			Propo	sed Fundin	g				Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)					4-11-14		3 T N 10		
CON SUP (CT)					100				
R/W									
CON									
TOTAL									

# FINANCE LETTER

Agency: City of Redondo Beach

EA No.:

Bridge No: PPNO.:

Fed Project No.:

4/20/09

Date:

DEPARTMENT OF TRANSPORTATION DIVISION OF ACCOUNTING

KIRK CESSNA

ATTN:

LOCAL PROGRAM ACCOUNTING BRANCH

If yes, provide following: Work on State Highway (Y or N): N Administered by State or Local? Accounting Program Code(s): Project Manager Name:

MATCH FUNDS TYPE (2) FUND FEDERAL TYPE (1) FUND **PARTICIPATING** FEDERAL COST COSTOF TOTAL WORK Coop or Contribution Agrmnt No.:

FEDERAL

STATE

LOCAL

MATCH FUNDS

FUNDS OTHER

Agency Preliminary Engineering 125,000	Overhead at %	(R/W)	Purchase Costs 260,000	Relocation Assistance /Utility	CONSTRUCTION	Contract Items \$ 420,000	Supplemental Work	Contingencies \$ 42,000	Trainees	Agency/State Furn. Mat.	Contract Total: \$ 847,000	CONSTRUCTION ENGINEERING	Agency Construction Engineering	State Furnished Construction Engineering	Overhead at%	State Furnished Materials Testing	Overhead at%, Subjob	Striping by Agency	Force Account Work by Agency	TOTALS:
				100 000 000 000 000 000 000 000 000 000							\$847,000		\$47,000							\$894,000
											\$847,000		\$47,000							\$894,000
											\$540,450		\$30,800							\$571,250
																				\$0
																				\$0
											\$0		0\$							\$0

64.00% Federal Appn. Code(s): Federal Participation:

Federal Reimbursement Rate(s) for Progress Invoice:

PHASE

FED (2) 64.00% 100.00% FED (1)

Project location: Aviation Blvd. Right Turn Only Lane at Artesia Blvd. Title: Transportation Engineer

Remarks:

For questions regarding finance letter, contact:

John Mate

Printed Name:

I certify that this Finance Letter accurately reflects the

current cost estimate for all phases of the project

obligated but not fully expended.

Signature:

Telephone No.: (310)318-0661

Exhibit 3-O July 31, 2006

CON RW PE

S



# Administrative Report

N.1., File # 21-1910 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

KEITH KAUFFMAN, POLICE CHIEF

# **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING APPROVAL OF A PROFESSIONAL SERVICES AGREEMENT WITH PETDATA, INC. FOR ANIMAL LICENSING SERVICES FOR THE TERM JANUARY 19, 2021 TO JANUARY 18, 2026

# **EXECUTIVE SUMMARY**

On June 16, 2020, City Council approved Decision Package #37 to outsource the City's Animal Licensing function. In response to Council's action, the Financial Services Department obtained proposals from Los Angeles County Department of Animal Care and Control and PetData, Inc.

After reviewing their proposals and conducting extensive interviews with each entity, PetData, Inc. prevailed as the leader in their ability to provide customer service, reporting, access to the database and overall program management and expertise. Staff recommends City Council approve a (5) five-year professional services agreement with PetData, Inc.

## **BACKGROUND**

At the adoption of the City budget on June 16, 2020, the City Council approved Decision Package #37 to outsource Animal Licensing services. Financial Services requested proposals from Los Angeles County Department of Animal Care and Control and PetData, Inc. After a thorough review of each of the proposals received, interviews were conducted and Financial Services determined that PetData, Inc. demonstrated the greatest ability to meet the needs of the City in providing Animal Licensing services to the public.

PetData, Inc. has over 25 years of experience in providing animal license services to municipalities. They have more than 80 clients in 23 states, currently process over 1.7 million animal licenses and rabies vaccination certificates and over 100,000 customer service calls and emails annually. PetData, Inc. currently provides animal licensing services to the cities of Torrance (since 2004), Hawthorne (since 2016), Culver City (since 2009), Newport Beach (since 2009), Laguna Beach, Garden Grove (since 2016), San Clemente-Dana Point, and Santa Barbara (since 2010).

PetData, Inc. services include: processing animal license applications and renewals received online

N.1., File # 21-1910 Meeting Date: 1/19/2021

or by mail; providing customer service to residents via phone, email and mail; mailing renewal and reminder notices for expiring animal licenses; mailing new and replacement tags to pet owners; providing online access to licensing data for Animal Control; processing and updating rabies vaccination records; updating owner and pet information; collecting and processing animal licensing fees; providing sales and revenue reporting; and remitting revenue collected less service fees to the City.

PetData, Inc. provides a customized webpage, which can be accessed through the City's website. Residents will now be able to process and pay for new and renewed animal licenses online. In addition, PetData, Inc. provides a dedicated telephone number for residents to call for customer service, which includes an auto-attendant that provides basic registration instructions 24 hours a day, 7 days a week.

PetData, Inc. has advised that many of their client cities have been able to increase their animal license revenue by updating their ordinance to require veterinarians to provide rabies vaccination reports to their city. Per the direction of the client cities, PetData, Inc. receives the vaccination reports directly from the veterinarians. Upon receipt of the reports, PetData, Inc. either updates existing license records or mails billing notices to the owners of animals that are unlicensed.

PetData, Inc. charges a one-time start-up fee of \$1,000 for creating renewal forms and reports, web pages, auto-attendant phone scripts, and data conversion. Their fees for processing animal licenses are as follows:

- For years 1-3 of the agreement, \$4.20 for a one-year license or replacement tag, \$6.20 for a two-year license, \$8.20 for a three-year license.
- For years 4-5 of the agreement, \$4.30 for a one-year license or replacement tag, \$6.30 for a two-year license, \$8.30 for a three-year license.
- A collection service fee of \$2.50 for each late fee collected during the term of the agreement.

Upon approval of the agreement, the implementation process will begin immediately with an anticipated start date of April 1, 2021.

# COORDINATION

The Financial Services Department coordinated with Animal Control in the review and selection of the animal licensing service provider, and the City Attorney's Office has approved the agreement as to form.

## FISCAL IMPACT

The one-time start-up fee of \$1,000 and the fees for processing animal licenses will be netted against animal license revenue collected. To process the City's 3,600 active dog licenses, the estimated annual expenditure for one-year licenses is \$15,120. The annual expenditure will fluctuate depending on the number of licenses processed.

N.1., File # 21-1910 Meeting Date: 1/19/2021

# **APPROVED BY:**

Joe Hoefgen, City Manager

# **ATTACHMENTS**

Agreement - PetData, Inc. Slide Presentation - PetData, Inc.

# AGREEMENT FOR ANIMAL LICENSING SERVICES

THIS AGREEMENT FOR ANIMAL LICENSING SERVICES ("Agreement") is made and entered into by and between CITY OF REDONDO BEACH, a chartered municipal corporation, hereinafter called "CITY," and PETDATA, INC., a Texas for-profit corporation, hereinafter called "CONTRACTOR," as of January 19, 2021 ("the Execution Date").

For good and valuable consideration, CITY and CONTRACTOR agree as follows:

# 1. SERVICES

For the consideration set forth below, CONTRACTOR agrees to provide to CITY the animal licensing services described under "CONTRACTOR's RESPONSIBILITIES" in <u>Exhibit A</u>, attached hereto and incorporated herein by reference (collectively, the "Services"), upon the terms and conditions of this Agreement. The Services relate to CITY's licensing and registration of pets. CITY agrees to perform "CITY's RESPONSIBILITIES" described in <u>Exhibit A</u>. In the event of any conflict between any of the contents of <u>Exhibit A</u> and any of the provisions of the main body of this Agreement will prevail.

# 2. OVERSIGHT AND COORDINATION

All Services shall be performed to the reasonable satisfaction of CITY, as reasonably determined by CITY's Administrator or other person whom CITY shall from time to time designate to monitor the performance of the Services by CONTRACTOR. CITY agrees to promptly notify CONTRACTOR of the name and contact information of the person who will monitor the performance of the Services on behalf of CITY, and to promptly notify CONTRACTOR of any changes to CITY'S monitoring designee or the contact information for CITY's monitoring designee.

# 3. PERFORMANCE OF SERVICES

CONTRACTOR acknowledges that, prior to signing this Agreement, CONTRACTOR has become familiar with the scope of the Services required under this Agreement. Subject to CONTRACTOR's fulfillment of its obligations under this Agreement, the means, methods, timing, and manner of performing the Services shall be within the sole discretion of CONTRACTOR. CONTRACTOR may perform the Services at such location(s) that CONTRACTOR may from time to time determine, and shall not be required to perform any of the Services at a CITY location. CITY acknowledges that CONTRACTOR shall not be obligated to commence the performance of the Services until the Commencement Date, as hereinafter provided. CONTRACTOR shall not be responsible or liable to CITY or any third party for any delays, errors or omissions in the performance of the Services or any losses or damages sustained by CITY or any third party that are caused by (i) CITY or any of CITY's employees or agents, (ii) the inaccuracy, incompleteness, or other insufficiency of any data furnished by or on behalf of CITY to CONTRACTOR under or in connection with this Agreement, or (iii) any other items furnished by or on behalf of CITY to CONTRACTOR under or in connection with this Agreement.

# 4. CUSTOM SUPPLIES

If CITY requests that CONTRACTOR utilize specific supplies in connection with the performance of the Services, such as, for example, forms, brochures, or rabies books, CITY will provide those supplies to CONTRACTOR without charge.

# 5. BANK ACCOUNTS

Licensing fees and any other amounts that are collected by CONTRACTOR for the benefit of CITY under this Agreement will be deposited into an account of one of the following types that is from time to time designated by CITY (a "Bank Account"):

- A. An account established and maintained by CITY in its name at a bank or other financial institution (a "CITY Account"); or
- B. A separate account established and maintained by CONTRACTOR at a bank or other financial institution selected by CONTRACTOR in which will be deposited funds that relate solely to this Agreement (a "Maintained Account").

CITY will initially designate the type of Bank Account to be utilized hereunder in a notice that CITY will deliver to CONTRACTOR during the Transition Phase in accordance with Section 11. CITY may thereafter change the designation of the type of Bank Account to be utilized hereunder from time to time upon notice to CONTRACTOR, and CONTRACTOR will have a reasonable time in order to effect any such requested change. CITY will reimburse CONTRACTOR for all out-of-pocket expenses incurred by CONTRACTOR in connection with any change in the type of Bank Account utilized hereunder. CITY acknowledges and consents that CONTRACTOR may make an initial deposit into a Maintained Account from CONTRACTOR's funds in order to establish the account, which initial deposit will be refunded or otherwise reimbursed to CONTRACTOR. When a Maintained Account is closed, any funds remaining in the account after the payment of all amounts due CITY hereunder will belong to and be disbursed to CONTRACTOR.

# 6. COMPENSATION TO CONTRACTOR

In consideration of the Services, CONTRACTOR shall be entitled to the following compensation:

# A. <u>Basic Fees.</u>

CITY shall pay to CONTRACTOR the following fees for all animal licenses issued during the term of this Agreement, regardless of whether they are issued by CITY, CONTRACTOR, veterinarians, or any other persons:

- 1) For Months 1-36 of Agreement:
  - \$4.20 for each one-year license or replacement tag.
  - \$6.20 for each two-year license or replacement tag.
  - \$8.20 for each three-year license or replacement tag.
- 2) For Months 37-60 of Agreement:
  - \$4.30 for each one-year license or replacement tag.
  - \$6.30 for each two-year license or replacement tag.
  - \$8.30 for each three-year license or replacement tag.
- 3) \$2.50 collection service fee for each late fee, if any, paid by a Licensee during the term of this Agreement.

An animal license will be considered "issued" for purposes of this Agreement regardless of the means, method, program, process, or agency used for the issuance or registration of the license, and whether or not a fee or other consideration is charged or received by the CITY for the license. Without limiting the generality of the foregoing, an animal license that is donated or issued free of charge by the CITY or that is issued as part of a bundling of CITY services or programs will be considered "issued" for purposes of this Agreement. Further, any animal license that is processed by CONTRACTOR for CITY during the term of this Agreement will be considered

"issued" for purposes of this Agreement, whether or not the license was or is actually issued or delivered before, during, or after the term of this Agreement.

Notwithstanding the preceding provisions of this Section 6A, the parties agree that CONTRACTOR's minimum aggregate fees under this Section 6A are \$6,000.00 per calendar year. In order to assure the payment of such minimum aggregate annual fees to CONTRACTOR, the parties agree that if the aggregate fees payable to CONTRACTOR under this Section 6A for a calendar month would, but for the application of this sentence, be less than \$500.00, then the aggregate fees payable to CONTRACTOR under this Section 6A for that calendar month will be \$500.00. However, the foregoing minimum monthly amount will not be applicable if the aggregate fees paid to CONTRACTOR under this Section 6A have already equaled or exceeded, or in the opinion of CONTRACTOR are reasonably expected to otherwise equal or exceed, \$6,000.00 for that calendar year. If the aggregate annual fees paid to CONTRACTOR under this Section 6A during any calendar year do not equal or exceed \$6,000.00, then CITY shall pay an amount equal to the positive difference between (i) the amount previously paid to CONTRACTOR for that calendar year and (ii) \$6,000.00, upon demand by CONTRACTOR. The \$6,000.00 minimum annual amount shall be prorated for any partial calendar year during the term of this Agreement. No delay or failure on the part of CONTRACTOR in imposing or collecting the aforesaid monthly minimum amount shall affect CONTRACTOR's right to receive the aforesaid minimum aggregate annual fees or to collect the aforesaid minimum aggregate monthly amount either then or in the future. CITY acknowledges that the aforesaid minimum fee amounts apply only to the fees payable to CONTRACTOR under this Section 6A, and do not include, by way of example and not by way of limitation, any Start-Up Fee payable to CONTRACTOR under Section 6B.

The fees paid to CONTRACTOR under this Section 6A are further subject to reasonable adjustment in the event that CITY adds, modifies, or eliminates any fees that are charged to Licensees during the term of this Agreement. CITY and CONTRACTOR agree to negotiate any such reasonable adjustments in good faith.

As used in this Agreement, the term "Licensee" refers to any person who applies for an animal license to be issued by or on behalf of CITY.

# B. Start-Up Fee.

CITY shall pay to CONTRACTOR, a \$1,000, one-time only, "Start-Up Fee". The Start-Up Fee is due and payable within fifteen business days after the Execution Date. There are no Start-Up Fees for term extensions or any renewals of this Agreement that may hereafter be entered into by the parties.

# C. Additional Service Fees or Costs.

The following fees or cost reimbursements will apply to the extent that the corresponding services described below are requested by CITY:

- 1) Cost of Bank Account. CITY will be responsible for all out-of-pocket costs related to any Bank Account. CITY will reimburse CONTRACTOR on a monthly basis for any out-of-pocket costs for a Bank Account that are paid by CONTRACTOR. CITY may request copies of the bank statements for a Maintained Account at any time and CONTRACTOR will provide available bank statements for that Maintained Account within five business days after a request is received by CONTRACTOR.
- 2) Postal Box/Mail Forwarding Fee. If CITY requests CONTRACTOR to establish a local post office box for mail collection and forwarding, CITY will pay or reimburse CONTRACTOR for the actual costs of mail box rental, mail forwarding and postage fees.

- 3) Supply Fee. If CITY requests changes to supplies or notices that it has previously approved, including but not limited to fee or program changes, CITY will be responsible for the actual costs associated with changing, replacing or discontinuing the use of the previously approved supplies.
  - 4) Lock Box Fees. If CITY utilizes a lockbox, the actual fees and costs associated with the lockbox, including the cost to forward mail to CONTRACTOR from a lockbox, shall be borne solely by CITY.

# D. <u>Charges to Licensees.</u>

CITY agrees that CONTRACTOR may charge and collect the following fees directly from Licensees, and CONTRACTOR shall be entitled to retain any such fees so collected as part of CONTRACTOR's compensation under this Agreement, except as otherwise provided below:

- 1) \$2.00 for each on-line transaction engaged in by a Licensee.
- 2) CONTRACTOR may charge a fee to a Licensee of no more than \$35.00 (or, if lower, the maximum amount permitted by applicable law from time to time in effect) for each check or other payment from that Licensee that is returned uncollected for any reason. Any such returned item fee related to a Maintained Account that is actually collected shall be deposited into the Maintained Account and shall be for the benefit of CITY so long as bank fees remain responsibility of CITY; otherwise the fee shall be retained by CONTRACTOR.

# 7. MODIFICATIONS OF SERVICES

If CITY requests Services in addition to those described in this Agreement, and CONTRACTOR agrees to provide those additional Services, then CONTRACTOR shall be entitled to additional compensation for those additional Services as shall be agreed upon by CONTRACTOR and CITY in a written modification to this Agreement that is signed by authorized parties of the CITY and CONTRACTOR. CONTRACTOR shall not be required to perform any such additional Services unless and until the parties have entered into a written amendment to this Agreement. Without limiting the other types of services that may be considered to be outside of the scope of the Services described in this Agreement, the following types of Services would be considered to be outside of the scope of the Services described in this Agreement and, therefore, the subject of additional compensation to CONTRACTOR: customized software projects; requests for new features in CONTRACTOR's software; or requests for CONTRACTOR to implement new procedures or operations. CITY may determine after the Execution Date that certain portions of the Services are no longer necessary, in which event CITY shall notify CONTRACTOR of the portions of the Services that are no longer required, and CONTRACTOR shall be relieved of the responsibility for performing those portions of the Services. However, there shall be no adjustment in CONTRACTOR's compensation hereunder for any portions of the Services that CONTRACTOR is not required to perform.

# 8. REPORTS

- A. <u>Reports from CONTRACTOR</u>. Within 15 business days after the end of each calendar month during the term hereof, CONTRACTOR will submit an animal licensing summary report for the preceding calendar month to CITY in a format that is mutually agreed upon by CITY and CONTRACTOR. Any such report may be transmitted electronically or by any other means.
- B. Reports from CITY. Within 10 calendar days after the end of each calendar month during the term hereof, CITY will submit a report to CONTRACTOR of all license fees that CITY has received during the preceding calendar month from Licensees, veterinarians or any other source other than CONTRACTOR. Any such report may be transmitted electronically or by any other means.

# 9. PAYMENTS

A. <u>CITY Account Used.</u> If and for so long as a CITY Account is utilized hereunder, the following provisions shall apply (and the provisions of Section 9B shall be inapplicable):

Within 15 business days after the end of each calendar month, CONTRACTOR will submit to CITY an invoice with supporting documentation for the compensation due CONTRACTOR under this Agreement for that calendar month. CITY will pay CONTRACTOR the invoiced amount by means of check, ACH payment or other form of payment acceptable to CONTRACTOR within 30 days after the date CONTRACTOR submits the invoice to CITY. Invoices will be submitted electronically to the e-mail address that CITY shall from time to time provide CONTRACTOR for the submission of invoices or in such other manner as CITY may from time to time request in writing to CONTRACTOR and that is acceptable to CONTRACTOR.

B. <u>Maintained Account Used</u>. If and for so long as a Maintained Account is utilized hereunder, the following provisions shall apply (and the provisions of Section 9A shall be inapplicable):

Upon opening a Maintained Account, CONTRACTOR shall deposit no more than \$100 to fund account. Within 15 business days after the end of each calendar month, CONTRACTOR shall remit to CITY the residual amount, if any, of all license fees collected by CONTRACTOR hereunder during the preceding calendar month after deducting therefrom all fees, costs, expenses, and reimbursements due CONTRACTOR hereunder. If at any time the funds in the Maintained Account are not sufficient to fully pay amounts due to CONTRACTOR hereunder, then CONTRACTOR may recoup any shortfall from any subsequent payments due to CITY under this paragraph until all sums due CONTRACTOR, including initial \$100 deposit, have been fully paid.

C. <u>Direct Collections by CITY</u>. If CITY collects any animal license fee or any other amount that is subject to this Agreement directly from a Licensee, veterinarian or other source, other than CONTRACTOR, CITY may either forward the amount collected to CONTRACTOR within fifteen business days for deposit into a Maintained Account, if a Maintained Account is in effect, or retain the amount. In either event, CITY shall report the amount so collected to CONTRACTOR in accordance with Section 8B so that the fee(s) due CONTRACTOR hereunder with respect to the amount collected by CITY may be determined and paid in accordance with this Agreement.

### 10. TERM

The initial term of this Agreement will commence on the Execution Date and will expire at the close of business on January 18, 2026, unless this Agreement is sooner terminated in accordance with other provisions of this Agreement.

# 11. TRANSITION PHASE

The period beginning on the Execution Date and expiring at the close of business on the 60th day thereafter is referred to as the "Transition Phase." CONTRACTOR shall begin processing licenses within a reasonable time following the Transition Phase subject to CITY's timely fulfillment of its obligations under this Section 11. CONTRACTOR, in its discretion, may begin processing licenses prior to the expiration of the Transition Phase. CITY acknowledges that any delay in the performance of its obligations under this Section 11 may result in a delay in the commencement of the Services. The date on which CONTRACTOR commences the processing of licenses hereunder is referred to in this Agreement as the "Commencement Date." CONTRACTOR shall notify CITY of the Commencement Date within a reasonable period before or after the Commencement Date.

