



Note: 2015 Los Altos Parking Committee recommended corrections shown in annotation

## MEMORANDUM

Date: June 2, 2009 Revised 5/4/15  
 To: James Walgren, City of Los Altos  
 From: Joe Fernandez and Sohrab Rashid  
 Subject: **Los Altos Office and Retail Parking Standards**

SJ07-993

This memorandum documents our review of office and retail parking standards for the City of Los Altos. The purpose of this study is to determine if changes to the City's parking standards for office and retail uses are justified. A brief summary of the key findings is provided below, followed by a detailed description of the study approach and results.

### SUMMARY

The study includes three main components:

- determine the parking demand characteristics at existing office and retail sites in the City of Los Altos,
- review parking standards for nearby cities and industry-standard rates, and
- recommend changes, if appropriate, to the City's parking standards.

Parking occupancy counts were conducted at three office sites and three retail sites in Los Altos. Table 1 shows that significant variation occurred in the parking demand at the individual sites, but on average the demand was well below the supply required by the Los Altos Municipal Code.

	Observed Peak Demand (spaces/1,000 square feet) <sup>1</sup>				Code-Required Supply (spaces/1,000 square feet) <sup>2</sup>
	Site 1	Site 2	Site 3	Average	
Office Sites	1.82	2.00	2.57	2.06	4
Retail Sites	4.74	2.21	3.49	3.40	5

1. Demand is based on mid-week counts conducted October 18 & 20, 2007. The highest demand observed on either day is presented for each site. The average is the average peak of all surveyed days.  
 2. Los Altos Municipal Code §14.74.080, 14.74.100.  
 Source: Fehr & Peers, 2007

See "A"  
See "B"

A review of parking standards for nearby jurisdictions shows a range of 3.33 to 4.44 spaces required per 1,000 square feet (s.f.) of office uses and a range of 4 to 5.56 spaces required per for stand-alone buildings

1,000 s.f. of retail uses. The nearby jurisdictions' standards are within the range of rates provided in published references from the Institute of Transportation Engineers (ITE) and Urban Land Institute (ULI). The City of Los Altos' parking standards are on the high end of both of these ranges, particularly for office uses.

Reducing the number of parking spaces required for office uses is justified based on the information above. The maximum observed demand for office uses was 2.57 spaces per 1,000 s.f. Based on requirements from other jurisdictions and industry-standard publications, it is likely that some offices will generate demand that would exceed this rate. We recommend a parking requirement of 3.33 spaces per 1,000 square feet for office uses.

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Limited justification can be made for changing the parking requirement for retail uses, because: 1) demand at one of the surveyed locations exceeded the code-required supply, and 2) retail parking demand in October (when the surveys were conducted) is typically below the peak demand in December. We do not recommend any changes to the retail parking requirements.

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## STUDY APPROACH AND CONCLUSIONS

This section documents the study approach and results, and describes the process used to develop the conclusions above. **Note: Consideration must be made for gross vs. net, and stand-alone vs. shared**

### ***Parking Occupancy Counts of Existing Uses***

We conducted parking occupancy counts at three existing office and retail locations within the City of Los Altos on October 18 & 20, 2007. These locations were selected in consultation with the City, and were all isolated locations with designated parking lots. The office parking lots were counted on an hourly basis from 9:00 AM to 3:00 PM, and the retail parking lots were counted on an hourly basis from 11:00 AM to 4:00 PM to capture the peak parking demand periods for each of these uses. The October counts were supplemented with another count on February 12, 2008 to check the accuracy of the initial counts. The raw counts are attached to this document.

The City of Los Altos provided the square footage of the buildings served by the surveyed parking lots. The peak parking demand for each of the surveyed locations was calculated by dividing the maximum number of occupied spaces by the building size to yield the spaces demanded per 1,000 square feet of building area. The resulting demand rates are summarized above in Table 1.

### ***Comparisons to Other Jurisdictions***

The parking standards for five nearby cities were reviewed and compared to Los Altos' standards, as summarized in Table 2.

