SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

AGENDA

Meeting of the San Marcos Traffic Commission

Meeting Date: April 4, 2018 | **Meeting Time:** 6:00 PM
Location: City Council Chambers, 1 Civic Center Drive, San Marcos CA 92069

Americans with Disabilities Act: If you need special assistance to participate in this meeting, please contact the City Clerk Department at (760) 744-1050, ext. 3105. Notification 48 hours in advance will enable the City to make reasonable arrangements to ensure accessibility to this meeting. Assisted listening devices are available for the hearing impaired. Please see the City Clerk if you wish to use this device.

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1. **CALL TO ORDER - 6:00 P.M.**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL**

   Anyone wishing to speak to the Commission on any item must first complete a Request to Speak form and turn it in to the secretary
4. **ORAL COMMUNICATIONS**

   Persons wishing to speak on a matter not on the agenda may be heard at this time; however, no action will be taken until placed on a future agenda.
5. **APPROVAL OF MINUTES**

   February 7, 2018
6. **OLD BUSINESS**

   a. None

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7. NEW BUSINESS

a. Parking Restrictions on Carmel Street

b. Oleander Avenue – Speeding Concerns

8. REPORTS AND INFORMATION ITEMS

a. Work Order Updates

b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log

c. Traffic Commission Commentary

d. Staff Commentary

ADJOURNMENT

AFFIDAVIT OF POSTING

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO) ss.
CITY OF SAN MARCOS)

I, Denise Avila, Secretary, San Marcos Traffic Commission, hereby certify that I caused the posting on March 29, 2018 of this agenda in the glass display case at the north entrance of City Hall.

DATED: March 29, 2018

Denise Avila,
Traffic Commission Secretary

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

MINUTES

Meeting of the San Marcos Traffic Commission

WEDNESDAY, FEBRUARY 7, 2018 | 6:00 PM

City Council Chambers, 1 Civic Center Drive, San Marcos, CA 92069

1. **CALL TO ORDER:** Chairman Hansen called the Traffic Commission Meeting to order at 6:00 p.m.

2. **PLEDGE OF ALLEGIANCE:** Led by Commissioner Buckley

3. **ROLL CALL:**

PRESENT: MASTERSON, MUSGROVE, MAKROGIANNIS, HANSEN, RICO, COLLINS, BUCKLEY
ABSENT: SAVOVIC

ALSO PRESENT: Senior Traffic Engineer, Mike Rafael; Principal Traffic Engineer, Nicholas Abboud; Sheriff Deputy, David Rosenthal; and Traffic Commission Secretary, Denise Avila.

4. **ORAL COMMUNICATIONS**

Resident Morgan Christian, resides at 742 Avenida Amigo, is concerned about the children and residents on Avenida Amigo and Avenida Leon due to speeding concerns. He suggested the presence of the Sheriff's Department to monitor vehicles speeds. Mr. Christian also is requesting a STOP sign to be posted at the intersection of Avenida Leon and Via Cafetal for the safety of the children crossing the street to go to the nearby park. Mr. Christian is also requesting additional "NO PARKING" signs to be posted on Avenida Amigo for City street sweeping activities.

5. **APPROVAL OF MINUTES – December 6, 2017**

Commissioner Musgrove makes a motion to accept the minutes as recorded. Commissioner Makrogiannis seconds the motion. Motion carries.

AYES: COMMISSIONERS: MASTERSON, MUSGROVE, MAKROGIANNIS, HANSEN, RICO, COLLINS
NOES: COMMISSIONERS:
ABSTAINS: COMMISSIONER: BUCKLEY

6. OLD BUSINESS

a. None

7. NEW BUSINESS

a. None

8. REPORTS AND INFORMATION ITEMS

a. Work Order Updates

b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log

c. Traffic Commission Commentary

d. Staff Commentary

e. Commissioner Charles Buckley makes a motion to nominate Commissioner Mike Hansen as Chairman. Commissioner Musgrove seconds the motion. No other Nominations were made. Carried by a unanimous 7-0 vote.

Commissioner Hansen makes a motion to nominate Commissioner Rico as Vice Chairman. Commissioner Buckley seconds the motion. No other Nominations were made. Carried by a unanimous 7-0 vote.

9. ADJOURNMENT: Chairman Hansen adjourned the meeting at 7:00 pm.

_____
Michael Hansen, Chairman
Traffic Commission

ATTEST:

_____
Denise Avila, Secretary
Traffic Commission

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DISCOVER LIFE'S POSSIBILITIES

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

AGENDA REPORT

Meeting of the San Marcos Traffic Commission

MEETING DATE:	April 4, 2018
AGENDA ITEM NO:	7A
SUBMITTED BY:	Michael Rafael, P.E. – Senior Civil Engineer MR
APPROVED BY:	Nic Abboud, P.E. – Principal Civil Engineer NA
SUBJECT:	Parking Restrictions on Carmel Street

BACKGROUND:

City staff received traffic safety concerns from the City's Parking Code Enforcement section regarding the use of on-street parking on Carmel Street. The section has observed an increase of on-street parking on Carmel Street generated by Cal State San Marcos students and local businesses. They feel that on-street parking on the north side of Carmel Street is dangerous and a safety hazard due to its narrow shoulder width. Vehicles are parking on the right shoulder adjacent to the existing chain link fence which makes it difficult for passengers to exit their vehicles. Drivers were also observed opening their vehicle doors inside the westbound travel lane where it could swing into oncoming traffic. On-street parking on Carmel Street is significantly higher on nights and weekends.

DISCUSSION:

The study area is located on Carmel Street between Twin Oaks Valley Road and Hill Street. Carmel Street extends to the east where it changes to Hill Street and is within the Barham/Industrial Park area. Carmel Street is classified as a collector/industrial street based on the roadway width and average daily traffic. Carmel Street run east-west and intersects with Campus Way, Industrial Street, Venture Street, and Hill Street. The land use within this area is considered mixed-use, commercial, and industrial. There are no posted speed limits on Carmel Street and at the other public streets within the Barham/Industrial Park. Carmel Street is an undivided, two-lane roadway which varies in roadway from 26 to 34 feet with no bike lanes. The street grade is relatively flat. There are intermittent sidewalks along the roadway. There is no sidewalk infrastructure on the north side of Carmel Street east of the existing 76 gas station. On the north side, there is an unpaved shoulder of approximately 3,325 feet long adjacent to an existing chain link fence which delineates Caltrans right-of-way. This roadway shoulder does not have parking restrictions. There are sections of restricted parking enforced on the north side of Carmel Street, which is approximately 360 feet east and 260 feet west of Campus Way. In 2014, City Council approved a street sweeping program which included 2-hour parking in the Barham/Discovery Industrial Park area to improve parking space availability, allow for regular street sweeping, eliminate overnight parking, and to control daytime student parking.

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City staff conducted an engineering study to investigate traffic safety concerns of the ongoing street parking issues on Carmel Street. Carmel Street is an attractive, convenient public street for Cal State San Marcos students to park long-term since its relative location is within a ¼ mile to the existing resident housing developments (The Quad and University Village Drive Apartments) at the intersection of Campus Way and Barham Drive. Student residents of the Quad and University Village are required to park at the existing parking structure and parking lots inside the main campus which is approximately $640.00 per academic year or $338.00 per semester. To avoid the costs of the permit, students have been observed parking on Carmel Street during the day and leaving their vehicles overnight and weekends. With no parking restrictions on Carmel Street, the City's Parking Code Enforcement section can only cite for the 72-hour parking violation per the California Vehicle Code, Section 22651 (k). In addition, Campus Way and the new University District streets are restricted to 1-hour parking within the Quad and Block C mixed-use and commercial development. Traffic circulation patterns will likely change and increased traffic volumes on Carmel Street is anticipated with the elimination of the existing traffic signal at Carmel Street (right-in/right-out configuration only) as part of the new roadway improvements for the University District development (see attached map). An engineering speed survey was performed to determine the 85th percentile speed on Carmel Street since there are no existing posted speed limit signs. The 85th percentile speed was measured to be 42 MPH. Therefore, the posted speed limit should be 40 MPH, rounded to next 5 MPH increment per the CAMUTCD. The classified industrial streets in the area (Enterprise Street, Trade Street, and Venture Street) are also not posted, however, since the streets are within a business district, they follow the prima facie speed limit of 25 MPH per the CVC.

Based on the findings of this study, on-street parking on the north side of Carmel Street is unsafe and not recommended due to the existing narrow shoulder width of approximately 7 feet or less. The existing chain link fence prevents passengers from exiting their vehicle. This narrow shoulder width puts serious risk to motorists as they exit their vehicle onto oncoming traffic. Based on the FHWA geometric design guidelines, roadway shoulders provide space for emergency storage of disabled vehicles, space for maintenance activities, and clear recovery area for drivers who have left the travel lane or want to avoid a potential crash. Roadway shoulders are not designed to permit on-street parking. In addition, Carmel Street is identified as part of the City's street sweeping program which is subject to parking restrictions (No parking on Mondays between 7am and 10am and 2-hour parking – 24 hours a day). Parking should also be restricted on the west side of Carmel Street, south of the existing driveway to the 76 gas station, due to the limited sight distance around the roadway curve.