During the Transition Phase:

#### A. License Data.

CITY shall provide historical license data files consisting of licenses older than 90 days within fifteen days after the Execution Date. The said historical data shall be made available to CONTRACTOR in an electronic format that is readily importable by CONTRACTOR.

# B. Deliverables.

Within fifteen days after request from CONTRACTOR, CITY shall provide to CONTRACTOR agreed upon supplies, data, feedback, process information, the initial designation regarding the type of Bank Account under Section 5, and required approvals for items such as form designs (collectively, "Deliverables"). Deliverables may be requested throughout the Transition Phase.

# C. <u>Tags</u>.

CITY shall purchase, at CITY's expense, and cause to be delivered to CONTRACTOR license tags that meet CONTRACTOR's specifications, which have been provided to CITY.

# 12. PERMITS AND REQUIREMENTS

#### A. Permits.

CONTRACTOR shall obtain the necessary permits(s), if any, required by CITY or its governing ordinances for the performance of the Services. CITY agrees to provide CONTRACTOR with a list of any and all such permits and to cooperate and assist CONTRACTOR in good faith to aid CONTRACTOR in obtaining any such permits in a timely fashion.

# B. <u>Legal Requirements</u>.

CONTRACTOR shall, in performing the Services under this Agreement, comply with all federal, state, county, or CITY statutes, laws, codes and ordinances, as amended, that are directly applicable to CONTRACTOR's performance of the Services. CITY should notify CONTRACTOR of changes to laws, codes or ordinances affecting CONTRACTOR's performance of Services under this Agreement of which CITY obtains actual knowledge during the term of this Agreement. In no event shall the CITY be liable in the event the changes are not communicated to the CONTRACTOR and any lack of communication shall not be deemed cause to terminate this Agreement.

### 13. COVENANTS REGARDING DATA

CONTRACTOR agrees that it will not, without CITY's consent, use personal data collected on behalf of CITY other than for the performance of the Services or other uses permitted by this Agreement or under applicable law. Further, CONTRACTOR agrees that it will not sell, or intentionally transfer or release, to any third party personal data that CONTRACTOR has collected in performing the Services, except as may otherwise be required by this Agreement or applicable law including without limitation the State Public Records Act, and that it will take commercially reasonable measures to prevent the unauthorized release of any such third party personal data.

Upon the termination of this Agreement, CONTRACTOR agrees to return or transfer to CITY, in a mutually acceptable format, all animal licensing data maintained by CONTRACTOR under this Agreement within 15 business days after CONTRACTOR has received all sums due CONTRACTOR under this Agreement.

# 14. INDEMNITY

Subject to the limitations on CONTRACTOR's liability set forth elsewhere in this Agreement, CONTRACTOR agrees to indemnify and hold harmless CITY and its officers and employees from and against any and all claims, lawsuits, judgments, costs and expenses for personal injury (including death), property damage or other harm for which recovery of damages is sought, suffered by any person or persons, arising out of CONTRACTOR's negligence, gross negligence or willful misconduct in the performance of the Services under this Agreement. In the event of joint and concurring responsibility of CONTRACTOR and CITY, responsibility and indemnity, if any, shall be apportioned comparatively. The provisions of this paragraph are solely for the benefit of the parties hereto and are not intended to create or grant any rights, contractual or otherwise, in or to any other person or entity.

# 15. INSURANCE REQUIREMENTS

CONTRACTOR shall procure, pay for, and maintain during the term of this Agreement:

- A. Commercial Liability Insurance with a minimum combined single limit coverage of \$1,000,000 per occurrence, and a \$2,000,000 General Aggregate Limit for all damages due to bodily injury, sickness or disease, or death to any person, and damage to property, including the loss of use thereof.
- B. Workers Compensation Insurance to cover obligations imposed by federal and state statutes having jurisdiction or employees engaged in the performance of the work or services of not less than \$1,000,000 per accident, \$1,000,000 disease for each employee, and \$1,000,000 disease policy limit.

CONTRACTOR shall furnish evidence of such coverage to CITY and will provide 30 days' written notice of policy lapse or cancellation, or of a material change in policy terms.

CONTRACTOR does not own any vehicles. However, CONTRACTOR does have coverage for non-owned vehicles under its commercial liability policy. Therefore, CONTRACTOR does not carry and shall not be obligated to carry separate automobile liability coverage.

# 16. TERMINATION

# A. <u>Expiration</u>.

If the term of this Agreement expires and is not extended in accordance with other provisions of this Agreement, then CONTRACTOR shall be paid all amounts due CONTRACTOR hereunder with respect to all periods through the date of termination, including CONTRACTOR's basic fees under Section 6A with respect to animal licenses or renewals that are in process at the time of termination.

# B. <u>For Cause.</u>

If CONTRACTOR materially breaches this Agreement and fails to cure the breach within 30 days after CITY notifies CONTRACTOR of the breach and specifies the details of the breach, CITY may terminate this Agreement upon notice to CONTRACTOR. In the event of such termination, CONTRACTOR shall be entitled to payment for all amounts due CONTRACTOR hereunder with respect to all periods through the date of termination, including CONTRACTOR's basic fees under Section 6A with respect to animal licenses or renewals that are in process at the time of termination.

# C. Without Cause.

CITY may terminate this Agreement without cause, on no less than thirty (30) days prior written notice to CONTRACTOR, provided that such termination shall not relieve CITY of payment obligations incurred prior to the date of such termination.

# D. Termination of Licensing Program.

CITY may terminate this Agreement upon not less than 90 days prior notice to CONTRACTOR if CITY determines to terminate its animal licensing program. Upon such termination, CONTRACTOR shall be entitled to payment for all amounts due CONTRACTOR hereunder with respect to all periods through the date of termination.

## 17. UNFORESEEN CIRCUMSTANCES

CONTRACTOR shall not be responsible for any delay or omission in the performance of any of CONTRACTOR's obligations under this Agreement to the extent caused by natural disaster, power outages, war, civil disturbance, labor strikes or other cause beyond CONTRACTOR's reasonable control. To the extent CONTRACTOR is able to do so, CONTRACTOR shall provide written notice to CITY of any event described in this Section within ten (10) business days after the occurrence of such event.

# 18. RECORDS/AUDIT

CONTRACTOR shall maintain in electronic form or on a database material books, records, and documents directly related to the performance of the Services (collectively, "Records") during the term of this Agreement and for a period of five years thereafter. CONTRACTOR shall further maintain any Records that were either received or originally generated by CONTRACTOR in paper or electronic form for a period of five years after the date(s) that the respective Records were originally received or generated or until the termination, by expiration or otherwise, of this Agreement, whichever occurs first. Any paper Records in existence at the expiration of any such five-year period or at the termination of this Agreement shall either be shipped to CITY or destroyed, at CITY's option and at CITY's expense in either case. During the term of this Agreement and for a period of five years thereafter, CITY shall have the right to inspect and audit, at CITY's expense, and upon reasonable advance notice to CONTRACTOR, the Records that CONTRACTOR is obligated to maintain hereunder as of the time of any such inspection or audit. Notwithstanding the foregoing, any Records maintained by CONTRACTOR during the term of this Agreement that relate to any litigation, appeal, or related settlement arising under or in relation to this Agreement shall be preserved until a final disposition has been made of such litigation. However, CONTRACTOR shall not have any liability for disposing of paper Records in accordance with this Agreement prior to the time that CONTRACTOR obtained actual knowledge of the existence of the litigation.

# 19. NOTICES

Any notice, statement, or demand required or permitted to be given hereunder by either party to the other shall be in writing and shall be given personally or by courier, by overnight delivery service, by certified mail, return receipt requested, postage prepaid, or by confirmed (either machine or personal) facsimile transmission, addressed to the recipient as follows:

Notices to CITY shall be addressed as follows:

Finance Director City of Redondo Beach 415 Diamond St, Door 1 Redondo Beach, CA 90277 Fax: 310-937-6666

Notices to CONTRACTOR shall be addressed as follows:

Chris Richey, President PetData, Inc.

P.O. Box 141929 (if mailed)

Irving, Texas 75014-1929

8585 N Stemmons Fwy, Suite 1100N (if delivered)

Dallas, Texas 75247

214-821-3106 (facsimile)

Any such notice shall be effective (a) if delivered personally or by courier, when received, (b) if sent by overnight courier, when received, (c) if mailed, on the second business day after being mailed as described above, and (d) if sent by confirmed (either personal or machine) written telecommunication, when dispatched. Any party may change any of its contact information for notices upon not less than ten (10) days' prior notice to the other party in accordance with this Section. The provisions of this Section shall not govern the means of submission of invoices by CONTRACTOR to CITY under this Agreement.

# 20. CONTRACTOR'S SYSTEM

CITY acknowledges that CONTRACTOR has developed and coordinated proprietary means and methods of performing the Services and related know-how, skills, and property (collectively, the "System"). The System includes, among other items, an interactive website, databases, software, and related items. The System is special and unique to CONTRACTOR and has been developed by CONTRACTOR at great cost and expense to CONTRACTOR. CITY acknowledges that CITY is not acquiring any rights in or to the System, and that the System is and will remain the sole and exclusive property of CONTRACTOR. CITY further acknowledges and agrees that any information that CITY obtains related to the use, formulation or operation of the System that is not generally known is CONFIDENTIAL, may only be used by CITY for the limited purposes described in this Agreement, and may not be disclosed to any third parties except as may be required under applicable law, or with CONTRACTOR's prior, express written consent in CONTRACTOR's sole discretion. Upon the termination of this Agreement, any information and materials, in whatever media or format, related to the System that CITY has in its possession will be returned to CONTRACTOR or destroyed at CONTRACTOR's option. CITY agrees that it will not attempt to discover, duplicate, or replicate the System in any manner.

# 21. MISCELLANEOUS

# A. Governing Law.

This Agreement shall be governed by and construed in accordance with the laws of the state in which CITY is located.

# B. Relationship of Parties.

The relationship of CITY and CONTRACTOR is that of independent contractors. Nothing in this Agreement is intended to create a partnership or joint venture between the parties, to establish a fiduciary relationship between the parties, or to render either party liable or responsible for any debts, liabilities or other obligations of the other party.

# C. Entire Agreement.

This Agreement, including any exhibits hereto, embodies the complete agreement of the parties hereto, and supersedes all oral or written previous or contemporary agreements or understandings between the parties relating to any of the matters herein. This Agreement may not be amended or otherwise modified except in a writing executed by both parties. The expiration or other termination of this Agreement shall not extinguish any right or remedy existing at the time of termination.

# D. Severability.

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof, and this Agreement shall be considered as if such invalid, illegal, or unenforceable provision had never been contained in this Agreement.

# E. Assignment; Binding Effect.

Neither party may assign this Agreement without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors, and, where permitted, assigns.

# F. General.

All references in this Agreement to sections and other subdivisions refer to corresponding sections and other subdivisions of this Agreement unless the context indicates otherwise. Titles appearing at the beginning of any such sections or subdivisions are for convenience only and shall not constitute part of such sections or subdivisions and shall be disregarded in construing the language contained in such sections or subdivisions. These words "this Agreement", "this instrument", "herein", "hereof", "hereby", "hereunder" and words of similar import refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited. Words in the singular form shall be construed to include the plural and vice versa, unless the context otherwise requires. Words in any gender (including the neutral gender) shall include any other gender, unless the context otherwise requires. Examples shall not be construed to limit, expressly or by implication, the matter they illustrate. The word "includes" and its derivatives shall mean "includes, but is not limited to" and corresponding derivative expressions. The term "or" includes "and/or." All exhibits attached to this Agreement are incorporated herein by reference. No consideration shall be given to the fact or presumption that one party had a greater or lesser hand in drafting this Agreement. All references herein to "\$", "dollars", or other sums of money shall refer to U.S. Dollars. References in this Agreement to "business days" shall refer to days other than Saturdays, Sundays, or other days on which CITY offices are closed. Any references in this Agreement to "days" other than business days shall refer to calendar days. Time is of the essence of this Agreement. No delay or forbearance in asserting any right or enforcing any obligation under this Agreement shall constitute a waiver of such right or obligation.

# G. Authorization.

Each of the parties represents and warrants to the other that this Agreement has been duly authorized by all necessary corporate or governmental action on the part of the representing party and that this Agreement is fully binding on such party.

# H. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. It shall not be necessary for each party to sign each counterpart, and separate signature pages may be attached to any counterpart in order to make a complete

counterpart. For purposes of the execution of this Agreement or any amendment hereto or modification hereof,
a signature transmitted by facsimile, computer file or other electronic means shall be fully binding as an original
signature.

[Signature page follows]

EXECUTED by CITY and by CONTRACTOR on the respective dates set forth below to be effective as of the Execution Date.

CITY:	CITY OF REDONDO BEACH
	By:
	Date of Execution: JANUARY 19, 2021
APPROVED AS TO FORM:	ATTEST:
By:Printed Name: MICHAEL W. WEBB Title: CITY ATTORNEY	By: Printed Name: <u>ELEANOR MANZANO</u> Title: <u>CITY CLERK</u>
CONTRACTOR:	PETDATA, INC.  DocuSigned by:  Livis Kickey  12FB494C6A40480
	Chris Richey
	Printed Name: CEO
	1/12/2021   12:38 PM PST Date of Execution:

# **EXHIBIT A Description of Services**

This exhibit is attached to and a part of the above and foregoing Agreement for Animal Licensing Services (Agreement). Terms used in this exhibit that are not defined in this exhibit but which are defined elsewhere in the Agreement shall have the respective meanings given to them in the other provisions of the Agreement. In the event of any conflict between any of the provisions of this exhibit and the other provisions of the Agreement, the other provisions of the Agreement shall control.

# CONTRACTOR RESPONSIBILITIES

- 1. Process License Applications
  - A. Receive and process animal license applications through the mail.
  - B. Provide online licensing and process applications initiated through CONTRACTOR's website.
  - C. Enter new and renewal license applications into CONTRACTOR's proprietary database.
  - D. Deposit, or transmit for deposit, all receipts collected for license fees, with the exception of those payments made via credit card, into a Bank Account.
  - E. Mail license tags within 10 business days after receipt of payment and complete documentation as required by local ordinance and/or CITY policy.
  - F. Update license information in CONTRACTOR'S database and issue replacement tags as needed.
  - G. If CONTRACTOR collects any payments due CITY from Licensees via credit card transactions that are paid to CONTRACTOR, those payments will be deposited, or transmitted for deposit, into a Bank Account within 15 business days after the end of the calendar month in which collected.

# 2. Mail License Notices

- A. Mail renewal and reminder notices for expiring animal licenses. Renewal notices will be mailed in the month prior to the license expiration date, or as otherwise agreed upon between CONTRACTOR and CITY.
- B. Mail billing notices to pet owners who have vaccinated a pet against rabies but have not licensed, if CITY collects rabies vaccination reports from veterinarians.
- 3. Customer Service for Licensing Program
  - A. Provide customer service to pet owners via phone, email and mail, and respond to requests in a timely fashion.
  - B. Provide customer service to CITY staff, and respond to CITY requests in a timely fashion.
  - C. Provide online access to licensing data to appropriate personnel via CONTRACTOR's proprietary website, at no additional charge.
- 4. Manage Reports from Authorized Registrars and Veterinary Clinics
  - A. Process and enter license sales records from any registrars and veterinary clinics authorized to sell animal licenses.
    - 1) Track tag inventories at all authorized registrars, and reconcile reports.
    - 2) Invoice authorized registrars for licenses sold in the event Veterinary Clinics sell licenses.

- B. Process and enter rabies vaccination records from local veterinary clinics in the event it is required by CITY ordinance.
- C. Follow up with delinquent clinics and registrars and report delinquent clinics and registrars to CITY in the event subsection B applies.
- 5. Provide veterinarians and other authorized registrars with reasonable quantities of supplies (reporting forms, applications or vaccination certificates, citizen mailing envelopes, etc.) necessary to sell license tags and/or report rabies vaccinations to CONTRACTOR. Supplies are to be printed in one color with the design and layout to be determined by CONTRACTOR.

# 6. Reporting to CITY

- A. Send reports to CITY within 15 business days after the end of each month including the number of licenses sold at each location.
- B. Provide statistical reports to CITY as requested within a timely manner. CONTRACTOR shall provide the reports within five business days. However, CONTRACTOR may request an extension; provided, however, that the reports shall be provided no later than thirty days.
- C. Process donations on behalf of CITY when a donation is made with the purchase of a license, if CITY requests donations be collected.
- D. Provide an online tag search to the public if CITY provides a written request to have CONTRACTOR's online tag search enabled.

### **CITY RESPONSIBILITIES**

- Purchase license tags to CONTRACTOR's specifications and ship them to CONTRACTOR. CONTRACTOR recommends that tags be shipped directly from tag vendor to CONTRACTOR to reduce shipping costs.
- 2. Report CITY license sales electronically or by mail at least monthly by the 10th calendar day of the month for the prior month's sales.
- 3. Give CONTRACTOR at least 30 days' notice of license fee or ordinance changes in accordance with Section 12.B of the Agreement.
- 4. Respond to CONTRACTOR inquiries in a timely fashion.
- 5. Provide feedback to CONTRACTOR regarding program and customer matters.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/08/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed.

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<b>StateFarm</b> Mike Baker				PHONE 214_780_0000 FAX 214_780_0000						
2100 Valley View Ln Ste 425				E-MAIL jen wierzha m5je@statefarm.com						
(	Dallas, TX 75234				INSURER(S) AFFORDING COVERAGE NAIC #					
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	SCRIPTION OF OPERATIONS / LOCATIONS / VE	HICLES (	ACOR	D 101, Additional Remarks Schedu	ıle, may b	e attached if mor	re space is requir	red)		
Pet	t licensing									
CERTIFICATE HOLDER  City of Redondo Beach 415 Diamond St				CANO	CELLATION					
				SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE						

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# Animal Licensing Presentation City of Redondo Beach, California

Ann Campbell
Sales and Marketing Director
acampbell@petdata.com



Over 25 years experience providing turnkey animal licensing services



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- Customized website
- Customized phone greeting
- Professional call center
- PetLicense Online Licensing
- Process rabies vaccination data.



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- → PCI/CISP Compliant
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# PetData Handles All the Details for our Clients

- Each year, PetData mails nearly 2.2 million items.
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- PetData processes all licenses, and issues license tags and/or receipts.
- PetData Customer Service staff handles nearly 60,000 emails and over 90,000 calls each year.
- PetData reports license sales activity monthly.
- PetData provides the City with 24/7 secure access to data via PetAccess.
- City of Redondo Beach retains ownership of data.





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Save Money.
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Ann Campbell Sales and Marketing Director acampbell@petdata.com



# Administrative Report

N.2., File # 21-1957 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKS DIRECTOR

# TITLE

DISCUSSION AND POSSIBLE ACTION REGARDING THE DESIGN ALTERNATIVES FOR MANHATTAN BEACH BOULEVARD - AVIATION BOULEVARD TO INGLEWOOD AVENUE PROJECT, JOB NO. 41190

# **EXECUTIVE SUMMARY**

The current Capital Improvement Program ("CIP") includes \$1,718,681 in available funds for the design and construction of the Manhattan Beach Boulevard Resurfacing - Aviation Boulevard to Inglewood Avenue Project, Job No. 41190 ("Project"). The Project will provide street improvements, including repaving and restriping design, along Manhattan Beach Boulevard from Aviation Boulevard to Inglewood Avenue, approximately 1 mile in length. In addition, the Project will also include traffic signal modification design at the intersection of Manhattan Beach Boulevard and Dow Avenue, landscaping and irrigation design for the existing raised center medians and frontage road median between Gibson Place and McBain Avenue. A major objective of the project is to install an appropriate bicycle facility for this corridor, as called for in the South Bay Bicycle Master Plan. The conceptual designs presented tonight will show some alternatives to achieve that objective.

# **BACKGROUND**

Manhattan Beach Boulevard is one of the primary east-west roadways in north Redondo Beach. Being classified as a principle arterial roadway, Manhattan Beach Boulevard's location between two major north-south arterials (Aviation Boulevard and Inglewood Avenue) serves as a major connector roadway to the Redondo Beach Performing Arts Center and commercial centers to the north and residential areas to the south. In its current condition, Manhattan Beach Boulevard provides 2 travel lanes in the eastbound direction, 2-3 travel lanes in the westbound direction, landscaped raised center medians, and protected left-turn pockets along the roadway segment.

On July 7, 2020, the City Council awarded a professional service contract to Cannon Corporation, Inc. (Cannon) for Cannon and City staff have been working closely to determine the appropriate roadway modification alternatives to implement an appropriate bicycle facility. Currently there are two bicycle facility alternatives proposed, Bicycle Facility Alternative 1 and 2A/B for the Council's consideration.

