

Appendix B: Revised Project Traffic Memo



DRAFT MEMORANDUM

Date: August 20, 2018
To: Kristy Weis, David J. Powers and Associates
From: Franziska Church, Fehr & Peers
Subject: **Trip Generation Estimates and Impact Discussion for the Revised Project Description for the Vallco Special Area Specific Plan, Cupertino, CA**

SJ17-1786

This memorandum presents a supplemental analysis to the Vallco Special Area Specific Plan Transportation Impact Analysis Final Draft and Vallco Special Area Specific Plan – Housing Rich Alternative TIA prepared for the Vallco Special Area Specific Plan *Draft Environmental Impact Report (EIR)* dated May 2018 and the *Recirculated Amendment to the Draft EIR* (“EIR Amendment”) dated July 2018. As discussed in the Draft EIR, the City is undertaking a community-based planning process to develop a Specific Plan for the project site, the Vallco Special Area. Based on input from City Council at its June 4, 2018 Vallco Specific Plan Study Session, the City has identified another alternative to the proposed project that would achieve all the goals expressed by the councilmembers at that meeting. This alternative is the “Revised Project,” which contains revisions to the project analyzed in the Draft EIR (referred to, below, as the “previous project”).

This memorandum presents the trip generation analysis results of the Revised Project and an assessment of whether the Revised Project would result in additional transportation impacts not previously identified in the May 2018 Draft EIR or the July 2018 Amendment.

Summary of Findings

The Revised Project is projected to have the same level of transportation impacts as the Housing Rich Alternative presented in the July 2018 EIR Amendment and no new detailed transportation impact analysis is required.



Project Description

Table 1 summarizes the land use components of the Revised Project along with those for the Previous Project and the Project Alternatives evaluated in the May 2018 Draft EIR and July 2018 Amendment. The Revised Project contains less commercial space, less office space, more residential units, less civic uses and more education space than the Previous Project.

Table 1: Land Use Summary for the Revised Project, Previous Project, and Project Alternatives

Project Alternative	Land Uses							
	Comm. (sf)	Office (sf)	Hotel (rooms)	Residential (units)	Transit Hub	Rooftop Garden (acres)	Civic Uses (sf)	Education (sf)
Revised Project Description Discussed in this memo:								
Revised Project	460,000	1,750,000	339	2,923	Yes	30	10,000	25,000 ¹
Included in the May 2018 Draft EIR or July 2018 Amendment:								
General Plan Buildout with Residential Allocation (Previous Project)	600,000	2,000,000	339	800	Yes	30	55,000	10,000 ³
General Plan Buildout with Maximum Residential	600,000	1,000,000	339	2,640	Yes	30	55,000	10,000 ³
Retail and Residential	600,000	--	339	4,000	Yes	--	--	--
Housing Rich Alternative	600,000	1,500,000	339	3,250	Yes	30	50,000	15,000 ²
Occupied/Re-tenanted Mall	1,207,774	--	148	--	No	--	--	--
No Project	1,207,774 ⁴ (partially occupied)	--	148	--	No	--	--	--

Notes:

1. The education land uses include an adult education center (15,000 sf) and high school innovation center (10,000 sf).
 2. For the Housing Rich Alternative the education land uses include an adult education center
 3. For the Previous Project and General Plan Buildout with Maximum Residential Alternative the education land uses include a STEM High School facility
 4. The current mall is only partially occupied, and this analysis accounts for the amount of traffic generated by the current occupancy level, which is based on driveway counts taken the week of January 15, 2018.
- Source: City of Cupertino August, 2018.



Project Traffic Estimates

The amount of traffic generated by the Revised Project was estimated by applying land use-specific trip generation rates to the size of each land use component, and MXD reductions that account for trips among uses within the site (known as trip internalization) and transit, bicycle, and pedestrian access.

MXD Vehicle Trip Reductions

The MXD reductions account for the proposed mix of uses, the Specific Plan's location in proximity to the surrounding residential and employment land uses, transit accessibility (including VTA buses on Stevens Creek Boulevard and shuttle access), and bike/pedestrian access. The reductions vary by project alternative as the density and diversity of land uses change. The reductions for the Revised Project are presented in **Table 2**, and are compared to the reductions for the Previous Project and the Project Alternatives included in the Draft EIR and EIR Amendment.

Table 2: MXD Vehicle Trip Reductions

Project Alternative	Daily	AM Peak Hour	PM Peak Hour
Revised Project Discussed in this Memo:			
Revised Project	20%	30%	27%
Alternatives Included in the May 2018 Draft EIR or July 2018 Amendment:			
General Plan Buildout with Residential Allocation (Previous Project)	17%	23%	24%
General Plan Buildout with Maximum Residential	20%	25%	30%
Retail and Residential	20%	20%	25%
Housing Rich Alternative	20%	30%	27%
Occupied/Re-tenanted Mall	5%	5%	5%

Source: Fehr & Peers, August 2018.

Vehicle Trip Estimates

Table 3 summarizes the trip generation estimates for the Revised Project and compares them to the estimates for the Previous Project and each of the Project Alternatives included in the DEIR and EIR Amendment. **Attachment A** includes detailed trip generation estimates.



