



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: July 27, 2023
To: Mr. Joseph Barajas, RMW
From: Gary Black
Subject: Applied Materials Phase 1 Parking Study

Hexagon Transportation Consultants, Inc. has completed a parking study for Phase 1 of the Master Plan for the Applied Materials campus in Sunnyvale. The purpose of the study was to determine an appropriate parking ratio for buildout of the campus. Hexagon conducted a parking demand count of the existing parking campus in order to determine an appropriate parking ratio. This memo describes the results of the parking count.

Background

The original master plan for the Applied Materials campus was approved in 1999 with a parking ratio of 3.32 spaces per 1,000 square feet of building area. This ratio was typical for office buildings at the time. However, as the campus has developed and will develop in the future, many of the buildings are used for activities that would fall into the category of Research & Development. Some buildings or parts of buildings are filled with machinery and have low employment density. Therefore, the original master plan parking ratio is too high and would result in many more parking spaces than needed for the future campus buildings.

Parking Counts

To determine the existing parking demand at the Applied Materials campus, Hexagon conducted counts of all the campus parking lots for one week from Friday June 16 to Friday June 23, 2023. The busiest day turned out to be Wednesday, and the peak time was 11:00 AM (see Table 1). At that time there were a total of 1,205 vehicles parked on the campus.

According to Applied Materials, there are a total of 585,000 square feet of occupied buildings on the campus. This calculates to a peak parking demand ratio of 2.06 spaces per 1,000 s.f. ($1,205/585 = 2.06$).

Recommendations

In order for motorists to be able to locate available parking spaces, it is good design practice to provide 5% to 10% more parking spaces than the maximum demand. Thus, an overall campus parking ratio of 2.16-2.27 spaces per 1,000 s.f. of building area would be appropriate for master plan buildout. This assumes that the future campus buildings would have similar ratios of office space to R&D space as the existing campus. We note that the city's parking ordinance has a minimum ratio of 2.0 spaces per 1,000 s.f. and a maximum of 4.0 spaces per 1,000 s.f. The recommended ratio is within that range.

Table 1
Sunnyvale/Applied Materials/Parking Study

Location	Friday		Tuesday		Wednesday		Thursday		Tu-Th	Peak	Time
	Peak	Time	Peak	Time	Peak	Time	Peak	Time	Average	Trucks	
Lot A	72	2:40 PM	103	2:00 PM	103	1:45 PM	84	2:00 PM	97	1	
Lot B	160	10:45 AM	164	10:00 AM	170	10:45 AM	146	10:20 AM	160	21	12:30 PM
Lot C	67	1:20 PM	76	1:10 PM	71	1:00 PM	60	10:55 AM	69	0	
Lot D	447	11:10 AM	589	2:55 PM	641	11:20 AM	586	2:00 PM	605	1	
Garage	219	2:00 PM	358	2:40 PM	316	2:00 PM	419	4:50 PM	364	0	

Shift Peaks

Day	1205	11:00 AM	Wed.
Swing	1183	3:15 PM	Wed.
Grave	514	7:30 AM	Wed.