Previously, the design alternative for the Project included a Class II bicycle facility only, however, following initial discussions with Cannon, it was determined that a potential Class IV bike lane

N.2., File # 21-1957 Meeting Date: 1/19/2021

alternative can be installed if other lane modifications are made. This alternative can be constructed with several modifications to roadway geometry, namely, the removal of a westbound through lane and/or removal of on-street parking on portions of the eastbound corridor. Two conceptual design alternatives have been prepared. Each alternative is below with a brief description of associated modifications for consideration.

<u>Bike Facility Alternative 1</u> - Class II facility from Aviation Blvd to Inglewood Ave in both directions. Impacts due to this alternative include lane width reductions and the potential for significant median island width reduction to accommodate. This alternative proposes a standard Class II bike facility (unbuffered) that may be considered unfavorable given that the posted speed of Manhattan Beach Blvd is 40 mph and its designation as a truck route.

Bike Facility Alternative 2A - Class IV buffered bicycle facility throughout the entire westbound and about half of eastbound corridor between Aviation Blvd and Inglewood Ave. The westbound direction will accomplish this with removal of a westbound through lane. Currently the westbound direction has three through lanes and the eastbound direction has only two. Initial review of volumes has shown that a lane reduction in the westbound direction would not significantly impact traffic operations. Additional traffic analysis could be conducted for verification. In the eastbound direction, a Class II facility is proposed between Aviation Blvd. and Redondo Beach Avenue due to existing onstreet parking and Class IV bike facility is proposed from Redondo Beach Ave to Inglewood Avenue. The Class II facility portion is unbuffered. Impacts associated with this alternative include potential traffic flow and operations impacts and minor median island width reduction to accommodate minimum lane widths.

<u>Bike Facility Alternative 2B</u> - Class IV buffered bicycle facility throughout the entire segment between Aviation Blvd and Inglewood Ave in both directions. In addition to the Class IV improvements described in Alternative 2A, this alternative includes a Class IV facility in the eastbound direction between Aviation Blvd. and Redondo Beach Avenue. This enhancement, from Class II to Class IV for this segment would require removal of on street parking in this segment. The parking in this area is well used and its loss would not be without felt impacts. It is presented so that the most favored bike facility can be considered in this section of the eastbound corridor. Additional impacts associated with this alternative include potential traffic flow and operations impacts, minor median island width reduction to accommodate minimum lane widths.

Cannon has completed the field survey, and are awaiting a decision on the final roadway geometrics based on the preferred bicycle facility before moving forward with the remaining design. Once the roadway alignment is determined with a decision about the bike facility, more detailed design can continue. The Project involves street surface improvements, including repaving and restriping design, ADA curb ramp upgrades, curb and gutter repairs, cross-gutter repairs, and sidewalk repairs, as necessary, for approximately 1 mile of Manhattan Beach Boulevard between Aviation Blvd and Inglewood Ave.

Also included will be traffic signal modification design plans for the intersection of Manhattan Beach Boulevard and Dow Avenue. The Project will provide a protected left-turn phase along the east and westbound directions of Manhattan Beach Blvd and upgrade traffic signal equipment and pole N.2., File # 21-1957 Meeting Date: 1/19/2021

locations to accommodate the proposed design. The inclusion of a protected left turn lane will allow for u-turns to be permitted at this intersection. The addition of a u-turn possibility at this intersection will serve as the legal alternate for those now making illegal u-turns from the westbound direction at Gibson Place, an issue that surfaced in the recently completed Dow/Johnson traffic calming study.

Landscaping and irrigation design will also be provided for the Project. The design will look into modifications within the existing raised center medians and frontage road median. Currently, minor preliminary work has been completed, including initial discussions with West Basin regarding their interest in the addition of a recycled water (purple pipe) main line for the landscaping within the median and services to other customers. This portion of the Project, similar to the traffic signal design portion, would require roadway geometrics design to be finalized before proceeding.

# COORDINATION

Public Works Department - Engineering Services Division staff has coordinated with Cannon to determine alternatives for the project.

# **FISCAL IMPACT**

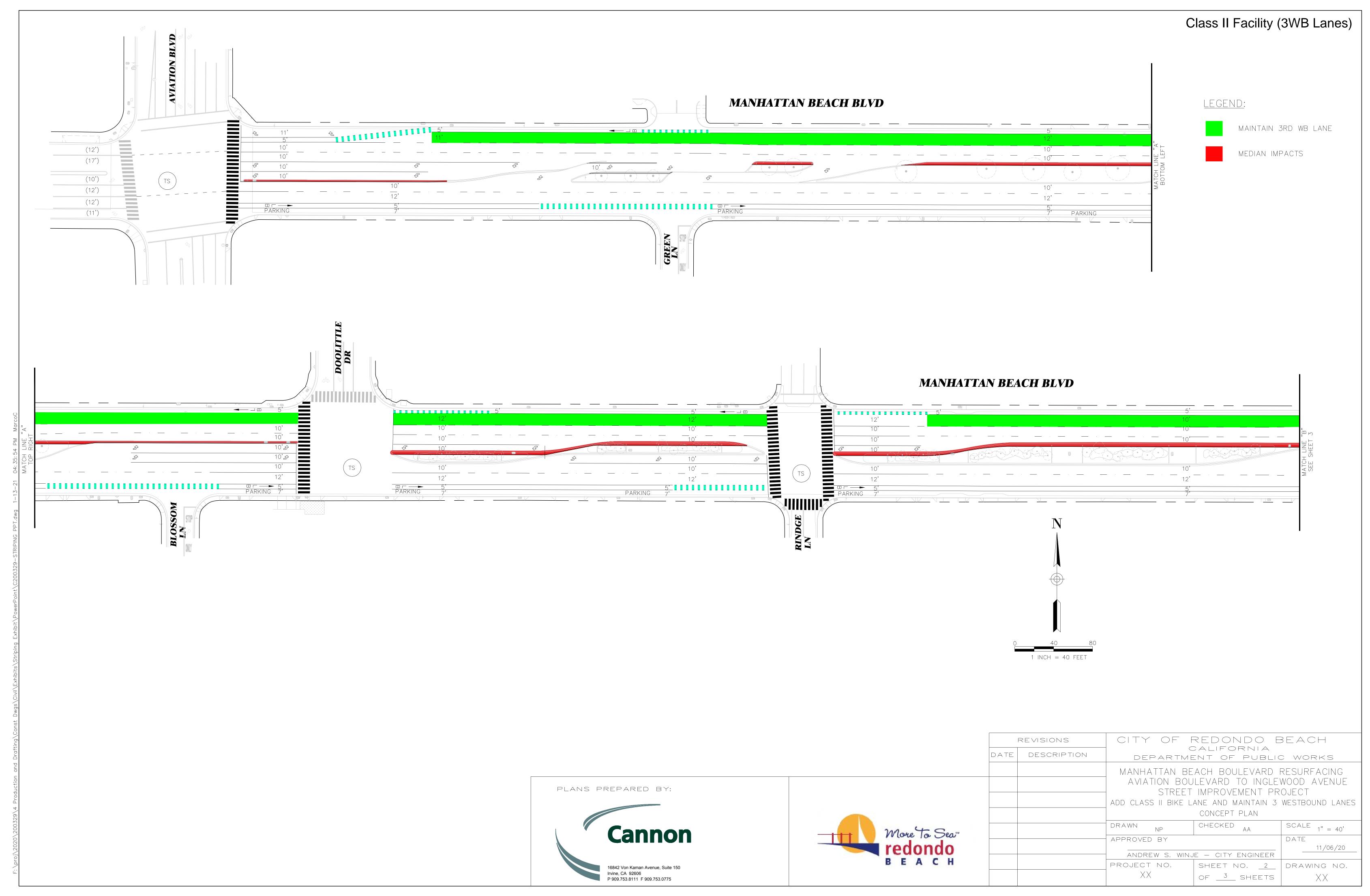
Funding		Estimated Expenditures	
State Gas Tax	\$ 900,000	Design	\$ 142,290
Prop C	\$ 672,000	Construction	<b>\$1,576,391</b>
CIP Fund -		TOTAL	\$1,718,681
Assess. 92-1 District	<u>\$ 146,681</u>		
TOTAL	\$1,718,681		

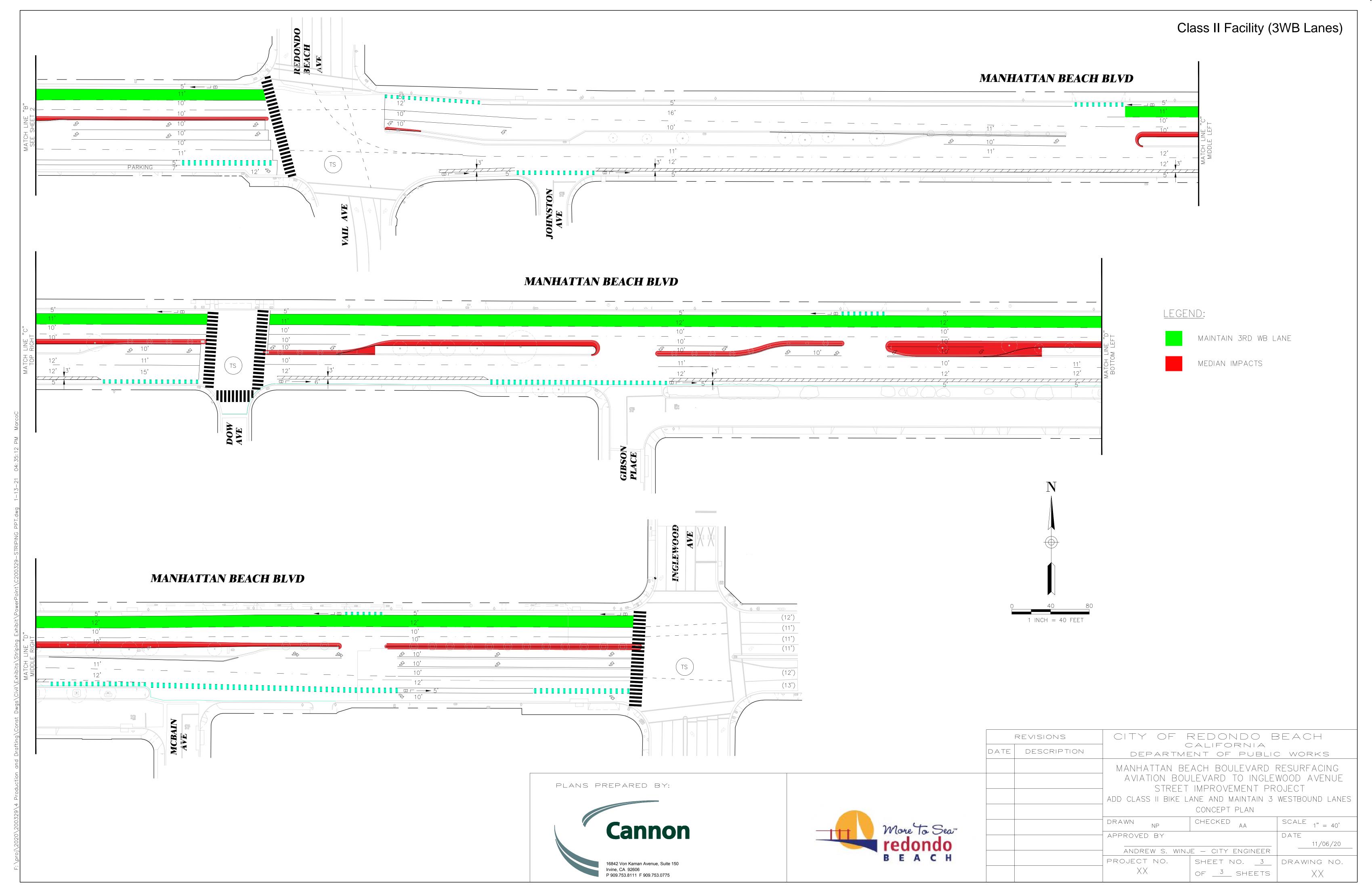
# **APPROVED BY:**

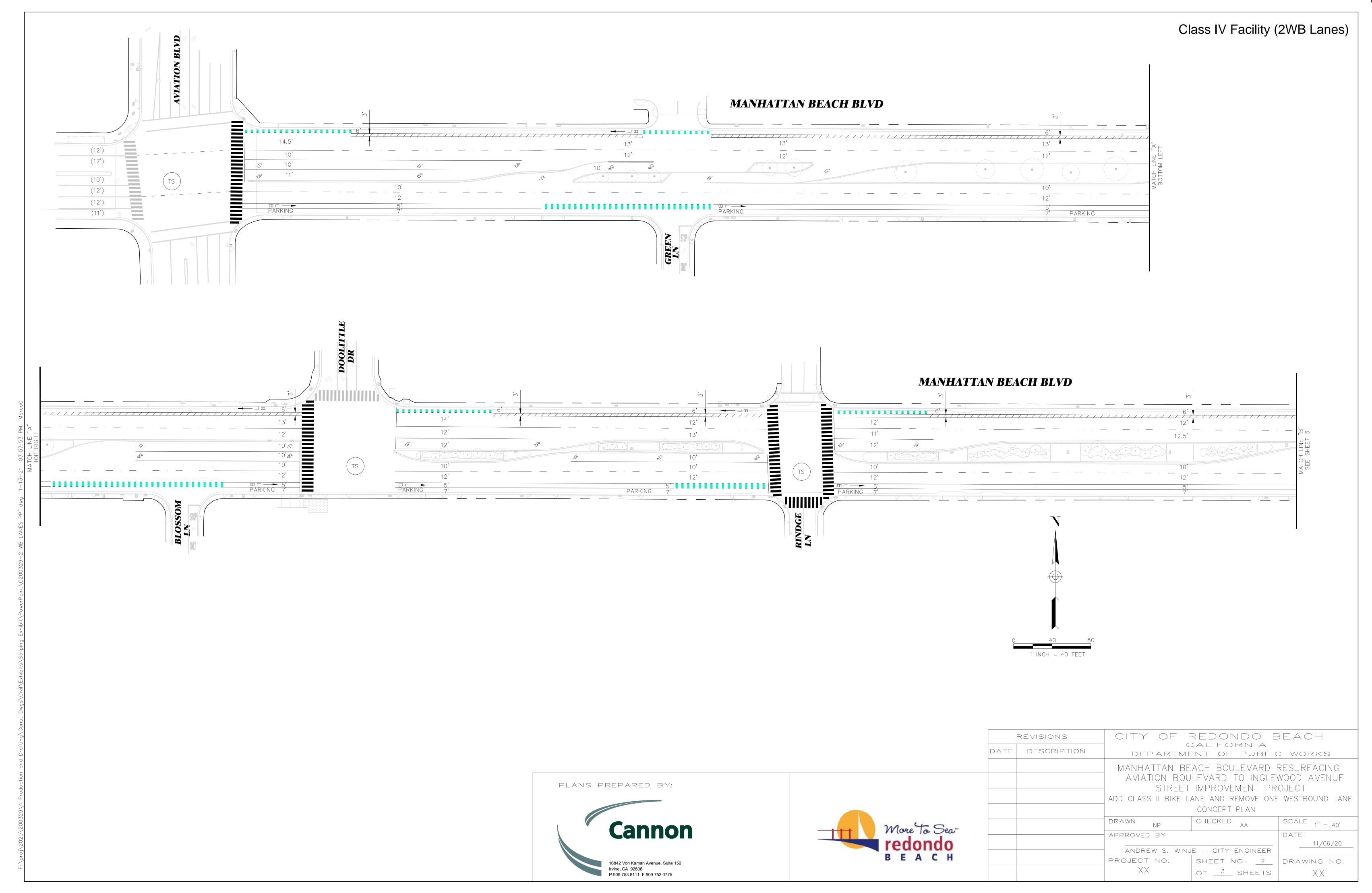
Joe Hoefgen, City Manager

# **ATTACHMENT**

Cannon Concept Design Exhibits





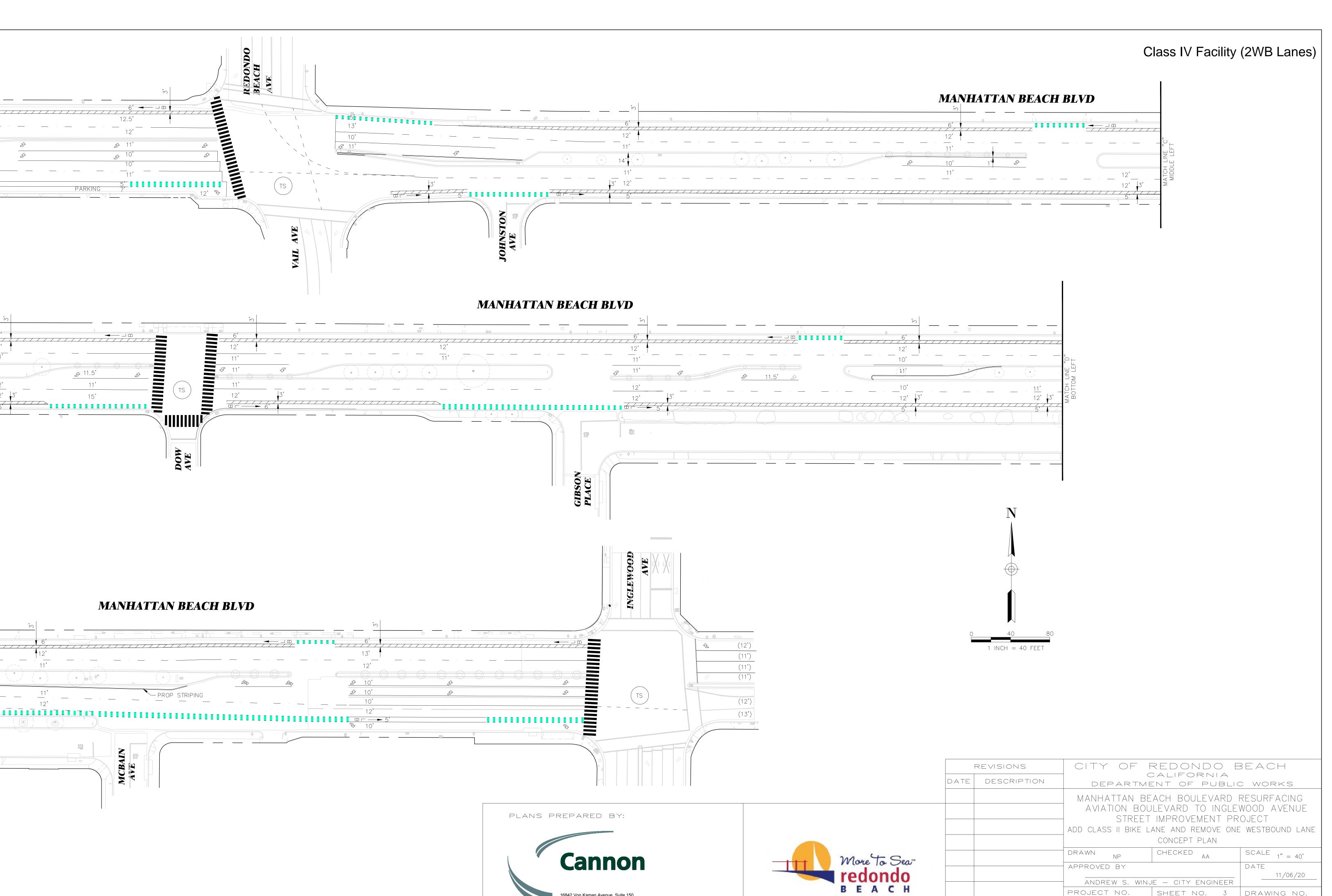


SHEET NO. 3 DRAWING NO.

of 3 SHEETS

PROJECT NO.

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16842 Von Kaman Avenue, Suite 150 Irvine, CA 92606 P 909.753.8111 F 909.753.0775



# Administrative Report

N.3., File # 21-1911 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: MARNI RUHLAND, FINANCE DIRECTOR

# **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING THE BUDGET AND FINANCE COMMISSION'S REQUEST FOR PREPARATION OF A WORKERS' COMPENSATION STUDY FOR THE FIRE DEPARTMENT

# **EXECUTIVE SUMMARY**

The attached letter from the Budget and Finance Commission to the City Council requests the preparation of a workers' compensation study for the Fire Department specifically.

# **BACKGROUND**

At its December 15, 2020 meeting, the City Council voted (by a 4-1 vote with Councilwoman Emdee voting no) to bring as a discussion item the Budget and Finance Commission's request for the preparation of a workers' compensation study for the Fire Department specifically.

The Budget and Finance Commission has received information regarding the City's Self-Insurance Program Fund in both the context of the County Fire Feasibility Study and the fund's negative fund balance. They have been able to discuss this information with staff, the City's third-party administrator, and the actuary who annually prepares the studies of the liability and workers' compensation self-insurance programs. From these discussions, the Commission has learned that the actuary could prepare a workers' compensation study for the Fire Department specifically. In the attached letter, they are requesting City Council's approval to have the study prepared.

Should the City Council direct the preparation of the study, the contract with Glicksman Consulting would need to be amended and a budget amendment for the \$1,500 cost would need to be made.

# COORDINATION

Preparation of a workers' compensation study for the Fire Department specifically would be coordinated by the Financial Services and Human Resources Departments. The resulting study would be presented to the Budget and Finance Commission.