CONCLUSION AND RECOMMENDATIONS:

Engineering staff recommends installation of new "NO PARKING ANYTIME" signs along the north side of Carmel Street between Twin Oaks Valley Road and Hill Street as shown on the attached exhibit. In addition, staff recommends installation of the City's street sweeping and 2-hour parking signs on the south side of Carmel Street (adjacent to Storage West on 235 E. Carmel Street) and on the north side of Carmel Street, adjacent to the existing 76 gas station. Staff recommends installation of a new 40

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MPH speed limit sign on Carmel Street from Twin Oaks Valley Road to Hill Street based on the Engineering and Traffic Survey conducted by City staff.

Traffic Data/Roadway Information:

Traffic Volumes:
Carmel Street – 4,055 VPD (vehicles per day, 2015).

Speed Limit:
Carmel Street (Twin Oaks Valley Road to Hill Street), not posted.
Twin Oaks Valley Road, Barham Drive to Carmel Street, 45 MPH, posted.

Accident History (last 3 years):
02/07/17, 11:42 AM, 256 feet east of Industrial Street, V1 travels westbound hits fixed object, primary collision factor – driving on wrong side of road, 1 injury.

Unusual Conditions: None

Attachment(s)

Vicinity Map
Carmel Street Proposed Parking Restrictions Exhibit
Engineering and Traffic Survey – Carmel Street
University District Map Exhibit
SNRC Barham Industrial Street Sweeping Report
Photos

VICINITY MAP
CARMEL STREET BETWEEN TWIN OAKS VALLEY RD AND HILL STREET

APRIL 4, 2018
CITY OF SAN MARCOS TRAFFIC COMMISSION
AGENDA #7A

Every effort has been made to assure the accuracy of the maps and data provided; however, some information may not be accurate or current. The City of San Marcos assumes no responsibility arising from use of this information and incorporates by reference its disclaimer regarding the lack of any warranties, whether expressed or implied, concerning the use of the same. For additional information see the Disclaimer on the City's website.

CARMEL STREET

PROPOSED PARKING RESTRICTIONS

APRIL 2018 TRAFFIC COMMISSION

AGENDA #7A

CONSTRUCTION NOTES:

1. INSTALL NEW R26 (12"X18") EVERY 200' ON NEW BREAKAWAY POST
2. REMOVE EXISTING R3-9dP "END"
3. INSTALL NEW R26 WITH R3-9dP "END" ON EXISTING LIGHT POLE
4. INSTALL NEW R25 WITH R3-9cP "BEGIN" ON NEW BREAKAWAY POST
5. INSTALL NEW R32 (MOD) AND R30B (MOD) ON NEW BREAKAWAY POST

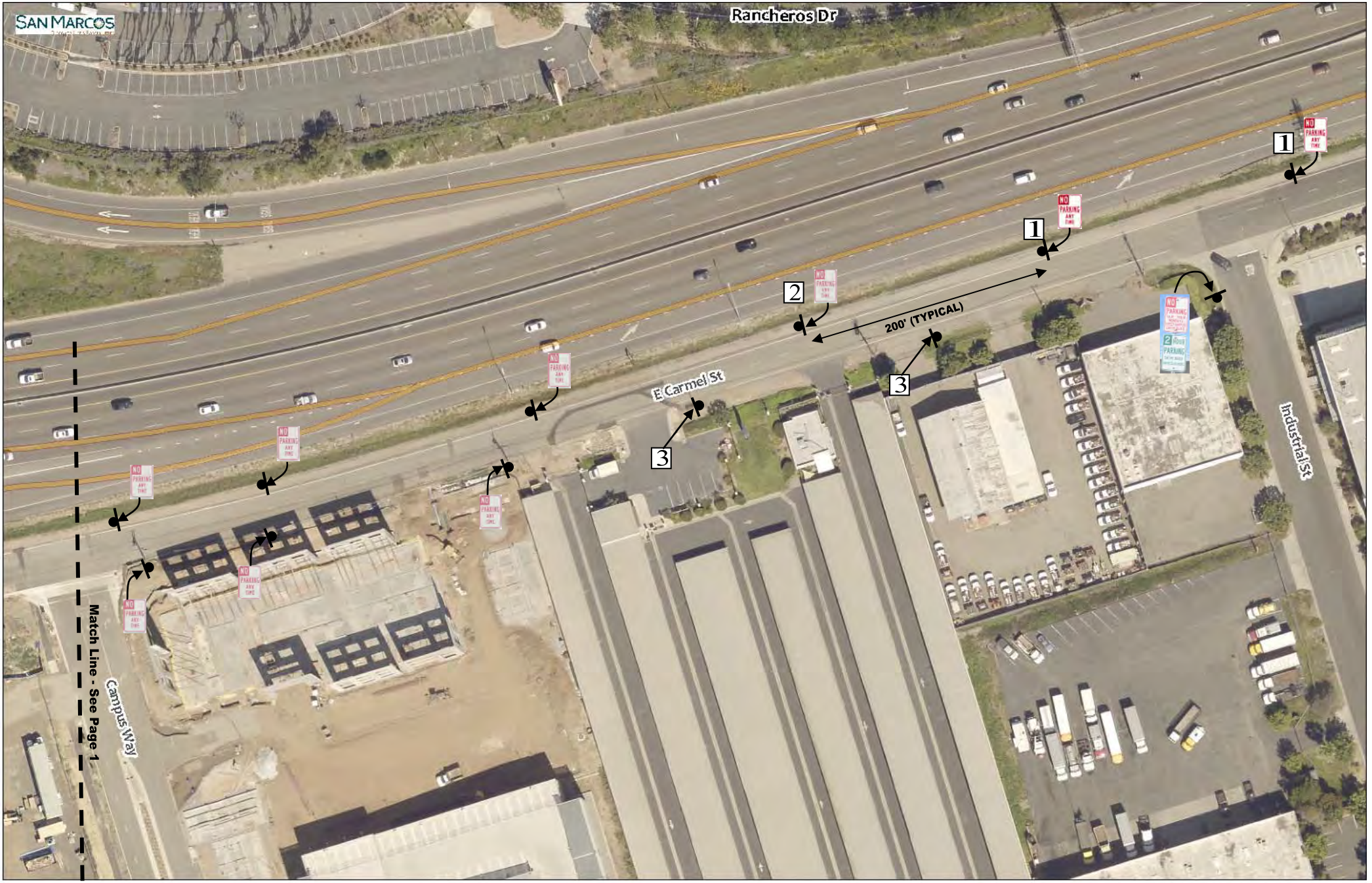
0 25 50 100 Feet

1 inch = 100 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos
USGS (10/2014)



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CARMEL STREET
PROPOSED PARKING RESTRICTIONS
APRIL 2018 TRAFFIC COMMISSION
AGENDA #7A

CONSTRUCTION NOTES:

1. INSTALL NEW R26 EVERY 200' ON NEW BREAKAWAY POST
2. REMOVE EXISTING R3-9cP "BEGIN" SIGN
3. INSTALL NEW R32 (MOD) AND R30B (MOD) ON NEW BREAKAWAY POST

0 25 50 100 Feet

1 inch = 100 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos
USGS (10/2014)

CARMEL STREET
PROPOSED PARKING RESTRICTIONS
APRIL 2018 TRAFFIC COMMISSION
AGENDA #7A

CONSTRUCTION NOTES:

