

AGENDA

Meeting of the San Marcos Traffic Commission

Meeting Date: September 4, 2019 | **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

June 5th, 2019

6. OLD BUSINESS

a. None

7. NEW BUSINESS

a. Quail Hill Drive – Residential Speeding and Traffic Safety Concerns

8. REPORTS AND INFORMATION ITEMS

- a. Engineering Staff Updates
- b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log
- c. Traffic Commission Commentary
- d. Staff Commentary

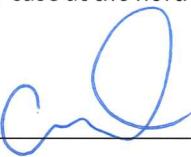
ADJOURNMENT

AFFIDAVIT OF POSTING

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

I, Aurelia Velasquez, Secretary, San Marcos Traffic Commission, hereby certify that I caused the posting on August 28, 2019 of this agenda in the glass display case at the north entrance of City Hall.

DATED: August 28, 2019



Aurelia Velasquez
Traffic Commission Secretary

MINUTES

Meeting of the San Marcos Traffic Commission

WEDNESDAY, JUNE 5, 2019 | 6:00 PM

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

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

2. PLEDGE OF ALLEGIANCE: Led by Commissioner Morgan

3. ROLL CALL:

PRESENT: CHRISTIAN, MAKROGIANNIS, HANSEN, COLLINS, BRIDGE, HOAGLIN, BUCKLEY

ABSENT: RICO, MASTERSON

ALSO PRESENT: Senior Traffic Engineer, Mike Rafael; Principal Traffic Engineer, Nicholas Abboud; Traffic Sergeant, Nicholas Maryn; and Traffic Commission Secretary, Aurelia Velasquez.

4. ORAL COMMUNICATIONS

a) None

5. APPROVAL OF MINUTES – April 3, 2019

Commissioner Hoaglin makes a motion to accept the minutes as recorded. Commissioner Christian seconds the motion. Motion carries.

AYES: COMMISSIONERS: HOAGLIN, CHRISTIAN

NOES: COMMISSIONERS:

ABSTAINS: COMMISSIONERS: BRIDGE, HANSEN, MAKROGIANNIS

6. OLD BUSINESS

a. None

7. NEW BUSINESS

a. Semi-truck Turning Restrictions at the Intersection of Sycamore Drive and Olive Street.

The City has a history of recurring damages to the existing guardrails at the intersection of Sycamore Drive and Olive Street prompted City staff to investigate if alternative traffic safety measures may be needed to minimize the recurrence of similar fixed-object crashes. The intersection of Sycamore Drive and Olive Street is controlled by ALL WAY STOP signs. There is an existing timber bridge structure (asphalt top, triple box culvert with timber railing posts) on Olive Street immediately to the west of Sycamore Drive, which severely limits the turning radius at the northwestern corner of the intersection. City Traffic Engineering staff researched history of damages to the existing guardrails at the Olive Street/Sycamore Drive intersection for the last five (5) years. The list of damages by location and date are given below:

- Northwest corner: 04/21/14, 12/7/15, 1/20/16, 3/8/16, 5/8/17, 1/17/19
- Northeast corner: 04/12/18
- Southwest corner: 01/04/17

Engineering staff recommends the Traffic Commission to approve the installation of:

- A “NO RIGHT TURN” restriction for semi-truck trailers exceeding 26 feet from the kingpin to the rear-axle.
- A new, modified R20-1(CA) regulatory sign shall be posted in the southbound direction of Sycamore Drive at Olive Street.
- A “NO LEFT TURN” restriction for semi-truck trailers exceeding 26 feet from the kingpin to the rear-axle in the eastbound direction of Olive Street at Sycamore Drive.

Commissioner Makrogiannis makes a motion to accept the proposed recommendations by engineering staff as presented. Commissioner Hansen seconds the motion. Motion carried by majority vote.

AYES: COMMISSIONERS: CHRISTIAN, COLLINS, BRIDGE, HOAGLIN, BUCKLEY

NOES:

ABSTAINS:

8. REPORTS AND INFORMATION ITEMS

- a. Engineering Staff Updates
- b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log
- c. Traffic Commission Commentary
 - 1. Commissioner Makrogiannis raised a concern for the increase level of traffic up the hill at San Elijo and Double Peak. Would like Staff to consider a Right Turn lane.
- d. Staff Commentary

9. ADJOURNMENT: Chairman Collins adjourned the meeting at 6:47 pm.

Arturo Rico, Chairman
Traffic Commission

ATTEST:

Aurelia Velasquez, Secretary
Traffic Commission

AGENDA REPORT

Meeting of the San Marcos Traffic Commission

MEETING DATE: September 4, 2019

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: Quail Hill Drive – Residential Speeding and Traffic Safety Concerns

BACKGROUND:

Engineering staff received traffic safety concerns from San Marcos residents living adjacent to Quail Hill Drive. Residents reported residential speeding along Quail Hill Drive between La Sombra Drive and Via Vera Cruz. Residents are interested if speed bumps may be considered on Quail Hill Drive to reduce vehicle speeding. Residents are also concerned about the pedestrian safety on the street due to a recent bicycle and vehicle collision on Quail Hill Drive. Based on these resident concerns, Engineering staff has initiated a traffic safety evaluation of Quail Hill Drive.