# **FISCAL IMPACT**

The cost of a workers' compensation study for the Fire Department specifically would be \$1,500.

# APPROVED BY:

N.3., File # 21-1911 Meeting Date: 1/19/2021

Joe Hoefgen, City Manager

# **ATTACHMENTS**

Budget and Finance Commission Letter to the City Council



**Budget and Finance Commission** 

415 Diamond Street, P.O. Box 270 Redondo Beach, California 90277-0270 www.redondo.org tel 310 318-0683 fax 310 937-6666

November 24, 2020

Honorable Mayor Brand and Members of the City Council City of Redondo Beach 415 Diamond Street Redondo Beach, California 90277

SUBJECT: Budget and Finance Commission Request for Direction Regarding the Fire Department's Workers' Compensation Internal Service Fund Allocations

Dear Mayor Brand and City Council Members:

In response to the Mayor and City Council's August 20, 2019 referral that the Budget and Finance Commission take a "deep dive" into the Fire Department's worker's compensation internal service fund allocations as it relates to the fiscal impact of the County Fire Feasibility Study, the Commission discussed this topic with staff and the City's third-party workers' compensation administrator at its October 10, 2019 meeting.

The Commission was unable to determine at this meeting if staff's Comparison (over a tenyear period) of City's Adjusted Cost to County's Option B Proposal gave an accurate portrayal of future workers' compensation costs should the City move to County fire services. Therefore, we would appreciate the City Council's direction regarding further pursuing this matter. At its November 12, 2020 meeting, the Commission received a presentation from the actuary who prepared the City's annual liability and workers' compensation self-insurance programs. If agreeable with the City Council, a request could be made of that actuary for the preparation of a workers' compensation study for the Fire Department specifically. The cost of the study would be \$1,500. We believe it's in the City Council's best financial interest to approve this expenditure. Such a study would provide the Commission with the information necessary to determine the accuracy of staff's forecasted workers' compensation costs used in calculating the fiscal impact of the County Fire Feasibility Study and to then relay that determination to you.

Thank you in advance for providing direction in this matter.

Regards.

Jason Conrov

Chair, Redondo Beach Budget and Finance Commission

cc: M. Ruhland, J. Hoefgen, E. Manzano



# Administrative Report

N.4., File # 20-1223 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: TED SEMAAN, PUBLIC WORKS DIRECTOR

# **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING POTENTIAL MUNICIPAL CODE CHANGES FOR SALE, USE AND DISTRIBUTION OF BALLOONS

# **EXECUTIVE SUMMARY**

On January 7, 2020, the City Council introduced the first reading of Ordinance No. 3201-20 amending Chapter 10, Title 5 of the Redondo Beach Municipal Code, to disallow use of certain polystyrene and single use plastic products and to prohibit the release of helium filled balloons ("Ordinance"). On January 14, 2020, the City Council introduced and approved the second reading of the new Ordinance, thereby adopting the new Ordinance effective on February 13, 2020. As part of the action on January 14, 2020, the City Council finalized their discussion regarding plastics but requested staff return to continue the discussion on the regulations associated with helium filled balloons. On August 4, 2020, the City Council again discussed balloon regulations and requested staff to return in January 2021 for further discussion. This item is prepared in response to a referral to staff to bring the balloon conversation back to the Council for additional discussion.

Besides the plastics regulations, the Ordinance includes a single provision that prohibits any person from releasing any balloon (foil, "metalized", Mylar, latex, etc.) filled with helium from anywhere within City limits. However, several other regulations were discussed in regards to balloons but Council deferred that discussion to a later date. Staff recommends that the Council continue their discussion and provide staff with any further direction regarding the sale, use and distribution of balloons in the City.

# **BACKGROUND**

In response to a strategic plan objective to address pollution issues created by plastic pollution and balloons that have raised environmental and health concerns related to water pollution, the welfare of marine life, and human health, in 2019 the City Council directed staff to prepare a draft ordinance using the City of Manhattan Beach's ordinance as the base. The City Council adopted Ordinance No. 3201-20 on January 14, 2020 to help reduce single-use waste, reduce greenhouse gas emissions, reduce the distribution of disposable single-use plastic, reduce polystyrene use and litter, keep plastic waste from landfills, and reduce balloon litter threats to natural ecosystems and ocean wildlife, in order to protect the health of the community and promote environmentally sustainable practices in the City. The portion of the ordinance dealing with the plastics ban became enforceable six months after the effective date of the ordinance, on August 13, 2020.

N.4., File # 20-1223 Meeting Date: 1/19/2021

Per Council's January 14, 2020 direction on language associated with a balloon ban, the final Ordinance prohibits any person from releasing any balloon (foil, "metalized", Mylar, latex, etc.) filled with helium from anywhere within City limits. City Council's directed regulations associated with balloons are shown below. Per the language and effective dates included in the Ordinance, the ban on releasing any balloon filled with helium from anywhere within City limits will take effect and be enforced one year from the effective date on February 13, 2021.

January 14, 2020 - Balloon language as adopted in new Ordinance per City Council's direction and approved 2nd Reading:

Section 6. Amendment of Code. Title 5, Chapter 10, Section 5-10.05 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.05 Regulations on the prohibition of the release of helium filled balloons.

No person shall release any balloons filled with helium anywhere within the City limits."

As part of the action on January 14, 2020, the City Council finalized their discussion regarding plastics but requested staff return to continue the discussion on the regulations associated with helium filled balloons. On August 4, 2020, the City Council again discussed balloon regulations and requested staff to return in January 2021 for further discussion; specifically discussing the balloon regulations as adopted by Manhattan and Hermosa Beach. The balloon language shown below is the same language included in both Manhattan Beach and Hermosa Beach's ordinances, with one exception, Hermosa Beach added "gases lighter than air" to cover a broader range of gas that could potentially be used to fill a balloon and is shown in the language below.

Manhattan Beach and Hermosa Beach Balloon Regulations:

# Definitions:

- ➤ "Balloon" means a flexible bag, including, but not limited to, those made from rubber, latex, foil, metal, polychloroprene, Mylar, or nylon fabric, that is designed to be inflated with air or gas lighter than air such as helium, hydrogen, nitrous oxide, or oxygen, causing it to float.
- ➤ "Foil Balloon" includes but is not limited to balloons that are made of "metalized" nylon film, and include balloons often referred to as made of Mylar, which is a brand name for a special type of polyester film. Foil or metallic balloons are made of plastic (nylon) sheets coated with polyethylene and metallic materials that are sealed together with heat.
- ➤ "Latex Balloon" is a balloon made with the sap from a rubber tree which during the manufacturing process many chemicals are added to the raw rubber including pigments, oils, curing agents, and accelerators.

N.4., File # 20-1223 Meeting Date: 1/19/2021

# Ordinance Language:

Regulation on the sale, distribution, and use of balloons; Prohibition of the sale, distribution, and use of "foil," "metalized," or "Mylar" Balloons; Prohibition on the release of Latex balloons.

- A. No Person, including but not limited to a balloon wholesaler, retailer (e.g., party supply, craft store), or third party Vendor shall sell or distribute Foil Balloons or "metalized" or Mylar Balloons within the City either as a separate item or included in a packaged product set.
- B. No Person shall use or distribute Foil Balloons or "metalized" or Mylar Balloons on public property, including parks and beaches.
- C. No Person shall use or distribute Latex Balloons filled with air, helium or lighter than air gas at any City function or City sponsored event.
- D. No Person shall release Latex Balloons filled with air, helium or lighter than air gas anywhere within the City limits.

# **Existing State-wide Regulations:**

In 1990 the California State Legislature passed SB 1990, enacting a Balloon Law to regulate the sales and use of helium-filled foil balloons. Balloons often end up where they are not supposed to be, and that can cause serious problems in our communities. The law was passed in an effort to reduce power outages due to metalized (mylar) or foil balloons. SB 1990 prohibits the sale or distribution of a balloon that is constructed of electrically conductive material (metallized Mylar or foil) and filled with helium, without affixing an object of sufficient weight to the balloon to counter the lift capability, affixing a specified warning statement on the balloon, and affixing a printed identification of the balloon's manufacturer. The law also prohibits a person from selling or distributing a balloon filled with helium that is attached to an electrically conductive string, tether, streamer, or other electrically conductive appurtenance, or attached to another balloon.

Although the law was put into effect in 1990, the issue of foil balloons being a hazard resurfaced in 2008. In 2008, Senator Jack Scott proposed Senate Bill 1499 to ban the sale of all foil balloons by the year 2010 due to the increased number of power outages. Opponents to SB 1499 included florists, special-event planners, and small businesses, who said the bill could cost them \$100 million, which could translate to loss of as much as \$80 million in tax revenues for the state. Due to strong opposition by numerous groups, this bill was amended to require notification of potential power outages on all balloon weights and directed research to identify a cost-effective, consumer-friendly substitute for metallic balloons. The bill was vetoed by Governor Schwarzenegger in September 2008. Assembly Bill 2450, approved by former Governor Jerry Brown in September 2018, requires a person who manufactures a balloon that is constructed of electrically conductive material to permanently mark each balloon with the identity of the manufacturer and a printed statement that warns the consumer about the dangerous risk of fire if the balloon comes in contact with an electrical power line.

N.4., File # 20-1223 Meeting Date: 1/19/2021

According to Paul Netter, Southern California Edison Spokesman, there were 1,128 known metallic-balloon-caused outages in year 2019, and average of 3 per day. These power outages affect thousands of customers statewide and are costly to repair. An example of the impact caused by mylar balloons coming in contact with powerlines occurred during the recent January 12, 2021 City Council meeting when a power outage occurred requiring the operation of the City's backup emergency generator. SCE has reported that three transformers exploded in south Hermosa Beach due to mylar balloons getting tangled on local powerlines. The outage impacted 9,609 SCE customers, both residential and commercial. The outage began at 8:42 pm and the effected circuit corrected itself quickly so most customers were only impacted for one minute; however, the remaining 1,700 customers weren't restored for an hour. Being without power for one hour may not be a big inconvenience for some, but for many, this is a very serious and frightening occurrence.

Staff is seeking direction from City Council regarding potential ordinance language, if changes to the municipal code is desired. Staff would return at a future date with an ordinance of additional balloon regulations ready for a first reading.

# COORDINATION

This information contained in this report was collected and coordinated by the City Attorney's Office and the Department of Public Works.

# **FISCAL IMPACT**

Besides Staff time required to develop the Ordinance, there is no direct fiscal impact to the City associated with the recommended action.

# APPROVED BY:

Joe Hoefgen, City Manager

# **ATTACHMENTS**

Ordinance No. 3201-20

#### **ORDINANCE NO. 0-3201-20**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, ADDING MUNICIPAL CODE CHAPTER 10 TO TITLE 5 TO DISALLOW THE USE OF POLYSTYRENE AND SINGLE-USE PLASTIC PRODUCTS AND CERTAIN BALLOONS IN THE CITY OF REDONDO BEACH

WHEREAS, on September 17, 2019 the City Council of the City of Redondo Beach ("City") directed staff to draft an ordinance prohibiting the use of polystyrene products by food vendors, including single-use disposable products and the sales and use of certain types of balloons; and

WHEREAS, Balloons and plastic pollution raise environmental and health concerns related to water pollution as well as the welfare of marine and human life; and

WHEREAS, the California legislature has declared that littered plastic products have cause and continue to cause significant environmentals harm; and

WEHREAS, it is the intent of this Ordinance to improve the environmental health of the City and to reduce the impact of polystyrene, single-use plastic products and certain balloons on the environment.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION 1. CEQA Finding. This Ordinance is exempt from the environmental review requirements of the California Environmental Quality Act ("CEQA") pursuant to Section 15061(b)(3) of Title 14 of the California Code of Regulations because it can be seen with certainty that there is no possibility that the activity in question may have a significant impact on the environment. Further, the proposed Ordinance is exempt from CEQA on the separate and independent ground that it is an action of a regulatory agency for the protection of the environment because it regulates products that harm the environment. As such, this Ordinance is categorically exempt from the requirements of CEQA under Section 15308 of Title 14 of the California Code of Regulations as an action by a regulatory agency for the protection of the environment.

SECTION 2. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.01 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.01 Purpose



Redondo Beach enacts this Chapter in order to address pollution issues created by Balloons and plastic pollution. Balloons and plastic pollution, including single-use plastics and polystyrene, have raised environmental and health concerns related to water pollution, the welfare of marine life, and human health. These regulations reduce single-use waste; reduce greenhouse gas emissions; reduce the distribution of disposable single-use plastic; reduce polystyrene use and litter in the City; keep plastic waste from landfills; and reduce balloon litter threats to natural ecosystems and ocean wildlife, in order to protect the health of the Redondo Beach community and promote environmentally sustainable practices in the City.

SECTION 3. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.02 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.02 Definitions

As used in this chapter, unless the context otherwise clearly indicates, the words and phrases are defined as follows:

- (1) "Affected retail establishment" means any retail establishment located within or doing business within the geographical limits of the City.
- (2) "ASTM Standard Specification" means Standard Specification for Compostable Plastics D6400 or Standard Specification for Biodegradable Plastics D6868 as certified by the Biodegradable Products Institute (BPI), as adopted or subsequently amended by the American Society for Testing and Materials (ASTM).
- (3) "Balloon" means a flexible bag, including, but not limited to, those made from rubber, latex, foil, metal, polychloropene, Mylar, or nylon fabric, that is designed to be inflated with air or gas lighter than air such as helium, hydrogen, nitrous oxide, or oxygen, causing it to float.
- (4) "Beverage provider" means any business, organization, entity, group, or individual that offers liquid, slurry, frozen, semi-frozen, or other forms of beverages to the public for consumption. Beverage provider also includes any organization, group or individual that regularly provides beverages to its members or the general public as a part of its activities or services.
- (5) "BPI" or Biodegradable Products Institute is a multi-stakeholder association of key individuals and groups from government, industry, and academia, which promotes the use, and recycling of biodegradable polymeric materials (via composting). The BPI is open to any materials and products that demonstrate that they meet the requirements in ASTM D6400 or D6868, based on testing in an approved laboratory.
- (6) "City contractor" means any person that enters into an agreement with the City to furnish products or services to or for the City.



- (7) "City facility" means any building, structure, property, park, open space, or vehicle, owned or leased by the City, its agents, agencies, or departments.
- (8) "City-sponsored event" means any event, activity or meeting organized or sponsored, in whole or in part, by the City or any department of the City.
- (9) "Compostable" means all the materials in the product or package that will break down, or otherwise become part of usable compost (soil-conditioning material, mulch), such as paper and certified compostable plastics that meet the American Society for Testing and Materials (ASTM) standard specifications for compostable plastics D6400 or biodegradable plastics D6868 for compostability, as certified by the Biodegradable Products Institute (BPI).
- (10) "Customer" means any person obtaining goods from an affected retail establishment, vendor or non-profit vendor.
- (11) "Disposable food service ware" or "disposables" means single-use, disposable products used for serving, consuming or transporting prepared food and, raw food, or beverages, including, but not limited to, plates, bowls, trays, wrappers or wrapping, platters, cartons, condiment containers, cups or drink ware, straws, lids, utensils, stirrers, lid plugs (splash sticks), or any container in or on which prepared food and, raw food, or beverages are placed or packaged for consumption.
- (12) "Foil balloon" includes but is not limited to balloons that are made of "metalized" nylon film, and include balloons often referred to as made of Mylar, which is a brand name for a special type of polyester film. Foil or metallic balloons are made of plastic (nylon) sheets coated with polyethylene and metallic materials that are sealed together with heat.
- (13) "Food provider" means any person or establishment that provides or sells prepared food or raw food or beverages within the City to the general public to be consumed on the premises or for take-away consumption. Food provider includes but is not limited to: (1) a grocery store, supermarket, restaurant, drive-thru, cafe, coffee shop, snack shop, public food market, farmers' market, convenience store, or similar fixed place where prepared food or raw food or beverages is available for sale on the premises or for take-away consumption; and (2) any mobile store, food vendor, caterer, food truck, vending machine or similar mobile outlet. Food provider also includes any organization, group or individual that regularly provides prepared food or raw food or beverages to its members or the general public as a part of its activities or services. Food provider also means any school in the Redondo Beach Unified School District.
- (14) "Grocery store" means any dealer in staple foodstuffs, meats, produce and dairy products and usual household supplies.



- (15) "Latex balloon" is a balloon made with the sap from a rubber tree. During the manufacturing process many chemicals are added to raw rubber including pigments, oils, curing agents and accelerators.
- (16) "Meat and fish tray" means a tray for raw meat, fish, or poultry sold to consumers from a refrigerator case or similar retail appliance.
- (17) "Non-profit vendor" means a recognized tax-exempt organization which provides goods as a part of its services.
- (18) "Plastic beverage straw" means a tube made predominantly of plastic derived from either petroleum or a biologically-based polymer, such as corn or other plant sources, used to transfer a beverage from its container to the mouth of the drinker. Plastic beverage straw includes compostable, petroleum-based or a biologically-based polymer straw, but does not include straws that are made from non-plastic materials, including, but not limited to, paper, pasta, sugar cane, wood, bamboo, metal, or glass.
- (19) "Plastic stirrer" means a plastic device that is used to mix beverages and/or plug the opening of a beverage lid, and intended for only one-time use. Plastic stirrer includes compostable, petroleum-based, or a biologically-based polymer stirrers and lid plugs (splash sticks), but does not include stirrers that are made from non-plastic materials, including, but not limited to, paper, pasta, sugar cane, wood, bamboo, metal, or glass.
- (20) "Plastic utensil" means any plastic utensil, including, but not limited to, forks, spoons, sporks, knives, cutlery, and disposable flatware intended for only one-time use. Plastic utensils include compostable, petroleum-based, or biologically-based polymer forms of utensils, but does not include forms of utensils that are made from non-plastic materials, including, but not limited to, paper, sugar cane, wood, bamboo, metal, or glass.
- (21) "Polystyrene" means a thermoplastic petrochemical material utilizing the styrene monomer, including, but not limited to, rigid polystyrene and expanded polystyrene, processed by any number of techniques, including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, expanded polystyrene molding, or extrusion-blow molding (extruded polystyrene), and clear or solid polystyrene (oriented polystyrene). The resin code for polystyrene is '6' or 'PS,' either alone or in combination with other letters. This definition applies to all polystyrene food service ware, regardless of whether it exhibits a resin code.
- (22) "Polystyrene cooler" means any cooler or ice chest made of polystyrene foam, where such foam is not fully encased in another material.
- (23) "Polystyrene food service ware" means disposable food service ware that contains or utilizes polystyrene.



- (24) "Polystyrene packing material" means polystyrene material used to hold, cushion, or protect items packed in a container for shipping, transport, or storage, including shipping boxes and packing peanuts.
- (25) "Prepared food" means any food or beverage that is: (1) ready to consume without any further food preparation, alteration or repackaging; and (2) prepared, provided, sold or served by a food provider using any cooking, packaging or food preparation technique. Prepared food may be eaten either on or off the food provider's premises.
- (26) "Produce tray" means any tray or carton for vegetable, fruit, or eggs sold to consumers from a refrigerator case or similar retail appliance.
  - (27) "Raw food" means any meat, fish, poultry, vegetable, fruit, or egg.
- (28) "Recyclable" means material that can be sorted, cleansed, and reconstituted using Redondo Beach's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.
- (29) "Resin code" means a resin identification code placed on plastics to identify the material composition for separation of different types of plastics for recycling.
- (30) "Retail establishment" means any commercial business facility that sells goods directly to the ultimate consumer including, but not limited to, grocery stores, pharmacies, liquor stores, "mini-marts," and retail stores and vendors selling clothing, food and personal items.
- (31) "Vendor" means any store, shop, restaurant, sales outlet, mobile food vendor, pushcart, or other commercial establishment located within or doing business within the City of Redondo Beach, which provides perishable or nonperishable goods."
- SECTION 4. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.03 is hereby added to the Redondo Beach Municipal code and shall read as follows:
- "Section 5-10.03 Prohibition of use, distribution, and sale of polystyrene food service ware and coolers.
- (a) No food provider or beverage provider shall distribute or sell any polystyrene food service ware in conjunction with the sale of prepared food or raw food or beverages at any location within the City.
- (b) No person shall sell any polystyrene food service ware or polystyrene cooler at any location within the City. Food providers and beverage providers that distribute prepared food or raw food or beverages in disposable food service ware shall: (1)



distribute only disposables that exhibit a resin code other than 'No. 6' or 'PS'; and (2) maintain documentation about the composition of the disposable food service ware. Documentation may include information from the supplier, manufacturer, or bulk packaging for the disposables, and any other relevant information demonstrating that the disposable material is not polystyrene.