Table 3: Summary of Vehicle Trip Generation Estimates

Alternative	Daily	AM Peak Hour	PM Peak Hour
<i>Revised Project Discussed in this Memo:</i>			
Revised Project	39,063	2,570	3,243
<i>Alternatives Included in the May 2018 Draft EIR or July 2018 Amendment:</i>			
General Plan Buildout with Residential Allocation (Previous Project)	37,006	2,628	3,218
General Plan Buildout with Maximum Residential Alternative	33,507	2,082	2,632
Housing Rich Alternative	41,314	2,558	3,430
Retail and Residential Alternative	27,935	1,330	2,251
Occupied/Re-tenanted Mall Alternative	23,417	307	2,398

Source: Hyatt House Hotel TIA, August 2014; ITE *Trip Generation Manual*, 10th edition, 2017; Fehr & Peers, August 2018.

As shown in **Table 3**, the Revised Project generates more vehicle trips than the Previous Project on a daily and PM peak hour basis, but fewer in the AM peak hour. The Revised Project is estimated to generate fewer daily and PM peak hour trips than the Housing Rich Alternative, but about twelve additional trips during the AM peak hour. Twelve trips represent less than 0.5 percent of the total AM peak hour trip generation, which is a negligible increase in vehicle trips.

Impact Discussion

The intersection, freeway, left-turn queuing, transit delay, transit capacity analyses along with the neighborhood intrusion and construction traffic assessments presented in the May 2018 DEIR and July 2018 Amendment are all based on the trip generation estimates. Since the Revised Project's trip generation estimates fall within those for the Housing Rich Alternative, the Revised Project would have same impacts and mitigations as presented in the July 2018 EIR Amendment and no additional analysis is needed to evaluate the impacts of the Revised Project.

As noted in the trip generation discussion above, the Revised Project generates twelve additional trips during the AM peak hour compared to the Housing Rich Alternative. Twelve trips represent less than 0.5 percent of the total AM peak hour trip generation, which is a negligible increase and would result in the same impacts as the Housing Rich Alternative. In addition, the AM peak hour trips for the Revised Project are less than those generated by the Previous Project, which was fully analyzed in the May 2018 Draft EIR.



Vehicle Miles of Travel Analysis

Vehicle Miles of Travel (VMT) is presented for informational purposes for the transportation evaluation of the Specific Plan. **Table 4** summarizes the total VMT estimates, average trip lengths, and VMT per service population for the Revised Project, the Previous Project, and Housing Rich Alternative for comparison purposes.

Table 4: Vehicles Miles Traveled (VMT) Estimates

Project Alternative	Total VMT	Average Trip Length	VMT Per Service Population ¹
Revised Project	416,531	10.66	29.7
General Plan Buildout with Residential Allocation (Previous Project)	330,220	8.92	30.0
Housing Rich Alternative	401,316	9.71	28.5

Notes: Service population includes estimated number of residents and employees for each Project Alternative. This does not include visitors or shoppers.

Source: California Household Travel Survey; Fehr & Peers, August 2018.

The Revised Project generates the greatest total VMT; however, it generates a lower VMT per service population as compared to the Previous Project. In comparison to the Housing Rich Alternative the Revised Project generates more total VMT and more VMT per service population.

ATTACHMENT A

Table A1: Detailed Vehicle Trip Generation Estimates

ITE Land Use	ITE Code	Quantity	Units ¹	Daily	AM Peak Hour			PM Peak Hour			
				Total	In	Out	Total	In	Out	Total	
Revised Project (08/10/2018)											
Office	SV	1,750	ksf	21,613	1,942	316	2,258	336	1,764	2,100	
Shopping Center	820	460	ksf	16,971	237	145	382	807	874	1,681	
Hotel ²	310	339	Rooms	2,834	94	65	159	104	100	204	
Multifamily Housing (Mid-Rise)	221	2,923	Units	15,901	273	779	1,052	784	502	1,286	
Green Roof (Public Park)	411	38	Acres	718	96	75	171	76	57	133	
Civic Space (Gov't Office Building)	730	10	ksf	226	25	8	33	4	13	17	
Adult Education (Recreational Community Center)	495	15	ksf	432	17	9	26	16	19	35	
High School Innovation Center	530	10	ksf	140	24	10	34	12	10	22	
Gross Project Trips (A):				58,835	2,708	1,407	4,115	2,139	3,339	5,478	
MXD Trip Reduction				-20%		-30%			-27%		
(Internal and Non-SOV/Drive Alone Trips) (B)				-11,767	-813	-422	-1,235	-578	-901	-1,479	
Transit Hub ³ (C)				808	126	49	175	61	132	193	
Net External Specific Plan Project Trips (D=A+B+C):				47,876	2,021	1,034	3,055	1,622	2,570	4,192	
Existing to be Removed											
Existing Vallco Mall Uses (E) ⁴				-8,813	-312	-173	-485	-462	-487	-949	
Net New Project Trips (F=D+E):				39,063	1,709	861	2,570	1,160	2,083	3,243	

Notes:

1. ksf = 1,000 square feet

2. The hotel trip generation rates are from the Hyatt House Hotel TIA (August 2014).

3. Transit hub vehicle trips are based on driveway counts and observations collected in January 2018.

4. Existing Vallco Mall Uses are based on existing driveway counts collected in January 2018. The existing uses account for the two restaurants, theater, ice skating rink, bowling alley, fitness center, auto dealership storage, and employee shuttle use of the site.

Source: Hyatt House Hotel TIA, August 2014; ITE Trip Generation Manual, 10th edition, 2017; Fehr & Peers, August 2018.