



September 25, 2017  
Job No. 4922.00

Mr. John Davidson, Planning Manager  
City of Santa Clara  
1500 Warburton Ave  
Santa Clara, CA 95050

Re: City-wide Zoning Code Amendment  
Reduction in parking requirements for self-storage and data center uses

Dear John:

As we have discussed my client, Extra Space Storage, is requesting that parking requirements for self-storage facilities be evaluated with the goal of having the parking requirements reduced for such uses. As you know, the City is also interested in evaluating the parking requirements for "data centers/server farms" to determine the appropriate level of parking for that use.

Extra Space Storage agreed to have a parking analysis prepared for both the self-storage use and the data storage use. Hexagon Transportation Consultants Inc. was commissioned to prepare the reports using field observations taken over a 3 to 4-day period including weekend hours to base their conclusions. The final reports are attachments to this letter. Hexagon also used much of the same data to prepare a similar report for data center/server farm uses in San Jose. We have also included that report with this letter and for reference and acknowledge that it is currently under review by the City of San Jose.

The conclusion of all the studies indicate that the demand for employee and visitor parking for both self-storage and data center uses is lower than current zoning code requirements. Obviously, we are most interested in the demand for parking at self-storage facilities. The current zoning code requirements for parking for self-storage facilities for Santa Clara and adjoining and nearby cities are as follows:

City of Santa Clara: 1 space for each 3 employees or 1/2000 gross square feet  
whichever is greater.

City of Sunnyvale: Minimum .4 spaces/1000 sq. ft. (1/2,500 sq. ft.) to a Maximum of  
4/1,000 sq. ft.

City of San Jose: 1/5,000 sq. ft. plus 1/resident manager

City of Milpitas: 1/5,000 sq. ft. plus 1/resident manager

City of Mt View: 1/2,000 sq. ft. plus 2/resident manager

The reports evaluated three facilities for self-storage parking demand. All three are in Santa Clara, all differing in age, setting/context and had slightly different operation plans, however represented a good cross section of storage facilities.

The Hexagon reports concluded that parking spaces outside the secured/fenced area or those remote from the storage buildings were rarely used. Customers generally elected to drive into the facility and park in front of or as closely as possible to their rental unit to load and unload items. There was no consistent peak demand time that was observed. Hexagon's report indicates that the maximum parking demand can be described in three different ways using a weighted average:

- 1) 0.088 spaces per 1,000 gross square feet.
- 2) 0.11 spaces per 1,000 net rentable square feet
- 3) 1.1 spaces per 100 storage units.

We agree with Hexagon's findings and request that the City Planning Staff use the findings to establish a new lowered parking requirement for self-storage facilities in the City of Santa Clara. Please accept this letter and accompanying fee of \$14,481 as an official request for the zoning code amendment. Please let us know if you have any questions or need additional information.

Sincerely,

HMH



Ray Hashimoto, AICP  
Principal

CC: Hugh Horne, Horne Storage Developments, Inc.  
Mackey Reid, Extra Space Storage







# HEXAGON TRANSPORTATION CONSULTANTS, INC.

## Memorandum

**Date:** August 18, 2017  
**To:** Mr. Ray Hashimoto  
**From:** Gary Black  
Ollie Zhou  
**Subject:** Parking Study for Self-Storage Sites in Santa Clara, California

Hexagon Transportation Consultants, Inc. has completed a parking study for self-storage facilities in Santa Clara, California. This study was conducted for the purpose of recommending a parking requirement for self-storage facilities to be included in the City of Santa Clara's parking code. The parking requirement should ensure that the peak parking demands at future self-storage sites could be contained on site. Hexagon conducted parking demand counts at three self-storage sites within the City of Santa Clara to determine the existing peak parking demands. All self-storage sites that were counted were approved by City staff. A description of each site and the study findings are discussed below.