Sunnyvale has the highest office rate (4.44 per 1,000 s.f.), followed by Los Altos and Palo Alto (4 per 1,000 s.f.). For retail uses, most surveyed jurisdictions required either 4 or 5 spaces per 1,000 s.f., with the exception of Sunnyvale, which has a sliding scale depending on the size of the shopping center.

1. Unsupported by facts - exceptions such as, "some offices ..." which were not studied, should not dictate standards. Industry standards indicate that local conditions should prevail over industry-standard publications. Therefore, the recommendation should have been 2.25 spaces per 1,000 s.f. for office use.

2. Unsupported by facts - corrected numbers indicate justification for reducing retail parking ratio. Therefore, the recommendation should have been 3.98 or 4.00 spaces per 1,000 s.f. for retail use.

TABLE 2: CITY PARKING STANDARDS for Stand-alone Buildings		
Jurisdiction	Office Rate (per 1,000 s.f.)	Retail Rate (per 1,000 s.f.) <sup>1</sup>
Los Altos <sup>2</sup>	4	5
Cupertino <sup>3</sup>	3.51	4
Mountain View <sup>4</sup>	3.33	4
Palo Alto <sup>5</sup>	4	5
Redwood City <sup>6</sup>	3.33 – 4	5
Sunnyvale <sup>7</sup>	4.44	4.44 – 5 – 5.56
<b>Rates in Special Districts</b>		
Los Altos <sup>2</sup>	5	N/A
Palo Alto <sup>5</sup>	3.22 – 3.33	4.17
Redwood City <sup>6</sup>	3.33	N/A
Notes:		
1 Rates for intensive retail uses reported when differentiated from extensive uses.		
2 Los Altos Municipal Code §14.74.080, 14.74.090, 14.74.100. Special districts are OA-1, OA-4.5, and CN.		
3 Cupertino Municipal Code §19.100.040.		
4 Mountain View City Code §36.37.040.		
5 Palo Alto Municipal Code §18.83.050. Special district office rates for buildings in the California Avenue (3.22) and LM (3.33) districts.		
6 Redwood City Zoning Code §30.2.2. Office rates for buildings generating less than 100 trips (4) and 100 or more trips (3.33) during the PM peak period.		
7 Sunnyvale Municipal Code §19.46.050. Retail rates for shopping centers smaller than 20,000 s.f. (5.56), 20,000 – 50,000 s.f. (5), and larger than 50,000 s.f. (4.44).		
Sources: Codes retrieved online, October 19, 2007.		

**Comparison to Industry-Standard Rates**

ITE's *Parking Generation* and ULI's *Shared Parking* manuals provide parking supply and demand rates based on surveys of similar land uses across the country. Table 3 summarizes the data provided in these documents.

TABLE 3: INDUSTRY-STANDARD RATES <sup>1</sup>			
	ITE's <i>Parking Generation</i> (3 <sup>rd</sup> Edition) <sup>2</sup>		ULI's <i>Shared Parking</i> (2 <sup>nd</sup> Edition) <sup>3</sup>
	Average Peak Demand	85 <sup>th</sup> Percentile Demand	Recommended Supply
Office Uses	2.84	3.44	3.8
Retail Uses	3.76	5.06	3.6
1. All units are spaces per 1,000 square feet floor area, and weekday rates are reported.			
2. Office land use code 701, suburban area. Retail land use code 820 (shopping center), in December.			
3. Office land use reported for <25,000 s.f. size; rates drop for larger offices. Retail land use is community shopping center, <400,000 s.f., in December.			

ITE provides parking demand rates, while ULI provides recommended supply rates. The demand rates are based on the peak occupancy of surveyed parking lots. The average peak demand refers to the average of the maximum demand rates observed at the surveyed sites, while the 85<sup>th</sup> percentile demand is the point where 85 percent of the surveyed rates are below, and 15 percent of the rates are above it.