DISCUSSION:

The study area is located on Quail Hill Drive between La Sombra Drive and Via Vera Cruz in the San Elijo Hills community (see attached Vicinity Map). This roadway section is classified as a two-lane, residential street, approximately 1/3 mile in length, based on the City's Urban Street Design criteria. There are (6) six minor residential streets that intersect Quail Hill Drive (Canary Court, Red Hawk Way, Cardinal Court, Partridge Court, Goldfinch Way, and Robin Court). The street provides access to single family homes on Quail Hill Drive and Via Vera Cruz. The street segment between La Sombra Drive and McMahr Road measures 36 feet curb to curb with sidewalks on both sides. The street segment from McMahr Road to Via Vera Cruz measures 40 feet curb to curb. There are no restrictions for on-street parking for both segments. The slope of the street is relatively flat with a slight grade increase of 4.5 percent, 300 feet west of McMahr Road. The posted speed limit is 25 MPH, which meets the *prima facie* speed limit and residential density criteria per the California Vehicle Code. There is an existing neighborhood park on the north side of the street, approximately mid-block on the street.

Engineering staff conducted an engineering study to determine if traffic calming measures may be warranted on Quail Hill Drive. Engineering staff collected both traffic speed and volume data for (7) consecutive days at the midblock of the street (between Cardinal Court and Partridge Court adjacent to the neighborhood park). Based on the data collected, the highest traffic volumes along the roadway segment occurred during the morning peak (7-8am) and afternoon peak (3-4pm) which is consistent with residential traffic patterns. The 85th percentile speeds and ADTs (average daily traffic) are summarized in a table (see attached).

The highest 85th percentile speed recorded during the 7-day collection period was 34 MPH. Speeds greater than 7 MPH over the posted speed limit would generally warrant the need for some type of traffic calming on the residential street. The majority of frequent offenders are area residents living nearby. Similarly, traffic volumes are consistent with the residential roadway classification with an average of 746 vehicles per day (VPD) and an average of 514 VPD on the weekend. Based on a review of the existing and adjacent single family developments on Quail Hill Drive, cut-through traffic is non-existent.

Engineering staff reviewed the community's request for ALL-WAY STOP controls along Quail Hill Drive to improve pedestrian safety and reduce vehicle speeds. Per the CAMUTCD, 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. Other criteria used for warranting an all-way stop control include the following: (5) five or more reported crashes in a year, the need to control left-turn conflicts, high pedestrian volumes at the intersection, sight distance limitations, and an intersection of two residential through streets of similar design and operating characteristics where an all-way stop-control would improve traffic operations.

Staff has determined that traffic volumes are unequal, stopping sight distance sufficient, and low pedestrian crossings observed during peak hours at all of the minor intersections on Quail Hill Drive. There was (1) vehicle collision reported in the last 5 years along this roadway segment which occurred at the intersection of McMahr Road and Quail Hill Drive involving a bicyclist. Therefore, based on staff's evaluation of the street segment, ALL-WAY STOP controls are not warranted since CAMUTCD criteria has not been met. However, all intersecting streets to Quail Hill Drive are recommended for one-way STOP signs (to include limit line and pavement markings only) which require motorists to stop to oncoming traffic on the Quail Hill Drive to improve right-of-way operations at the intersections.

In addition, the intersection of McMahr Drive and Quail Hill Drive is currently configured as a two-way stop-control where Quail Hill Drive traffic is stopped. There was a recent hit-and-run collision reported at the intersection involving a child bicyclist. In addition, residents living south of Quail Hill Drive may use McMahr Drive as a cut-through route to avoid the existing two-way stop control at the intersection. Based on staff's engineering judgment, the intersection of McMahr Drive and Quail Hill Drive should be modified to an all-way stop-control to minimize cut-through traffic and improve traffic safety operations at the intersection. Both McMahr Drive and Quail Hill Drive are similar residential through streets.

Based on the findings of this study, Engineering staff proposes the use of edgeline striping as an alternative and effective traffic calming measure to help reduce speeds on residential streets. Past studies have shown a decrease in vehicle speeds ranging from 1 to 7 MPH when roadway striping is implemented as a traffic calming measure. The proposed edgeline roadway striping creates narrow travel lanes, which adds friction to roadway users, thereby inducing drivers to lower their speeds. Similarly, the use of edgeline striping is a low-cost option to install and allows emergency vehicles to maintain their speed. This traffic calming measure is recommended on Quail Hill Drive as the City's initial attempt to implement traffic calming measures and improve livability in the neighborhood.

CONCLUSION AND RECOMMENDATIONS:

Engineering staff recommends the following improvements (see attached exhibit):

- 1) Installation of edgeline striping consisting of a 4-inch white line on Quail Hill Drive between La Sombra Drive and Via Vera Cruz.
- 2) Installation of new one-way STOP signs and limit lines at all minor street intersections.
- 3) Installation of new speed limit signs (25 MPH) and advanced playground warning signs on Quail Hill Drive.
- 4) Installation of a new ALL WAY STOP signs, limit lines, pavement markings, and 50-feet of double yellow centerline at all approaches to the intersection of Quail Hill Drive and McMahr Drive.
- 5) Deployment of the City's speed radar trailers to help build and reinforce speed compliance on Quail Hill Drive.

