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Technical Memorandum

Date: December 10, 2018

To: Richard Chen
Manager
Lux Largo Development LLC

Project No.: 138-055

From: Chris Kinzel
Project Manager

Jurisdiction: Mountain View

Subject: ***Traffic Impact Analysis for Proposed Condominium Development at 1411-1495 West El Camino Real in the City of Mountain View***

The purpose of this memorandum is to present the analysis results for changes in traffic issues related to the construction of a proposed condominium development at 1495 West El Camino Real in the City of Mountain View. Since the project is adding fewer than 100 a.m. or p.m. trips, an informal traffic impact analysis is required. The project proposes to replace existing commercial buildings with a 53-unit condominium development. This analysis includes driveway counts for existing uses; trip generation for the proposed project; traffic impacts at nearby intersections and a discussion of pedestrian, bike, and transit circulation and impacts. The proposed site plan dated 06/09/2017 is shown in **Figure 1**.

PROJECT DESCRIPTION

The proposed residential development is located at 1411-1495 West El Camino Real in the City of Mountain View. The proposed project involves demolishing the existing commercial buildings and replacing them with 53 three-story condominium units. Entrance to the project would be provided via partial access driveway (right in/right out) on West El Camino Real. The project proposes to provide 86 parking spaces.

DRIVEWAY COUNTS

The existing buildings at 1411-1495 West El Camino Real are served by two driveways serving separate lots and a small amount of on-street parking. Manual counts of peak hour traffic entering and exiting were conducted from 7-9 a.m. and 4-6 p.m. on November 28, 2017. Detailed counts are attached. The existing uses generated a total of 43 trips during the a.m. peak hour and 43 trips in the p.m. peak hour. The driveway counts are attached in the Appendix.

Field Review

Sight triangles at the existing driveways are generally constrained due to a combination of narrow building setbacks, street trees close to the driveways, and nearby on-street parking. This is more pronounced at the southern driveway, which also experienced a significantly higher volume than the northern driveway. Although observed pedestrian and bicycle volumes crossing the driveways were low, conflicts with vehicles are a potential safety hazard. At the southern driveway, exiting vehicles appeared to have difficulty identifying gaps in oncoming traffic due to obstruction from parked vehicles, and entering vehicles could not adequately see pedestrians on the sidewalk near the driveway for the same reason.

A small number of children walking to school was observed in the morning, but pedestrian and bicycle volumes were generally low during both peak hours. One adult was observed riding a bicycle on the sidewalk, with others riding in the roadway. A large proportion of the pedestrians observed near the project site were seen jaywalking across West El Camino Real. Continuous sidewalks and curb ramps are provided along this portion of West El Camino Real, with crosswalks across most minor side streets. However, the pavement condition of the sidewalk along the project frontage is poor. Roots from established street trees have lifted sections of sidewalk, creating tripping hazards and an uneven surface. This issue is particularly pronounced in front of 1411 West El Camino Real.

Trip Generation and Intersection Impacts

Estimated trip generation for the proposed project was developed based on published trip generation rates from the ITE publication *Trip Generation (9th Edition)*. Trip credits were applied based on driveway volumes for existing uses. Trip generation rates for Residential Condominium/Town House (Land Use 230) were used for daily and peak hour trip generation. As shown in **Table 1**, the project is expected to generate 308 total daily trips, including 23 a.m. and 27 p.m. peak hour trips. Applying credits for the existing uses, the proposed project would reduce peak hour trips generated by the site by 20 in the a.m. peak hour and 16 in the p.m. peak hour.

As the proposed project would have a net negative trip generation, there are no expected traffic impacts along West El Camino Real at El Monte Avenue or Miramonte Avenue/South Shoreline Boulevard.

Table 1. Trip Generation

#	Land Use (ITE Code)	Size[1]		Daily		A.M. Peak						P.M. Peak					
				Rate	Trips	Rate	In %	Out %	In	Out	Total	Rate	In %	Out %	In	Out	Total
1	Residential Condominium/ Townhouse (230)	53	d.u.	5.81	308	0.44	17	83	4	19	23	0.52	67	33	17	10	27
	Existing uses								19	24	43				24	19	43
Net New Trips									**-15**	**-5**	**-20**				**-7**	**-9**	**-16**

Notes:
[1]Residential size in dwelling units (d.u.)

Pedestrian, Bike, and Transit Circulation and Impacts

Based on field review, pedestrian facilities in the project vicinity are generally sufficient, with the exception of sidewalk hazards caused by tree roots. The project site is located mid-block between El Monte Avenue and Miramonte Avenue, which are approximately half a mile apart. This distance between legal crossings tends to make walking to the closest crosswalk less desirable and jaywalking more common. Observed pedestrian volumes were generally low, but jaywalking across El Camino Real was common, likely due to the close proximity of the West El Camino & Pettis Avenue (eastbound) bus stop. There are three bus stops in the immediate vicinity of the project site. Three of them are located on El Camino Real between Miramonte Avenue and Rich Avenue, two on the north side of the street for westbound travel and one on the south side of the street for eastbound travel.

