

LOMA VISTA
CUT-THROUGH ANALYSIS



Technical Memorandum No. 5

To: City of Redding	Date: February 16, 2018
Attn: Kent Manual	Project: River Crossing Marketplace Specific Plan (Costco Wholesale Development)
From: Russ Wenham, P.E., T.E. Kamesh Vedula, P.E., T.E.	
Re: Loma Vista Cut-Through	Job No.: 11145014
	File No.: C2226MEM018.DOCX
CC: Zachary Stinger, E.I.T.	

Introduction

Omni-Means, a GHD Company, has prepared this memorandum to present the results from an evaluation of the impact that the construction of the River Crossing Marketplace would have on Loma Vista Drive.

Existing Conditions

Loma Vista Drive is a two-lane, undivided, residential collector facility that connects Bechelli Lane and Churn Creek Road. Loma Vista Elementary School and the Neighborhood Church of Redding are both present on the southerly side of Loma Vista Drive. The roadway currently operates at a posted speed limit of 35 mph with a 25 mph school zone. Between Bechelli Lane and Churn Creek Road, Loma Vista Drive intersects with several residential roadways to create the following (signalized and stop-control) intersections:

- Loma Vista Drive & Bechelli Lane (stop signs on Loma Vista Drive)
- Loma Vista Drive & Dee Street (stop sign on Dee Street)
- Loma Vista Drive & Traverse Street (stop sign on Traverse Street)
- Loma Vista Drive & El Portal Drive (stop sign on El Portal Drive)
- Loma Vista Drive & Churn Creek Road (signalized)

Two school cross-walks are present, one at the Travers Street and one at the easterly school driveway.

There is sidewalk along the northerly side of the roadway between Bechelli Lane and Traverse Street. Along the southerly side, sidewalk is present between Traverse Street and Churn Creek Road. Loma Vista Drive varies from approximately 32-feet to 40-feet wide, with on-street parking permitted along some sections.

Existing Traffic Volumes

Traffic counts were performed on Wednesday, November 1, 2017 and Thursday, November 2, 2017, at two separate locations on Loma Vista Road. These traffic counts were used to gather the average daily traffic (ADT) and the AM and PM peak hour traffic flow. Of the two locations, the eastern count location had a higher ADT count of about 3,050 vehicles, an AM peak hour of about 450 vehicles, and a PM peak hour of 330. The western survey location had an ADT of about 2,100 vehicles, an AM peak hour of about 290 vehicles, and a PM peak hour of about 190 vehicles. This difference is due to parents entering and exiting Loma Vista Drive via Churn

Creek Road to drop off their kids at the elementary school. Therefore, the average ADT for Loma Vista Road is approximately 2,600 vehicles, an average AM peak hour of 370, and an average PM peak hour of 260 vehicles.

From the City of Redding Traffic Impact Analysis (TIA) Guidelines, the threshold for traffic on a residential collector is 4,000 vehicles per day and 360 vehicles per peak hour. Based on this criteria, Loma Vista Drive AM peak hour traffic volumes exceeds the TIA guideline volume.

Projected Traffic Volumes

Three percent of the River Crossing Marketplace traffic is projected to use Loma Vista Road as a cut-through. With the addition of this traffic, the ADT is projected to increase by 550 vehicles, assuming 275 vehicles in both the eastbound and westbound directions. The AM peak hour is projected to increase by 17 vehicles and the PM peak hour is projected to increase by 18 vehicles. This would bring the ADT of the roadway to approximately 3,150 vehicles, the average AM peak hour to approximately 390 vehicles, and the average PM peak hour to approximately 280 vehicles.

The Loma Vista Drive AM peak hour traffic volumes will continue to exceed the TIA guideline volume.

Impact Assessment

Due to the context of school, church and residential frontages, the increase in traffic volumes from the project is considered significant and requires mitigation.

Proposed Mitigation

The River Crossing Marketplace project will have impacts to the roadway by increasing traffic volumes on a roadway that already has more traffic than recommended in the City's TIA guidelines. At the November 27, 2017 and February 15, 2018 neighborhood meetings, attendees expressed concerns regarding the speed, safety, and congestion of the traffic on Loma Vista Drive.

The following mitigation measures will serve three purposes:

- a) Reduction in vehicular speeds.
- b) Reducing the desirability of the cut-thru traffic.
- c) Improving pedestrian safety.

Proposed Mitigation Measures

MM for Loma Vista Drive – Prior to occupancy, the project developer shall complete the following improvements:

- ***Construct raised crosswalks at two locations on Loma Vista Drive.***
- ***Construct median pedestrian refuge islands at the crosswalks.***
- ***Construct curb bulb-outs at the raised crosswalks.***

The City of Redding shall implement by ordinance “No Parking” zones to accommodate the crosswalk improvements.

Additional supporting information:

1. Raised Crosswalks at School Crosswalks.

A raised crosswalk is a raised portion of roadway similar to speed tables, but have



crosswalk markings on top. The implementations of raised crosswalks at the existing school crossings would increase visibility of pedestrians to motorists. Thereby encouraging drivers to slow down and yield to pedestrians. Additionally, the raised crosswalks would also function as speed tables and decrease travel speed.

2. Median Refuge Islands.

Pedestrian refuge islands provide a center refuge for pedestrians as they traverse the roadway. Additionally, drivers would potentially slow down as the travel lane would narrow at the pedestrian refuge island. To accommodate this improvement, all on-street parking in front of Lassen View Elementary School would need to be eliminated. This improvement would provide safer crossing conditions for pedestrians by shortening the crossing distance. Pedestrian refuge islands would be implemented with raised crosswalks.

3. Curb Bulb-Outs at Crosswalks.

Bulb-outs are curb extensions that extend the sidewalk into the roadway. They decrease the crossing distance, narrowing the roadway, and allow pedestrians to become more visible. This could potentially decrease vehicular speeds due to the narrower travel lanes while increasing pedestrian safety.