Traffic Data/Roadway Information:

Traffic Volumes:

Quail Hill Drive, La Sombra Drive and McMahr Road - 746 VPD (vehicles per day, March 2019).

Speed Limit:

Prima Facie (25 MPH), posted.

Accident History (last 5 years):

04/08/19, 7:15 PM – V1 traveling eastbound on Quail Hill Drive turning right on McMahr Road strikes bicyclist heading north turning left onto McMahr Road. Hit-and-run; minor complaint of pain.

Unusual Conditions: None.

Attachment(s)

Vicinity Map

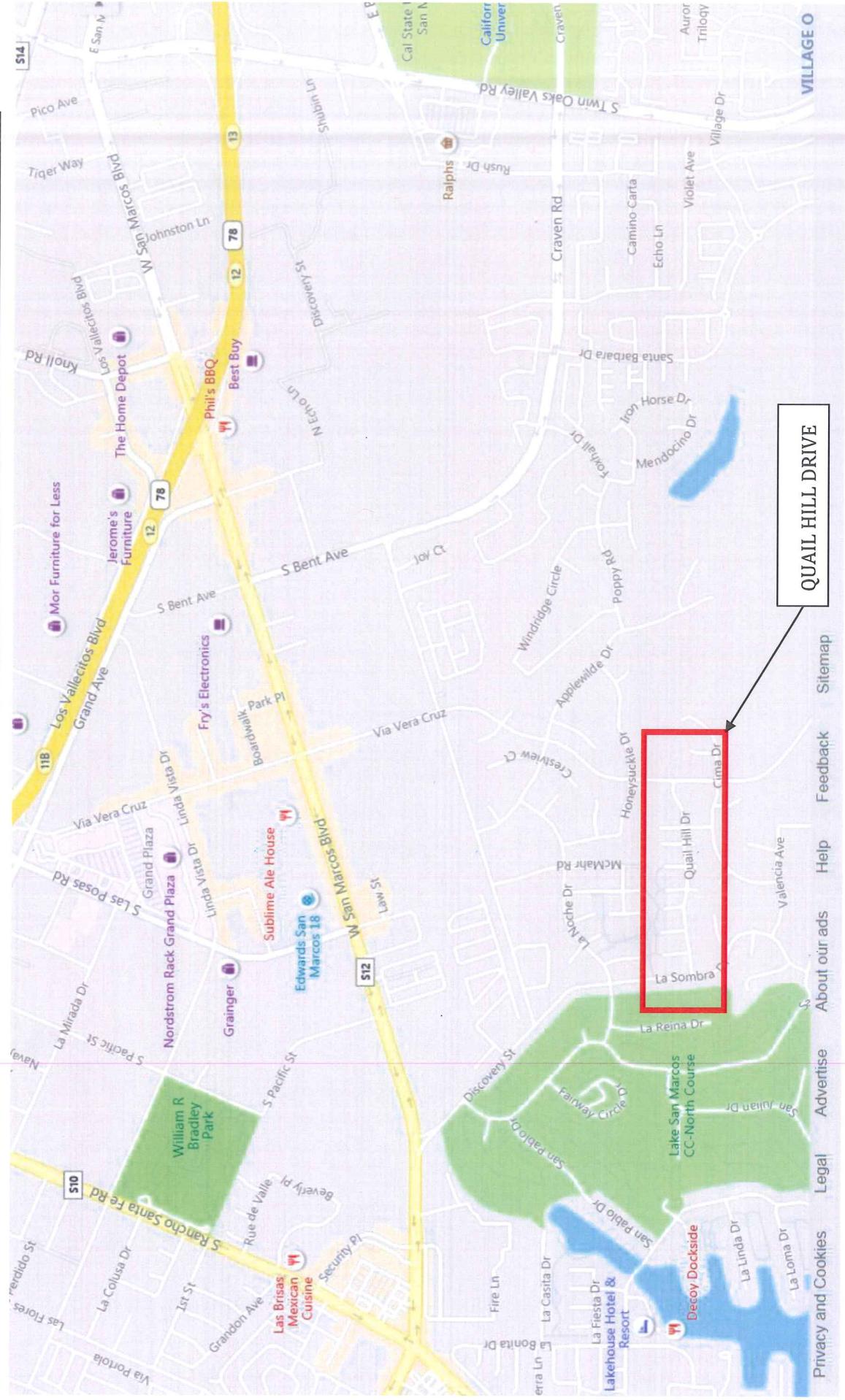
Proposed Traffic Signing and Striping Improvements Exhibit