1 INSTALL R26 (12"X18") EVERY 200' ON NEW BREAKAWAY POST

2 REMOVE EXISTING PARKING SIGNS AND REPLACE WITH NEW R26 (12"X18")

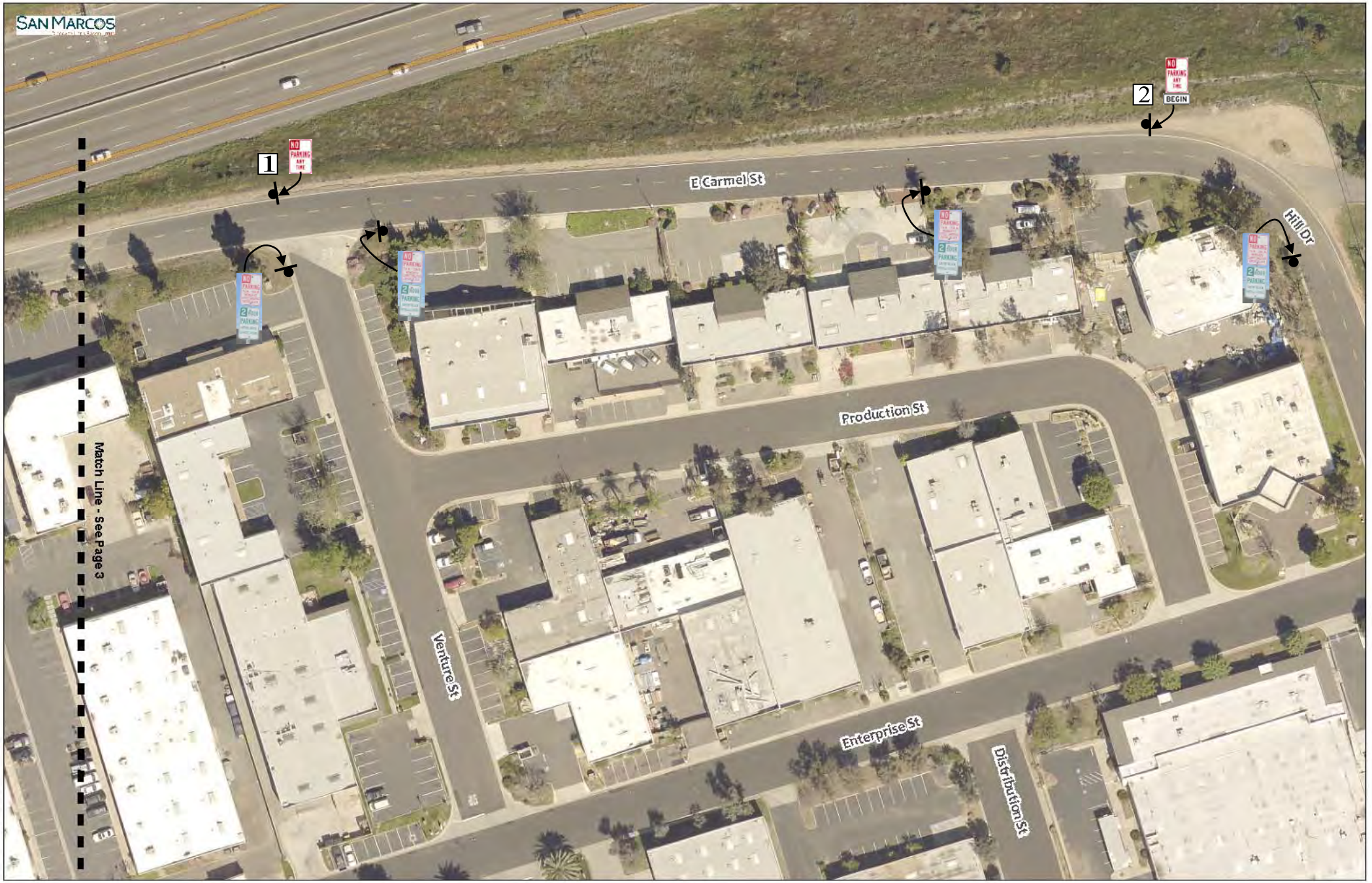
0 25 50 100 Feet

1 inch = 100 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos
USGS (10/2014)



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CARMEL STREET
PROPOSED PARKING RESTRICTIONS
APRIL 2018 TRAFFIC COMMISSION
AGENDA #7A

CONSTRUCTION NOTES:

1 REMOVE EXISTING PARKING SIGNS AND REPLACE WITH NEW R26 (12"X18")

2 REMOVE EXISTING PARKING SIGNS AND REPLACE WITH NEW R26 (12"X18") AND R3-9cP (30"X12")

0 25 50 100 Feet

1 inch = 100 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos
USGS (10/2014)

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

CITY OF SAN MARCOS
ENGINEERING AND TRAFFIC SURVEY

STREET: CARMEL STREET | **DATE OF SURVEY: 03/26/18**
LIMITS: TWIN OAKS VALLEY ROAD | **PREPARED BY: M.RAFAEL**
REVIEWED BY: N.ABBOUD

A. PREVAILING DATA:

DIRECTIONS:	: EAST/WEST
WEATHER CONDITION:	: SUNNY, DRY
LOCATION OF SURVEY:	: MID-BLOCK AT 300' EAST OF INDUSTRIAL STREET
85TH PERCENTILE:	: 42 MPH
10 MPH PACE:	: 33-42 MPH
PERCENT IN PACE:	: 68%
POSTED SPEED LIMIT (ON DATE OF SURVEY)	: NONE
SPEED LIMIT CHANGE:	: YES
RECOMMENDED SPEED LIMIT:	: 40 MPH

B. ACCIDENT HISTORY:

NO. OF MONTHS COVERED:	: 36
TOTAL ACCIDENTS:	: 1
COLLISION RATE:	: 0.30 ACCIDENTS/MILLION VEHICLE MILES (MVM)

CALIFORNIA STATEWIDE COLLISION RATE: 1.03 ACCIDENTS/MVM
(2010, DISTRICT 11, URBAN, 2 AND 3 LANES)

C. TRAFFIC FACTORS:

AVERAGE DAILY TRAFFIC:	: 4,055 VEHICLES PER DAY (VPD)
LENGTH OF SEGMENT:	: 0.76 MILES
LANE CONFIGURATION:	: 1 LANE IN EACH DIRECTION

D. EXISTING ROAD CONDITIONS:

X-WALKS - CNTRL/UNCNRL:	: NO/ NO	HORIZONTAL ALIGNMENT: STRAIGHT
PEDESTRIANS/BICYCLES:	: MODERATE/LOW	VERTICAL ALIGNMENT: MODERATE CURVES
SIDEWALKS/BIKE LANES:	: YES/NO	INTERSECTIONS: LOW
ON-STREET PARKING:	: YES	DRIVEWAYS: MODERATE

E. ADJACENT LAND USE:
HOTEL, COMMERCIAL, INDUSTRIAL

F. TRAFFIC ENGINEER'S RECOMMENDATION (EXPLANATION):
THIS SPEED ZONE SATISFIES THE CONDITIONS OF SECTION 627 OF THE CALIFORNIA VEHICLE CODE AND HAS BEEN PREPARED AND EVALUATED IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2014), SECTION 2B.13. A SPEED LIMIT POSTING OF 40 MPH IS FOUND TO BE APPROPRIATE AND JUSTIFIED BASED ON THE NEAREST 5 MPH INCREMENT OF THE 85TH PERCENTILE SPEED BEING 42 MPH.

APPROVED AND CERTIFIED BY: _____
CITY ENGINEER, MATT LITTLE DATE

VEHICLE SPOT SPEED STUDY

SPEED RANGES	NUMBER OF VEHICLES	PERCENT OF TOTAL	PERCENT ACCUMULATION
10	0	0.0%	0.0%
11	0	0.0%	0.0%
12	0	0.0%	0.0%
13	0	0.0%	0.0%
14	0	0.0%	0.0%
15	0	0.0%	0.0%
16	0	0.0%	0.0%
17	0	0.0%	0.0%
18	0	0.0%	0.0%
19	0	0.0%	0.0%
20	0	0.0%	0.0%
21	0	0.0%	0.0%
22	0	0.0%	0.0%
23	0	0.0%	0.0%
24	0	0.0%	0.0%
25	0	0.0%	0.0%
26	1	1.0%	1.0%
27	0	0.0%	1.0%
28	1	1.0%	2.0%
29	3	2.9%	4.9%
30	3	2.9%	7.8%
31	3	2.9%	10.8%
32	5	4.9%	15.7%
33	4	3.9%	19.6%
34	6	5.9%	25.5%
35	4	3.9%	29.4%
36	8	7.8%	37.3%
37	11	10.8%	48.0%
38	9	8.8%	56.9%
39	5	4.9%	61.8%
40	7	6.9%	68.6%
41	8	7.8%	76.5%
42	7	6.9%	83.3%
43	4	3.9%	87.3%
44	3	2.9%	90.2%
45	2	2.0%	92.2%
46	3	2.9%	95.1%
47	2	2.0%	97.1%
48	1	1.0%	98.0%
49	1	1.0%	99.0%
50	1	1.0%	100.0%
51	0	0.0%	100.0%
52	0	0.0%	100.0%
53	0	0.0%	100.0%
54	0	0.0%	100.0%
55	0	0.0%	100.0%
56	0	0.0%	100.0%
57	0	0.0%	100.0%
58	0	0.0%	100.0%
59	0	0.0%	100.0%
60	0	0.0%	100.0%
61	0	0.0%	100.0%
62	0	0.0%	100.0%
63	0	0.0%	100.0%
64	0	0.0%	100.0%
65	0	0.0%	100.0%

TOTAL VEHICLES: ***102***

RECORDER: **MR**

LOCATION: **Carmel Street - TOV Rd. and Hill St.**

APPROACH: **EB/WB**

SURFACE: **Clear & dry**

WEATHER: **Sunny, Clear**

DATE: **3/26/18**

TIME: **9:50-10:50 AM**

SURVEY STATISTICS

POSTED SPEED:	***N/A*** **MPH**
AVERAGE SPEED:	***38*** **MPH**
MEDIAN SPEED: (50th PERCENTILE)	***37*** **MPH**
MODAL SPEED:	***37*** **MPH**
85TH PERCENTILE SPEED:	***42*** **MPH**
10 MPH PACE:	***33 - 42*** **MPH**
PERCENT IN PACE:	***68%***
PERCENT ENFORCEABLE:	***31%***

COMMENTS:

TENTATIVE MAP NO. TSM 14-002

NORTH CITY EAST
UNIVERSITY DISTRICT SAN MARCOS
STRIPING PLAN

LEGEND

DESCRIPTION	SYMBOL
BOUNDARY	
EXISTING RIGHT-OF-WAY	
PROPOSED RIGHT-OF-WAY	
EXISTING PROPERTY LINE	
PROPOSED LOT LINE	
PROPOSED EASEMENT	
EXISTING CURB	
PROPOSED CURB	
PAVEMENT	