The recommended supply is typically estimated by adding a circulation factor to the observed demand. This factor, which varies by land use type, represents the inherent inefficiencies of parking lots and reflects the fact that parking lots are effectively full once 85 to 95 percent of the available spaces are occupied. A circulation factor of 90 percent is commonly applied at office sites because most of the parking is occupied by employees who are familiar with the site, and because employees typically park for a long time, resulting in low levels of parking turnover. A lower circulation factor, typically 85 percent, is applied to retail parking supplies due to large amounts of turnover and because shoppers typically have the flexibility to shop elsewhere if they think that no spaces are available. Accordingly, a parking supply can be equated to parking demand by multiplying the supply by the circulation factor. For example, an office parking lot with a supply of 100 spaces would be expected to accommodate a peak demand of 90 vehicles (90 percent of 100).

ULI's *Shared Parking* also provides demand rates by month of the year, based on surveys of shopping centers throughout the country. The parking demand for retail uses peaks during the December shopping season. Retail parking demand during December is about 30 percent higher than during October. Parking demand for office uses is consistent throughout the year, with little variation from month to month.

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### Conclusions

Both the ITE and ULI rates presented above represent conditions on a weekday in December. In October, surveys from ULI's *Shared Parking* show that parking demand at retail uses is about 70 percent of the demand in December. Office parking demand is the same in October and December.

Because retail parking demand is approximately 30 percent higher in December than October, it is likely that the surveyed retail sites would experience higher parking demand during December than what we observed in the field in October. Increasing the average observed peak demand of 3.82 (from Table 1) by 30 percent yields a demand of 5 spaces per 1,000 s.f. This, in conjunction with the rates from nearby jurisdictions and the industry-standard rates, suggests that the current parking standard for retail uses is appropriate, and there is little justification to change the retail parking requirements. We do not recommend any changes to the retail parking requirements.

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No such disparity between October and December parking demand is expected for offices, which experience consistent demand levels throughout the year. The highest parking demand at the three surveyed locations was 2.57 spaces per 1,000 s.f. A supply rate of 2.86 spaces per 1,000 s.f. would accommodate this demand, assuming a 90 percent circulation factor ( $2.86 \times .90 = 2.57$ ). This rate is well below the rates required by nearby jurisdictions as well as the industry-standard rates, so we do not recommend using it directly, but instead suggest adding a 0.5 space per 1,000 s.f. buffer to this rate to account for potential higher demand rates at unsurveyed sites. This yields a supply rate of 3.33 spaces per 1,000 s.f., which is within the range of rates for nearby jurisdictions and industry standard publications. We recommend changing the parking requirement for offices to 3.33 spaces per 1,000 square feet.

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3. Appropriate increase should be 15% (not 30%) per 2013 CDM/Smith parking study in Los Altos, modified for retail.
4. Increasing the correct average observed peak demand of 3.11 by 15% yields a demand of 3.58 spaces per 1,000 s.f. of retail use.
5. The current retail parking requirement of 5 spaces per 1,000 s.f. is higher than what is justified by the study. See Addenda.  
The recommendation should have been to change the parking requirement for retail to 3.98 spaces per 1,000 s.f.
6. Using a 90% circulation factor, 2.01 divided by .90 yields 2.23 spaces per 1,000 s.f.
7. Conclusions should be drawn upon the completed study rather than "unsurveyed sites." To accommodate the highest demand, found in Los Altos, the average could be increased to 2.50 spaces per 1,000 s.f. of office use at stand-alone sites.
8. The recommendation should have been to change the parking requirement for offices to 2.50 spaces per 1,000 s.f.



**APPENDIX:  
Data Summary  
Raw Counts**

**A.****Los Altos Parking Summary**

Office Sites	Survey Dates	Peak Occupancy	Peak Demand	Corrected Peak Demand
Packard Foundation	10/17/2007	32	1.55	1.50
200 Second Street	10/18/2007	39	1.89	1.82
Multi-tenant office building	10/17/2007	159	2.08	
5150 El Camino Real	10/18/2007	157	2.05	2.01
				1.98
Real estate offices	10/17/2007	84	2.57	
161 & 167 So. San Antonio Rd.	10/18/2007	72	2.20	
		Average peak	2.06	2.01
		Min	1.55	1.50
		Max	2.57	

See C. for corrected areas, which result in corrected Peak Demand.