Traffic Volume and Speed Data Sheet

Photos

VICINITY MAP

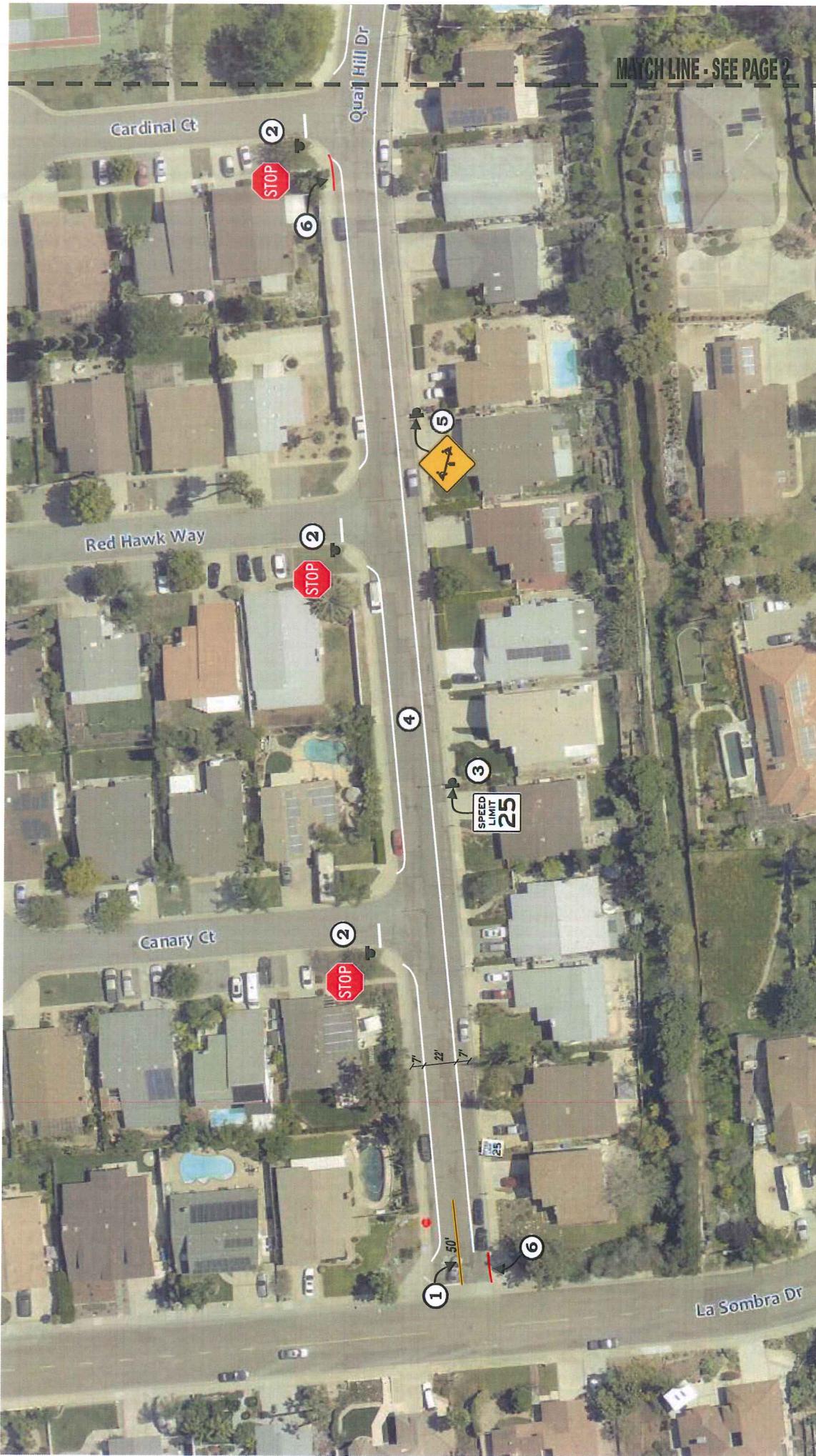
QUAIL HILL DRIVE BETWEEN LA SOMBRA DRIVE AND VIA VERA CRUZ



TC AGENDA #7A
SEPTEMBER 4, 2019



*NOT TO SCALE



CONSTRUCTION NOTES:

- ① INSTALL 50 FT OF DOUBLE YELLOW CENTERLINE (DETAIL 21).
- ② INSTALL NEW STOP BAR AND R1-1 STOP SIGN (30" X 30", HI-INTENSITY) ON NEW ROUND ALUMINUM POST. RELOCATE STREET SIGNS ON NEW POST.
- ③ INSTALL NEW R2-1 (25 MPH) SIGN (24"X30", HI-INTENSITY) ON EXISTING STREET LIGHT.
- ④ INSTALL DETAIL 27B RIGHT WHITE EDGE LINE.
- ⑤ INSTALL NEW W15-1 SIGN (30"X30", HI-INTENSITY) ON EXISTING STREET LIGHT.
- ⑥ INSTALL RED CURB (20 FT).