NOTE:
BARHAM DRIVE AND TWIN OAKS VALLEY ROAD FUTURE IMPROVEMENTS SHOWN ARE PER SPECIFIC PLAN REQUIREMENTS

STATE ROUTE 78

CARMEL STREET

PCL 1 PM 16042 221-110-61

PCL A PM 18990 221-110-68

PCL B PM 18990 221-110-67

LOT 15 BLOCK 58 MAP 806 220-200-01

LOT 16 BLOCK 58 MAP 806 220-200-04

PCL 4 PM 2617 220-200-53

PCL 3 PM 2617 220-200-54

PCL 2 PM 2617 220-200-55

PCL 2 PM 20991 220-200-84

PCL 1 PM 20991 220-200-85

PCL B PM 2786 220-200-57

PCL A PM 2786 220-200-56

SAME OWNERSHIP NOT A PART

BLOCK 57 MAP 806 227-670-02

BLOCK 5 MAP 806 227-670-02

STEVENS·CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · PLANNERS · LAND SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 200
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

SCALE: 1"=60'

Report

STUDENT AND NEIGHBORHOOD RELATIONS COMMISSION

CITY COUNCIL CHAMBERS
1 CIVIC CENTER DRIVE
SAN MARCOS, CA 92069
(760) 744-1050
WWW.SAN-MARCOS.NET

MEETING DATE: April 14, 2014

SUBJECT: Barham/Discovery Industrial Park Parking Issues

Recommendation

1. Recommend to the Traffic Commission that the Barham/Discovery Industrial Area be posted for 2-hour parking and no parking on street sweeping days
2. Report back to the Commission on the results of the pilot program six months after implementation

Background

Over the years the City has received complaints about student parking in the industrial area north of Californian State University San Marcos (CSUSM). The Barham/Discovery Industrial Park (Industrial Park) is boarded by the following streets (also see attached map);

- South Twin Oaks Valley Road to the west
- East Carmel Street/State Highway 78 to the north,
- Hill Drive to the east, and
- East Barham Drive to the south

The complaints have been about students parking legally and illegally in some cases. The City has continuously patrolled this area for illegal street parking and has issued hundreds of tickets to illegally parked cars over the years. In addition, the City has at business owners requests painted numerous curbs red to allow for vehicles, mainly delivery trucks, to enter and exit properties in the area safely. However, since the opening of the student housing known as the Quad, the parking situation has worsened.

The Commission has heard reports on the parking problems in the areas near both CSUSM and Palomar College. To address these problem parking areas the following actions have been taken:

1. Added parking and student behavior to the "Good Neighbor" educational campaign
2. Commission approved the area around Palomar College be posted no parking on street sweeping days (signs being installed starting April 14th)
3. Numerous red curb "no parking" areas in the Industrial Area installed
4. Both the areas around Palomar College and CSUSM are heavily patrolled for parking violations during school hours.

Discussion

The City currently cleans residential streets every two weeks. A "windshield survey" conducted by the street sweeper vendor in the Barham/Discovery Industrial Park shows that the program is having little effect on removing trash and debris from the gutter/stormdrain system due to the high volume of vehicles parked in this area. It is estimated that in the Industrial Park area alone, over 1,539 pounds of debris and trash are going into the storm drain yearly because the sweepers' by-pass over 2,018 parked cars each year.

In addition to the inability of the street sweeper to effectively clean the streets in the Industrial Park due to student parking, there has been an increase in overnight and long term parking on the street nearby the Quad student housing complex. This has pushed the day-time student parking congestion to areas previously not impacted resulting in a recent increase in complaints filed by businesses in the east end of the Industrial Park.

Public Workshop

On March 12, 2014 City staff held a workshop with the Industrial Park businesses and staff from CSUSM. Mailers were sent to the 136 properties affected by the on-street student parking. Fourteen people attended the workshop, four of which were representing three different businesses in the area. During the workshop, staff presented three possible solutions to the parking/street sweeping problems;

1. Impose timed parking restrictions daily and no parking on street sweeping days
2. Impose no parking on street sweeping days only
3. Explore the development of a parking permit program for businesses only with no parking on street sweeping days

Of the three businesses represented; two out of three supported some form of parking restriction in the Industrial park to limit student parking. The one business that did not support parking restrictions was not impacted by on-street student parking due to their location. The minutes of the workshop are attached. Due to the limited attendance, staff conducted a survey of the area businesses, the results of which were still being processed and analyzed as this report was written, but will be presented to the Commission at the meeting.

Recommended Solutions

Based on the input received from the workshop, a quick review of the surveys and staff observation, staff is recommending that a combination of 2 hour parking restrictions and no parking on street sweeping day be implemented in the Barham/Discovery Industrial Park. The 2 hour parking restriction will be 24 hours a day to address the overnight parking that is occurring in the Industrial Park. The street sweeping parking restrictions

will be for a few hours verse all day based on input received from the businesses. From a quick review some of the surveys suggest permit parking for businesses, staff cannot recommend or support the idea of permit parking at this time due to the cost and logistical requirements to adequately administer and enforce such a program.

Fiscal Impact

If restricted parking signs are installed there will be a one-time fiscal impact but it is too early to determine the exact cost of the required signage. The average cost for a traffic sign, pole and installation is estimated at $150. Cost and sign pollution will be minimized by installing these new no parking signs on existing light and traffic control poles. Preliminary sign requirements for this area are approximately 55 signs, costing approximately $8,250 to order and install.

Attachment

Map of impacted area
Minutes from March 12, 2014 workshop

Prepared by:

Karl Schwarm, HANS Div. Director

Approved by:

Lydia Romero, Deputy City Manager

AGENDA ITEM NO. _____

Barham/Discovery Industrial Park

Disclaimer: Map and parcel data are believed to be accurate, but accuracy is not guaranteed. This is not a legal document and should not be substituted for a title search,appraisal, survey, or for zoning verification.

Map Scale
1 inch = 476 feet
2/19/2014

RESOLUTION NO. 2014-7969

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN MARCOS AUTHORIZING THE CREATION OF PARKING RESTRICTIONS IN THE BARHAM/DISCOVERY INDUSTRIAL PARK

WHEREAS, the City, through the regional stormwater permit, is required to maximize the existing development pollutant load reduction and storm water pollution prevention program for municipal streets and roads through our existing street sweeping program; and

WHEREAS, recent studies by the City of San Diego and other southern California municipalities show that efficient street sweeping practices, such as maximizing curb miles swept through parking enforcement practices, result in pollutant load reductions for sediment, bacteria, trash, green litter debris (leaves), and nutrients; and

WHEREAS, the City currently cleans arterial, collector and industrial streets every week and residential streets every two weeks resulting in 15,165 curb miles of street swept a year, which in FY-2012/13 resulted in approximately 715 tons of debris removed from the streets; and

WHEREAS, a survey of the entire City was conducted by the street sweeper vendor and in the Barham/Discovery Industrial Park near California State University San Marcos the program is having little effect on removing trash and debris from the gutter/storm drain system due to the high volume of student parking in this area; and

WHEREAS, it is estimated that in this impacted neighborhood alone, a significant amount of debris and trash are going into the storm drain yearly because the sweepers by-pass over 2,018 parked cars each year; and

WHEREAS, the creation of a no parking zone on street sweeping days in the Barham/Discovery Industrial Park will enhance the City's stormwater program by reducing the pollutant load entering our storm drain system; and

WHEREAS, student parking during the day and at night has negatively impacted businesses in the Barham/Discovery Industrial Park.

NOW, THEREFORE, BE IT RESOLVED that the City Council does hereby find:

1. The above recitals are true and correct.

2. Authorize the creation of a street sweeping parking enforcement program in the Barham/Discovery Industrial Park directly to the north of California State University San Marcos on the following streets: Industrial Street, E. Carmel Street, Trade Street, La Moree Road, Venture Street, Hill Drive, Distribution Street, Production Street and Enterprise Street.

3. Authorize the posting of signs in the designated area that state: "No Parking on Mondays from 7 a.m. to 10 a.m. for Street Sweeping purposes."

4. Authorize the posting of signs in the designated area that state: "Two Hour Parking."

PASSED, APPROVED, AND ADOPTED by the City Council of the City of San Marcos, this 22nd day of July 2014 by the following roll call vote:

AYES:	COUNCILMEMBERS:	JABARA, JENKINS, JONES, ORLANDO, DESMOND
NOES:	COUNCILMEMBERS:	NONE
ABSENT:	COUNCILMEMBERS:	NONE

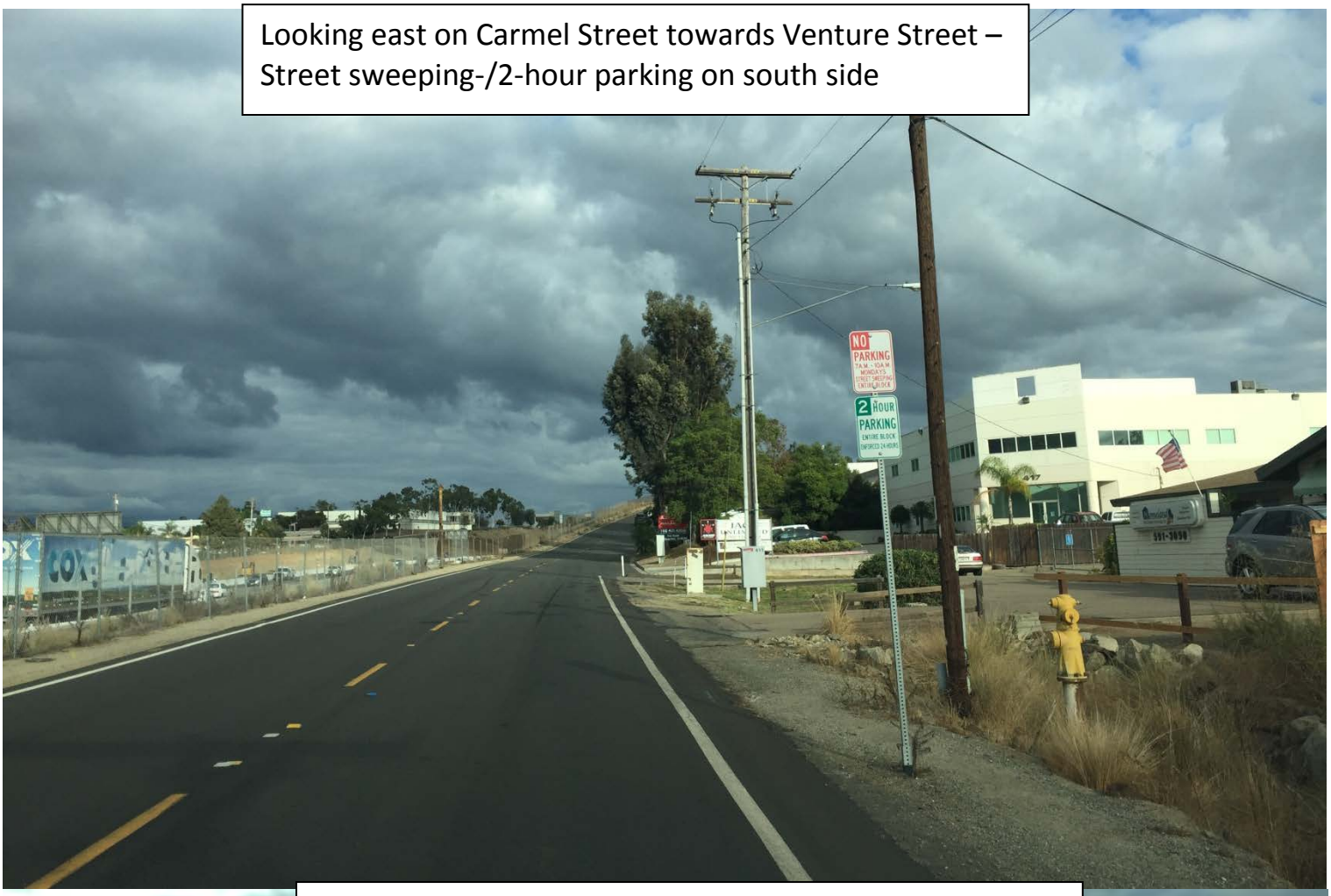
James M. Desmond, Mayor
City of San Marcos

ATTEST:

Phillip Scollick, City Clerk
City of San Marcos

Looking West on Carmel Street toward Campus Way – On-street parking on north side

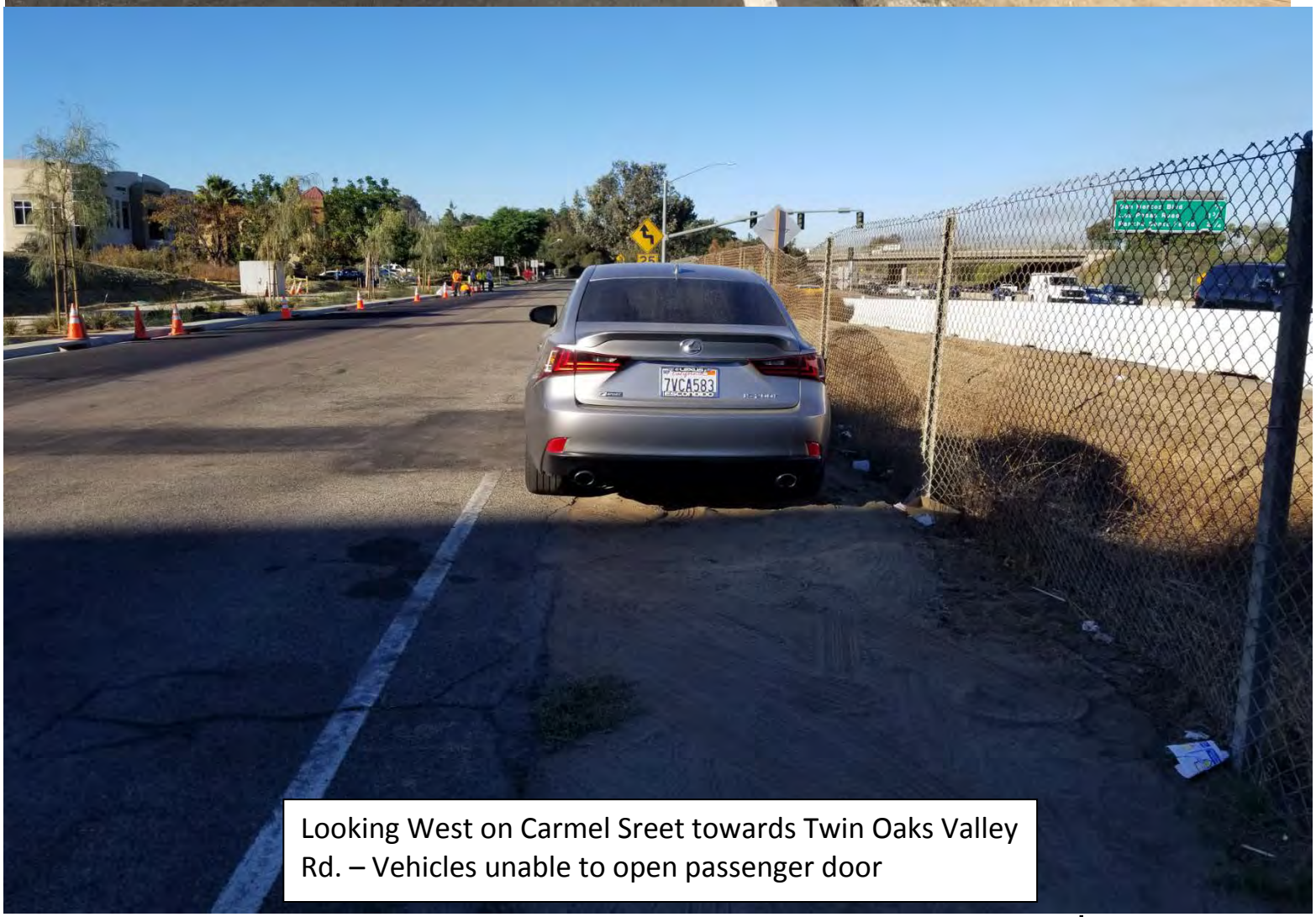
Looking East on Carmel Street toward Industrial Street – Street sweeping/2-hour parking on south side



Looking east on Carmel Street towards Venture Street – Street sweeping-/2-hour parking on south side

Looking west on Carmel Street towards Venture Street – Street sweeping/2-hour parking to be replaced with NO PARKING ANYTIME signs

Looking West on Carmel Street towards Carmel Street – Vehicles parked close to the white edgeline



Looking West on Carmel Sreet towards Twin Oaks Valley Rd. – Vehicles unable to open passenger door

Looking East on Carmel Street - On-street parking on north side

Looking West on Carmel Street - On-street parking on north side

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

AGENDA REPORT

Meeting of the San Marcos Traffic Commission

MEETING DATE:	April 4, 2018
AGENDA ITEM NO:	7B
SUBMITTED BY:	Michael Rafael, P.E. – Senior Civil Engineer
APPROVED BY:	Nic Abboud, P.E. – Principal Civil Engineer
SUBJECT:	Oleander Avenue – Speeding Concerns

BACKGROUND:

Engineering staff received traffic safety concerns from residents on Oleander Avenue between Alamitos Way and Las Flores Drive. Residents reported motorists speeding on Oleander Avenue in the early morning hours. Residents have already reached out to the Sheriff's department for speed enforcement but stated that the speeding concerns continue. Residents also feel that Oleander Avenue experiences high traffic volumes and cut-through since the temporary DMV on Descanso Avenue was opened. Residents are requesting City staff to consider installation of a new ALL WAY STOP sign at the intersection of Oleander Avenue and Heather Ridge Road to help reduce vehicle speeds.

DISCUSSION:

The study area is located on Oleander Avenue between Alamitos Way and Las Flores Drive in the westerly part of the City (see attached Vicinity Map). This roadway section is classified as a two-lane, undivided residential street based on the City's Urban Street Design criteria. The residential street varies in width from 24 to 40 feet with intermittent sidewalks and on-street parking. There are no posted speed limits on Oleander Avenue, however, the street satisfies the residential district criteria for a prima facie speed of 25 MPH per the California Vehicle Code (CVC) section 515 and 22353 (b)(1). The roadway segment provides access to (2) two previously built home developments on Heather Ridge Road and Mustang Way, and other residential lots on Descanso Avenue (private road). Oleander Avenue also continues west where it connects to Poinsettia Avenue in the County of San Diego.

Oleander Avenue has a relatively flat street grade from Alamitos Way to Heather Ridge Road. However, the street grade increases to 10 percent from Heather Ridge Road to approximately 300 feet east of Las Flores Drive. Westbound Oleander traffic descends to a 10 percent grade downhill where vehicle speeds increase towards Heather Ridge Road.