The eastbound travel bus stop is approximately 90 feet west of the project site and can be accessed via existing sidewalks. The westbound travel bus stop is 650 feet west of project site which can be accessed via existing sidewalks on El Camino Real and crosswalks provided at the signalized intersection of El Camino Real and Miramonte Avenue. The project is expected to generate demand for pedestrians to access nearby bus stops, and adjacent land uses. To accommodate all users of the street system and provide a complete and connected pedestrian facility between the project site and transit service, it is recommended that improved sidewalks be provided along the project frontage meeting the City of Mountain View standards; the design should meet ADA requirements for a comfortable walking environment. The City of Mountain View's El Camino Real Precise Plan (2014) shows a planned signalized crossing close to the project location at Pettis Avenue or Mariposa Avenue which is expected to improve the access to the second westbound travel bus stop at the intersection of El Camino Real and Rich Avenue.

Observed bicycle volumes were also generally low, with one cyclist riding on the sidewalk. El Camino Real currently lacks bike lanes throughout the City of Mountain View and along most of its length. The City of Mountain View's Bicycle Transportation Plan Update (2015) indicates that the portion of El Camino Real between El Monte Avenue and Miramonte Avenue is a potential location for bike facilities, but there are no specific plans for adding them. The proposed project has the potential to add additional bike trips to El Camino Real, but these trips will not directly conflict with existing bike plans.

The project location is served by VTA bus lines 22, 522 (rapid), and 52. The nearest 522 stop are half a mile away at West El Camino Real & Castro Street, while lines 22 and 522 are served by the stops at West El Camino & Pettis Avenue. Line 52 provides a connection to the downtown Mountain View transit center at the Mountain View Caltrain station. Lines 22 and 522 connect the Palo Alto Caltrain station to Eastridge Mall in San Jose. The project location and proximity to transit make it convenient for residents to shift from automobile to transit for commute trips, consistent with VTA and City of Mountain View planning goals and well within the rider capacity of these bus lines.

CONCLUSION

The proposed project would replace existing commercial buildings with a 53-unit condominium development. Based on driveway counts and ITE trip generation rates, the project would have a net negative trip generation and would cause no intersection impacts. The sidewalk along the project frontage should be replaced to eliminate pedestrian safety hazards caused by existing street trees damaging the sidewalk. Special care should be exercised in landscaping around the project driveway in order to maintain optimum sight triangles. The nearby pedestrian and transit networks are generally adequate, however, there are no bicycle facilities directly serving the project site.

Please contact Chris Kinzel at 925-264-5006, if there are any questions.

Raw totals

Time	N DW IN	N DW OUT	S DW IN	S DW OUT	STREET IN	STREET OUT
7:00	0	0	0	0	0	0
7:15	0	0	1	4	2	0
7:30	0	0	2	8	2	0
7:45	0	0	5	9	2	0
8:00	0	1	7	15	3	1
8:15	0	2	10	23	3	2
8:30	0	2	20	27	4	2
8:45	0	2	22	29	4	2
9:00	0	3	28	33	4	2

Summary

Hourly	N DW IN	N DW OUT	S DW IN	S DW OUT	STREET IN	STREET OUT	IN	OUT	TOTAL
7:00-8:00	0	1	7	15	3	1	10	17	27
7:15-8:15	0	2	9	19	1	2	10	23	33
7:30-8:30	0	2	18	19	2	2	20	23	43
7:45-8:45	0	2	17	20	2	2	19	24	43
8:00-9:00	0	2	21	18	1	1	22	21	43

Raw totals

Time	N DW IN	N DW OUT	S DW IN	S DW OUT	STREET IN	STREET OUT
4:00	0	0	0	0	0	0
4:15	0	0	2	0	1	0
4:30	1	0	2	1	1	0
4:45	2	1	6	2	1	0
5:00	5	1	9	2	1	0
5:15	6	2	13	6	1	0
5:30	6	2	13	7	1	0
5:45	8	2	23	9	1	0
6:00	10	3	28	19	1	0

Summary

Hourly	N DW IN	N DW OUT	S DW IN	S DW OUT	STREET IN	STREET OUT	IN	OUT	TOTAL
4:00-5:00	5	1	9	2	1	0	15	3	18
4:15-5:15	6	2	11	6	0	0	17	8	25
4:30-5:30	5	2	11	6	0	0	16	8	24
4:45-5:45	6	1	17	7	0	0	23	8	31
5:00-6:00	5	2	19	17	0	0	24	19	43