PROPOSED SIGNING AND STRIPING IMPROVEMENTS

QUAIL HILL DRIVE - TRAFFIC CALMING

AGENDA #7A

SEPTEMBER 4, 2019

PAGE 1 OF 3



*NOT TO SCALE



PAGE 2 OF 3

PROPOSED SIGNING AND STRIPING IMPROVEMENTS

QUAIL HILL DRIVE - TRAFFIC CALMING

AGENDA #7A

SEPTEMBER 4, 2019

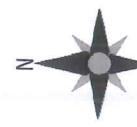
CONSTRUCTION NOTES:

① INSTALL NEW STOP BAR AND R1-1 STOP SIGN (30" X 30", HI-INTENSITY) ON NEW ROUND ALUMINUM POST. RELOCATE STREET SIGNS ON NEW POST.

② INSTALL DETAIL 27B RIGHT WHITE EDGE LINE.

③ INSTALL NEW W15-1 SIGN (30"X30", HI-INTENSITY) ON NEW BREAKAWAY POST.

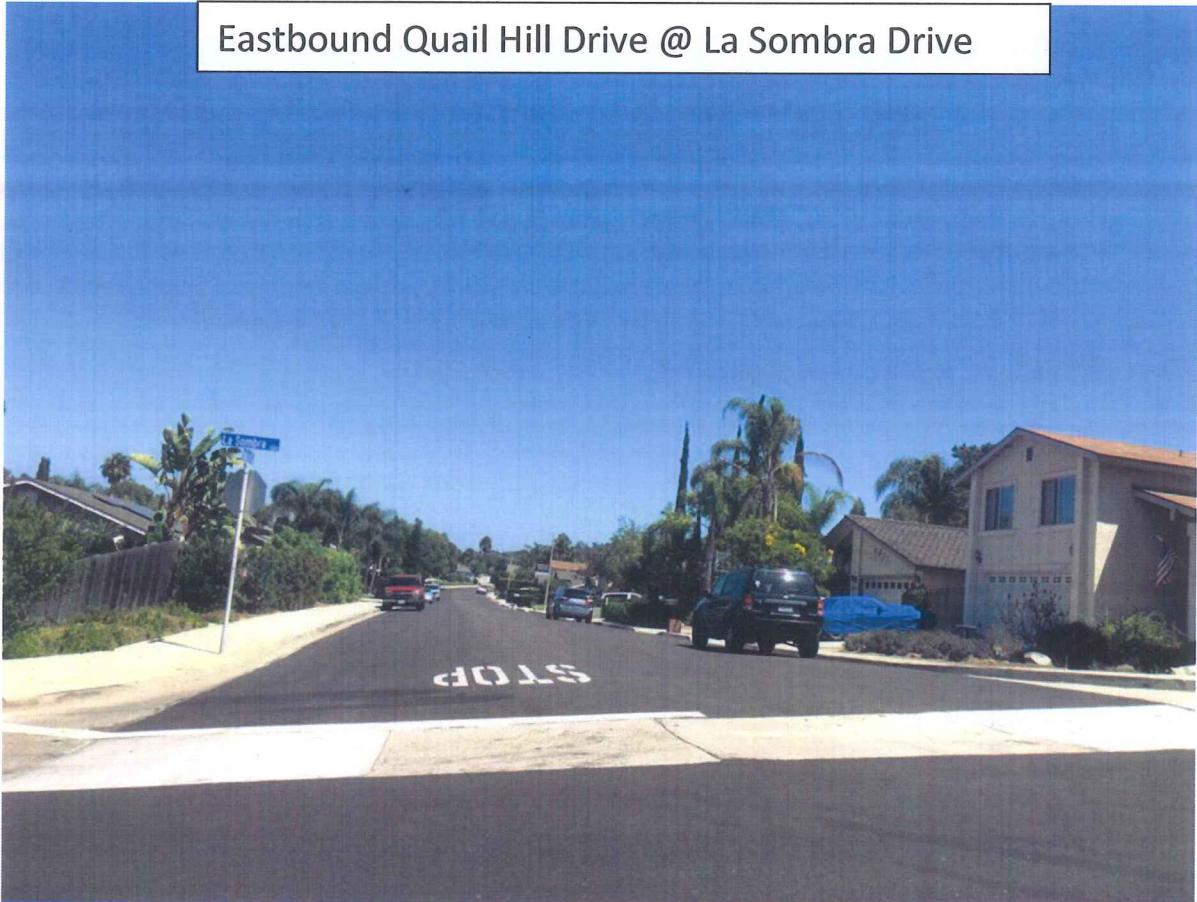
④ INSTALL RED CURB (20 FT).



