

**City of Palo Alto**

**Multi-Family Residential Development  
(Rental) Parking Rate Study**

Prepared for:  
City of Palo Alto

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FEHR  PEERS

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# Executive Summary

Fehr & Peers conducted this study to provide the City of Palo Alto with parking demand rate data for rental multi-family residential developments (apartments) including market rate, affordable, and senior housing projects at sites located at varying distances to fixed rail transit stations and/or major bus routes. The following was observed regarding the nine sites in Palo Alto and the survey results:

- The Affordable Housing complexes have a higher proportion of two and three-bedroom units, the Market Rate complexes generally have more one-bedroom than two+ bedroom units, and the Senior Housing complexes are comprised of primarily one-bedroom units.
- On a per-unit basis, the lowest parking demand rates were observed at the Senior Housing complexes and the highest at Affordable Housing complexes. On a per bedroom basis, the Affordable and Senior Housing sites had comparable rates while Market Rate units had the highest rates.
- Resident experiences at The Marc indicate that residents prefer to park at the apartment complex instead of on the street and that residents view having available parking/empty spaces any time of day as the “right amount of parking.” (Therefore, a complex where the supply is closer to the peak demand may be viewed as having “too little” parking since vacant spaces may be hard to find or inconvenient.)

Fehr & Peers used the survey results to develop parking supply rates. A conservative approach was taken to develop the rates to reflect community concerns regarding neighborhood parking intrusion.

## **Affordable Housing:**

- 1.0 parking space per studio and per 1-bedroom unit
- 2.0 parking spaces per 2-bedroom or larger unit

Reserved parking, if provided, could be limited to one space per unit to maximize parking space availability.

## **Market Rate Housing:**

- 1.0 parking space per studio and per 1-bedroom unit
- 2.0 parking spaces per 2-bedroom or larger unit

Reserved parking, if provided, could be limited to one space per unit to maximize parking space availability.

## **Senior Housing:**

- 0.75 spaces per unit



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# 1. Introduction

This study was conducted to provide the City of Palo Alto with parking rate data for rental multi-family residential developments (apartments) including market rate, affordable, and senior housing projects at sites located at varying distances to fixed rail transit stations and major bus routes. This study includes information from available reports, documents, studies, and the results of surveys conducted as part of this study. Fehr & Peers obtained the results of previous surveys conducted at various apartment complexes in the South Bay, and included them for informational purposes. Parking supply rates based on the Palo Alto survey results are provided at the conclusion of this report.



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## 2. Available Reports and Studies

Fehr & Peers reviewed several reports and studies that included parking demand rates for multi-family market rate, affordable, and senior residential developments in the Bay Area near rail stations (Caltrain, Bay Area Rapid Transit (BART), and light rail transit (LRT)). Industry standard parking generation sources and studies from Los Angeles and San Diego that include parking data for affordable housing were also reviewed. These reports and studies are:

- Santa Clara Valley Transportation Authority's (VTA's) A Parking Utilization Survey of Transit-Oriented Development Residential Properties in Santa Clara County
- Metropolitan Transportation Commission's (MTC's) Reforming Parking Policies to Support Smart Growth
- Transform's GreenTRIP Parking Database
- Robert Cervero, et al, University of California Transportation Center, UCTC Research Paper No. 882 Are TODs Over-Parked?
- Los Angeles Department of City Planning's Local Trip Generation Study
- City of San Diego's San Diego Affordable Housing Parking Study
- Institute of Transportation Engineers, Parking Generation, 4th edition

These reports and the general results that are applicable to parking demand rates for the City of Palo Alto are summarized in the following sections.

### **A Parking Utilization Survey of Transit-Oriented Development Residential Properties in Santa Clara County**

This research project was completed by Santa Clara Valley Transportation Authority (VTA) and San Jose State University in 2010. Twelve TOD residential properties near light rail and Caltrain stations in Santa Clara County were surveyed as part of the study. (A table from this report summarizing the results included in **Appendix A**.) The study does not specify whether the surveyed properties are market rate, affordable, or senior housing; it is likely that they are market rate properties. The parking supply rates ranged from 1.31 to 2.31 spaces per unit with an average of 1.68 spaces per unit, whereas the peak parking demand rates ranged from 0.84 to 1.54 spaces per unit with an average of 1.31 spaces per unit. The study found that the parking supply exceeded the parking demand at every site surveyed indicating that the code requirements for the city they are located in may be too high. This research project shows overall that parking demand at residences near a transit station is less than current zoning code requirements.



## Reforming Parking Policies to Support Smart Growth

The Metropolitan Transportation Commission (MTC) developed this handbook to help city officials, politicians, and planners with the planning and implementation of parking policies and programs that will support transit-oriented development (TOD). The document is intended to allow users to explore potential parking strategies that have been shown to work in different types of communities, identify best practices about policies and programs, and establish implementation guidelines to best gain the support of the public. It includes representative parking requirements for four types of land uses in five different location types. The rates for residential units in suburban centers/town centers range from 1.00 to 1.50 spaces per unit. Although the report does not differentiate among market rate, affordable, or senior housing, it is likely that these rates are for market rate properties.

### TransForm's GreenTRIP Parking Database

TransForm's GreenTRIP Parking Database (<http://database.greentrip.org/>) is a compilation of data gathered at approximately 80 multi-family residential sites in the San Francisco Bay Area. It includes the building location, place type (e.g. transit town center or city center), type of residence (family, senior, diverse abilities, condominium), percent of units below market rate, number of units, number of parking spaces, parking utilization, parking supply rate, parking demand rate, and traffic reduction strategies in place. The database can provide insight into why parking use fluctuates based on location, transit access, and TDM strategies.

The GreenTRIP Parking Database allows data filtering for the study site parameters listed above. For the all-residential, senior housing study sites in Santa Clara County, parking demand rates range from 0.27 to 0.71 spaces per unit. For the all-residential, non-senior housing study sites that are 50 to 100% below market rate (affordable housing) in Santa Clara County, parking demand rates range from 0.96 to 1.34 spaces per unit.

Some other relevant example results are:

- 801 Alma in Palo Alto (0.3 miles from a Caltrain station) with 50 units, 60 parking spaces (1.20 spaces per unit), and a peak parking demand of 1.02 spaces per unit,
- Madera Apartments in Mountain View (0.1 miles from a Caltrain station) with 203 units, 279 parking spaces (1.37 spaces per unit), and a peak parking demand of 0.88 spaces per unit, and
- Arbor Terrace Apartments in Sunnyvale (0.2 miles from a VTA Rapid 522 stop) with 175 units, 359 parking spaces (2.05 spaces per unit), and a peak parking demand of 1.37 spaces per unit

## Are TODs Over-Parked

Robert Cervero at the University of California Transportation Center (UCTC) led this study with the University of California, Berkeley. The study finds that parking demand rates for residential units at transit-oriented developments (TODs) in the San Francisco Bay Area ranged from 0.74 to 1.69 spaces per unit, averaging 1.20 spaces per unit. For all surveyed sites, the average parking supply was 1.59 spaces per dwelling unit. (A table from this report summarizing the results is included in **Appendix A**.) The study does not specify whether the surveyed properties are market rate, affordable, or senior housing; based on a review of the survey locations, most, if not all, are market rate properties. Varying development contexts explains the range in peak parking demand rates. Well-established sites with complementary land uses (such as office, restaurant, health club, hotel, and retail uses) had lower parking demand rates, while less dense and less diverse sites had higher parking demand rates.