- (c) No person shall distribute or sell prepared food or raw food or beverages in any polystyrene food service ware at City facilities that have been rented, leased or are otherwise being used with permission of the City. This subsection is limited to use of City facilities for which a Person has entered into an agreement with the City to rent, lease or otherwise occupy a City facility. All facility rental agreements for any City facility shall include a provision requiring contracting parties to assume responsibility for preventing the utilization and/or distribution of polystyrene food service ware while using City facilities. The facility rental agreement shall indicate that a violating contractor's security deposit will be forfeited if the City Manager or his designee determines that polystyrene food service ware was used in violation of the rental agreement.
- (d) No person shall use or distribute polystyrene food service ware at City-sponsored events, City-managed concessions and City meetings open to the public. This subsection shall apply to the function organizers, agents of the organizers, city contractors, food providers, beverage providers and any other person that enters into an agreement with one or more of the function sponsors to sell or distribute prepared food or raw food or beverages or otherwise provide a service related to the function.
- (e) The City, its departments, and its city contractors, agents, and employees acting in their official capacity, shall not purchase or acquire polystyrene food service ware, or distribute it for public use."
- SECTION 5. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.04 is hereby added to the Redondo Beach Municipal code and shall read as follows:
- "Section 5-10.04 Single-use plastic straws, stirrers and utensils prohibition; "upon-request" policy for non-plastic single use straws, stirrers and utensils.
- (a) Prohibition on single-use plastic. Food providers and beverage providers shall not use or distribute plastic beverage straws, plastic stirrers or plastic utensils, whether for use on-site, to-go, or delivery. Disposable straws, stirrers, and utensils must be non-plastic, made from non-plastic materials, such as paper, pasta, sugar cane, wood, or bamboo.
- (b) "Upon request" policy for non-plastic single use straws, stirrers and utensils. No food provider or beverage provider shall provide non-plastic, single-use straws, utensils or stirrers, except upon the request of the customer.



(c) Accommodations. Food providers and beverage providers, as well as City facilities, City-managed concessions, City-sponsored events, and City-permitted events, may retain and distribute plastic straws as an accommodation to people with disabilities who request them to enjoy equal access to food and beverage services within the City."

SECTION 6. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.05 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.05 Regulations on the prohibition of the release of helium filled balloons.

No person shall release any balloons filled with helium anywhere within the City limits."

SECTION 7. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.06 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.06 Extensions and exemptions.

- (a) The following are exempt from the provisions of this chapter:
- (1) Food prepared or packaged outside of the City, provided such food is not altered, packaged or repackaged within the City limits. This exemption does not apply to raw produce, meat, or eggs.
- (2) Coolers and ice chests, other than those defined as polystyrene coolers in this chapter.
- (3) Food brought by individuals for personal consumption to City facilities, including, but not limited to, City parks and the beach, provided the City facility is being used for individual recreation or similar purposes.
- (b) The City Manager or his/her designee may provide extensions of time for compliance or exempt any person from the requirements codified in this chapter, as follows:
- (1) A request for an extension or claimed exemption shall be filed in writing with the City Manager or his/her designee and shall include documentation of the reason for the requested extension or exemption and any other information necessary for the City to make its decision. The City may require the applicant to provide additional information as necessary to make the required determinations.
- (2) The City Manager or his designee may approve the extension or exemption for a maximum of one year, with or without conditions, upon finding that compliance would create an undue hardship. Undue hardship may include but not be limited to situations where:



- a. There are no reasonable alternatives for reasons that are unique to the applicant; or
- b. Compliance with the requirements codified in this chapter would deprive a person of a legally protected right. The extension or exemption may be extended for additional terms of up to one year each, upon a showing of the continuation of the legal right.
- (c) The City Manager's written decision on the extension or exemption is effective within ten (10) days of the decision.
- (d) Decisions of the City Manager may be appealed by the person applying for the extension or exemption to the City Council. Appeals shall be filed in writing with the City Clerk within ten (10) days of the decision and shall be accompanied by a fee set by resolution of the City Council. Notice of hearing shall be given to the applicant at least ten (10) days prior to the hearing. The City Council shall make its decision within sixty (60) days of receiving the appeal."
- SECTION 8. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.07 is hereby added to the Redondo Beach Municipal Code and shall read as follows:
- "Section 5-10.07 Effective Date of This Chapter
- (a) The provisions in Section 5-10.03 of this Chapter shall not take effect and may not be enforced until six (6) months after the effective date of this ordinance.
- (b) The provisions in Sections 5-10.04 and 5-10.05 of this Chapter shall not take effect and may not be enforced until one year (12 months) after the effective date of this ordinance."
- SECTION 9. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.08 is hereby added to the Redondo Beach Municipal Code and shall read as follows:
- "Section 5-10.08 Certification of compliance.

All businesses that are subject to this chapter shall certify compliance with this chapter on the annual business license renewal application."

SECTION 10. AMENDMENT OF CODE. Title 5, Chapter 10, Section 5-10.09 is hereby added to the Redondo Beach Municipal Code and shall read as follows:

"Section 5-10.09 Penalties

In addition to any other applicable civil or criminal penalty, any person convicted of a violation of this chapter is guilty of an infraction, which is punishable pursuant to the penalty provisions set forth in Section 1-2.02(b) of this Code."

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SECTION 11. INCONSISTENT PROVISIONS. Any provisions of the Redondo Beach Municipal Code, or appendices thereto, or any other ordinances of the City inconsistent herewith, to the extent of such inconsistencies and no further, are hereby repealed.

SECTION 12. SEVERANCE. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

SECTION 13. PUBLICATION AND EFFECTIVE DATE. This ordinance shall be published by one insertion in The Easy Reader, the official newspaper of said city, and same shall go into effect and be in full force and operation from and after thirty (30) days after its final passage and adoption.

## PASSED, APPROVED AND ADOPTED this 14th day of January, 2020.

Mayor William C. Brand

APPROVED AS TO FORM:

Michael W. Webb, City Attorney

ATTEST:

Eleanor Manzano, CMC City Clerk



STATE OF CALIFORNIA )
COUNTY OF LOS ANGELES ) ss
CITY OF REDONDO BEACH )

I, Eleanor Manzano, City Clerk of the City of Redondo Beach, California, do hereby certify that Ordinance No. O-3201-20 was introduced at a regular meeting of the City Council held on the 7th day of January, 2020, and approved and adopted by the City Council of the City of Redondo Beach, California, at a regular meeting of said City Council held on the 14<sup>th</sup> day of January, 2020, and there after signed and approved by the Mayor and attested by the City Clerk, and that said Ordinance was adopted by the following vote:

AYES:

NEHRENHEIM, LOEWENSTEIN, HORVATH, GRAN EMDEE

NOES:

NONE

ABSENT:

NONE

**ABSTAIN:** 

NONE

Eleanor Manzano, C

City Clerk



# Administrative Report

O.1., File # 21-1959 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: JOE HOEFGEN, CITY MANAGER

#### **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING THE CITY'S LOCAL EMERGENCY PERTAINING TO COVID-19

#### **EXECUTIVE SUMMARY**

A verbal update will be provided at the meeting.

#### APPROVED BY:

Joe Hoefgen, City Manager



# Administrative Report

P.1., File # 21-1952 Meeting Date: 1/19/2021

To: MAYOR AND CITY COUNCIL

From: BRANDY FORBES, COMMUNITY DEVELOPMENT DIRECTOR

#### TITLE

DISCUSSION AND CONSIDERATION OF RESOLUTIONS OPPOSING CALIFORNIA STATE SENATE BILL 9 AND SENATE BILL 10 RELATED TO RESIDENTIAL DEVELOPMENT AS THESE BILLS WOULD PREEMPT LOCAL REGULATIONS FOR HOUSING

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-009, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 9 (ATKINS) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING TWO RESIDENTIAL UNITS AND PARCEL MAP DIVIDING A LOT INTO TWO EQUAL PARTS FOR RESIDENTIAL USE

ADOPT BY TITLE ONLY RESOLUTION NO. CC-2101-010, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 10 (WEINER) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING UP TO 10 UNITS

#### **EXECUTIVE SUMMARY**

The Redondo Beach City Council has historically opposed housing bills that are detrimental to Redondo Beach, specifically those that preempt local controls. California Senate Bills 9 and 10 were introduced on December 7, 2020. These housing-related bills propose preemption of local controls.

To address these proposed housing bills, staff is in the process of preparing resolutions of opposition to SB 9 and SB 10 for City Council's consideration. These resolutions will be provided as Blue Folder items at Tuesday night's meeting.

#### **BACKGROUND**

Existing State law leaves zoning decisions exclusively to local governments-this is a major part of the home rule doctrine. Several of the housing bills proposed in the Senate and Assembly preempt local regulation for housing. In 2021, there are two Senate Bills that are being considered that were introduced on December 7, 2020 that would preempt local controls and substantially impact the land use of the City of Redondo Beach.

Senate Bill 9 would require a proposed housing development containing two residential units within a single-family residential zone to be considered ministerially, without discretionary review or hearing, if the proposed housing development meets certain requirements. This would effectively convert the City's single family zoning to multi-family without the City's consent.

P.1., File # 21-1952 Meeting Date: 1/19/2021

Senate Bill 10 would authorize a local government to pass an ordinance to zone any parcel for up to 10 units of residential density per parcel, at a height specified in the ordinance, if the parcel is located in a transit-rich area, a jobs-rich area, or an urban infill site, where the ordinance would not be subject to the California Environmental Quality Act (CEQA). The bill states that this ordinance could be passed without having to go through the local restrictions on adopting zoning ordinances (public vote).

Despite the city's contemporary land-use planning policies and zoning designations, the proposed legislation would replace our strategically planned, locally appropriate areas of housing intensification with a blanket multi-family zoning. As well, SB 10 subverts the City's adopted procedures for requiring a public vote regarding zoning changes of this nature. This one size fits all approach to local land use regulation, if enacted as written, may have significant adverse impacts on our established community and its character. The proposed legislation may also have significant implications regarding traffic, parking, and other infrastructure that was designed decades ago for a more suburban density.

To address these proposed housing bills, staff is preparing resolutions of opposition to SB 9 and SB 10 for City Council's consideration which will be provided as Blue Folder items at the January 19, 2021 meeting.

#### COORDINATION

The resolutions have been coordinated with the City Manager's office and the City Attorney's office.

#### FISCAL IMPACT

The cost of processing communications as part of the Community Development Department's annual work program is included in the Department's portion of the adopted 2020-2021 Annual Budget.

#### APPROVED BY:

Joe Hoefgen, City Manager

#### **ATTACHMENTS**

Resolution No. 2101-09 Opposing SB 9 Resolution No. 2101-10 Opposing SB 10

Text of proposed bill SB 9
Text of proposed bill SB10

City of Redondo Beach opposition letter to SB 50 dated February 12, 2019

City of Redondo Beach opposition letter to SB 50 dated January 8, 2020

Staff report of City Council opposition to SB 827 dated February 6, 2018

Minutes of City Council opposition to SB 827 dated February 6, 2018

#### **RESOLUTION NO. CC-2101-009**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 9 (ATKINS) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING TWO RESIDENTIAL UNITS AND PARCEL MAP DIVIDING A LOT INTO TWO EQUAL PARTS FOR RESIDENTIAL USE

WHEREAS, any official position of the City of Redondo Beach with respect to legislation, rules, regulations or policies proposed to or pending before a local, state or federal governmental body or agency must first have been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor;

WHEREAS, pending before the State legislature is SB 9 (Atkins) introduced on December 7, 2020, which if enacted into law would require cities and counties, including charter cities, to provide for the ministerial ('by right') approval of a housing development containing two residential units (a duplex), and a parcel map dividing a lot in to two equal parts ('lot split'), for residential use;

WHEREAS, enactment into law of SB 9 would eliminate public hearings by the Planning Department and public notice, inasmuch as the proposed projects would only require administrative review, and proposes to provide ministerial approval of a parcel map (four or less parcels) for a lot split, and thereby amend sections of the Subdivision Map Act by extending from 12 to 24 months the additional time period of an approved or conditionally approved Tentative Map;

WHEREAS, SB 9 would exempt these projects from environmental review as required by the California Environmental Quality Act (CEQA) by establishing a ministerial review process, without discretionary review or a public hearing, thereby undermining community participation and vetting by local legislative bodies;

WHEREAS, SB 9 further stipulates that a city or county cannot require a duplex project to comply with any standard that would prevent two units from being built, and would prohibit a local agency from imposing regulations that require dedications of rights-of way or the construction of offsite and onsite improvements for parcels created through a lot split; and

WHEREAS, enactment into law of SB 9 would undermine the Subdivision Map Act, which vests the authority to regulate and control the design and improvement of subdivisions by the legislative body of a local agency and sets forth procedures governing the local agency's processing, approval, conditional approval or disapproval, and filing of tentative, final (five or more parcels), and parcel maps (four or less parcels), and the modification of those maps.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The City Council hereby finds that the above recitals are true and correct and are incorporated herein by reference as if set forth in full.

SECTION 2. With the concurrence of the Mayor, that by adoption of this Resolution, the City of Redondo Beach hereby OPPOSES SB 9 (Atkins), which if enacted into law would require cities and counties, including charter cities, to provide for the ministerial ('by right) approval of a housing development containing two residential units (a duplex), and a parcel map dividing a lot into two equal parts ('lot split'), for residential use; and exempts environmental review; and would approve these projects without discretionary review, or a public hearing; thereby undermining local land use control and the concept of 'Home Rule' by the imposition of State legislation on local government agencies, including charter cities.

SECTION 3. That the City Clerk shall certify to the passage and adoption of this resolution and shall enter the same in the Book of Original Resolutions.

### PASSED, APPROVED AND ADOPTED this 19th day of January, 2021.

	William C. Brand, Mayor
APPROVED AS TO FORM:	ATTEST:
Michael W. Webb, City Attorney	Eleanor Manzano, CMC, City Clerk

ATTEST:			
STATE OF CALIFORNIA COUNTY OF LOS ANGELES CITY OF REDONDO BEACH	) ) )	SS	
I, Eleanor Manzano, City Clerk of the City of Redondo Beach, California, do hereby certify that the foregoing Resolution No. CC-2101-009 was duly passed, approved and adopted by the City Council of the City of Redondo Beach, California, at a regular meeting of said City Council held on the 19 <sup>th</sup> day of January, 2021, by the following vote:			
AYES:			
NOES:			
ABSENT:			
ABSTAIN:			
Eleanor Manzano, CMC City Cler	rk		

#### **RESOLUTION NO. CC-2101-010**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, OPPOSING SENATE BILL 10 (WEINER) WHICH WOULD REQUIRE MINISTERIAL APPROVAL OF HOUSING DEVELOPMENT CONTAINING UP TO 10 UNITS

WHEREAS, any official position of the City of Redondo Beach with respect to legislation, rules, regulations or policies proposed to or pending before a local, state or federal governmental body or agency must first have been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor;

WHEREAS, Redondo Beach is in the process of updating its General Plan through a two-year process to present a housing element to the City Council for approval that meets the Regional Housing Needs Assessment goals of the State Housing and Community Development as distributed by the Southern California Association of Governments;

WHEREAS, on February 6, 2018, the City Council of Redondo Beach voted to oppose SB 827, and on February 12, 2019 voted to oppose SB 50, on the grounds that they would impose a one-size-fits-all response to the State's housing shortage that would undermine the efforts of our affordable housing goals and compromise the integrity and character of the City's single-family neighborhoods;

WHEREAS, SB 50 was amended in January of 2020 to allow local governments to submit their own housing plans, as long as they meet the goals of increasing housing density in a way that promotes sustainable transportation and affirmatively furthers fair housing, however SB 10 does not appear to contain this provision;

WHEREAS, SB 10 may undermine the accomplishments and potential benefits of the City's current policies, in addition to decimating the City's single-family neighborhoods;

WHEREAS, there is concern that SB 10's default program would incentivize the construction of market-rate housing and create millions of luxury units while requiring few, if any, affordable units;

WHEREAS, SB 10 does not address some critical issues that have caused and exacerbated the housing crisis, the state's 1995 Costa Hawkins law, which restricts the ability of a local jurisdiction to expand affordability measures in rental units, and the prevalence of privately-owned vacant lots and housing units; and

WHEREAS, SB 10 projects have the potential to attract high-income people who don't necessarily use public transportation into newer luxury buildings adjacent to transit, bringing in more cars while providing insufficient parking.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The City Council hereby finds that the above recitals are true and correct and are incorporated herein by reference as if set forth in full.

SECTION 2. With the concurrence of the Mayor, that by adoption of this Resolution, the City of Redondo Beach hereby includes in its 2021-2022 State Legislative Program its OPPOSITION to SB 10 (Wiener) which requires that cities allow midrise, medium-density housing on sites that are either within one-half mile of high-quality public transportation or within a jobs-rich, high-opportunity neighborhood close to key job centers without affordability requirements or sensitivity to the character of existing neighborhoods.

SECTION 3. That the City Clerk shall certify to the passage and adoption of this resolution and shall enter the same in the Book of Original Resolutions.

#### PASSED, APPROVED AND ADOPTED this 19th day of January, 2021.

	William C. Brand, Mayor
APPROVED AS TO FORM:	ATTEST:
Michael W. Webb, City Attorney	Eleanor Manzano, CMC, City Clerk

ATTEST:			
STATE OF CALIFORNIA COUNTY OF LOS ANGELES CITY OF REDONDO BEACH	) )	SS	
I, Eleanor Manzano, City Clerk of the City of Redondo Beach, California, do hereby certify that the foregoing Resolution No. CC-2101-010 was duly passed, approved and adopted by the City Council of the City of Redondo Beach, California, at a regular meeting of said City Council held on the 19 <sup>th</sup> day of January, 2021, by the following vote:			
AYES:			
NOES:			
ABSENT:			
ABSTAIN:			
Eleanor Manzano, CMC City Cle	rk		

# Introduced by Senators Atkins, Caballero, Rubio, and Wiener (Coauthors: Senators Gonzalez and McGuire)

(Coauthor: Assembly Member Robert Rivas)

December 7, 2020

An act to amend Section 66452.6 of, and to add Sections 65852.21 and 66411.7 to, the Government Code, relating to land use.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 9, as introduced, Atkins. Housing development: approvals.

The Planning and Zoning Law provides for the creation of accessory dwelling units by local ordinance, or, if a local agency has not adopted an ordinance, by ministerial approval, in accordance with specified standards and conditions.

This bill, among other things, would require a proposed housing development containing 2 residential units within a single-family residential zone to be considered ministerially, without discretionary review or hearing, if the proposed housing development meets certain requirements, including, but not limited to, that the proposed housing development would not require demolition or alteration of housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income, that the proposed housing development does not allow for the demolition of more than 25% of the existing exterior structural walls, except as provided, and that the development is not located within a historic district, is not included on the State Historic Resources Inventory, or is not within a site that is legally designated or listed as a city or county landmark or historic property or district.

The bill would set forth what a local agency can and cannot require in approving the construction of 2 residential units, including, but not SB9 -2-

limited to, authorizing a city or county to impose objective zoning standards, objective subdivision standards, and objective design standards, as defined, unless those standards would have the effect of physically precluding the construction of up to 2 units, prohibiting the imposition of setback requirements under certain circumstances, and setting maximum setback requirements under all other circumstances.

The Subdivision Map Act vests the authority to regulate and control the design and improvement of subdivisions in the legislative body of a local agency and sets forth procedures governing the local agency's processing, approval, conditional approval or disapproval, and filing of tentative, final, and parcel maps, and the modification of those maps. Under the Subdivision Map Act, an approved or conditionally approved tentative map expires 24 months after its approval or conditional approval or after any additional period of time as prescribed by local ordinance, not to exceed an additional 12 months, except as provided.

This bill, among other things, would require a city or county to ministerially approve a parcel map or tentative and final map for an urban lot split that meets certain requirements, including, but not limited to, that the urban lot split would not require the demolition or alteration of housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income, that the parcel is located within a residential zone, and that the parcel is not located within a historic district, is not included on the State Historic Resources Inventory, or is not within a site that is legally designated or listed as a city or county landmark or historic property or district.

The bill would set forth what a local agency can and cannot require in approving an urban lot split, including, but not limited to, authorizing a city or county to impose objective zoning standards, objective subdivision standards, and objective design standards, as defined, unless those standards would have the effect of physically precluding the construction of 2 units on either of the resulting parcels, prohibiting the imposition of setback requirements under certain circumstances, and setting maximum setback requirements under all other circumstances.

The bill would also extend the limit on the additional period that may be provided by ordinance, as described above, from 12 months to 24 months and would make other conforming or nonsubstantive changes.

The California Environmental Quality Act (CEQA) requires a lead agency, as defined, to prepare, or cause to be prepared, and certify the completion of, an environmental impact report on a project that it

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proposes to carry out or approve that may have a significant effect on the environment. CEQA does not apply to the approval of ministerial projects.

This bill, by establishing the ministerial review processes described above, would thereby exempt the approval of projects subject to those processes from CEQA.

The California Coastal Act of 1976 provides for the planning and regulation of development, under a coastal development permit process, within the coastal zone, as defined, that shall be based on various coastal resources planning and management policies set forth in the act.

This bill would exempt a local government from being required to hold public hearings for coastal development permit applications for housing developments and urban lot splits pursuant to the above provisions.

By increasing the duties of local agencies with respect to land use regulations, the bill would impose a state-mandated local program.