*NOT TO SCALE

Summary of Speed Data Collected for Quail Hill Dr Btwn. Cardinal Ct & Partridge Ct						
Date	Day of Week	Direction of Travel	Speed Interval	85th Percentile Speed (MPH)	Volume (Direction)	Total Average Daily Traffic (ADT)
5/20/2019	Monday	East Bound	15 min	34	East Bound	381
		West Bound	15 min	32		716
	Tuesday	East Bound	Hourly	34	West Bound	335
		West Bound	Hourly	32		376
5/21/2019	Wednesday	East Bound	15 min	32	East Bound	337
		West Bound	Hourly	33	West Bound	402
	Thursday	East Bound	15 min	32	East Bound	377
		West Bound	Hourly	34	West Bound	779
5/22/2019	Friday	East Bound	15 min	32	East Bound	401
		West Bound	Hourly	32		770
	Saturday	East Bound	15 min	32	West Bound	369
		West Bound	Hourly	33		395
5/23/2019	Sunday	East Bound	15 min	33	East Bound	359
		West Bound	Hourly	33		273
	Sunday	East Bound	15 min	32	West Bound	277
		West Bound	Hourly	33		550
5/24/2019	Monday	East Bound	15 min	32	East Bound	256
		West Bound	15 min	33		477
	Tuesday	East Bound	Hourly	32	West Bound	221
		West Bound	Hourly	33		

Eastbound Quail Hill Drive @ La Sombra Drive



Eastbound Quail Hill Drive – Approaching Cardinal Court



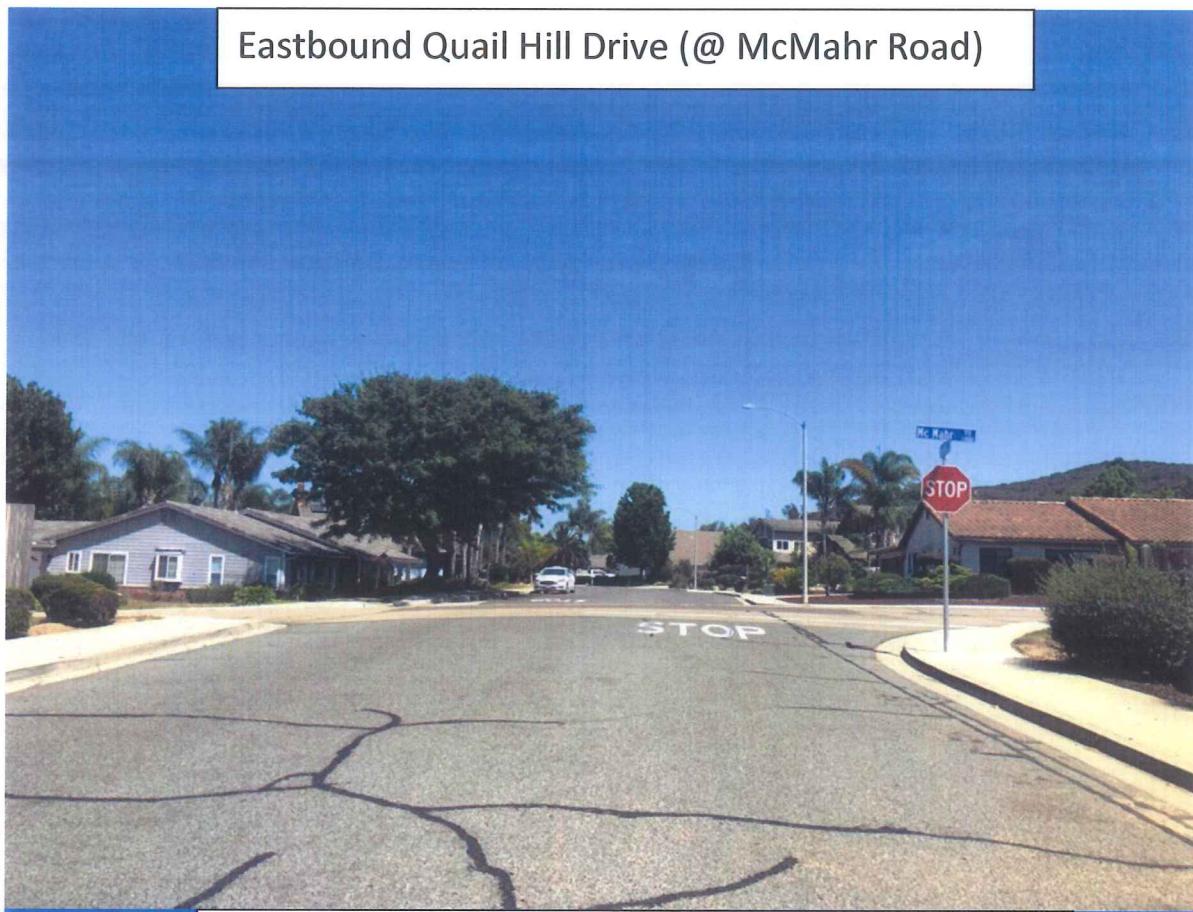
Eastbound Quail Hill Drive @ Cardinal Court (Neighborhood Park)