## Los Angeles Trip Generation Study

In 2015 Fehr & Peers conducted a parking study in conjunction with a trip generation study for the Los Angeles Department of City Planning. The study surveyed 42 affordable housing sites inside and outside Transit Priority Areas (TPAs) in Los Angeles (20 inside a TPA, 22 outside a TPA). The study compared the observed parking demand rates to the Los Angeles Municipal Code (LAMC) parking requirements. All observed parking demand rates were lower than LAMC requirements. (A table from this report summarizing the results is attached.) Some relevant parking rates and results are:

- Affordable family housing within a TPA (8 surveyed) have a parking supply rate of 1.15 spaces per unit and a peak parking demand rate of 0.85 spaces per unit
- Affordable family housing outside a TPA (6 surveyed) have a parking supply rate of 1.17 spaces per unit and a peak parking demand rate of 0.82 spaces per unit
- Affordable senior housing within a TPA (5 surveyed) have a parking supply rate of 0.60 spaces per unit and a peak parking demand rate of 0.44 spaces per unit
- Affordable senior housing outside a TPA (8 surveyed) have a parking supply rate of 0.70 spaces per unit and a peak parking demand rate of 0.48 spaces per unit

## San Diego Affordable Housing Parking Study

In 2011 the City of San Diego conducted a parking study for affordable housing in various contexts throughout the city. The study documented parking rates for 21 housing developments to develop a citywide parking demand model. Variables considered includes walkability, access to transit, and housing type (e.g. single-family, senior, etc.). The parking study concluded that parking demand for affordable projects is about one half of typical rental units in San Diego, with almost half of all units surveyed having



no vehicle. Higher parking demand was generally associated with larger unit size and higher income for affordable housing developments. (A table from this report summarizing the results is attached.) In all projects surveyed, the amount of peak parking used was less than the amount supplied. Some relevant parking rates are:

- Villa Harvey Mandel Affordable Rentals located 1,500 feet from the 12<sup>th</sup> & Imperial Transit Center in San Diego with 90 units, 26 parking spaces (0.29 spaces per unit), and a peak parking demand of 0.28 spaces per unit
- Windwood Village Apartments in San Diego (not located near major transit service) with 92 units, 195 parking spaces (2.10 spaces per unit), and a peak parking demand of 1.56 spaces per unit
- Renaissance Senior Apartments in San Diego with 96 units, 103 parking spaces (1.07 spaces per unit), and a peak parking demand of 0.39 spaces per unit

## **Parking Generation, 4<sup>th</sup> Edition**

The Institute of Transportation Engineers published *Parking Generation*, 4th edition in 2004 to provide parking demand rates for various land uses based on survey data collected in primarily suburban, low-density areas. While the report does not provide authoritative findings, recommendations, or standards on parking demand, it is often referenced by planners and designers in making parking supply estimations and decisions. Some relevant results are:

- Low/Mid-Rise Apartment (Land Use 221) has an average weekday peak parking demand of 1.23 spaces per dwelling unit in suburban context and 0.42 spaces per dwelling unit in urban context
- Residential Condominium/Townhouse (Land Use 230) has an average peak parking demand of 1.38 spaces per dwelling unit in suburban context
- Senior Adult Housing – Attached (Land Use 252) has an average peak period parking demand of 0.59 spaces per dwelling unit

## **City of Palo Alto Municipal Code**

The City of Palo Alto Municipal Code, Chapter 18.52 *Parking and Loading Requirements* outlines the current parking supply requirements for multi-family residential units. Based on Table 1 in Section 18.52.040 *Off-Street Parking, Loading and Bicycle Facility Requirements*, market-rate multi-family residential complexes should have:

- 1.25 parking spaces per studio unit,
- 1.5 parking spaces per 1-bedroom unit,
- 2 parking spaces per 2-bedroom or larger unit, and
- 1 guest parking space per project plus 10% of total number of units (for projects exceeding 3 units).

Additionally, the following parking supply reductions may be taken:

- Housing for seniors may be reduced by up to 50% of the total spaces required for the site, subject to submittal and approval of a parking analysis justifying the reduction.
- Affordable housing may be reduced by up to 20% for low income units, up to 30% for very low income units, and 40% for extremely low income and single room occupancy units. The reduction shall consider proximity to transit and support services and traffic demand management measures may be required.
- Up to 20% reduction for housing near transit facilities and approval of a Transportation Demand Management (TDM) program.



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## 3. Parking Surveys

Fehr & Peers gathered the results of previous parking surveys for multi-family residential developments within and near Palo Alto and conducted new parking surveys. This section presents the survey methodology and results.

### Previous Parking Surveys

The results of previous parking surveys conducted for multi-family developments in the South Bay from other Fehr & Peers studies, TransForm, and studies conducted by other consultants were compiled. Available information about each site, such as the number of units, walking distance to the nearest rail station, type of rail service, peak parking demand, and parking supply and demand rates, is presented in **Table 1**. **Figure 1** shows the locations of each development. All developments are market-rate, except for Madera Apartments in Mountain View which has seven affordable-housing units and 196 market-rate units.

Some of the developments may not be directly applicable to Palo Alto but the information can be used for comparison purposes. The parking supply rates ranged from 0.92 to 2.09 spaces per unit and the parking demand rates ranged from 0.56 to 1.41 spaces per unit, which indicates that the developments generally had enough parking to meet demand. The highest parking demand rate is from a complex that is not near a rail station or major bus route, suggesting that complexes far from transit may require more parking than those close to transit.

The peak demands were approximately 20 percent lower than the parking supply for all but one of the complexes, Avalon Towers on the Peninsula. It has a low parking supply rate of 1.24 spaces per unit and is 0.8 miles from the closest Caltrain station. Several complexes had parking supplies that are 40 to 60 percent higher than their peak demands.



**Table 1: Available Multi-Family Residential Parking Survey Results**

Name of Complex	Address	Distance to Rail Station	Type of Rail	Number of Units				No. of Occupied Units	Supply			Demand				Over-supply <sup>1</sup>
				1 BR	2 BR	3+ BR	Total Units (Bedrooms)		No. of Spaces	Rate Per Unit	Rate Per Bedroom	Peak Parking Demand	Rate Per Unit	Rate Per Occupied Unit	Rate Per Bedroom	
801 Alma	801 Alma St., Palo Alto	0.3 miles	Caltrain (Palo Alto)	10	24	16	50 (106)	50	60	1.20	0.57	51	1.02	1.02	0.48	18%
Park Place Apartments	851 Church St., Mountain View	0.7 miles	Caltrain/LRT (Mountain View)	181	186	6	373 (571)	n/a	511	1.37	0.89	339	0.91	n/a	0.59	51%
Avalon Mountain View	1600 Villa St., Mountain View	0.8 miles	Caltrain/LRT (Mountain View)	117	75	56	248 (435)	n/a	426	1.72	0.98	301	1.21	n/a	0.69	42%
AvalonBay Creekside	151 Calderon Ave., Mountain View	0.4 miles	Caltrain/LRT (Mountain View)	n/a	n/a	n/a	294 (n/a)	288	436	1.48	n/a	365	1.24	1.27	n/a	19%
Avalon Towers on the Peninsula, (ATOP)	2400 West El Camino Real, Mountain View	0.8 miles	Caltrain/LRT (Mountain View)	90	115	6	211 (338)	203	262	1.24	0.78	258	1.22	1.27	0.76	2%
Madera Apartments	455 W. Evelyn Ave, Mountain View	0.2 miles	Caltrain/LRT (Mountain View)	116	87	0	203 <sup>2</sup> (290)	n/a	342	1.68	1.18	214	1.05	n/a	0.74	60%