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San Marcos, CA 92069

Descanso Avenue which turns into Alamitos Way and Oleander Avenue is the main collector to the West City area (see attached map). Motorists have used this route to access the Vista Business Park in the City of Vista and Rancho Santa Fe Road/SR-78 freeway. Las Flores Drive is also classified as a residential street with narrow roadway widths of approximately 20 feet. There are no sidewalks or curbs and gutters along this segment. This street connects to Oleander Avenue to the north where the intersection is STOP-controlled. Joli Ann Leichtag Elementary School is also located on Oleander Avenue, approximately 1/4 mile west of Descanso Avenue/Alamitos Way in the County of San Diego.

Engineering staff conducted an engineering study to determine the feasibility of implementing an ALL-WAY STOP control at the intersection of Heather Ridge Road and Oleander Avenue. The intersection is located midblock on Oleander Avenue between Las Flores Drive and Alamitos Way. Currently, the intersection is STOP-controlled on Heather Ridge Road but not on Oleander Avenue. ALL-WAY STOP-controls at intersections are intended to assign right-of-way at locations where traffic volumes are approximately equal from all approaches and not used for speed control. Installation of unwarranted stop signs is discouraged for it has been shown to result in higher speeds between controlled intersections, rolling stops through intersections, and increased noise pollution.

An ALL-WAY STOP control may be implemented based on criteria established per the California Manual on Uniform Traffic Control Devices (CA MUTCD). Following is a summary of the criteria considered in an engineering study for an ALL-WAY STOP control implementation: five (5) or more reported crashes in a consecutive 12-month period that are correctible by multi-way STOP-control; vehicular volumes entering the intersection from the major street average at least 300 vehicles per hour; combined vehicular, pedestrian, and bicycle volumes entering the intersection from the minor street amounts to at least 200 units per hour; and average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour. Other criteria that may also be considered include: the need to control left turn conflicts, the need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes, the need to account for line of sight restrictions at locations where road user cannot see conflicting traffic, and the need to improve traffic operations at two residential neighborhood collector (through) streets.

Based on the traffic volumes collected on Oleander Avenue and the estimated traffic volumes on Heather Ridge Way, the minimum traffic volume criteria for consideration of an ALL-WAY STOP-control are not satisfied (57 vehicles per hour in the AM peak versus 300 vehicles per hour required). Intersection sight distance was measured to approximately 230 feet to the west and 250 to the east, which is adequate for the prima facie speed of 25 MPH. There are no collisions reported at the intersection for the last 5 years. No pedestrian crossings were observed crossing at the intersection. Based on our staff assessment, an ALL-WAY STOP-control is not currently warranted at this location.

Engineering staff had initially deployed the City's speed radar trailers on Oleander Avenue at the request of the residents to help reduce vehicle speeds over the past few months. City staff collected traffic speed and volume data to evaluate and determine if traffic calming measures were warranted. Based on the data collected, westbound traffic volumes surged from 6 to 9 AM compared to eastbound traffic volumes (see attached graph). Speeds also in the westbound direction were significantly higher

City of San Marcos
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San Marcos, CA 92069

than the eastbound direction (39 MPH vs. 33 MPH for the 85th percentile speeds). The increased traffic volume and speeds are likely from a combination of drivers short-cutting through Oleander Avenue to get to Vista Business Park on Poinsettia Avenue and/or to get to Joli Ann Leichtag Elementary school on Oleander Avenue. Data also indicated that eastbound traffic on Oleander Avenue was normal and average for a typical weekday.

Based on the findings of this study, Engineering staff proposes the use of roadway striping (edgeline and centerline) and 25 MPH speed limit signage as a viable, low-cost traffic calming option for speed reduction on Oleander Avenue. Edgeline striping gives the visual impression that roadway width has been reduced, which has been shown to slow vehicles down. In addition, striping introduces friction with other motorists traveling in the opposite direction and generates heightened driver awareness. A number of roadway striping traffic calming alternatives have been successfully implemented on similar residential streets (Via Vera Cruz and Knob Hill Road). Roadway striping does not impact Fire, emergency, or City maintenance services. Roadway striping provides several benefits including: greater flexibility for future changes, delineation of bike or parking lanes, recognition by local residents as standard traffic control device, and has been shown to reduce speeds from one to more than seven miles per hour. City staff also recommends periodic speed enforcement by the Sheriff's Department and deployment of the City's speed radar trailers in combination with the striping improvements to help build speed compliance in the neighborhood. Staff will monitor the effects of the traffic calming striping for at least a year to ensure its continued benefit to the neighborhood. More aggressive traffic calming devices involving geometric changes such as the installation of speed cushions, traffic circles, chokers, chicanes, and full/partial roadway closures may be considered in the event that the traffic calming striping is not successful in reaching the speed reduction goals desired by the community. A reassessment of the conditions would be necessary before more aggressive options are considered.

In the course of the field investigations, Mustang Way was found to have a "YIELD" sign installed at the T-intersection with Oleander Avenue, which is considered to be the minor street. Oleander Avenue also has a "YIELD" sign installed at the T-intersection with Las Flores Drive, which is considered the minor street. Per the California Manual on Uniform Traffic Control Devices (CAMUTCD), Section 2B.06, STOP Sign Applications and based on the existing traffic conditions, the existing YIELD signs should be replaced with STOP signs to enhance traffic operations at the intersection.

CONCLUSION AND RECOMMENDATIONS:

Engineering staff recommends installation of traffic calming striping (4-inch white edgeline and yellow centerline striping) to help reduce vehicular speeds on Oleander Avenue. Staff also recommends installation of new one-way STOP signs on Oleander Avenue at Las Flores Drive, and on Mustang Way at Oleander Avenue to improve right-of-way operations. Staff recommends speed enforcement by the Sheriff's Department during the AM Peak period (6 to 9 AM) in the westbound direction and periodic deployment of the City's speed radar trailers to help build and reinforce speed compliance on Oleander Avenue.

City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

Traffic Data/Roadway Information:

Traffic Volumes:
Oleander Avenue, Alamitos Way and Las Flores Drive - 636 VPD (vehicles per day, 2018).
Descanso Avenue, Las Flores Drive and Oleander Avenue – 5,621 VPD (vehicles per day, 2017).
Oleander Avenue, Alamitos Way and Smilax Road – 7,570 VPD (vehicles per day, 2017).

Speed Limit:
Oleander Avenue, Alamitos Way and Las Flores Drive, non-posted.
Descanso Avenue, Rancho Santa Fe Road and Alamitos Way, 35 MPH, posted.
Alamitos Way, Descanso Avenue and Oleander Avenue, 30 MPH, posted.
Oleander Avenue, Alamitos Way and Poinsettia Avenue, 25 MPH, posted.

Accident History (last 3 years):
05/29/17: Alamitos Way/Oleander Ave, Head-on collision, fixed object, DUI, injury, V1 traveling eastbound.

Unusual Conditions: None.

Attachment(s)
Vicinity Map
Oleander Avenue Proposed Striping Improvements Exhibit
Traffic Volume and Speed Data
Traffic Calming Striping Photos (Via Veracruz and Knob Hill Road)
Photos

VICINITY MAP
OLEANDER AVENUE BETWEEN ALAMITOS WAY AND LAS FLORES DRIVE

APRIL 4, 2018
CITY OF SAN MARCOS TRAFFIC COMMISSION
AGENDA #7B

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Oleander Avenue
Proposed Striping Improvements
April 2018 Traffic Commission
AGENDA #7B

CONSTRUCTION NOTES:

1. INSTALL R2-1 (25, 24"X30") ON NEW BREAKAWAY POST
2. REMOVE 40' OF EXISTING DOUBLE YELLOW (DETAIL 21)
3. INSTALL DETAIL 27B PER CALTRANS STANDARD PLANS

✱ REMOVE EXISTING CONFLICTING STIRPING

0 12.5 25 50 75 Feet

1 inch = 75 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos USGS (10/2014)

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Oleander Avenue
Proposed Striping Improvements
April 2018 Traffic Commission
AGENDA #7B

CONSTRUCTION NOTES:

1. REMOVE EXISTING R1-2 "YIELD" SIGN AND "YIELD" PAVEMENT MARKINGS
2. INSTALL R1-1 "STOP" SIGN (30"X30") ON NEW POST, NEW STOP LEGEND, AND STOP BAR
3. INSTALL 30' DETAIL 21(DOUBLE YELLOW) PER CALTRANS STANDARD PLANS
4. INSTALL DETAIL 27B PER CALTRANS STANDARD PLANS
5. INSTALL 50' DETAIL 27C
6. INSTALL TYPE IV(R) ARROW (TYPICAL)

*REMOVE EXISTING CONFLICTING STRIPING

0 12.5 25 50 75 Feet
1 inch = 75 feet
N

CREATED BY: City of San Marcos GIS
DATA SOURCES: City of San Marcos
USGS (10/2014)

Q:\Projects\TrafficMaps\RGarcia\8.5x11 Landscape Oleaneder Pages.mxd 3/27/2018

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Oleander Avenue
Proposed Striping Improvements
April 2018 Traffic Commission
AGENDA #7B

CONSTRUCTION NOTES:

1. INSTALL R2-1 (25, 24"X30") ON NEW BREAKAWAY POST
2. REMOVE EXISTING R1-2 "YIELD" SIGN AND INSTALL R1-1 "STOP" SIGN (30"X30") ON BREAKAWAY POST AND INSTALL NEW STOP LEGEND AND STOP BAR
3. INSTALL DETAIL 25' 21(DOUBLE YELLOW) PER CALTRANS STANDARDS