### Self-Storage Sites

Hexagon counted the parking lots at three Extra Space Storage sites in the City of Santa Clara (see Figure 1). Each site is discussed in detail below:

- Site 1: This self-storage site is located at 1700 De La Cruz Boulevard (see Figure 2), south of Reed Street. The 118,274 square feet (s.f.) site has 974 self-storage units, of which 18 are RV units. The site is gated so only customers can access the storage units. There is an office outside of the gated area. The storage site has five parking spaces outside of the gated area, and no striped parking spaces inside the gated area. Most customers drive into the gated area and park their cars in front of their storage units.
- Site 2: This self-storage site is located at 1775 Laurelwood Road (see Figure 3), west of Thomas Road. The 90,675 s.f. site has 1,051 self-storage units, of which two are RV units. The site is gated so only customers can access the storage units. There is an office outside of the gated area. The storage site has four parking spaces outside of the gated area, and eight parking spaces inside the gated area. Most customers drive into the gated area and park their cars in front of their storage units.
- Site 3: This self-storage site is located at 2576 Scott Boulevard (see Figure 4), south of Walsh Avenue. The 94,498 s.f. site has 883 self-storage units, of which 38 are RV units. The site is gated so only customers can access the storage units. There is an office outside of the gated area. The storage site has five parking spaces outside of the gated area, and 4 parking spaces inside the gated area. Most customers drive into the gated area and park their cars in front of their storage units.

These sites are located in different areas of the city, which should result in a typical parking ratio for self-storage sites in the city.

## Parking Demand Analysis

According to the site managers, the sites were believed to be busier on weekends than weekdays. Therefore, Hexagon conducted parking demand counts at all three self-storage sites on two weekends (four days total) from 10 AM to 6 PM in July 2017. Counts were conducted every half hour. RV units stored at each site were not counted towards the parking demand.

The collected data (see Appendix) did not show a clear time of day when parking demand peaked. Site 1 parking demand peaked on July 8<sup>th</sup> at 12 PM with 12 vehicles parked. Site 2 parking demand peaked on July 9<sup>th</sup> at 11:30 AM and on July 16<sup>th</sup> at 4 PM with 10 vehicles parked. Site 3 parking demand peaked on July 8<sup>th</sup> at 6 PM with 10 vehicles parked. Based on the maximum observed parking demand at each site, the weighted average peak parking demand (see Table 1) is 0.11 space per 1,000 net rentable square foot (NRSF), or 1.1 spaces per 100 storage units. The maximum parking demand rate based on NRSF was observed at Site 2, with 0.11 space per 1,000 NRSF. The maximum parking demand rate based on storage units was observed at Site 1, with 1.232 spaces per 100 storage units.

**Table 1**  
**Observed Maximum Parking Demands**

Site #	Address	Net Rentable Square Foot (NRSF)	Storage Units <sup>1</sup>	Max. Observed Parking Demand <sup>2</sup>	Demand Rate	
					per 1,000 NRSF	per 100 units
1	1700 De la Cruz Blvd	118,274	974	12	0.101	1.232
2	1775 Laurelwood Rd	90,675	1051	10	0.110	0.951
3	2576 Scott Blvd	94,498	883	10	0.106	1.133
<b>Weighted Average</b>					<b>0.11</b>	<b>1.10</b>
<b>Maximum Observed</b>					<b>0.11</b>	<b>1.23</b>

**Notes:**

- Storage unit count includes RV storage units.
- Parking demand counts were conducted on two weekends in July 2017.

## Field Observations

While conducting parking counts, Hexagon observed that the outer lots were almost always empty, oftentimes with one staff vehicle parked all day and the occasional customer stopping by to visit the office. Almost all customers accessing the storage units preferred to drive into the site through the gates instead of using the outer lot. Customers typically parked directly outside their unit (or as close as possible to the unit) to load/unload items. During the duration of the counts, very few customers were observed to park in the outer lot. The customers who did park in the outer lots were typically parked for only a few minutes to access the office.