**Table 1: Available Multi-Family Residential Parking Survey Results**

Name of Complex	Address	Distance to Rail Station	Type of Rail	Number of Units				No. of Occupied Units	Supply			Demand				Over-supply <sup>1</sup>
				1 BR	2 BR	3+ BR	Total Units (Bedrooms)		No. of Spaces	Rate Per Unit	Rate Per Bedroom	Peak Parking Demand	Rate Per Unit	Rate Per Occupied Unit	Rate Per Bedroom	
Central Park Apartments	100 N. Whisman Rd., Mountain View	0.3 miles	LRT (Whisman)	68	204	82	354 (722)	n/a	696	1.97	0.96	490	1.38	n/a	0.68	42%
Kensington Apartments	1220 N. Fair Oaks Ave., Sunnyvale	0.2 miles	LRT (Fair Oaks)	n/a	n/a	n/a	186 (n/a)	182	317	1.70	n/a	262	1.41	1.44	n/a	21%
Park Central Apartments	1050 Benton St., Santa Clara	0.7 miles	Caltrain/LRT (Santa Clara)	85	88	0	173 (261)	n/a	345	1.99	1.32	219	1.27	n/a	0.84	58%
Mansion Grove Apartments	502 Mansion Park Dr., Santa Clara	0.9 miles	LRT (Orchard)	502	494	4	1,000 (1,502)	n/a	1,670	1.67	1.11	1,317	1.32	n/a	0.88	27%
Ironworks Apartments (North)	457 E. Evelyn Ave., Sunnyvale	0.4 miles	Caltrain (Sunnyvale)	7	72	38	117 (265)	n/a	244	2.09	0.92	148	1.26	n/a	0.56	65%
Ironworks Apartments (South)	388 E. Evelyn Ave., Sunnyvale	0.4 miles	Caltrain (Sunnyvale)	44	23	0	67 (90)	n/a	109	1.63	1.21	54	0.81	n/a	0.60	91%

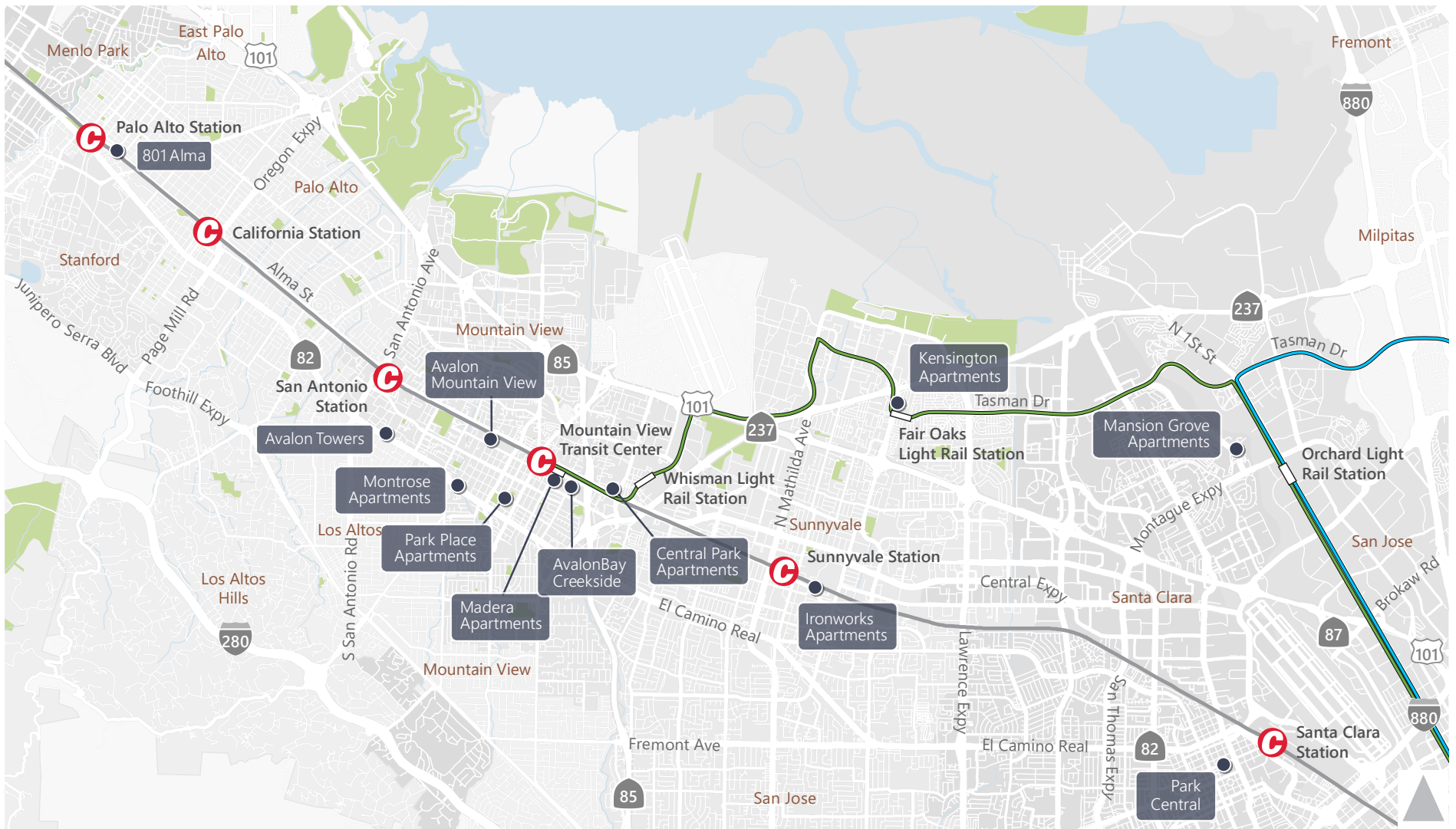


**Table 1: Available Multi-Family Residential Parking Survey Results**

Name of Complex	Address	Distance to Rail Station	Type of Rail	Number of Units				No. of Occupied Units	Supply			Demand				Over-supply <sup>1</sup>
				1 BR	2 BR	3+ BR	Total Units (Bedrooms)		No. of Spaces	Rate Per Unit	Rate Per Bedroom	Peak Parking Demand	Rate Per Unit	Rate Per Occupied Unit	Rate Per Bedroom	
Montrose Apartments	1720 W. El Camino Real, Mountain View	1.4 miles	Caltrain/LRT (Mountain View)	148	80	0	228 (308)	n/a	354	1.55	1.15	219	0.96	n/a	0.71	62%

Source: Fehr & Peers, TransForm, and Hexagon Transportation Consultants.

1. Oversupply = (Supply – Demand) / Demand
2. Madera Apartments has seven affordable-housing units and 196 market-rate units.