The bill would include findings that changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

*The people of the State of California do enact as follows:* 

- 1 SECTION 1. Section 65852.21 is added to the Government 2 Code, to read:
- 3 65852.21. (a) A proposed housing development containing
- 4 two residential units within a single-family residential zone shall
- 5 be considered ministerially, without discretionary review or a
- 6 hearing, if the proposed housing development meets all of the 7 following requirements:
- 8 (1) The parcel subject to the proposed housing development is
- 9 located within a city the boundaries of which include some portion
- 10 of either an urbanized area or urban cluster, as designated by the
- 11 United States Census Bureau, or, for unincorporated areas, a legal

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parcel wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

- (2) The parcel satisfies the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4.
- (3) Notwithstanding any provision of this section or any local law, the proposed housing development would not require demolition or alteration of any of the following types of housing:
- (A) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.
- (B) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.
- (C) Housing that has been occupied by a tenant in the last three years.
- (4) The parcel subject to the proposed housing development is not a parcel on which an owner of residential real property has exercised the owner's rights under Chapter 12.75 (commencing with Section 7060) of Division 7 of Title 1 to withdraw accommodations from rent or lease within 15 years before the date that the development proponent submits an application.
- (5) The proposed housing development does not allow the demolition of more than 25 percent of the existing exterior structural walls, unless the housing development meets at least one of the following conditions:
  - (A) If a local ordinance so allows.
- (B) The site has not been occupied by a tenant in the last three years.
- (6) The development is not located within a historic district or property included on the State Historic Resources Inventory, as defined in Section 5020.1 of the Public Resources Code, or within a site that is designated or listed as a city or county landmark or historic property or district pursuant to a city or county ordinance.
- (b) (1) Notwithstanding any local law and except as provided in paragraph (2), a city or county may impose objective zoning standards, objective subdivision standards, and objective design review standards that do not conflict with this section.
- (2) (A) The city or county shall not impose objective zoning standards, objective subdivision standards, and objective design

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standards that would have the effect of physically precluding the construction of up to two units.

- (B) (i) Notwithstanding subparagraph (A), no setback shall be required for an existing structure or a structure constructed in the same location and to the same dimensions as an existing structure.
- (ii) Notwithstanding subparagraph (A), in all other circumstances not described in clause (i), a local government may require a setback of up to four feet from the side and rear lot lines.
- (c) In addition to any conditions established in accordance with subdivision (b), a local agency may require any of the following conditions when considering an application for two residential units as provided for in this section:
- (1) Off-street parking of up to one space per unit, except that a local agency shall not impose parking requirements in either of the following instances:
- (A) The parcel is located within one-half mile walking distance of either a high-quality transit corridor, as defined in subdivision (b) of Section 21155 of the Public Resources Code, or a major transit stop, as defined in Section 21064.3 of the Public Resources Code.
- (B) There is a car share vehicle located within one block of the parcel.
- (2) For residential units connected to an onsite wastewater treatment system, a percolation test completed within the last five years, or, if the percolation test has been recertified, within the last 10 years.
- (d) A local agency shall require that a rental of any unit created pursuant to this section be for a term longer than 30 days.
- (e) Notwithstanding Section 65852.2, a local agency shall not be required to permit an accessory dwelling unit on parcels that use both the authority contained within this section and the authority contained in Section 66411.7.
- (f) Notwithstanding subparagraph (B) of paragraph (2) of subdivision (b), an application shall not be rejected solely because it proposes adjacent or connected structures provided that the structures meet building code safety standards and are sufficient to allow separate conveyance.
- (g) Local agencies shall include units constructed pursuant to this section in the annual housing element report as required by

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1 subparagraph (I) of paragraph (2) of subdivision (a) of Section 2 65400.

- (h) For purposes of this section, all of the following apply:
- (1) A housing development contains two residential units if the development proposes two new units or if it proposes to add one new unit to an existing unit.
- (2) The terms "objective zoning standards," "objective subdivision standards," and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official prior to submittal. These standards may be embodied in alternative objective land use specifications adopted by a city or county, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances.
- (i) A local agency may adopt an ordinance to implement the provisions of this section. An ordinance adopted to implement this section shall not be considered a project under Division 13 (commencing with Section 21000) of the Public Resources Code.
- (j) Nothing in this section shall be construed to supersede or in any way alter or lessen the effect or application of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code), except that the local government shall not be required to hold public hearings for coastal development permit applications for a housing development pursuant to this section.
- SEC. 2. Section 66411.7 is added to the Government Code, to read:
- 66411.7. (a) Notwithstanding any other provision of this division and any local law, a city or county shall ministerially approve, as set forth in this section, a parcel map or tentative and final map for an urban lot split that meets all the following requirements:
- (1) The parcel map or tentative and final map subdivides an existing parcel to create two new parcels of equal size.
- 38 (2) (A) Except as provided in subparagraph (B), both newly 39 created parcels are no smaller than 1,200 square feet.

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(B) A local agency may by ordinance adopt a smaller minimum lot size subject to ministerial approval under this subdivision.

- (3) The parcel being subdivided meets all the following requirements:
  - (A) The parcel is located within a residential zone.

- (B) The parcel subject to the proposed urban lot split is located within a city the boundaries of which include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or, for unincorporated areas, a legal parcel wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.
- (C) The parcel satisfies the requirements specified in subparagraphs (B) to (K), inclusive, of paragraph (6) of subdivision (a) of Section 65913.4.
- (D) The proposed urban lot split would not require demolition or alteration of any of the following types of housing:
- (i) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.
- (ii) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.
- (iii) A parcel or parcels on which an owner of residential real property has exercised the owner's rights under Chapter 12.75 (commencing with Section 7060) of Division 7 of Title 1 to withdraw accommodations from rent or lease within 15 years before the date that the development proponent submits an application.
- (iv) Housing that has been occupied by a tenant in the last three years.
- (E) The parcel is not located within a historic district or property included on the State Historic Resources Inventory, as defined in Section 5020.1 of the Public Resources Code, or within a site that is designated or listed as a city or county landmark or historic property or district pursuant to a city or county ordinance.
- (F) The parcel has not been established through prior exercise of an urban lot split as provided for in this section.
- (G) Neither the owner of the parcel being subdivided nor any person acting in concert with the owner has previously subdivided an adjacent parcel using an urban lot split as provided for in this section.

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(b) An application for an urban lot split shall be approved in accordance with the following requirements:

- (1) A local agency shall approve or deny an application for an urban lot split ministerially without discretionary review.
- (2) A local agency shall approve an urban lot split only if it conforms to all applicable objective requirements of the Subdivision Map Act (Division 2 (commencing with Section 66410)), except as otherwise expressly provided in this section.
- (3) Notwithstanding Section 66411.1, a local agency shall not impose regulations that require dedications of rights-of-way or the construction of offsite improvements for the parcels being created as a condition of issuing a parcel map or tentative and final map for an urban lot split.
- (c) (1) Except as provided in paragraph (2), notwithstanding any local law, a city or county may impose objective zoning standards, objective subdivision standards, and objective design review standards applicable to a parcel created by an urban lot split that do not conflict with this section.
- (2) A local agency shall not impose objective zoning standards, objective subdivision standards, and objective design review standards that would have the effect of physically precluding the construction of two units on either of the resulting parcels.
- (3) (A) Notwithstanding paragraph (2), no setback shall be required for an existing structure or a structure constructed in the same location and to the same dimensions as an existing structure.
- (B) Notwithstanding paragraph (2), in all other circumstances not described in subparagraph (A), a local government may require a setback of up to four feet from the side and rear lot lines.
- (d) In addition to any conditions established in accordance with subdivision (c), a local agency may require any of the following conditions when considering an application for an urban lot split:
- (1) Easements required for the provision of public services and facilities.
- (2) A requirement that the parcels have access to, provide access to, or adjoin the public right-of-way.
- (3) Off-street parking of up to one space per unit, except that a local agency shall not impose parking requirements in either of the following instances:
- (A) The parcel is located within one-half mile walking distance of either a high-quality transit corridor as defined in subdivision

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(b) of Section 21155 of the Public Resources Code, or a major transit stop as defined in Section 21064.3 of the Public Resources Code.

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- (B) There is a car share vehicle located within one block of the parcel.
- (e) A local agency shall require that the uses allowed on a lot created by this section be limited to residential uses.
- (f) A local agency shall require that a rental of any unit created pursuant to this section be for a term longer than 30 days.
- (g) A local agency shall not require, as a condition for ministerial approval of a permit application for the creation of an urban lot split, the correction of nonconforming zoning conditions.
- (h) Notwithstanding Section 65852.2, a local agency shall not be required to permit an accessory dwelling unit on parcels that use both the authority contained within this section and the authority contained in Section 65852.21.
- (i) Notwithstanding paragraph (3) of subdivision (c), an application shall not be rejected solely because it proposes adjacent or connected structures provided that the structures meet building code safety standards and are sufficient to allow separate conveyance.
- (j) Local agencies shall include the number of applications for urban lot splits pursuant to this section in the annual housing element report as required by subparagraph (I) of paragraph (2) of subdivision (a) of Section 65400.
- (k) For purposes of this section, the terms "objective zoning standards," "objective subdivision standards," and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official prior to submittal. These standards may be embodied in alternative objective land use specifications adopted by a city or county, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances.
- (*l*) A local agency may adopt an ordinance to implement the provisions of this section. An ordinance adopted to implement this section shall not be considered a project under Division 13 (commencing with Section 21000) of the Public Resources Code.

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(m) Nothing in this section shall be construed to supersede or in any way alter or lessen the effect or application of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code), except that the local government shall not be required to hold public hearings for coastal development permit applications for urban lot splits pursuant to this section.

SEC. 3. Section 66452.6 of the Government Code is amended to read:

66452.6. (a) (1) An approved or conditionally approved tentative map shall expire 24 months after its approval or conditional approval, or after any additional period of time as may be prescribed by local ordinance, not to exceed an additional 12 24 months. However, if the subdivider is required to expend two hundred thirty-six thousand seven hundred ninety dollars (\$236,790) or more to construct, improve, or finance the construction or improvement of public improvements outside the property boundaries of the tentative map, excluding improvements of public rights-of-way-which that abut the boundary of the property to be subdivided and which that are reasonably related to the development of that property, each filing of a final map authorized by Section 66456.1 shall extend the expiration of the approved or conditionally approved tentative map by 36 48 months from the date of its expiration, as provided in this section, or the date of the previously filed final map, whichever is later. The extensions shall not extend the tentative map more than 10 years from its approval or conditional approval. However, a tentative map on property subject to a development agreement authorized by Article 2.5 (commencing with Section 65864) of Chapter 4 of Division 1 may be extended for the period of time provided for in the agreement, but not beyond the duration of the agreement. The number of phased final maps that may be filed shall be determined by the advisory agency at the time of the approval or conditional approval of the tentative map.

(2) Commencing January 1, 2012, and each calendar year thereafter, the amount of two hundred thirty-six thousand seven hundred ninety dollars (\$236,790) shall be annually increased by operation of law according to the adjustment for inflation set forth in the statewide cost index for class B construction, as determined by the State Allocation Board at its January meeting. The effective

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date of each annual adjustment shall be March 1. The adjusted amount shall apply to tentative and vesting tentative maps whose applications were received after the effective date of the adjustment.

- (3) "Public improvements," as used in this subdivision, include traffic controls, streets, roads, highways, freeways, bridges, overcrossings, street interchanges, flood control or storm drain facilities, sewer facilities, water facilities, and lighting facilities.
- (b) (1) The period of time specified in subdivision (a), including any extension thereof granted pursuant to subdivision (e), shall not include any period of time during which a development moratorium, imposed after approval of the tentative map, is in existence. However, the length of the moratorium shall not exceed five years.
- (2) The length of time specified in paragraph (1) shall be extended for up to three years, but in no event beyond January 1, 1992, during the pendency of any lawsuit in which the subdivider asserts, and the local agency—which that approved or conditionally approved the tentative map denies, the existence or application of a development moratorium to the tentative map.
- (3) Once a development moratorium is terminated, the map shall be valid for the same period of time as was left to run on the map at the time that the moratorium was imposed. However, if the remaining time is less than 120 days, the map shall be valid for 120 days following the termination of the moratorium.
- (c) The period of time specified in subdivision (a), including any extension thereof granted pursuant to subdivision (e), shall not include the period of time during which a lawsuit involving the approval or conditional approval of the tentative map is or was pending in a court of competent jurisdiction, if the stay of the time period is approved by the local agency pursuant to this section. After service of the initial petition or complaint in the lawsuit upon the local agency, the subdivider may apply to the local agency for a stay pursuant to the local agency's adopted procedures. Within 40 days after receiving the application, the local agency shall either stay the time period for up to five years or deny the requested stay. The local agency may, by ordinance, establish procedures for reviewing the requests, including, but not limited to, notice and hearing requirements, appeal procedures, and other administrative requirements.

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(d) The expiration of the approved or conditionally approved tentative map shall terminate all proceedings and no final map or parcel map of all or any portion of the real property included within the tentative map shall be filed with the legislative body without first processing a new tentative map. Once a timely filing is made, subsequent actions of the local agency, including, but not limited to, processing, approving, and recording, may lawfully occur after the date of expiration of the tentative map. Delivery to the county surveyor or city engineer shall be deemed a timely filing for purposes of this section.

- (e) Upon application of the subdivider filed prior to before the expiration of the approved or conditionally approved tentative map, the time at which the map expires pursuant to subdivision (a) may be extended by the legislative body or by an advisory agency authorized to approve or conditionally approve tentative maps for a period or periods not exceeding a total of six years. The period of extension specified in this subdivision shall be in addition to the period of time provided by subdivision (a). Prior to Before the expiration of an approved or conditionally approved tentative map, upon an application by the subdivider to extend that map, the map shall automatically be extended for 60 days or until the application for the extension is approved, conditionally approved, or denied, whichever occurs first. If the advisory agency denies a subdivider's application for an extension, the subdivider may appeal to the legislative body within 15 days after the advisory agency has denied the extension.
- (f) For purposes of this section, a development moratorium includes a water or sewer moratorium, or a water and sewer moratorium, as well as other actions of public agencies—which that regulate land use, development, or the provision of services to the land, including the public agency with the authority to approve or conditionally approve the tentative map, which thereafter prevents, prohibits, or delays the approval of a final or parcel map. A development moratorium shall also be deemed to exist for purposes of this section for any period of time during which a condition imposed by the city or county could not be satisfied because of either of the following:
- (1) The condition was one that, by its nature, necessitated action by the city or county, and the city or county either did not take the necessary action or by its own action or inaction was prevented or

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delayed in taking the necessary action—prior to before expiration of the tentative map.

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- (2) The condition necessitates acquisition of real property or any interest in real property from a public agency, other than the city or county that approved or conditionally approved the tentative map, and that other public agency fails or refuses to convey the property interest necessary to satisfy the condition. However, nothing in this subdivision shall be construed to require any public agency to convey any interest in real property owned by it. A development moratorium specified in this paragraph shall be deemed to have been imposed either on the date of approval or conditional approval of the tentative map, if evidence was included in the public record that the public agency-which that owns or controls the real property or any interest therein may refuse to convey that property or interest, or on the date that the public agency-which that owns or controls the real property or any interest therein receives an offer by the subdivider to purchase that property or interest for fair market value, whichever is later. A development moratorium specified in this paragraph shall extend the tentative map up to the maximum period as set forth in subdivision (b), but not later than January 1, 1992, so long as the public agency which that owns or controls the real property or any interest therein fails or refuses to convey the necessary property interest, regardless of the reason for the failure or refusal, except that the development moratorium shall be deemed to terminate 60 days after the public agency has officially made, and communicated to the subdivider, a written offer or commitment binding on the agency to convey the necessary property interest for a fair market value, paid in a reasonable time and manner.
- SEC. 4. The Legislature finds and declares that ensuring access to affordable housing is a matter of statewide concern and not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution. Therefore, Sections 1 and 2 of this act adding Sections 65852.21 and 66411.7 to the Government Code and Section 3 of this act amending Section 66452.6 of the Government Code apply to all cities, including charter cities.
- SEC. 5. No reimbursement is required by this act pursuant to Section 6 of Article XIIIB of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or

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- level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

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# Introduced by Senator Wiener (Principal coauthors: Senators Atkins and Caballero)

(Principal coauthor: Assembly Member Robert Rivas)

December 7, 2020

An act to add Section 65913.5 to the Government Code, relating to land use.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 10, as introduced, Wiener. Planning and zoning: housing development: density.

The Planning and Zoning Law requires a city or county to adopt a general plan for land use development within its boundaries that includes, among other things, a housing element. Existing law requires an attached housing development to be a permitted use, not subject to a conditional use permit, on any parcel zoned for multifamily housing if at least certain percentages of the units are available at affordable housing costs to very low income, lower income, and moderate-income households for at least 30 years and if the project meets specified conditions relating to location and being subject to a discretionary decision other than a conditional use permit. Existing law provides for various incentives intended to facilitate and expedite the construction of affordable housing.

This bill would, notwithstanding any local restrictions on adopting zoning ordinances, authorize a local government to pass an ordinance to zone any parcel for up to 10 units of residential density per parcel, at a height specified in the ordinance, if the parcel is located in a transit-rich area, a jobs-rich area, or an urban infill site, as those terms are defined. In this regard, the bill would require the Department of Housing and Community Development, in consultation with the Office

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of Planning and Research, to determine jobs-rich areas and publish a map of those areas every 5 years, commencing January 1, 2022, based on specified criteria. The bill would specify that an ordinance adopted under these provisions is not a project for purposes of the California Environmental Quality Act. The bill would prohibit a residential or mixed-use residential project consisting of 10 or more units that is located on a parcel rezoned pursuant to these provisions from being approved ministerially or by right.

This bill would include findings that changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 65913.5 is added to the Government 2 Code, to read:
- 3 65913.5. (a) (1) Notwithstanding any local restrictions on
- 4 adopting zoning ordinances enacted by the jurisdiction, including
- 5 restrictions enacted by a local voter initiative, that limit the
- 6 legislative body's ability to adopt zoning ordinances, a local
- 7 government may pass an ordinance to zone a parcel for up to 10
- 8 units of residential density per parcel, at a height specified by the
- 9 local government in the ordinance, if the parcel is located in one of the following:
- 11 (A) A transit-rich area.
- 12 (B) A jobs-rich area.

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- 13 (C) An urban infill site.
  - (2) An ordinance adopted in accordance with this subdivision shall not constitute a "project" for purposes of Division 13 (commencing with Section 21000) of the Public Resources Code.
- 17 (3) Paragraph (1) shall not apply to parcels located within a very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection pursuant to Section 51178, or within a high converse high fire hazard experits zone as in directed an arrange.
- 20 a high or very high fire hazard severity zone as indicated on maps
- 21 adopted by the Department of Forestry and Fire Protection pursuant
- 22 to Section 4202 of the Public Resources Code. This paragraph
- 23 does not apply to parcels excluded from the specified hazard zones
- 24 by a local agency pursuant to subdivision (b) of Section 51179, or

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sites that have adopted fire hazard mitigation measures pursuant to existing building standards or state fire mitigation measures applicable to the development.

- (b) (1) Notwithstanding any other law, a residential or mixed-use residential project consisting of more than 10 new residential units on one or more parcels that have been zoned to permit residential development pursuant to this section shall not be approved ministerially or by right, and shall not be exempt from Division 13 (commencing with Section 21000) of the Public Resources Code.
- (2) Paragraph (1) shall not apply to a project to create no more than two accessory dwelling units and no more than two junior accessory dwelling units per parcel pursuant to Sections 65852.2 and 65852.22 of the Government Code.
- (3) A project may not be divided into smaller projects in order to exclude the project from the prohibition in this subdivision.
  - (c) For purposes of this section:

- (1) "High-quality bus corridor" means a corridor with fixed route bus service that meets all of the following criteria:
- (A) It has average service intervals of no more than 15 minutes during the three peak hours between 6 a.m. to 10 a.m., inclusive, and the three peak hours between 3 p.m. and 7 p.m., inclusive, on Monday through Friday.
- (B) It has average service intervals of no more than 20 minutes during the hours of 6 a.m. to 10 a.m., inclusive, on Monday through Friday.
- (C) It has average intervals of no more than 30 minutes during the hours of 8 a.m. to 10 p.m., inclusive, on Saturday and Sunday.
- (2) (A) "Jobs-rich area" means an area identified by the Department of Housing and Community Development in consultation with the Office of Planning and Research that is high opportunity and either is jobs rich or would enable shorter commute distances based on whether, in a regional analysis, the tract meets both of the following:
- (i) The tract is high opportunity, meaning its characteristics are associated with positive educational and economic outcomes for households of all income levels residing in the tract.
  - (ii) The tract meets either of the following criteria:
- (I) New housing sited in the tract would enable residents to live near more jobs than is typical for tracts in the region.

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(II) New housing sited in the tract would enable shorter commute distances for residents, relative to existing commute patterns and jobs-housing fit.