0 12.5 25 50 75 Feet

1 inch = 75 feet

N

CREATED BY: City of San Marcos GIS

DATA SOURCES: City of San Marcos
USGS (10/2014)

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Oleander Ave W/O Heather Ridge Rd

Day: Tuesday
Date: 3/6/2018

City: San Marcos
Project #: CA18_4080_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	275	361	636

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		0		0		0			
00:15	0		0		0		1		1	
00:30	0		0		0		1		1	
00:45	0		0		1	1	1	3	2	4
01:00	0		0		1		0		1	
01:15	0		0		0		0			
01:30	0		0		0		0			
01:45	0		0		0	1	2	2	2	3
02:00	0		0		0		0			
02:15	0		0		0		0			
02:30	0		0		0		0			
02:45	0		0		1	1	1	1	2	2
03:00	0		0		0		2		2	
03:15	0		0		0		0			
03:30	0		0		0		0			
03:45	0		0		1	1	0	2	1	3
04:00	0		0		1		0		1	
04:15	0		0		0		1		1	
04:30	0		0		0		5		5	
04:45	0		0		1	2	4	10	5	12
05:00	0		0		0		3		3	
05:15	0		0		1		2		3	
05:30	0		0		3		4		7	
05:45	0		0		2	6	15	24	17	30
06:00	0		0		3		7		10	
06:15	0		0		1		9		10	
06:30	0		0		4		6		10	
06:45	0		0		2	10	25	47	27	57
07:00	0		0		5		4		9	
07:15	0		0		4		7		11	
07:30	0		0		3		10		13	
07:45	0		0		3	15	5	26	8	41
08:00	0		0		4		10		14	
08:15	0		0		5		5		10	
08:30	0		0		5		11		16	
08:45	0		0		1	15	3	29	4	44
09:00	0		0		6		4		10	
09:15	0		0		1		6		7	
09:30	0		0		1		4		5	
09:45	0		0		2	10	4	18	6	28
10:00	0		0		4		1		5	
10:15	0		0		3		1		4	
10:30	0		0		1		1		2	
10:45	0		0		4	12	2	5	6	17
11:00	0		0		5		2		7	
11:15	0		0		4		2		6	
11:30	0		0		2		1		3	
11:45	0		0		3	14	3	8	6	22
TOTALS						88		175		**263**
SPLIT %						33.5%		66.5%		**41.4%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00	0		0		5		4		9	
12:15	0		0		8		6		14	
12:30	0		0		3		2		5	
12:45	0		0		4	20	7	19	11	39
13:00	0		0		7		4		11	
13:15	0		0		4		1		5	
13:30	0		0		2		7		9	
13:45	0		0		5	18	2	14	7	32
14:00	0		0		7		14		21	
14:15	0		0		5		6		11	
14:30	0		0		2		5		7	
14:45	0		0		7	21	4	29	11	50
15:00	0		0		5		7		12	
15:15	0		0		8		3		11	
15:30	0		0		5		4		9	
15:45	0		0		3	21	5	19	8	40
16:00	0		0		3		3		6	
16:15	0		0		9		8		17	
16:30	0		0		8		6		14	
16:45	0		0		5	25	5	22	10	47
17:00	0		0		5		2		7	
17:15	0		0		9		2		11	
17:30	0		0		4		8		12	
17:45	0		0		3	21	7	19	10	40
18:00	0		0		4		7		11	
18:15	0		0		7		8		15	
18:30	0		0		10		9		19	
18:45	0		0		3	24	2	26	5	50
19:00	0		0		4		4		8	
19:15	0		0		1		5		6	
19:30	0		0		3		10		13	
19:45	0		0		4	12	0	19	4	31
20:00	0		0		2		0		2	
20:15	0		0		4		4		8	
20:30	0		0		2		2		4	
20:45	0		0		5	13	1	7	6	20
21:00	0		0		1		2		3	
21:15	0		0		1		1		2	
21:30	0		0		1		1		2	
21:45	0		0		1	4	1	5	2	9
22:00	0		0		1		0		1	
22:15	0		0		1		2		3	
22:30	0		0		0		1		1	
22:45	0		0		2	4	1	4	3	8
23:00	0		0		0		0			
23:15	0		0		1		2		3	
23:30	0		0		2		0		2	
23:45	0		0		1	4	1	3	2	7
TOTALS						187		186		**373**
SPLIT %						50.1%		49.9%		**58.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	275	361	636

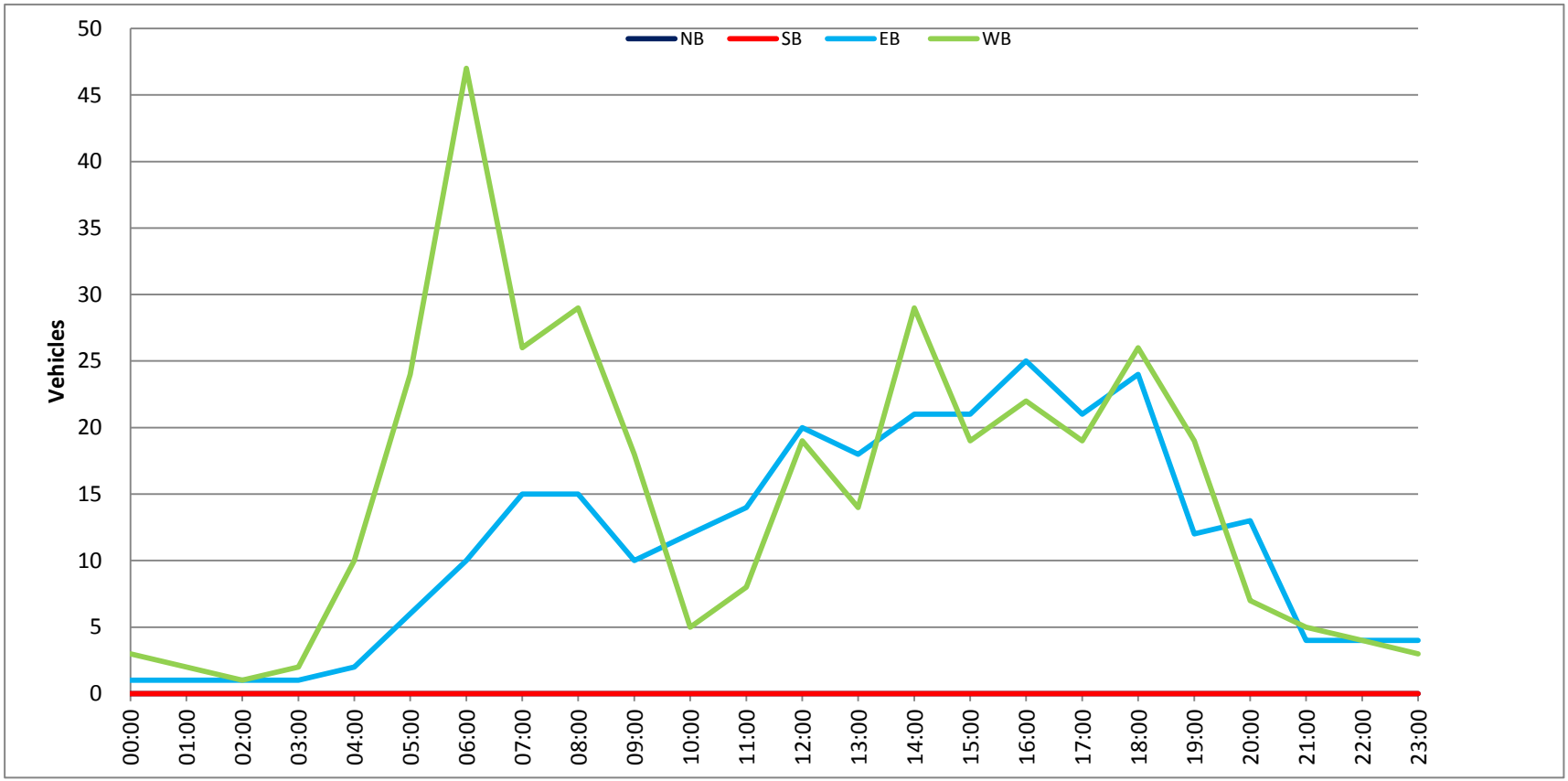
AM Peak Hour			11:45	06:00	**06:45**
AM Pk Volume			19	47	**60**
Pk Hr Factor			0.594	0.470	**0.556**
7 - 9 Volume	0	0	30	55	**85**
7 - 9 Peak Hour			07:45	07:15	**07:45**
7 - 9 Pk Volume	0	0	17	32	**48**
Pk Hr Factor	0.000	0.000	0.850	0.800	**0.750**

PM Peak Hour			16:15	17:45	**17:45**
PM Pk Volume			27	31	**55**
Pk Hr Factor			0.750	0.861	**0.724**
4 - 6 Volume	0	0	46	41	**87**
4 - 6 Peak Hour			16:15	16:00	**16:15**
4 - 6 Pk Volume	0	0	27	22	**48**
Pk Hr Factor	0.000	0.000	0.750	0.688	**0.706**