- Surveyed Sites
- ⓐ Caltrain Station
- LRT Station
- Caltrain Route
- Light Rail Train (902)
- Light Rail Train (901)



Figure 1  
 Previous Parking Study Locations

# New Parking Surveys

During November and December, 2017, surveys were conducted at nine apartment complexes in Palo Alto to measure their parking demand during various days of the week and times of day. The sites were re-surveyed in June and July, 2018.

## Selected Survey Sites

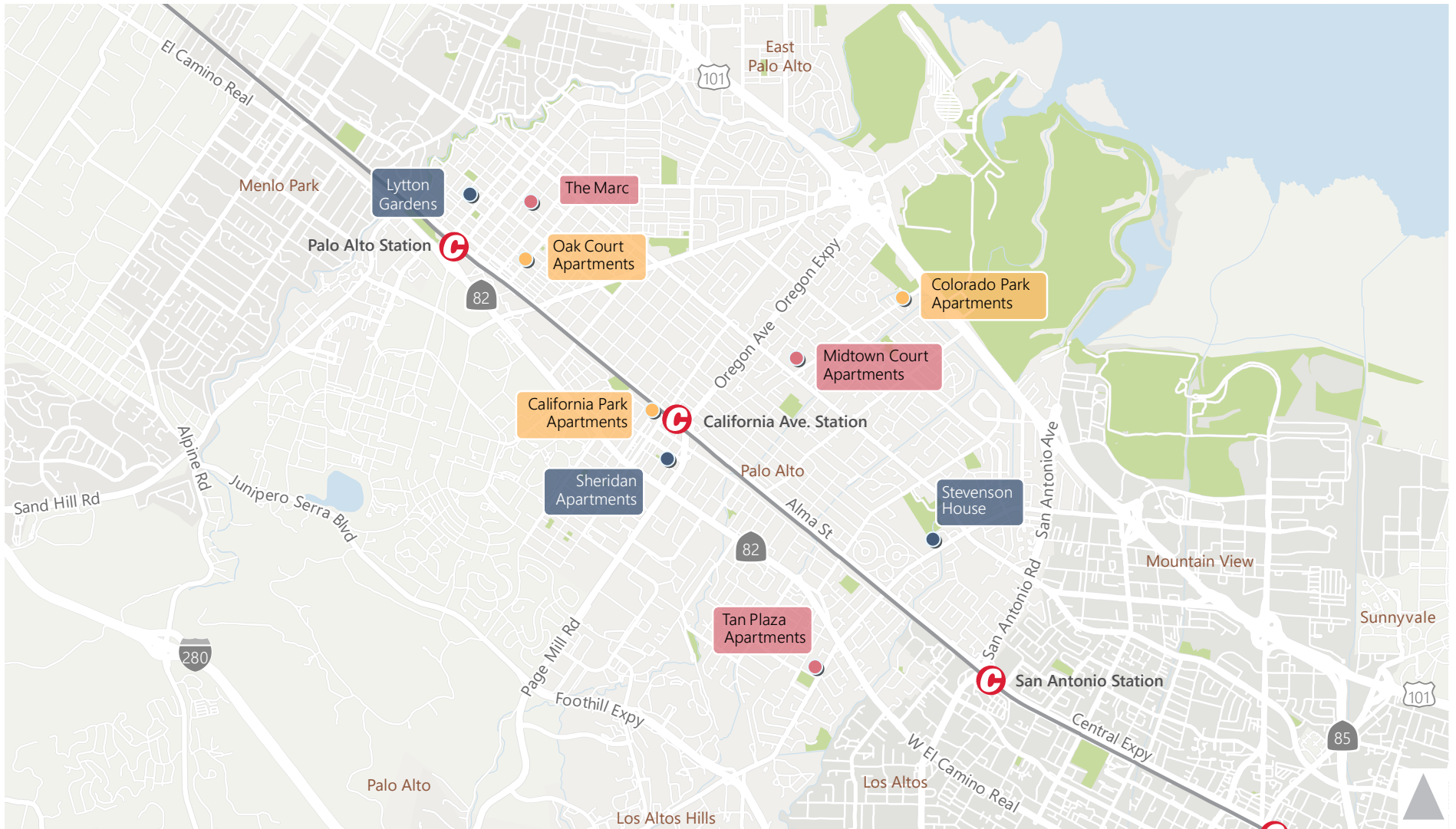
The nine multi-family complexes were selected in concert with City staff based on development type (i.e. Market Rate, Affordable Housing, or Senior Community) and distance from transit, where transit is defined as fixed rail stations (primarily Caltrain stations) and/or major bus routes (primarily El Camino Real) so that the effects of transit proximity can be discerned. **Table 2** lists the locations of the properties along with their types and distance-to-transit categories. **Table 3** shows their locations in relation to nearby Caltrain stations (Palo Alto, California, and San Antonio). Distances are based on the shortest pedestrian or bicycle route measured from the complex to the nearest Caltrain station as calculated by Google Maps (typically from the middle of the apartment complex to the closest pedestrian/bicyclist entrance of the Caltrain station).

**Table 2: Selected Multi-Family Complexes**

Type	Near Transit (<0.5 miles)	Mid-Distance to Transit (0.5 to 1.0 miles)	Far from Transit (> 1.0 miles)
<b>Affordable Housing</b>	California Park Apartments (2301 Park Boulevard)	Oak Court Apartments (845 Ramona Street)	Colorado Park Apartments (1141 Colorado Avenue)
<b>Market Rate Housing<sup>2</sup></b>	--	The Marc (501 Forest Avenue)	Midtown Court Apartments (2721 Midtown Court) Tan Plaza Apartments (580 Arastradero Road)
<b>Senior Housing</b>	Sheridan Apartments <sup>1</sup> (360 Sheridan Avenue)	Lytton Gardens (330 Everett Avenue)	Stevenson House (455 E. Charleston Road)

Source: Fehr & Peers, 2018.

1. Sheridan Apartments is an affordable housing complex for senior & disabled residents. For the purposes of this analysis, Sheridan Apartments was considered as a Senior Housing complex.
2. Distances thresholds for "Near Transit," "Mid-Distance to Transit," and "Far from Transit" categories were revised after selecting the properties. Because of this revision, there are no Market Rate Housing complexes "Near Transit" and two Market Rate Housing complexes "Far from Transit."