## Discussion

Based on Hexagon's analysis, the observed average maximum parking demand rate was 0.11 space per 1,000 net rentable square foot, or 1.1 space per 100 storage units. Hexagon recommends the use of average maximum parking demand rate instead of the absolute maximum parking demand rate to eliminate potential outliers. For the average maximum parking demand rates, the rate based on square footage and the rate based on storage units are both very consistent. As a result, Hexagon recommends the City to consider using either parking rate as the parking requirement.

As discussed above, field observations indicated that almost all customers at all three sites parked their cars in front of their storage unit. Therefore, if a self-storage site provides space (striped or unstriped) in front of each storage unit for customers to park their cars, there would not be a need to provide dedicated parking spaces. As a result, Hexagon recommends the City to waive the parking requirement for self-storage sites that provide sufficient space in front of each storage unit to park a vehicle. If not, Hexagon recommends the City to require dedicated parking spaces inside the gated area using either the parking rate based on square footage or based on storage units. The provision of parking outside of the gated area for the office should be based on existing City requirements for office spaces.



Figure 1  
Count Locations





Figure 2  
Site 1 - 1700 De La Cruz Boulevard



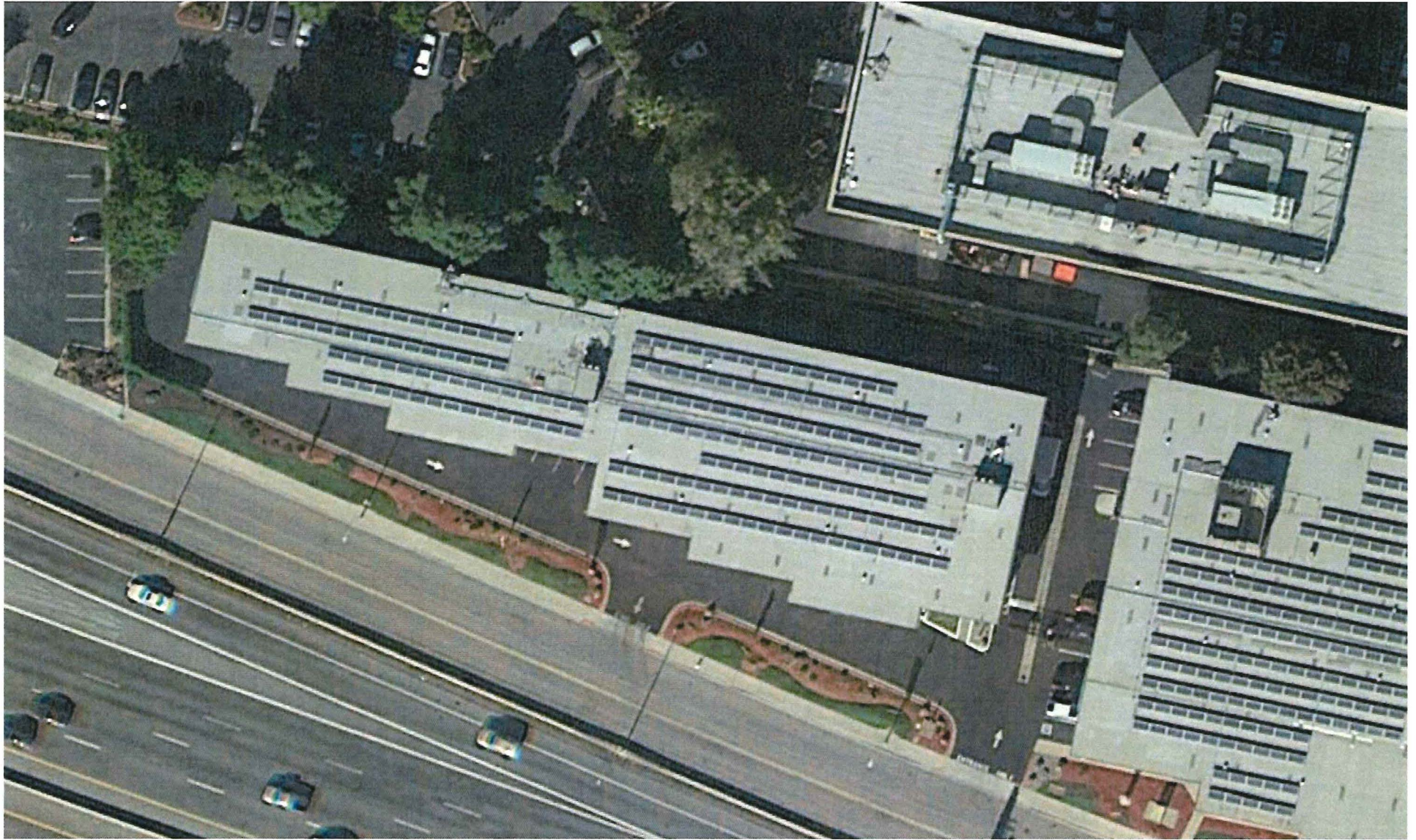


Figure 3  
Site 2 - 1775 Laurelwood Road



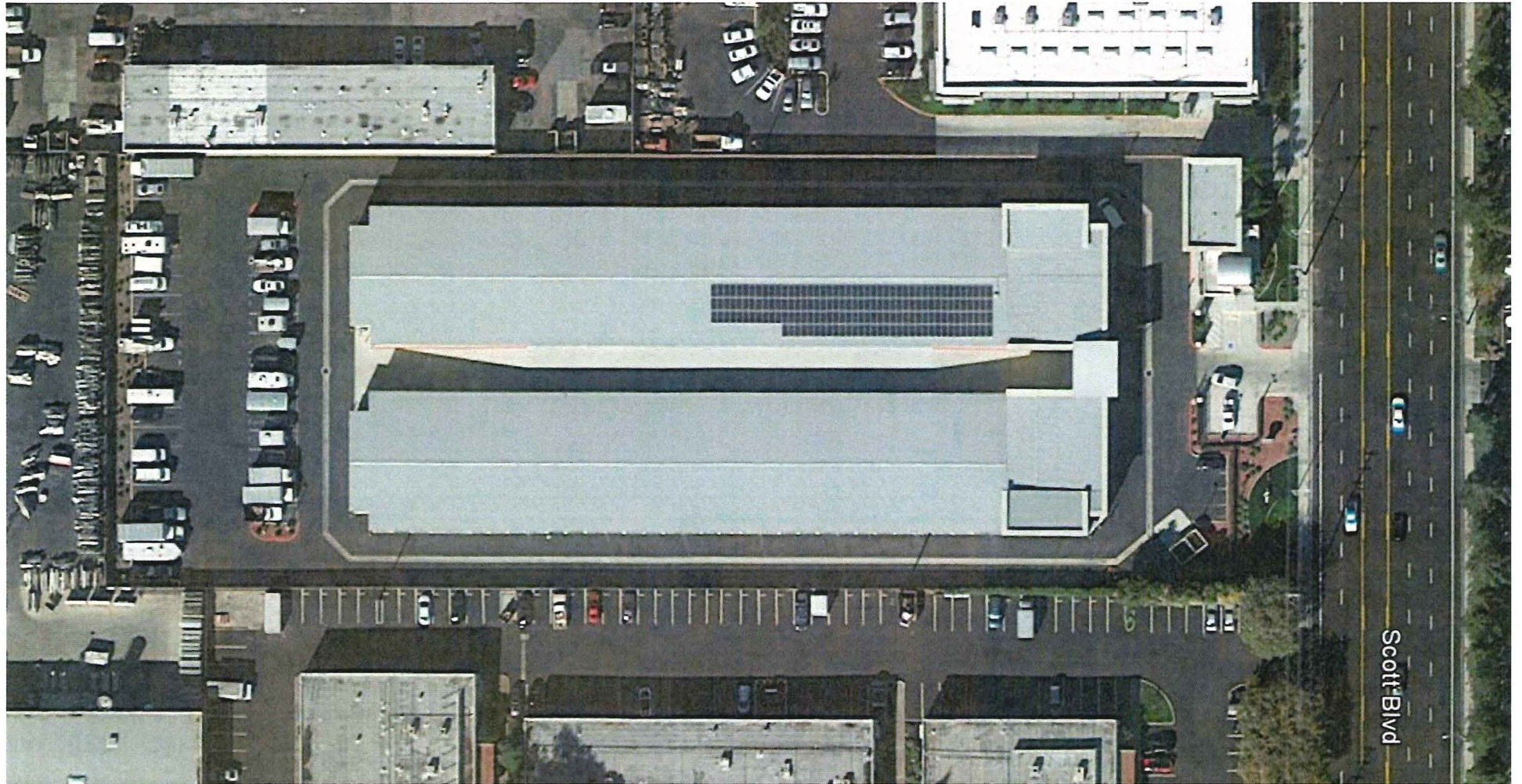


Figure 4  
Site 3 - 2576 Scott Boulevard

**Parking Study for Self-Storage Sites in Santa Clara, CA**  
**Appendix**





# HEXAGON TRANSPORTATION CONSULTANTS, INC.

August 17, 2017

Mr. Paul Manzer  
Navix Engineering Inc.  
11400 SE 8<sup>th</sup> Street, Suite 345  
Bellevue, WA 98004

**Re: Parking Study for Data Centers in Santa Clara, California**

Dear Mr. Manzer:

Hexagon Transportation Consultants, Inc. has conducted parking counts for two data centers in Santa Clara, California. The purpose of the counts was to determine the maximum demand for parking.

The two data centers counted are located at 2045 Lafayette Street, Santa Clara (323,122 Square feet) and 2220 De La Cruz Boulevard, Santa Clara (365,489 Square feet). The parking counts were conducted every hour between 8:00 AM and 6:00 PM on August 8, 2017 (Tuesday), August 9, 2017 (Wednesday) and August 10, 2017 (Thursday).

The average number of cars parked every hour was calculated at each site (see Table 1). The peak hour occurs when the most number of cars are present at the site. The peak hour of parking demand for 2045 Lafayette Street was at 1:00 PM with an average of 71 cars parked at the site. The peak hour of demand for 2220 De La Cruz Site was at 10:00 AM with an average of 79 vehicles parked on site. The results of the parking study are presented in Table 1.