Also see the Addendum, which combines Tables A, B, and C. for clarity.

**B.****Los Altos Parking Summary**

Retail Sites	Survey Dates	Peak Occupancy	Peak Demand	Corrected Peak Demand
Foothill Plaza 2310 & 2350 Homestead Rd.	10/18/2007	248	4.74	
	10/20/2007	225	4.3	
Elephant Pharmacy 4470 El Camino Real	10/18/2007	21	1.5	
	10/20/2007	31	2.21	
Village Court Shopping Center 4546 El Camino Real	10/18/2007	220	5.98	3.49
	10/20/2007	153	4.16	2.43
		Average peak	3.82	3.11
		Min	1.5	
		Max	5.98	4.74

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See C. for corrected areas, which result in corrected Peak Demand.

Also, see the Addendum, which combines Tables A, B, and C. for clarity.

Footnote 9. A large building was not included in earlier reported area at Village Court. Village Court includes retail, restaurants and office. The lower office use may be offset by the higher restaurant use. The areas of both buildings must be used when counting the parking generated by both buildings.

## C.

### Office Sites

	Size (square feet)	Corrected Size (square feet)
Packard Foundation 300 Second Street	20,632	21,400
Multi-tenant office building 5150 El Camino Real	76,400	79,150
Real estate offices 161 - 167 So. San Antonio Rd.	32,738	

### Retail Sites

Foothill Plaza 2310 & 2350 Homestead Rd.	52,315		
Elephant Pharmacy 4470 El Camino Real	14,004		
Village Court Shopping Center 4546 El Camino Real	36,800	63,012	f-9

Corrected areas (s.f.) per tax-payer/Title Company records.

See the Addendum, which combines Tables A, B, and C. for clarity.

Footnote 9. A large building was not included in earlier reported area at Village Court. Village Court includes retail, restaurants and office. The lower office use may be offset by the higher restaurant use. The areas of both buildings must be used when counting the parking generated by both buildings.



**Los Altos Office and Retail Parking Standards**

Addenda to June 2, 2009 F&P Memo

5/4/15

This table combines Appendix A, B, and C, in one table, with calculations to support corrections  
 Note that calculations are for stand-alone sites. These should be reduced for shared parking uses.

**A. Office Sites**

**C.**

<b>Location</b>	<b>Area Square Feet</b>	<b>Survey Dates</b>	<b>Peak Occupancy Spaces</b>	<b>Corrected Peak Demand Spaces/1,000 SF</b>
Packard Foundation	21,400	10/17/07	32	1.50
200 Second Street		10/18/07	39	1.82
Multi-tenant office bldg.	79,150	10/17/07	159	2.01
5150 El Camino Real		10/18/07	157	1.98
Real Estate offices	32,738	10/17/07	84	2.57
161 & 167 San Antonio Rd.		10/18/07	72	2.20
<b>Totals</b>	<b>133,288</b>		<b>Average peak</b>	<b>2.01</b>
			Min.	1.50
			Max.	2.57

(No seasonal correction for office)

<b>Circulation Factor increase</b>	Average Peak 2.01	Circulation Factor 0.90	<b>Parking Ratio 2.23</b>
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**B. Retail Sites**

Foothill Plaza	52,315	10/18/07	248	4.74
2310 & 2350 Homestead Rd.		10/20/07	225	4.30
Elephant Pharmacy	14,004	10/18/07	21	1.50
4470 El Camino Real		10/20/07	31	2.21
Village Court Shopping Center	63,012	10/18/07	220	3.49
4546 El Camino Real		10/20/07	153	2.43
<b>Totals</b>	<b>129,331</b>		<b>Average peak</b>	<b>3.11</b>
			Min.	1.5
			Max.	4.74

Seasonal Correction	Average Peak	Oct. to Dec.	Increase amt.	Total
Increase from Oct. to Dec.	3.11	15.00%	0.47	3.58
<b>Circulation Factor increase</b>	3.58	Circulation Factor 0.90		<b>Parking Ratio 3.98</b>