- Senior Housing
- Affordable Housing
- Market Rate Housing
- Lytton Gardens
- The Marc
- Oak Court Apartments
- Colorado Park Apartments
- Midtown Court Apartments
- California Park Apartments
- Sheridan Apartments
- Stevenson House
- Tan Plaza Apartments
- G Caltrain Station
- Caltrain Route



Figure 2  
New Parking Survey Locations



Each of the observed sites are described below:

- **Affordable Housing**


- *California Park Apartments* is directly west of the California Avenue Caltrain Station on Park Boulevard. The complex is bordered by non-residential land uses, although single-family and multi-residential units are nearby. The complex is also within walking and biking of many restaurants, several grocery stores, and other amenities. The complex has unassigned, uncovered parking spaces for residents only. Street parking is restricted to two hours maximum between 8:00 am and 5:00 pm, Monday through Friday.
- *Oak Court Apartments* is in a residential area of Palo Alto south of the University Avenue downtown area among other multi-family residential complexes and single-family homes. The complex is within walking and biking distance of the University Avenue downtown area, as well as other various grocery stores and amenities. Access to the Palo Alto Caltrain Station is provided on both the east and west sides of the Caltrain tracks, and the station is accessible via both local streets and bicycle and pedestrian paths. The complex has assigned, underground parking for residents only. Street parking is available on most adjacent blocks and is time-restricted for all users except those with residential permits. (Permits are for multiple residential complexes including Oak Court Apartments.)
- *Colorado Park Apartments* is in a residential area of Palo Alto southeast of the US 101/Oregon Expressway interchange and is surrounded by single-family and multi-family residential units. The complex is within walking and biking distance to several schools and parks, but it is not within walking distance to any restaurants, grocery stores, or other amenities. (The Midtown Shopping Center, the nearest shopping center, is approximately 0.7 miles from the complex.) The complex has assigned parking in a residents-only surface-level lot. Most of the parking is covered, but a portion of the spaces are uncovered. Colorado Avenue, the only street bordering the complex, has unrestricted street parking near the site.

- **Market Rate Housing**

- *The Marc* is in a mixed residential/commercial area of Palo Alto near the University Avenue downtown area. A mix of residential units and commercial units surround the complex. The complex is within walking and biking distance of the University Avenue downtown area, as well as other stores and amenities. Access to the Palo Alto Caltrain Station is provided on both the east and west sides of the Caltrain tracks, and the station is accessible via both local streets and bicycle and pedestrian paths. All parking spaces are assigned to residents, although parking is partially in a gated garage and partially in a surface-level lot. Street

parking is restricted to two hours maximum between 8:00 am and 5:00 pm, Monday through Friday.

- *Midtown Court Apartments* is directly north of the Midtown Shopping Center in Palo Alto. The complex shares driveways with another apartment complex and is surrounded by both residential units and commercial land uses. The complex is within walking and biking distance of many restaurants, a grocery store, and other amenities. Access to the California Avenue Caltrain Station is somewhat impeded because the complex is on the opposite side of Caltrain tracks as the station. The complex has both assigned and unassigned parking spaces in a surface lot, with both covered and uncovered spaces. Minimal street parking surrounds the complex, although the parking lot at the Midtown Shopping Center does not restrict parking outside of business hours.
- *Tan Plaza Apartments* is in a primarily residential area of Palo Alto near the intersection of El Camino Real and Arastradero Road. The complex is near mostly residential buildings and some hotel and retail land uses. The complex is within biking distance to select restaurants and stores to the south along El Camino Real. The complex has a gated surface lot for residents only, and all spaces are assigned and covered. Clemo Avenue south of the complex has unrestricted street parking.
- **Senior Housing**
  - *Sheridan Apartments* is in a residential area of Palo Alto to the south of the California Avenue downtown area. The complex is near several multi-family residential complexes. It is also within walking and biking distances to restaurants and various amenities on California Avenue. The complex has a resident-only surface lot with assigned parking. Street parking is available on most adjacent blocks and is time-restricted for all users except those with residential permits. (Permits are for multiple residential complexes including Sheridan Apartments.)
  - *Lytton Gardens* is in a partially residential, partially commercial area of Palo Alto to the north of the University Avenue downtown area. The complex is next to multi-family residential areas, restaurants, and retail land uses. The complex is within walking and biking distance to the University Avenue downtown area. The complex has gated, assigned, underground parking for residents. Street parking is available on adjacent blocks and is time-restricted for all users except those with residential permits. (Permits are for multiple residential complexes including Lytton Gardens.) Additionally, there is a parking lot near the complex that is reserved for other multi-family residential complexes and retail shops.

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- *Stevenson House* is in a residential area of Palo Alto near the intersection of Charleston Road and Middlefield Road. The complex is near primarily single-family residential homes and elementary schools. A small shopping center with restaurants and a grocery store is within walking and biking distance of the complex. The complex has assigned parking spaces for residents in a surface lot. Some of the parking spaces are covered. Street-parking is available on the east side of Charleston Road for residents with parking permits.

All observed sites have dedicated parking facilities for residents, visitors, and staff where the number of parked vehicles could be counted (no private one and two-car garages). No observed sites offer unbundled parking. The number of units by bedroom count, number of parking spaces, and parking supply rates per unit and per bedroom are presented in **Table 4**. The properties also have at least 45 units, with unit occupancy at or above 95%.

## Methodology & Results

This section summarizes the survey methods and results.

### Parking Inventories

A parking inventory was conducted at each selected survey site to verify the parking supply. The inventory included counts of the numbers of spaces and how they were identified, e.g., reserved, visitor, staff, office, Americans with disabilities Act (ADA)-compliant, etc. Spaces that had no identification were designated as “general”. The parking inventories are presented in **Table 3**.

The parking requirements per City code are also presented. Many of the sites have fewer on-site spaces than the code requirements. If complexes provide less parking than the code requirements and parking occurs on adjacent streets, this may contribute to a perception of the city code being too low.



**Table 3: Parking Inventories at Survey Sites**

Name of Complex	Number of Parking Stalls								Required Parking Supply <sup>1</sup>
	General	Reserved	ADA-Compliant	Visitor	Office/Staff/Vendor	Future Neighbor	EV	Total	
<b>Affordable Housing</b>									
California Park Apartments	67	-	3	-	-	-	-	<b>70</b>	<b>76<sup>2</sup></b>
Oak Court Apartments	-	85	2	20	-	-	-	<b>107</b>	<b>87<sup>2</sup></b>
Colorado Park Apartments	-	86	2	-	2	-	-	<b>90</b>	<b>99<sup>2</sup></b>
<b>Market Rate Housing</b>									
The Marc	-	153	2	-	-	-	2	<b>157</b>	<b>172<sup>3</sup></b>
Midtown Court Apartments	58	10	-	-	1	-	-	<b>69</b>	<b>83</b>
Tan Plaza Apartments	65	10	2	-	2	5	-	<b>84</b>	<b>127</b>
<b>Senior Housing</b>									
Sheridan Apartments	-	20	1	-	-	-	-	<b>21</b>	<b>47<sup>4</sup></b>
Lytton Gardens	3	38	5	5	-	-	-	<b>51</b>	<b>42<sup>4</sup></b>
Stevenson House	35	2	3	6	4	-	-	<b>50</b>	<b>97<sup>4</sup></b>

Notes:

1. Required parking supplies were calculated using the City of Palo Alto's parking requirements.
2. Per the City of Palo Alto's parking requirements, a 20% parking reduction was applied to affordable housing with low income units.
3. Per the City of Palo Alto's parking requirements, a 20% parking reduction was applied to market-rate housing nearest to transit.
4. Per the City of Palo Alto's parking requirements, a 50% parking reduction was applied to senior housing complexes.

Source: Fehr & Peers, 2018.



## Parking Occupancy Surveys

Parking occupancy surveys were conducted in November and December, 2017 to count the numbers of parked vehicles on-site by space type on a weekday (Tuesday, Wednesday, or Thursday) at three time periods (midday, evening, and late night - after midnight) and on a weekend day at two time periods (midday and late night). An additional round of parking occupancy surveys was conducted in June and July, 2018 on a weekday during the late-night period to capture total on-site and potential on-street parking demand.