- (B) The Department of Housing and Community Development shall, commencing on January 1, 2022, publish and update, every five years thereafter, a map of the state showing the areas identified by the department as "jobs-rich areas."
- (3) "Transit-rich area" means a parcel within one-half mile of a major transit stop, as defined in Section 21064.3 of the Public Resources Code, or a parcel on a high-quality bus corridor.
- (4) "Urban infill site" means a site that satisfies all of the following:
- (A) A site that is a legal parcel or parcels located in a city if, and only if, the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or, for unincorporated areas, a legal parcel or parcels wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.
- (B) A site in which at least 75 percent of the perimeter of the site adjoins parcels that are developed with urban uses. For the purposes of this section, parcels that are only separated by a street or highway shall be considered to be adjoined.
- (C) A site that is zoned for residential use or residential mixed-use development, or has a general plan designation that allows residential use or a mix of residential and nonresidential uses, with at least two-thirds of the square footage of the development designated for residential use.
- (d) The Legislature finds and declares that ensuring the adequate production of affordable housing is a matter of statewide concern and is not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution. Therefore, this section applies to all cities, including charter cities.

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Bill Brand Mayor 415 Diamond Street, P.O. BOX 270 Redondo Beach, California 90277-0270 www.redondo.org tel 310 372-1171 ext. 2260 fax 310 374-2039

February 12, 2019

Honorable Scott Wiener Chairman, Senate Housing Committee State of California, District 11 State Capitol, Room 4066 Sacramento, CA 95814-4900

RE: CITY OF REDONDO BEACH OPPOSES SB 50

Dear Senator Wiener:

On February 12, 2019, during our regularly scheduled meeting, the Redondo Beach City Council and I received a report on Senate Bill 50. We unanimously authorized this letter expressing our opposition to SB 50.

# Opposition to SB 50

As you are aware, Senate Bill 50 is intended to establish additional incentives for the development of affordable housing above those within existing Density Bonus Law. This bill would require that an eligible residential development, as defined, receive waivers from maximum controls on density, automobile parking requirements greater than 0.5 parking spots per unit, up to 3 additional incentives or concessions under the Density Bonus Law, and specified additional waivers if the residential development is located within a 'jobs-rich housing' area or a 1/2-mile or 1/4-mile radius of a major transit stop, as defined, further exempting developments from most height, intensity, and any Additionally an eligible project pursuant to this proposed parking requirements. legislation and Section 65913.4 may qualify for a ministerial approval. To a large extent, this proposed legislation preempts home rule that allows cities to establish and implement local zoning controls that protect the shape, form, and character of the community. Existing State law leaves zoning decisions exclusively to local governments—this is a major part of the home rule doctrine. SB 50 preempts local regulation for new infill housing close to transit. We oppose home rule preemption.

Senate Bill 50 does include provisions to encourage communities to opt for a community-led planning process to develop zoning and other policies that encourage affordable housing. Our City is currently updating its General Plan to address many local housing related concerns, consistent with the provisions within proposed Section 65918.55. Since spring 2017, a 27 member citizens General Plan Advisory Committee has conducted 16 meetings, with 8 more scheduled, many where the focus has been

on housing in Redondo Beach. The intent is to ensure that a broad range of housing types and densities are available. However, based on the proposed language of SB 50, these robust planning efforts we have undertaken would not even qualify for the option of a community-led planning process in lieu of the requirements of SB 50 because they are being conducted prior to January 1, 2020.

Redondo Beach provides for a broad range of housing types and densities. The City has also taken action to zone for higher densities around high quality transit nodes and to some extent along transit corridors. The location of the City's zoning districts that permit the highest residential densities (35 du/ac not including density bonus potential) are strategically located with respect to transit. The City's certified Housing Element identifies specific sites in strategic locations and includes specific programs for ensuring housing goals as required are achieved. Every area identified in the Housing Element has distinct challenges that require different approaches. Although Redondo Beach recognizes that transit oriented development may include high density residential development, it is not simply about allowing only more residential development, but should include job centers as well. In fact, studies show that job centers near transit increase ridership as much as, or in some cases more than, housing adjacent to transit.

Redondo Beach is a perfect example of a medium size coastal city striving to meet and address the housing needs of Southern California. We have every level and type of housing; singles, 1 bedrooms, 2 bedrooms, 3 bedrooms, multi-family housing, single-family housing and multi-million dollar coastal homes. Fifty percent of the housing units in the community is rental. We also have a Housing Authority with over 500 vouchers issued for Section 8 housing. We have numerous senior living complexes in all areas of town.

Like many communities in California, Redondo Beach, Hermosa Beach, and Manhattan Beach are largely 'built-out' communities with worsening traffic, impacted schools, and water shortages. However, Redondo Beach's population continues to grow, along with average household size and the number of households. We have been averaging an additional 60 units per year for the last 15 years.

SB 50 proposes that development in proximity to major transit should be exempted from local controls on maximum residential density and parking, and should relax maximum floor area ratios (FAR) to a minimum of 3.25, and allow heights in excess of 45 to 55 feet. These imposed standards are nearly two and three times our current standards for building heights and FAR. Elimination of the controls on maximum density and significantly relaxing floor area ratios and height standards would allow buildings to be constructed virtually to all property lines resulting in over-covering of public and private open space that is already in short supply in the community. Regulations on parking, which is already at a premium in some areas of our beach community, would be invalidated and the provision of adequate parking could not be ensured for new development.

While the goal of SB 50 is to establish incentives for the development of affordable housing near 'jobs-rich housing,' major transit stops and along high quality bus corridors, the unintended consequences of any such development would be extreme and severe to the local community.

Redondo Beach's population density is 11,000 residents per square mile. Our city is one of the most densely populated areas in California. Demographia.com rated Redondo Beach as 43rd in population density for U.S. Cities over 50,000 people after the 2000 census. With this population density, the City as a result has 11 Level of Service 'F' intersections and similar parking challenges. Nonetheless, the City of Redondo Beach is producing a wide variety of housing after carefully considering the suitability and impacts of each housing project. As shown below, several larger projects are under construction, approved, awaiting construction, or in the planning stages. This does not include the conversions of many single-family homes to '2 and 3 on-a-lot' developments that are occurring all over town.

- One South is a 52 unit project that was recently completed (January 2019). https://liveonesouth.com
- 219 Avenue I is a 12 unit apartment project, with 2 units affordable to low income households, that is currently under construction and nearing completion (March 2019).
- Legado Redondo will include 115 units and was approved June 2017.
   <a href="https://www.dailybreeze.com/2017/10/18/redondo-beach-oks-settlement-over-legado-development/">https://www.dailybreeze.com/2017/10/18/redondo-beach-oks-settlement-over-legado-development/</a>
- Construction is nearly completed on the Kensington Project—a 98-unit, 130 bed residential care for the elderly with a memory care facility on Pacific Coast Highway and Knob Hill, approved by the voters in 2016.
- The revitalization of our regional shopping center, The South Bay Galleria Development was approved on January 15, 2019 for 300 residential units, with 20% Low Income or 10% Very Low Income.

https://www.redondo.org/depts/community\_development/planning/south\_bay\_galleria\_draft\_eir.asp

Many of the outlying cities in the LA area such as ours have a severe housing/jobs imbalance where over 90% of the residents leave their town in the morning to go to work. This creates huge impacts to our transportation sectors in one direction in the morning, to only reverse that impact during the evening commute. What these areas

need is more job creating business centers to reverse some of that flow, not more housing that will only worsen the problem.

# One Size Does Not Fit All

Despite the city's contemporary land-use planning policies and zoning designations, the proposed legislation would replace our strategically planned, locally appropriate areas of housing intensification with a blanket policy of permitting ultra-urban development at unregulated densities--potentially converting valuable and viable job producing uses and local trip-reducing commercial uses in the process. This one size fits all approach to local land use regulation, if enacted as written, would have significant adverse impacts on our established community and its character. The proposed legislation would also have significant implications regarding traffic, parking, and other infrastructure that was designed decades ago for a suburban density.

Land use decisions by communities and local officials are complex and take into account many different issues such as school capacity, financial sustainability, available park space, traffic, air pollution, water needs, sewer capacity, parking, affordability, street maintenance, commercial needs, industrial needs, access to emergency services, etc.

A one size fits all approach dictated from the State will be a disaster for many communities by exacerbating impacts that will also have consequences with State-wide interest. Water needs will increase and student/teacher ratios will deteriorate just to name two. Legislation that creates even bigger problems with State-wide interests will demand more rules and regulations to fix the problems they create.

SB 50 would serve to further the imbalance of jobs with local housing that already exists in our City. As written, these provisions may sacrifice the development of viable commercial businesses in favor of housing. As part of our ongoing General Plan Update noted earlier, a City-wide market analysis confirmed that the City is jobs-poor rather than housing-poor. Ninety-three percent of our residents commute out of our City to their jobs. Our local conditions are unique to Redondo Beach and best addressed by Redondo Beach. We do recognize our responsibility to provide housing and are continuing those efforts with regular neighborhood meetings to determine as a community how best to address our local needs, and at the same time contribute to solutions that address regional issues.

State legislation should not interfere with complex decisions best handled at the local level. Local land-use decisions should be left to local communities who must manage and maintain the towns they create.

In conclusion, housing development should be left to the local agencies that are best equipped to evaluate the impacts of projects, and can require mitigations to protect the health and safety of the residents they serve.

Sincerely,

Mayor William Brand

Q.C. R.C

Senator Ben Allen, 26th State Senate District CC: Senator Mike Morrell, 23rd State Senate District Senator Maria Elena Durazo, 24th State Senate District Senator Anna Cabellero, 12th State Senate District Senator John Moorlach, 37th State Senate District Seantor Shannon Grove, 16th State Senate District Senator Nancy Skinner, 9th State Senate District Senator Mike McGuire, 2nd State Senate District Senator Richard D. Roth, 31st State Senate District Senator Thomas J. Umberg, 34th State Senate District Senator Bob Wieckowski, 10th State Senate District Assembly Member Kevin Kiley, 6th Assembly District Assembly Member Al Muratsuchi, 66th Assembly District Michael J. Arnold, Michael J. Arnold & Associates City Council Members, City of Redondo Beach



Bill Brand Mayor 415 Diamond Street, P.O. BOX 270 Redondo Beach, California 90277-0270 www.redondo.org tel 310 372-1171 ext. 2260 fax 310 374-2039

January 8, 2020

Honorable Scott Wiener State of California, District 11 State Capitol, Room 5100 Sacramento, CA 95814-4900

RE: CITY OF REDONDO BEACH OPPOSES HOUSING BILL SB 50

Dear Senator Wiener:

This letter is regarding Senate Bill SB 50 that has been re-introduced in the Senate this year related to housing and affordable housing. Although the City of Redondo Beach understands the intent to address the shortage of housing and affordable housing in the State of California, there are concerns with the potential consequences of this bill.

# Local Controls and Planning

Existing State law leaves zoning decisions exclusively to local governments—this is a major part of the home rule doctrine. Several of the housing bills proposed in the Senate and Assembly preempt local regulation for housing.

Our City is currently updating its General Plan to address many local housing related concerns. Since spring 2017, a 27-member citizens General Plan Advisory Committee has conducted 21 meetings, with 4 more expected, many where the focus has been on housing and land use in Redondo Beach. The intent is to ensure that a broad range of housing types and densities are available. However, under SB 50, even with the allowance of planning through 2023, due to the limitations SB 50 would place on that planning, the robust planning efforts already underway that are specific to our City would not be taken into consideration.

Redondo Beach provides for a broad range of housing types and densities. The City has also taken action to zone for higher densities around high quality transit nodes and to some extent along transit corridors. The City's certified Housing Element identifies specific sites in strategic locations and includes specific programs for ensuring housing goals as required are achieved. Every area identified in the Housing Element has distinct challenges that require different approaches.

Redondo Beach is a perfect example of a medium size coastal city striving to meet and address the housing needs of Southern California. We have every level and type of housing; singles, 1 bedroom, 2 bedrooms, 3 bedrooms, multi-family housing, singlefamily housing and multi-million dollar coastal homes. Fifty percent of the housing units in the community is rental. We also have a Housing Authority with over 500 vouchers issued for Section 8 housing. We have numerous senior living complexes in all areas of town.

Like many communities in California, Redondo Beach is largely 'built-out' with worsening traffic, impacted schools, and water shortages. However, Redondo Beach's population continues to grow, along with average household size and the number of households. We have been averaging an additional 60 units per year for the last 15 years.

Redondo Beach's population density is 11,000 residents per square mile. Our City is one of the most densely populated areas in California. Demographia.com rated Redondo Beach as 43rd in population density for U.S. Cities over 50,000 people after the 2000 census. With this population density, the City as a result has 11 Level of Service 'F' intersections and similar parking challenges. Nonetheless, the City of Redondo Beach is producing a wide variety of housing after carefully considering the suitability and impacts of each housing project.

Many of the outlying cities in the LA area such as ours have a severe housing/jobs imbalance where over 90% of the residents leave their town in the morning to go to work. This creates huge impacts to our transportation sectors in one direction in the morning, to only reverse that impact during the evening commute. What these areas need is more job creating business centers to reverse some of that flow, not more housing that will only worsen the problem.

Yet, again, SB 50 would exempt projects from local controls to appropriately plan, regulate, and provide infrastructure for housing in our community based on the community's needs and circumstances.

# One Size Does Not Fit All

Despite the City's contemporary land-use planning policies and zoning designations, the proposed legislation would replace our strategically planned, locally appropriate areas of housing intensification with a blanket policy. This one size fits all approach to local land use regulation would have significant adverse impacts on our established community and its character, many bills having significant implications regarding traffic, parking, and other infrastructure that was designed decades ago for a suburban density.

Land use decisions by communities and local officials are complex and take into account many different issues such as school capacity, financial sustainability, available park space, traffic, air pollution, water needs, sewer capacity, parking, affordability, street maintenance, commercial needs, industrial needs, access to emergency services, etc.

A one size fits all approach dictated from the State will be a disaster for many communities by exacerbating impacts that will also have consequences with State-wide

interest. Water needs will increase and student/teacher ratios will deteriorate just to name two. Legislation that creates even bigger problems with State-wide interests will demand more rules and regulations to fix the problems they create.

State legislation should not interfere with complex decisions best handled at the local level. Local land-use decisions should be left to local communities who must manage and maintain the towns they create. To address this concern, on January 7, 2020, the Redondo Beach City Council received a report and authorized this response to housing bills, and specifically SB 50, that propose significant detrimental impacts on local control.

In conclusion, although it is important to make housing development a priority in today's climate, housing development regulations and approvals should be left to the local agencies that are best equipped to evaluate the impacts of projects, and can require mitigations to protect the health and safety of the residents they serve. We oppose home rule preemption.

Sincerely,

William Brand

Chance

CC: Senator Anna Cabellero, 12th State Senate District Senator Ben Hueso, 40th State Senate District Senator Mike McGuire, 2nd State Senate District Senator John Moorlach, 37th State Senate District Senator Richard D. Roth. 31st State Senate District Senator Nancy Skinner, 9th State Senate District Assembly Member Kansen Chu, 25th Assembly District Assembly Member Tyler Diep, 72nd Assembly District Assembly Member Vince Fong, 34th Assembly District Assembly Member Ash Kalra, 27th Assembly District Assembly Member Kevin Kiley, 6th Assembly District Assembly Member Evan Low, 28th Assembly District Assembly Member Kevin McCarty, 7th Assembly District Assembly Member Sharon Quirk-Silva, 65th Assembly District Assembly Member Robert Rivas, 30th Assembly District Assembly Member Philip Ting, 19th Assembly District Assembly Member Buffy Wicks, 15th Assembly District Senator Benjamin Allen, 26th State Senate District Assembly Member Al Muratsuchi, 66th Assembly District Michael J. Arnold, Michael J. Arnold & Associates City Council Members, City of Redondo Beach



# Administrative Report

Council Action Date: February 6, 2018

To: MAYOR AND CITY COUNCIL

From: AARON JONES, COMMUNITY DEVELOPMENT DIRECTOR

Subject: OPPOSE SENATE BILL NO. 827 RELATED TO TRANSIT-RICH HOUSING BONUSES

AND MONITOR AND OPPOSE PORTIONS OF SENATE BILL NO. 828 RELATED TO

**RHNA ALLOCATIONS** 

# RECOMMENDATION

1. Approve City Council opposition of California Senate Bill No. 827 which potentially preempts local land use regulation for new transit-rich housing projects and monitor and oppose portions of Senate Bill No 828 which potentially could require cities to double the required RHNA allocation; and

2. Authorize the Mayor to sign the attached letter of opposition on behalf of the City.

#### **EXECUTIVE SUMMARY**

Senate Bill 827 sponsored by Senator Wiener and Co-authored by Senator Skinner is intended to establish an incentive for building housing near high-quality transit (as defined) by exempting developments from most height, density, intensity and parking requirements. To a large extent the Bill preempts home rule that allows cities to establish and implement local zoning controls that protect the shape, form and character of the community.

Senate Bill 828 also introduced by Senator Wiener provides direction to the State Department of Housing and Community Development (HCD) to monitor and regulate the Regional Housing Needs Allocation (RHNA) process, particularly the RHNA distribution conducted by the Southern California Association of Governments (SCAG). The Bill requires the use a fair and defensible numerical process to properly distribute housing allocations amongst cities. While some of the Bill's RHNA reform provisions should be supported, the Bill also contains a mandate for a 200 percent increase in future RHNA requirements. This provision should be opposed.

# **BACKGROUND**

At its meeting of January 23, 2018, the City Council requested a report on proposed State legislation related to housing. Existing law leaves zoning decisions exclusively to local governments. The authors of SB 827 state that cities play an "outsized" role in the regulation of housing development, arguing that higher intensities of development must be permitted in "transit-rich" areas to increase transit use and ridership, and to assist with achieving aggressive climate action policies to reduce greenhouse gas emissions and local air pollution. The author's solution is to preempt local regulation for new infill housing close to transit.

of Californians who can live near public transportation. The authors go on to describe these controls as "socially exclusive", "anti-urban", and "in opposition to the state's adopted climate goals".

Unlike the condition described by the authors, Redondo Beach provides for a broad range of housing types and densities. The City has also taken action to zone for higher densities around high quality transit nodes and to some extent along transit corridors.

Despite the city's contemporary land use planning policies and zoning designations, the proposed legislation would replace our strategically planned areas of intensification with a blanket policy of permitting ultra-urban development at unregulated densities. This one size fits all approach to local land use regulation if enacted as written is destined to have significant adverse impacts on our established communities and their character.

Senate Bill 828 seeks to "reform" the Regional Housing Needs Allocation (RHNA) process and authorizes the State Department of Housing and Community Development (HCD) to regulate and monitor the Southern California Association of Government's (SCAG) process and to appeal the allocation. While portions of these "reforms" are welcome, SB 828 also contains a provision suggesting that the RHNA for all cities be increased by 200 percent. This provision should not be supported.

#### LEGISLATIVE PROPOSALS

SB 827 proposes that development in a transit-rich housing zone should be exempted from local controls on maximum residential density, maximum floor area ratio, and minimum automobile parking requirements. In addition, if the local government has adopted height maximums that are lower than 45 to 85 feet, depending on the transit access and urban design characteristics of adjacent streets, a transit-rich housing project would be granted a new, higher height limit to accommodate more homes.

In practical application, the Bill would potentially allow 85 foot high housing development along Pacific Coast Highway, Torrance Boulevard, and Artesia Boulevard. Most of these areas are currently zoned for 30 foot high two-story development with limited areas allowing 3-story, 38-45 foot building heights.

Elimination of the controls on maximum density and floor area ratios would allow buildings to be constructed virtually to all property lines resulting in over-covering of public and private open space that is already in short supply in the community. Regulations on parking, which is already at a premium in some areas of our beach community would be invalidated and the provision of adequate parking could not be ensured for new development.

While the goal of SB 827 is to establish state minimum zoning near high-quality transit in transit-rich neighborhoods (housing parcels within  $\frac{1}{2}$  mile of a major transit stop or  $\frac{1}{4}$  mile from a high-quality transit corridor), the unintended consequences of any such development would be extreme and severe to the local community.

SB 828 is intended to reform the RHNA process by directing HCD to perform a comprehensive statistical analysis of unmet housing needs. It requires the results of that analysis be incorporated into the next RHNA, and contains provisions suggesting that cities with high rates of income growth also be given a high housing allocation to "stabilize" market conditions. The Bill authorizes HCD to challenge SCAG's methodology for housing allocations. The Bill contains a "rollover" provision requiring any unmet housing allocation be carried forward to the next Housing Element cycle and a provision requiring local governments to plan for capacity to produce 200 percent of their RHNA allocation in their Housing Element.

While the provisions of SB 828 requiring the study of unmet needs and providing authority to HCD to

challenge housing allocations are welcome, the requirements to zone for 200 percent of the housing allocation, and to "rollover" unmet housing needs allocations are extreme and may very well have the unintended consequence of forcing the City to rezone productive, jobs producing commercial and industrial sites for housing.

## COORDINATION

The attached letter of support was prepared by the Community Development Department in coordination with the City Manager's office.

# **FISCAL IMPACT**

There are no costs to the City associated with taking a legislative psotion relative to SB 827 and SB 828.