Prepared by NDS/ATD

Project #: CA18_4080_003 **City:** San Marcos

Location: Oleander Ave W/O Heather Ridge Rd **Date:** 3/6/2018



Prepared by National Data & Surveying Services

SPEED

Oleander Ave W/O Heather Ridge Rd

Day: Tuesday
Date: 3/6/2018

City: San Marcos
Project #: CA18_4080_003e

East Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00	0	0	2	2	1	1	0	0	0	0	0	0	0	6
06:00	2	0	4	4	0	0	0	0	0	0	0	0	0	10
07:00	1	2	4	3	1	2	1	1	0	0	0	0	0	15
08:00	3	0	2	8	2	0	0	0	0	0	0	0	0	15
09:00	1	1	1	5	1	1	0	0	0	0	0	0	0	10
10:00	1	0	3	2	3	3	0	0	0	0	0	0	0	12
11:00	3	3	4	3	0	1	0	0	0	0	0	0	0	14
12:00 PM	1	2	3	6	5	2	1	0	0	0	0	0	0	20
13:00	1	2	2	6	5	1	0	0	1	0	0	0	0	18
14:00	0	4	7	4	4	0	2	0	0	0	0	0	0	21
15:00	0	4	4	6	4	1	1	1	0	0	0	0	0	21
16:00	2	8	3	7	5	0	0	0	0	0	0	0	0	25
17:00	2	0	5	6	5	3	0	0	0	0	0	0	0	21
18:00	4	3	5	7	3	2	0	0	0	0	0	0	0	24
19:00	0	4	2	4	2	0	0	0	0	0	0	0	0	12
20:00	2	0	5	6	0	0	0	0	0	0	0	0	0	13
21:00	0	0	1	3	0	0	0	0	0	0	0	0	0	4
22:00	0	0	0	3	0	1	0	0	0	0	0	0	0	4
23:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4
Totals	23	35	60	88	42	18	5	2	2					275
% of Totals	8%	13%	22%	32%	15%	7%	2%	1%	1%					100%

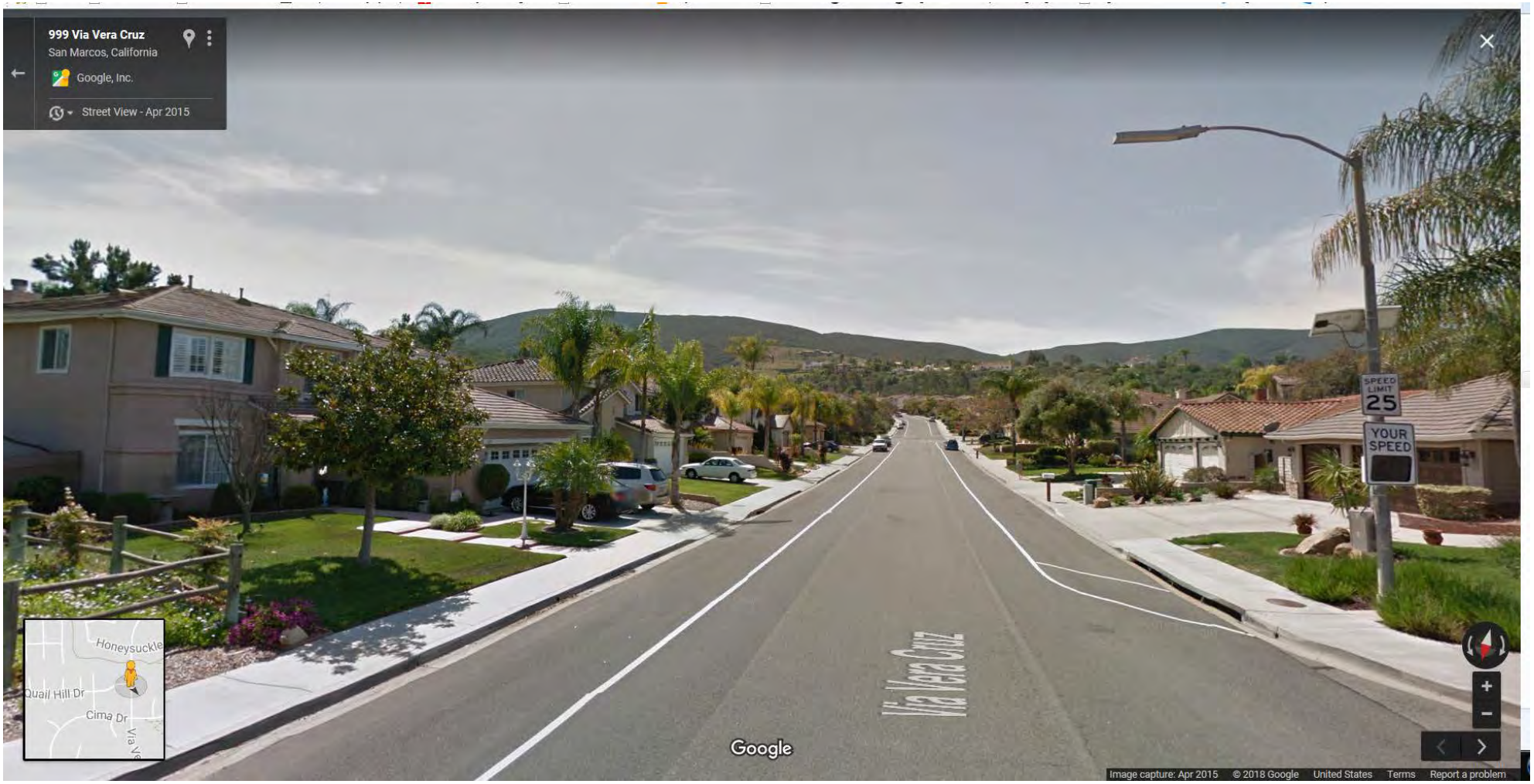
AM Volumes	11	8	21	28	9	8	1	1	1	0	0	0	0	88
% AM	4%	3%	8%	10%	3%	3%	0%	0%	0%					32%
AM Peak Hour	08:00	11:00	06:00	08:00	10:00	10:00	07:00	07:00						07:00
Volume	3	3	4	8	3	3	1	1	1					15
PM Volumes	12	27	39	60	33	10	4	1	1	0	0	0	0	187
% PM	4%	10%	14%	22%	12%	4%	1%	0%	0%					68%
PM Peak Hour	18:00	16:00	14:00	16:00	12:00	17:00	14:00	15:00	13:00					16:00
Volume	4	8	7	7	5	3	2	1	1					25

Directional Peak Periods	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds	Volume	↔	%	Volume	↔	%	Volume	↔	%	Volume	↔	%
	30		11%	38		14%	46		17%	161		59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Oleander Ave	East Bound	18	26	26	33	39	275
Oleander Ave	West Bound	19	29	29	39	44	361

KNOB HILL ROAD BETWEEN BENNETT AVENUE TO NORDAHL ROAD

- Knob Hill Road classified as a residential street
- Edgeline striping and 25 MPH speed limit signs installed on Knob Hill Road for traffic calming
- 24 feet wide between edgelines and 8-foot parking lane with double yellow centerline



VIA VERA CRUZ BETWEEN QUAIL HILL DRIVE AND CIMA DRIVE

- Via Vera Cruz classified as residential street between Quail Hill Drive and Cima Drive
- Edgeline striping, 25 MPH speed limit signs, and speed radar signs installed on Via Vera Cruz for traffic calming
- 22 feet wide between edgelines and 8-foot parking lane with no double yellow centerline


LOOKING WESTBOUND ON OLEANDER AVE. TOWARDS HEATHER RIDGE ROAD
10 % GRADE DOWNHILL TO HEATHER RIDGE RD.
HEATHER RIDGE RD


LOOKING EASTBOUND ON OLEANDER AVE. TOWARDS HEATHER RIDGE RD.
10% GRADE DOWNHILL
HEATHER RIDGE RD

LOOKING NORTHBOUND ON HEATHER RIDGE RD. TOWARDS OLEANDER AVE.

LOOKING SOUTHBOUND ON MUSTANG WAY TOWARDS OLEANDER AVE.- YIELD SIGN TO BE REPLACED WITH STOP SIGN AND STOP BAR

LOOKING WESTBOUND ON OLEANDER AVE. AT ALAMITOS WAY – TO VISTA BUSINESS PARK AND JOLI ANN LEICHTAG ELEMENTARY SCHOOL

LOOKING EASTBOUND ON OLEANDER AVE. AT LAS FLORES DRIVE- YIELD SIGN TO BE REPLACED WITH STOP SIGN AND STOP BAR

LOOKING WESTBOUND ON OLEANDER AVE. AT HEATHER RIDGE ROAD – INTERSECTION SIGHT DISTANCE IS SUFFICIENT FOR 25 MPH SPEED

LOOKING EASTBOUND ON OLEANDER AVE. AT HEATHER RIDGE ROAD – INTERSECTION SIGHT DISTANCE IS SUFFICIENT FOR 25 MPH SPEED

LOOKING WESTBOUND ON DESCANSO AVENUE – MOTORISTS TURN RIGHT ONTO NB LAS FLORES DRIVE TO CUT-THROUGH OLEANDER AVENUE DURING THE AM PEAK (6-9 AM)

LOOKING NORTHBOUND ON LAS FLORES DRIVE AT OLEANDER AVENUE – MOTORISTS TURN LEFT ONTO OLEANDER AVENUE DURING THE AM PEAK (6-9 AM)