The summarized results showing the numbers of parked vehicles, parking demand rates per unit, per occupied unit, and per bedroom are in **Table 4**. The peak (highest) on-site parking demand survey results are shown. The peak demand rates are based on the highest observed on-site demand plus the highest observed on-street demand. It should be noted that it is difficult to discern whether the vehicles parked on street are associated with the apartment complex or with other homes or land uses in the area. All of the on-street parked vehicles are included in the demand rates yielding conservative results. (More detailed survey results are included in **Appendix B**.)

Most of the complexes achieved their peak parking demand on weekdays during the late night period. Two had identical peak parking demands during the late night period on weekdays and on weekends (California Park Apartments and Tan Plaza). One of the senior housing complexes reached its peak parking demand during the late night weekend period (Stevenson House).

Only three of the complexes, Oak Court Apartments, Lytton Courtyard, and Stevenson House, have designated visitor spaces. Oak Court Apartment has 20 visitor spaces and the number of vehicles parked in those spaces remained at 6 or 7 throughout the survey period. Lytton Courtyard has 5 visitor spaces with 1 or 2 parked vehicles. The number of vehicle in the six visitor spaces at Stevenson House ranged from 2 to 5.

**Table 4: New Multi-Family Residential Parking Survey Results**

Name of Complex	Distance to Rail Station (Nearest Caltrain Station)	Number of Units				No. of Occupied Units	Supply			Peak Demand		Demand Rates (Per Unit)		Demand Rates (Per Bedroom)		Over-Supply Range <sup>3,4</sup>
		1 BR	2 BR	3+ BR	Total Units (Total Bedrooms)		No. of Spaces	Supply Rate per Unit	Supply Rate per Bedroom	On-Site <sup>2</sup>	On-Street <sup>1,2</sup>	On-Site <sup>2</sup>	On-Site & On-Street <sup>2</sup>	Rate Per Bedroom (On-Site) <sup>2</sup>	Rate Per Bedroom (On-Site & On-Street) <sup>2</sup>	
<b>Affordable Housing</b>																
California Park Apts.	0.1 mi. (CA)	1	31	13	45 (102)	45	70	1.56	0.69	49	19	1.09	1.51	0.48	0.67	3-43%
Oak Court Apts.	0.6 mi. (PA)	9	18	26	53 (123)	53	107	2.02	0.87	66	12	1.25	1.47	0.54	0.63	37-62%
Colorado Park Apts.	1.8 mi. (CA)	8	24	28	60 (140)	60	90	1.50	0.64	78	13	1.30	1.52	0.56	0.65	0-15%
<b>Market Rate Housing</b>																
The Marc	0.7 mi. (PA)	70	44	4	118 (170)	114	157	1.33	0.92	93	5	0.82	0.86	0.55	0.58	60-69%
Midtown Court Apts.	1.1 mi. (CA)	31	15	0	46 (61)	44	69	1.50	1.13	46	13	1.05	1.34	0.75	0.97	17-50%
Tan Plaza Apts.	1.5 mi. (SA)	6	50	5	61 (121)	60	84	1.38	0.69	70	14	1.17	1.40	0.58	0.69	0-20%
<b>Senior Housing</b>																
Sheridan Apts.	0.3 mi. (CA)	57	0	0	57 (57)	57	21	0.37	0.37	20	3	0.35	0.40	0.35	0.40	0-5%
Lytton Gardens	0.5 mi. (PA)	51	0	0	51 (51)	51	51	1.00	1.00	35	0	0.69	0.69	0.69	0.69	46%
Stevenson House	1.2 mi. (SA)	120	0	0	120 (120)	120	50	0.42	0.42	41	0	0.34	0.34	0.34	0.34	22%

Notes: Complexes are color coded by distance to transit, with darker colors indicating higher distance to transit.

1. Only a portion of the on-street parked vehicles are associated with the apartment complex.
2. On-site demand represents the higher peak demand observed of the two studies. On-street demand is from the new study only. Entire on-street demand included in demand rates.
3. Oversupply = (Supply – Demand) / Demand
4. Because it is not possible to determine how many on-street vehicles are generated by the complex, Oversupply Range represents the minimum (100% of on-street parking is generated by the complex) and maximum (0% of on-street parking is generated by the complex) oversupplies. If no on-street parking was observed, one oversupply percent is given.

Sources: City of Palo Alto, Fehr & Peers.



## Resident Intercept Surveys

The Planning and Transportation Commission requested that resident intercept surveys be conducted to gauge residents' perspectives on parking conditions. One property, The Marc, allowed Fehr & Peers staff to conduct a survey on June 21, 2018. Two staff members went to the complex and recorded resident responses to the following three questions:

- What is your overall sense of the parking supply at this complex? (Too much parking, too little parking, or about the right amount of parking)
- How do you feel about parking in the garage compared to on-street parking/parking in neighboring lots?
- How do you feel about using the parking structure/lot at this complex? Do you feel safe using the parking structure/lot at this complex?

Seven residents (four female and three male) agreed to be interviewed. Overall, residents feel like the parking supply at The Marc is about right, although one resident mentioned that the parking structure is "packed" sometimes. All residents preferred parking in the complex instead of parking on the street. Several residents mentioned that they prefer parking in the complex because they have their own reserved space, while others stated that parking on the street is a "hassle." All residents also reported that they feel safe parking at the complex. One male resident mentioned that there is occasionally homeless activity near the parking complex. **Appendix C** shows the full responses of the resident intercept surveys.

The Marc showed low parking lot occupancy during the previous (57%) and new (62%) parking surveys, indicating that the parking supply is more than adequate. The Marc also had assigned parking for most residents and showed the lowest number of on-street vehicles of all observed Market Rate and Affordable Housing complexes.

## Data Analysis

The parking occupancy surveys results were reviewed and statistical analyses were performed, including a multi-variant linear regression analysis, to determine the correlation between the peak parking demand and the number of dwelling units (categorized by number of bedrooms) and total number of bedrooms, and to determine whether distance to transit had any statistical significance. In addition the highest peak demand rates for each category were reviewed. The conversion of parking demand rates to parking supply rates is discussed in the next chapter.

## Statistical Analyses

The best statistical analysis results regarding peak parking demand compared to the number of units are summarized below. These equations should be used with caution due to the low sample size.

### Affordable Housing

Peak Parking Demand =  $1.33 (X_1) + 1.52 (X_{2+})$ , where

$X_1$  = Number of one-bedroom units and

$X_{2+}$  = Number of two (or more)-bedroom units

The results are inconclusive regarding distance to transit.

### Market-Rate Housing

Not accounting for distance to transit:

Peak Parking Demand =  $0.56 (X_1) + 1.42 (X_{2+})$ , where

$X_1$  = Number of one-bedroom units and

$X_{2+}$  = Number two (or more)-bedroom units

Accounting for distance to transit:

Peak Parking Demand =  $0.67 (X) + 27.88 (Y)$ , where

$X$  = Total number of units

$Y$  = Walking distance to closest rail station in miles

### Senior Housing

Peak Parking Demand =  $0.40 (X_1)$ , where

$X_1$  = Number of one-bedroom units

The results are inconclusive regarding distance to transit.