### **SUBMITTED BY:**

Aaron Jones, Community Development Director

#### **APPROVED BY:**

Joe Hoefgen, City Manager

#### **ATTACHMENTS:**

- <u>Text of SB 827 as introduced January 3, 2018</u>
- <u>Text of SB 828 as introduced January 3, 2018</u>
- Draft Opposition Letter

# Introduced by Senator Wiener (Principal coauthor: Senator Skinner)

(Principal coauthor: Assembly Member Ting)

January 3, 2018

An act to add Section 65917.7 to the Government Code, relating to land use.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 827, as introduced, Wiener. Planning and zoning: transit-rich housing bonus.

The Planning and Zoning Law requires, when an applicant proposes a housing development within the jurisdiction of a local government, that the city, county, or city and county provide the developer with a density bonus and other incentives or concessions for the production of lower income housing units or for the donation of land within the development if the developer, among other things, agrees to construct a specified percentage of units for very low, low-, or moderate-income households or qualifying residents.

This bill would authorize a transit-rich housing project to receive a transit-rich housing bonus. The bill would define a transit-rich housing project as a residential development project the parcels of which are all within a  $\frac{1}{2}$  mile radius of a major transit stop or a  $\frac{1}{4}$  mile radius of a high-quality transit corridor, as those terms are further defined. The bill would exempt a project awarded a housing opportunity bonus from various requirements, including maximum controls on residential density or floor area ratio, minimum automobile parking requirements, design standards that restrict the applicant's ability to construct the maximum number of units consistent with any applicable building code, and maximum height limitations, as provided.

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The bill would declare that its provisions address a matter of statewide concern and apply equally to all cities and counties in this state, including a charter city.

By adding to the duties of local planning officials, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

- SECTION 1. The Legislature finds and declares that this act addresses a matter of statewide concern and shall apply equally to all cities and counties in this state, including charter cities.
- SEC. 2. Section 65917.7 is added to the Government Code, to read:
  - 65917.7. (a) As used in this section, the following definitions shall apply:
  - (1) "Block" has the same meaning as defined in subdivision (a) of Section 5870 of the Streets and Highways Code.
  - (2) "High-quality transit corridor" means a corridor with fixed route bus service that has service intervals of no more than 15 minutes during peak commute hours.
  - (3) "Transit-rich housing project" means a residential development project the parcels of which are all within a one-half mile radius of a major transit stop or a one-quarter mile radius of a high-quality transit corridor. A project shall be deemed to be within a one-half mile radius of a major transit stop or a one-quarter mile radius of a high-quality transit corridor if both of the following apply:
  - (A) All parcels within the project have no more than 25 percent of their area outside of a one-half mile radius of a major transit stop or a one-quarter mile radius of a high-quality transit corridor.
- 23 (B) No more than 10 percent of the residential units or 100 units, whichever is less, of the project are outside of a one-half mile

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radius of a major transit stop or a one-quarter mile radius of a high-quality transit corridor.

- (4) "Major transit stop" has the same meaning as defined in Section 21064.3 of the Public Resources Code.
- (b) Notwithstanding any local ordinance, general plan element, specific plan, charter, or other local law, policy, resolution, or regulation, a transit-rich housing project shall receive a transit-rich housing bonus which shall exempt the project from all of the following:
  - (1) Maximum controls on residential density or floor area ratio.
  - (2) Minimum automobile parking requirements.

- (3) Any design standard that restricts the applicant's ability to construct the maximum number of units consistent with any applicable building code.
- (4) (A) If the transit-rich housing project is within either a one-quarter mile radius of a high-quality transit corridor or within one block of a major transit stop, any maximum height limitation that is less than 85 feet, except in cases where a parcel facing a street that is less than 45 feet wide from curb to curb, in which case the maximum height shall not be less than 55 feet. If the project is exempted from the local maximum height limitation, the governing height limitation for a transit-rich housing project shall be 85 feet or 55 feet, as provided in this subparagraph.
- (B) If the transit-rich housing project is within one-half mile of a major transit stop, but does not meet the criteria specified in subparagraph (A), any maximum height limitation that is less than 55 feet, except in cases where a parcel facing a street that is less than 45 feet wide from curb to curb, in which case the maximum height shall not be less than 45 feet. If the project is exempted from the local maximum height limitation, the governing height limitation for a transit-rich housing project shall be 55 feet or 45 feet, as provided in this subparagraph.
- (C) For purposes of this paragraph, if a parcel has street frontage on two or more different streets, the height maximum pursuant to this paragraph shall be based on the widest street.
- SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIIIB of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or

- level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

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# **Introduced by Senator Wiener**

January 3, 2018

An act relating to land use.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 828, as introduced, Wiener. Land use: housing element.

The Planning and Zoning Law requires a city or county to adopt a comprehensive, long-term general plan for the physical development of the city or county and of any land outside its boundaries that bears relation to its planning. That law also requires the general plan to include a housing element and requires a planning agency to submit a draft of the housing element to the Department of Housing and Community Development for review, as specified.

This bill would state the intent of the Legislature to enact legislation that would, among other things, require the department to take certain actions relating to unmet housing needs, including completing a comprehensive assessment on unmet need for each region and including the results of the assessment in regional allocations for the next housing element cycle.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. It is the intent of the Legislature to enact
- 2 legislation that would do all of the following:
- 3 (a) Require the Department of Housing and Community
- 4 Development to address the historic underproduction of housing
- 5 by completing a comprehensive assessment on unmet need for

SB 828 — 2 —

each region and including the results of the assessment in regional allocations for the next housing element cycle.

- (b) Establish a methodology for the comprehensive assessment on unmet need that acknowledges the following:
- (1) Median rent or home prices that exceed median income will be alleviated by rapidly increasing housing supply, particularly housing supply for moderate and above-moderate income households.
- (2) Communities with high rates of income growth must also have a high rate of new housing production for households of all income levels to ensure equity and stabilize home prices and communities.
- (c) Authorize the department to challenge the methodology for local allocations made by a council of government or regional planning agency.
- (d) Require the department, after a council of government has submitted its allocation plan and methodology for approval, to rollover any housing allocation that was not met from the previous housing element cycle based on the annual production report submitted pursuant to Section 65400 of the Government Code and to add these numbers to local allocations.
- (e) Prohibit a council of government from underestimating allocations for local jurisdictions based on predicted additional unmet need allocations.
- (f) Require a local jurisdiction to plan and accommodate for 200 percent of the local housing allocation for every income category in its housing element.

February 6, 2018

Honorable Scott Wiener State of California, District 11 State Capitol, Room 4066 Sacramento, CA 95814-4900

RE: CITY OF REDOND C 3. ACH **OPPOSES** SB 827 AND CERTAIN PROVISIONS OF SB 828

Dear Senator Wie r:

At their regularly scheduling mediug of a sbruary 6, 2018, the Mayor and City Council of the City of Redondo Beach regive 'a report on Senate Bill 827 and Senate Bill 828 and authorized this letter expressing the Composition of the City of Redondo Beach to SB 827 and certain provisions of SB 828. A described 'low, these bills, if passed, would usurp land use decisions made by local interpretations with a "one size fits all" approach throughout the state of California.

Senate Bill 827, sponsored by Senator Wie er ar co-au ored by Senator Skinner, is intended to establish an incentive for buildin not ing near high-quality transit (as defined) by exempting developments from most height, densit intensity and parking requirements. To a large extent the Bill preempts home the hat allows cities to establish and implement local zoning controls that protect the shape, form and character of the community.

Senate Bill 828, also introduced by Senator Wiener, provides direction to the State Department of Housing and Community Development (HCD) to monitor and regulate the Regional Housing Needs Allocation (RHNA) process, particularly the RHNA distribution conducted by the Southern California Association of Governments (SCAG). The Bill requires the use a fair and defensible numerical process to properly distribute housing allocations amongst cities. While the City of Redondo Beach supports some of the Bill's RHNA reform provisions particularly the requirement for HCD to perform a housing needs study, and provisions providing HCD oversight and appeal authority in the RHNA process, the bill also contains a mandate for a 200 percent increase in future RHNA requirements. The City of Redondo Beach is opposed to this particular provision of SB 828.

Existing law leaves zoning decisions exclusively to local governments. This is the home rule doctrine. The authors of SB 827 state that cities play an "outsized" role in the regulation of housing development, arguing that higher intensities of development must be permitted in "transit-rich" areas to increase transit use and ridership, and to assist with achieving aggressive climate action policies to reduce greenhouse gas emissions and local air pollution. The author's solution is to preempt local regulation for new infill housing close to transit. We oppose home rule preemption.

The authors of SB 827 describe a problem of restrictive zoning in many communities that limits the number of Californians who can live near public transportation. The authors go on to describe these controls as "socially exclusive", "anti-urban", and "in opposition to the state's adopted climate goals".

Unlike the condition des and by the authors, Redondo Beach provides for a broad range of housing type and de sities. The City has also taken action to zone for higher densities around him quality transit nodes and to some extent along transit corridors.

Despite the city's contemposity la use planning policies and zoning designations, the proposed legislation would remove our trategically planned, and locally appropriate areas of housing intensification with a blanket policy of permitting ultra-urban development at unregulated densities. This one size fits all approach to local land use regulation if enacted as written is estined to ve significant adverse impacts on our established community and its charges, not to mention significant impacts on traffic, parking and other infrastructure.

Redondo Beach is a perfect example of a med is size sastal city striving to meet and address the housing needs of Southern Culforn. We have every level and type of housing imaginable; singles, 1 bedrooms, 2 bedrooms, 3 drooms, multi-family housing, single-family housing and multi-million dollar cortial housing is rentals. We also have a Housing Authority with over 400 vouchers issued for Section 8 housing, some of which are located on the beach. We have numerous senior living complexes in all areas of town.

SB 828 seeks to "reform" the Regional Housing Needs Allocation (RHNA) process and authorizes the State Department of Housing and Community Development (HCD) to regulate and monitor the Southern California Association of Government's (SCAG) process and to appeal the allocation. While portions of these "reforms" are welcome, SB 828 also contains a provision suggesting that the RHNA for all cities be increased by 200 percent. The City of Redondo Beach is opposed to this particular provision of SB 828.

Like many communities in California, Redondo Beach, Hermosa Beach and Manhattan Beach, are all 'built-out' communities with worsening traffic, impacted schools and water shortages. However, Redondo Beach population continues to grow along with average

household size and number of households. We have been averaging an additional 60 units per year for the last 15 years.

SB 827 proposes that development in a transit-rich housing zone should be exempted from local controls on maximum residential density, maximum floor area ratio, and minimum automobile parking requirements. In addition, if the local government has adopted height maximums that are lower than 45 to 85 feet, depending on the transit access and urban design characteristics of adjacent streets, a transit-rich housing project would be granted a new, higher height limit to accommodate more homes.

In practical application, the Bill would potentially allow 85 foot high housing development along Pacific Coast Highway, Torrance Boulevard, and Artesia Boulevard. Most of these areas are currently coned for 30 foot high two-story development with limited areas allowing 3-story, 2-45 foot building heights.

Elimination of the Introls or maximum density and floor area ratios would allow buildings to be contructed and property lines resulting in over-covering of public and private opposer and already in short supply in the community. Regulations on parking, which is alread at a premium in some areas of our beach community would be invalidated a provision of adequate parking could not be ensured for new development.

While the goal of SB 827 is to establish ate minimum zoning near high-quality transit in transit-rich neighborhoods (housing parce's within 1 mile of a major transit stop or 1/4 mile from a high-quality transit corridor), the unit and consequences of any such development would be extreme and severe to the local community.

SB 828 is intended to reform the RHNA process by direct. HCD to perform a comprehensive statistical analysis of unmet housing needs of the results of that analysis be incorporated into the next RHNA, and contains provisions suggesting that cities with high rates of income growth also be given a high housing allocation to "stabilize" market conditions. The Bill authorizes HCD to challenge SCAG's methodology for housing allocations. The Bill contains a "rollover" provision requiring any unmet housing allocation be carried forward to the next Housing Element cycle and a provision requiring local governments to plan for capacity to produce 200 percent of their RHNA allocation in their Housing Element.

Our Regional Housing Needs Assessment (RHNA) is 1,397, while our neighbor, Hermosa Beach, has a RHNA of 2. This is not to say that the RHNA allocation for Hermosa Beach should be raised. At over 13,000 residents per square mile, Hermosa Beach is the most densely populated area on the entire California coast, with heavily congested roadways and a glaring lack of available parking.

Redondo Beach is right behind at 11,000 residents per square mile with 11 'F' Level of Service intersections and similar parking challenges. Both cities reflect some of the most densely populated areas in California. Demographia.com rated Redondo Beach 43rd in population density for U.S. Cities over 50,000 people after the 2000 census.

The City of Redondo Beach is producing a wide variety of housing after carefully considering the suitability and impacts of each housing project. Provided below are some examples:

As shown below, several larger projects are under construction, approved, awaiting construction or in the planning stages. This does not include the conversions of many single-family homes to '2 and 3 on-a-lot' developments that are occurring all over town.

One South is 52 ur scurrently under construction,

https://liveonesou.com

Urban Beach Living Comes of Red . Community. Residences

Legado Redondo is 115 units, approved in ne. 2011.

https://www.dailybreeze.com/2017/10/18/r. Jon Jack-ous-settlement-over-legado-development/



Redondo Beach OKs settlement over Legado development ...

# www.dailybreeze.com

Ending a legal battle and paving the way to redevelop a blighted strip mall and fire-ravaged hotel in south Redondo Beach, city leaders are moving forward with a ...

- Kensington Project is a 98-unit, 130 bed residential care for the elderly with a memory care facility on Pacific Coast Highway and Knob Hill, approved by the voters in 2016
- The revitalization of our regional shopping center, The South Bay Galleria Development is proposing 300 residential units.

While the provisions of SB 828 requiring the study of unmet needs and providing authority to HCD to challenge housing allocations are welcome, the requirements to zone for 200 percent of the housing allocation, and to "rollover" unmet housing needs allocations are extreme and may very well have the unintended consequence of forcing the City to rezone productive, jobs producing commercial and industrial sites for housing.

Land use decisions y communies and local officials are complex and take into account many different issues such a such a school capacity, financial sustainability, available park space, traffic, air policies water needs, sewer capacity, parking, affordability, street maintenance, commercial needs, addstroll needs, access to emergency services, etc.

Many of the outlying cities in the A area such as ours have a severe housing/jobs imbalance where over 90% of the reside to be their town in the morning to go to work. This creates huge impacts to bur and portation sectors in one direction in the morning, to only reverse that impact during the event commute. What these areas need is more job creating business center to be rerectioned in the housing that will only worsen the problem.

Transit oriented development is not simply about allowing mor .es. 'ential development along transit corridors. Every area has different challe ges that require different approaches. In fact, studies show that job centers near ansit increase ridership more than housing adjacent to transit.

A one-size fits all approach dictated from the State will be a disaster for many communities by exacerbating impacts that will also have consequences with State-wide interest. Water needs will increase and student/teacher ratios will deteriorate just to name two. Legislation that creates even bigger problems with State-wide interests will demand more rules and regulations to fix the problems they create.

Local land use decisions should be left to local communities who must manage and maintain the towns they create. In general, State legislation should not interfere with complex decisions best handled at the local level.

SB 827 and SB 828 are good examples of bills that fail to accomplish what they set out to do, while handing one segment of our economy a financial windfall by eliminating proper regulation of the impacts their developments will bring to our communities.

As written, SB 827 and SB 828 cannot be fixed and are non-starters. A State-wide bill mandating affordable housing for projects over a certain size is more appropriate for State action, as is addressing large infrastructure projects that address our transportation needs and water supply and delivery challenges. Creating more impacts by allowing overdevelopment in towns that are already overdeveloped just makes things worse by exacerbating problems that will also have State-wide concerns.

We strongly believe that the approaches outlined in SB 827 and SB 828 will not solve the housing affordability recalls of California. These Bills do nothing to force developers to build affordable houring, but do give them a free pass on proper planning and scrutiny without requiring the any affordable units actually get built. Housing development should be left to the local agracies that are best equipped to evaluate the impacts of projects, and can require a largetimes a protect the health and safety of the residents they serve.

Sincerely,

William Brand

CC: Senator Jim Beal, Chair Senate Committee on Transportati & Housing Senator Bill Allen, District 26
Assemblymember Al Muratsuchi, District 66
Michael Arnold, Arnold and Associates

Mayor Brand referred to SB5 which is a \$7.5 billion state bond which will probably pass in June which states "\$443M shall be available as competitive grants for projects that plan, development and implement climate adaptation and resilience."

Mayor Brand called for public comment.

Mayor Brank read Gary Mlynek's comment card stating he did not support a study on sea level rise.

There being no one wishing to comment, Mayor Brand closed the public comment period.

Motion by Councilmember Nehrenheim, seconded by Councilmember Horvath, to approve the amendment. Motion carried unanimously.

#### O. CITY MANAGER ITEMS

City Manager Hoefgen announced the next Strategic Plan meeting taking place on March 13, 2018 at 4 p.m., and the homeless count taking place last month.

#### P. MAYOR AND COUNCIL ITEMS

P.1 DISCUSSION AND CONSIDERATION OF NOMINATION OF BHUVAN BAJAJ AS A DISTRICT 3 GENERAL PLAN ADVISORY COMMITTEE REPLACEMENT MEMBER BY COUNCILMEMBER CHRISTIAN HORVATH.

#### RECOMMENDATION:

a. Approve filling of this position by Mr. Bhuvan Bajaj.

Mayor Brand called for public comment. There being no one wishing to comment, Mayor Brand closed the public comment period.

Motion by Councilmember Horvath, seconded by Councilmember Nehrenheim, to nominate Bhuvan Bajaj as a District 3 General Plan Advisory Committee replacement member. Motion carried unanimously.

P.2 DISCUSSION AND CONSIDERATION OF OPPOSITION TO SENATE BILLS ON HOUSING AS FOLLOWS: (A) OPPOSE SB NO. 827 RELATED TO TRANSIT-RICH HOUSING BONUSES AND (B) MONITOR AND OPPOSE PORTIONS OF SENATE BILL NO. 828 RELATED TO REGIONAL HOUSING NEEDS ALLOCATIONS (RHNA).

#### RECOMMENDATION:

a. Approve City Council opposition by authorizing the Mayor to sign the attached letter on behalf of the City.

Mayor Brand gave a report on the opposition to Senate Bills on Housing to include SB No. 827 related to Transit-Rich Housing Bonuses and Senate Bill No. 828 related to regional housing needs allocations (RHNA).

Councilmember Gran supported the letter and contents.

Councilmember Emdee supported the letter and pushing it through.

Councilmember Loewenstein read from Legislative Council's Digest which indicates school and developer fees would not apply to these developments.

MINUTES - CITY COUNCIL MEETING Tuesday, February 6, 2018 Page 12 In response to Councilmember Loewenstein regarding high transit corridors, Community Development Director Jones stated this would be any roadway with a transit frequency or headway between buses of 15 minutes or less during peak hour. He said this would include Pacific Coast Highway, Hawthorne Boulevard, and potentially Artesia Boulevard.

Councilmember Loewenstein read a list of top contributors to Senator Weiner's campaigns.

Councilmember Nehrenheim stated this broad rush and heat maps are very dangerous which shows all the areas that will be hit, and noted independent cities fighting this bill.

In response to Councilmember Nehrenheim, Community Development Director Jones explained that demolition is an administrative permit which can be requested anytime and would not have any effect what could be built on the property. He also said various strategic intensification of use has already been planned through the General Plan process and areas that could support additional development and areas that can't. He said the bill ignores the local planning process, community input process and applies a one size fits all, which doesn't work for Redondo Beach. He also said infrastructure in general is not planned for this type of level of development, which is a planning process. He noted major flaws in this legislation in terms of being implementable, noting development cannot be allowed without infrastructure.

Councilmember Horvath also opposed Senate Bill 827 and 828.

Mayor Brand called for public comment.

Holly Osborne, District 5, believed that the basic RHNA number for Redondo Beach is unfair compared to other cities, being penalized for not meeting the RHNA numbers. She also said developer lawyers have threatened to sue and people are intimidated. She supported Mayor Brand's letter, opposed Senator Weiner's fiascos, supported working with the local state senators and assembly members regarding the City being unfairly treated with the current RHNA number, and work with the neighboring cities to unite and oppose this legislation.

Eugene Solomon, District 2, noted unintended consequences and the opposite effect of desired implementation by building high rises, eliminating low income housing, displacing large communities of people who are otherwise unable to afford housing. He supported Mayor Brand's letter and to create more balance within communities that have the open space and availability to create projects, considering more on a microlevel where and when they should be applied. He also supported keeping local control.

There being no one else wishing to comment, Mayor Brand closed the public comment period.

Councilmember Nehrenheim reviewed density levels and supported writing letters to senators and assembly members.

Motion by Councilmember Horvath, seconded by Councilmember Emdee, to approve City Council opposition by authorizing the Mayor to sign the attached letter on behalf of the City. Motion carried unanimously.

P.3 DISCUSSION AND CONSIDERATION REGARDING SENDING A LETTER TO THE CALIFORNIA PUBLIC UTILITIES COMMISSION OPPOSING RESOLUTION E-4907 REGULATING COMMUNITY CHOICE AGGREGATION ACTIVITIES.

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