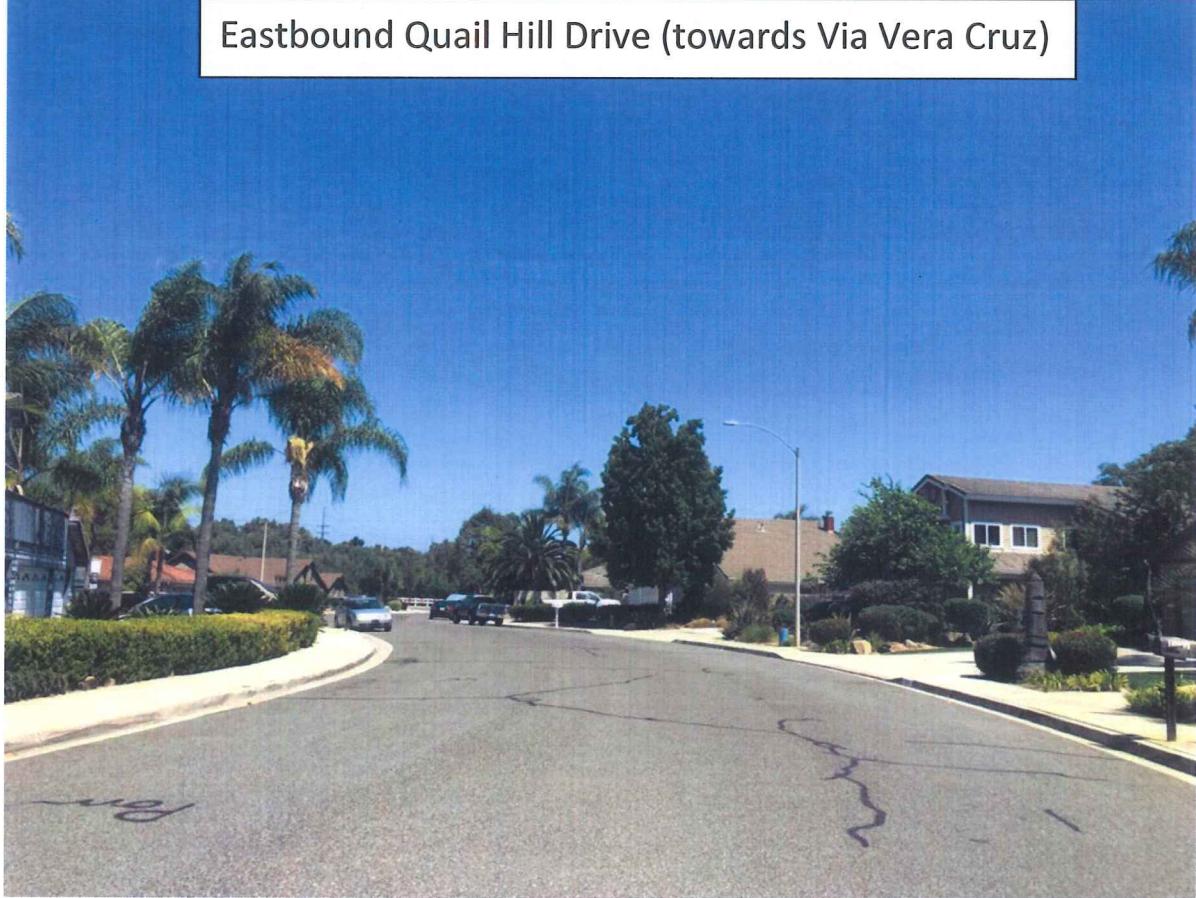
Eastbound Quail Hill Drive @ Partridge Court (towards McMahr Dr)



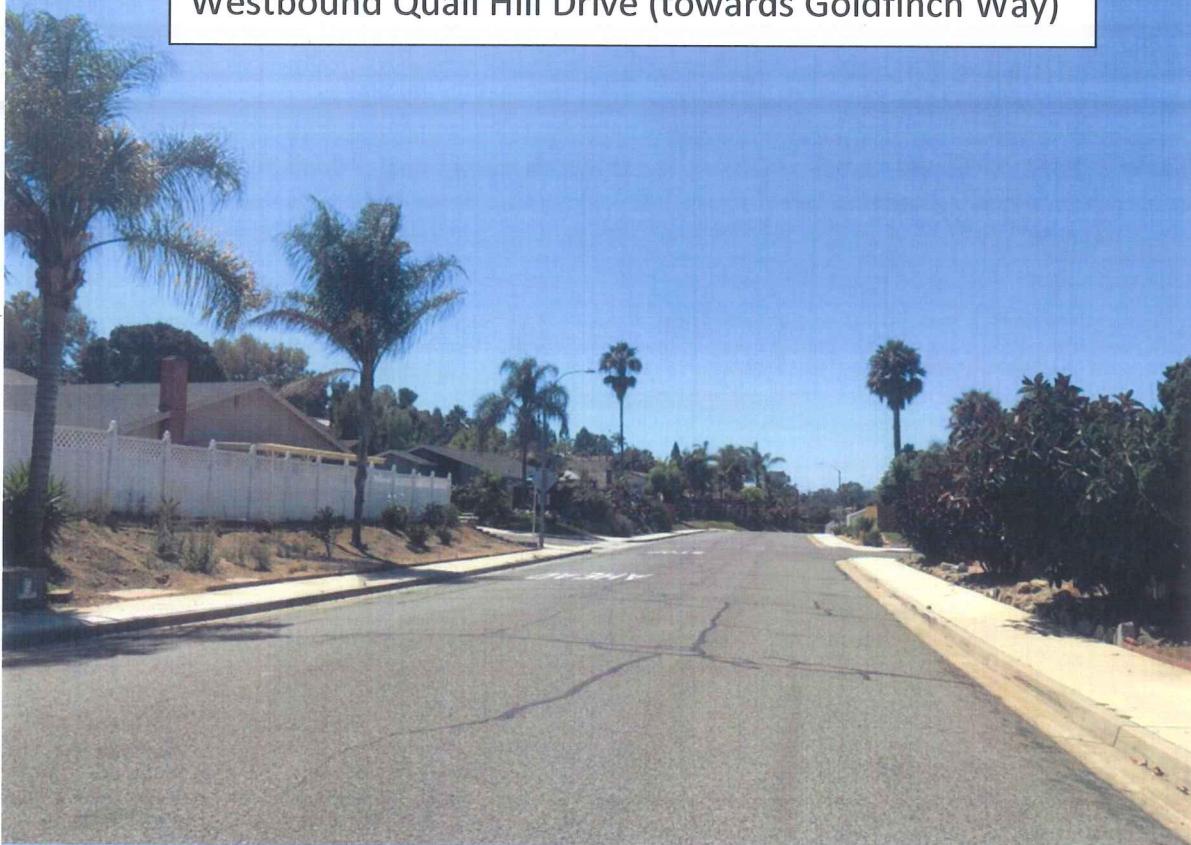
Eastbound Quail Hill Drive (@ McMahr Road)