## Highest Demand Rates

To ensure that a sufficient amount of parking is provided parking demand rates used in selecting the parking supply are based on 85<sup>th</sup> percentile rates, not average rates. Since the number of survey sites is low, the highest rate for each category would represent the 85<sup>th</sup> percentile rate. Therefore, the highest of the peak

parking demand rates for each category is used, not the average of the rates, to develop parking supply rates. The highest rates and the range of rates for each category are presented in **Table 5**.

**Table 5: Peak Parking Demand Rates by Housing Type**

Housing Type	Range of Peak Parking Demand rates		Maximum Peak Parking Demand Rate	
	<i>Spaces per Unit</i>	<i>Spaces per Bedroom</i>	<i>Spaces per Unit</i>	<i>Spaces per Bedroom</i>
<b>Affordable Housing</b>	1.47-1.52	0.63-0.67	<b>1.52</b>	<b>0.67</b>
<b>Market Rate Housing</b>	0.86-1.40	0.58-0.97	<b>1.40</b>	<b>0.97</b>
<b>Senior Housing</b>	0.34-0.69	0.34-0.69	<b>0.69</b>	<b>0.69</b>

Source: Fehr & Peers.

## General Observations

Some general observations regarding the survey sites and results are presented below:

- The Affordable Housing complexes have a higher proportion of two and three-bedroom units, the Market Rate complexes have more one-bedroom than two+ bedroom units, and the Senior Housing complexes are comprised of primarily one-bedroom units.
- On a per-unit basis, the lowest parking demand rates were observed at the Senior Housing complexes and the highest at Affordable Housing complexes. On a per bedroom basis, the Affordable and Senior Housing sites had comparable rates while Market Rate units had the highest rate.
- Resident experiences at The Marc indicate that residents prefer to park at the apartment complex instead of on the street and that residents view always having available parking/empty spaces as the right amount of parking. (Therefore, a complex where the supply is closer to the peak demand may be viewed as having “too little” parking.)

## 4. Conclusions

The information contained in this report, primarily the results of the parking surveys conducted at complexes in Palo Alto, were used to develop parking supply rates. The rates are based on the goal of the parking supply being adequate to accommodate the peak demand on site to minimize intrusion into surrounding neighborhoods. Parking supply rates are typically about 10 percent higher than the anticipated peak demand to account for demand variations, to reduce the amount of vehicular circulation to locate the last vacant spaces, and to limit over-supplies. Parking supply rates for each of the apartment categories were selected based on the highest surveyed parking demand including both on-site and on-street spaces and the statistical analysis results. These rates include guest parking. Applying the resulting supply rates to the survey sites would result in supplies exceeding the parking demand by over 20 percent in most cases. Therefore these supply rates would minimize parking intrusion.

The supply rates and discussions on how they were derived are presented below:

### **Affordable Housing:**

- 1.0 parking space per studio and per 1-bedroom unit
- 2.0 parking spaces per 2-bedroom or larger unit


Reserved parking, if provided, could be limited to one space per unit to maximize parking space availability.

All three of the survey sites have similar parking demand rates on both a per-unit and per-bedroom basis. The linear regression analysis indicates that the per unit demand rate is similar regardless of the number of bedrooms. This is primarily due to the low proportion of one-bedroom units and higher number of two and three-bedroom units to accommodate families (and their limited effect on parking demand). Therefore the parking rate is 2.0 spaces per unit with two or more bedrooms to acknowledge the higher parking demand associated with the larger units. The rate of 1.0 space per studio/one-bedroom unit was selected as it is the minimum acceptable supply rate. A higher rate is not needed as it would result in an oversupply.

### **Market Rate Housing:**

- 1.0 parking space per studio and per 1-bedroom unit
- 2.0 parking spaces per 2-bedroom or larger unit

Reserved parking, if provided, could be limited to one space per unit to maximize parking space availability.



The market rate sites showed more variation in parking demand rates, especially on a per-bedroom basis. The linear regression analysis indicated demand rates in proportion with the number of bedrooms. On average these complexes are an even mix of one and two-bedroom units with few three-bed-room units. The parking rates of 1.0 space per studio/one-bedroom unit and 2.0 spaces per unit with two or more bedroom, even though identical to the Affordable Housing rates, maintain the magnitude of rate increase in the linear regression but set the minimum rate at 1.0 space per unit.

**Senior Housing:**

- 0.75 spaces per unit

All of the Senior Housing survey sites comprised one-bedroom units. The highest demand rate was 0.69 spaces per unit and per bedroom. This rate was used to develop the parking supply rate.



**Appendix A:**  
**Summary Tables from Previous Parking**  
**Studies**

Summary Table from  
"A Parking Utilization Survey of Transit-Oriented  
Development Residential Properties in Santa Clara  
County"



**TABLE 6.1** Survey Data

Site	Housing		Parking			Parking Utilization Ratio	Parking Demand Rate	Parking Supply Rate	Over Supply (%)	Distance to Nearest Station
	Total Units	Occupied Units	Total Spaces	Utilized Spaces	Unused Spaces	(Utilized Spaces / Total Spaces)	(Utilized Spaces / Occupied Units)	(Total Spaces / Total Units)	(Supply - Demand) / Supply	(Feet)
1	294	288	438	365	73	0.83	1.27	1.49	15	2,500
2	306	294	568	439	129	0.77	1.49	1.86	19	3,060
4+	924	832	1,654	1,282	372	0.78	1.54	1.79	14	5,560
5	2,760	2,622	4,605	3,409	1,196	0.74	1.30	1.67	22	2,400
6	186	182	317	262	55	0.83	1.44	1.70	16	1,040
11*	93	93	122	99	23	0.81	1.06	1.31	19	1,060
13	210	200	373	271	102	0.73	1.36	1.78	24	1,330
14	104	100	240	148	92	0.62	1.48	2.31	36	1,500
16	115	113	186	132	54	0.71	1.17	1.62	28	130
18	176	174	338	241	97	0.71	1.38	1.92	28	690
20	250	242	387	287	100	0.74	1.19	1.55	23	730
21	383	383	523	320	203	0.61	0.84	1.37	39	3,930
Total	5,801	5,522	9,751	7,255	2,496					
Average	483	460	813	605	208	0.74	1.31	1.68	22	
Std. Dev.	751	709	1,258	936	324	0.07				

**Notes**

\* Site 11 has an occupancy rate of 75% (it was the only survey site with an occupancy rate less than 90%).

The total number of housing units and parking spaces were adjusted for Site 11 to reflect an occupancy rate of 100%.

Total dwelling units: Calculation: 124 total units x 0.75 = 93

Total parking spaces: Calculation: 163 total parking spaces x 0.75 = 122

+ The actual distance is shorter than the 5,560 feet shown here.

See Section 5.5.2 and Figure 5.5 for more detail.

Summary Table from  
"Are TODs Over-Parked?"