**Table 1**  
**Summary of Parking Count**

Time	Parked Cars							
	2045 Lafayette Street				2220 De La Cruz Boulevard			
	8/8/2017	8/9/2017	8/10/2017	Average	8/8/2017	8/9/2017	8/10/2017	Average
	Tuesday	Wednesday	Thursday		Tuesday	Wednesday	Thursday	
8:00 AM	58	54	56	56	67	69	70	69
9:00 AM	60	55	58	58	71	71	73	72
10:00 AM	58	56	62	59	83	74	81	79
11:00 AM	59	51	56	55	81	76	81	79
12:00 PM	56	51	54	54	75	69	71	72
1:00 PM	63	75	74	71	70	68	84	74
2:00 PM	65	71	68	68	71	68	76	72
3:00 PM	53	65	67	62	72	60	63	65
4:00 PM	50	52	61	54	51	53	57	54
5:00 PM	32	35	41	36	41	49	52	47
6:00 PM	24	32	36	31	27	30	34	30
Size (s.f)	323,122				365,489			
Highest Parking Ratio (veh/ ksf)	0.22				0.22			



Mr. Paul Manzer  
August 17, 2017  
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The parking demand per 1,000 square feet was calculated by dividing the peak average demand for parking by the square footage of each building. Both 2045 Lafayette Street and 2220 De La Cruz sites had a peak demand of 0.22 parking spaces per 1,000 feet.

We appreciate this opportunity to submit this report. Please do not hesitate to contact us if additional information is needed.

Sincerely,  
**HEXAGON TRANSPORTATION CONSULTANTS, INC.**

Gary K. Black  
President





Figure 1  
Site Location





Figure 2  
Site Location