Eastbound Quail Hill Drive (towards Via Vera Cruz)



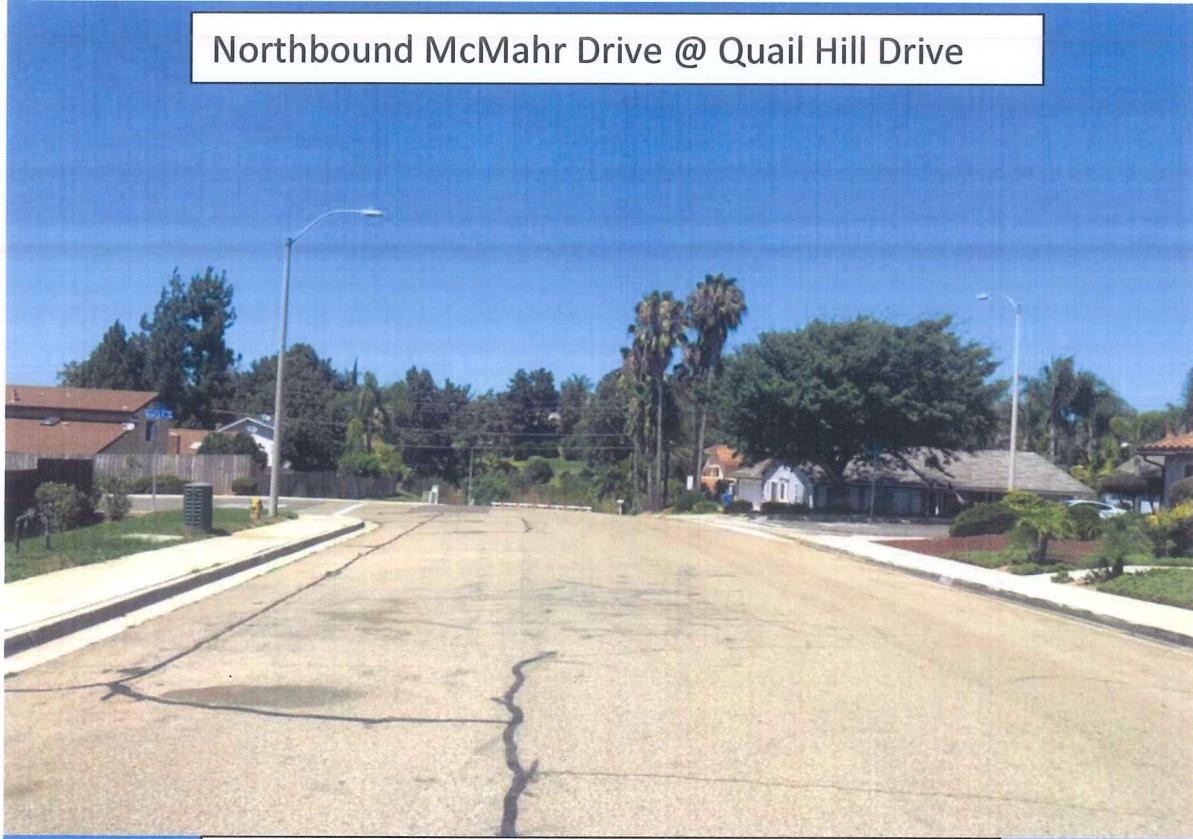
Westbound Quail Hill Drive (towards Goldfinch Way)



Westbound Quail Hill Drive @ Partridge Court (Neighborhood Park)



Northbound McMahr Drive @ Quail Hill Drive



Southbound McMahr Drive @ Quail Hill Drive