Site	Supply per Unit	Peak Demand per Unit	Demand: % diff. from Supply	Demand: % diff. from ITE Rate
<b>Walnut Creek: Pleasant Hill BART Station</b>				
Diablo Oaks	1.05	0.74	-29.5%	-38.3%
Iron Horse Park	1.42	0.80	-43.7%	-33.3%
Archstone Walnut Creek	1.12	0.92	-17.9%	-23.3%
Park Regency	1.47	1.06	-27.9%	-11.7%
Archstone Walnut Creek Stat.	1.29	1.09	-15.5%	-9.2%
Villa Montanaro	2.05	1.23	-40.0%	2.5%
<b>San Leandro: Bayfair BART Station</b>				
The Hamlet	1.28	1.07	-16.4%	-10.8%
<b>Union City BART Station</b>				
Verandas	1.50	1.11	-26.0%	-7.5%
Parkside	1.46	1.13	-22.6%	-5.8%
<b>Fremont BART Station</b>				
Presidio	1.82	1.23	-32.4%	2.5%
Watermark Place	1.84	1.27	-31.0%	5.8%
Mission Peaks	1.75	1.35	-22.9%	12.5%
Archstone Fremont	1.98	1.45	-26.8%	20.8%
Sun Pointe Village	1.98	1.47	-25.8%	22.5%
Park Vista Apartments	1.97	1.48	-24.9%	23.3%
Alborada	1.78	1.69	-5.1%	40.8%
<b>ALL 16 EAST BAY STATIONS</b>				
Weighted Average	1.59	1.20	-24.7%	0.0%

**Figure 2. East Bay Results: Peak Parking Generation Rates (Parked Vehicles per Dwelling Unit) Relative to Supply Levels and ITE Standard**

Summary Table from  
"Los Angeles Trip Generation Study"



**TABLE 3**  
**Summary Table of Parking Analysis for Affordable Housing Sites in Los Angeles**  
**(By Transit Priority Area and Affordable Housing Type)**  
 Counts conducted May, June, and November 2016

TPA Area	Affordable Housing Type	Sample Size	Parking Demand Per Dwelling Unit	Parking Utilization
Inside	-	20	0.53	64%
Outside	-	22	0.56	63%
-	Family	14	0.84	72%
-	Seniors	13	0.46	71%
-	Special Needs	8	0.32	43%
-	Permanent Supportive	7	0.37	56%
Inside	Family	8	0.85	74%
Inside	Seniors	5	0.44	73%
Inside	Special Needs	4	0.20	34%
Inside	Permanent Supportive	3	0.29	64%
Outside	Family	6	0.82	70%
Outside	Seniors	8	0.48	69%
Outside	Special Needs	4	0.44	52%
Outside	Permanent Supportive	4	0.43	50%

**LAMC for Comparison**

		Parking Requirement per Unit
<b>Apartments (LAMC 12.21A.4(a))</b>		
	<3 habitable rooms	1
	3 habitable rooms	1.5
	>3 habitable rooms	2
<b>Projects with Affordable Housing Density Bonus - Option 1 (applies to all units, not just restricted units) (LAMC 12.22A.25(d)(1))</b>		
	0-1 bedroom	1
	2-3 bedrooms	2
	4 or more bedrooms	2.5
<b>Projects with Affordable Housing Density Bonus - Option 2 (applies to restricted units only) (LAMC 12.22A.25(d)(2))</b>		
	restricted affordable units	1
	restricted to low or very low income senior citizen or disabled	0.5
	restricted affordable units in residential hotel	0.25

Summary Table from  
"San Diego Affordable Housing Study"





Table 2. Comparison of Spaces Required Under Different Standards

A. Type	B. Project, # of units, special district (if any)	C. Spaces required under current code with no reductions for increases, or Centre City Planned District (if applicable)	D. Spaces required if reduction for “very low income” or “transit area adjustment” is applied	E. Spaces w/ all density bonus 143.0790 adjustments (transit area + very-low income)	F. Spaces required under Chapter 6 parking model, including visitor, staff and vacancy factor	G. Actual spaces supplied	H. Peak overnight parking occupancy (surveyed projects)
Studio	Via Harvey Mandel, 90 units, CCPD	22 <sup>2</sup>	N/A	N/A	33	26	20
Family (large)	Beyer Courtyard, 60 units	153	136	108	114	118	19
	Windwood Village, 92 units	223	196	151	149	195	144
	Seabreeze Farms, 38 units	96	85	68	65	73	N/A
	Gateway Family, 42 units	108	96	76	62	92	N/A
Family (small)	Regency Center, 100 units	198	168	97	142	100	N/A
SRO	Island Inn, 197 units, CCPD	87 <sup>3</sup>	N/A	N/A	43	86	52
	Studio 15, 275 units, CCPD	85 <sup>4</sup>	N/A	N/A	61	55	N/A
Senior	Renaissance Seniors, 96 units	178	149	68	87	103	37
	San Diego Apartments, 16 units	28	23	10	13	4	N/A
	Horton House, 153	Conditional use	N/A	N/A	48	17	14

<sup>1</sup> The model assumed that the desired vacancy rate is 10%.

<sup>2</sup> Assuming classified as living unit, 50% AMI, or 0.2 spaces per unit; requirement for less or equal to 40% AMI is zero spaces.

<sup>3</sup> Assuming classified as living unit, 50% AMI or 0.2 spaces per unit; requirement for less or equal to 40% AMI is zero spaces.

<sup>4</sup> Assuming classified as living unit, 50% AMI or 0.2 spaces per unit; requirement for less or equal to 40% AMI is zero spaces.

# **Appendix B:**

## **New Parking Survey Results**

**Palo Alto Parking Survey Results (By Housing Type)**

Site	Total units	Occupied units	Capacity (Spaces)	Supply Rate	Maximum Demand <sup>b</sup>	Weekday - (November & December 2017)						Weekday - (June & July 2018)				Weekend (November & December 2017)								
						Midday			Evening			Late			Late				Midday			Late		
						Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>	Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>	Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>	Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>	Off-Site Parking Demand <sup>a</sup>	Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>	Stalls Occupied	Parking Occupancy	Demand Rate <sup>b</sup>
California Park	45	45	70	1.56	1.09	19	0.27	0.42	28	0.40	0.62	41	0.59	0.91	49	0.70	1.09	19	27	0.39	0.60	41	0.59	0.91
Oak Court	53	53	107	2.02	1.25	36	0.34	0.68	43	0.40	0.81	66	0.62	1.25	62	0.58	1.17	12	46	0.43	0.87	59	0.55	1.11
Colorado Park	60	60	90	1.50	1.30	36	0.40	0.60	56	0.62	0.93	78	0.87	1.30	70	0.78	1.17	13	44	0.49	0.73	70	0.78	1.17
<b>Affordable Average:</b>				<b>1.69</b>	<b>1.21</b>	--	<b>0.34</b>	<b>0.57</b>	--	<b>0.47</b>	<b>0.79</b>	--	<b>0.69</b>	<b>1.15</b>	--	<b>0.69</b>	<b>1.14</b>	--	--	<b>0.43</b>	<b>0.73</b>	--	<b>0.64</b>	<b>1.06</b>
The Marc	118	114	157	1.33	0.82	59	0.38	0.52	64	0.41	0.56	90	0.57	0.79	93	0.59	0.82	5	59	0.38	0.52	79	0.50	0.69
Midtown Court	46	44	69	1.50	1.05	22	0.32	0.50	27	0.39	0.61	46	0.67	1.05	41	0.59	0.93	13	28	0.41	0.64	42	0.61	0.95
Tan Plaza	61	60	84	1.38	1.17	38	0.45	0.63	39	0.46	0.65	70	0.83	1.17	--	--	--	14	49	0.58	0.82	70	0.83	1.17
<b>Market Rate Average:</b>				<b>1.40</b>	<b>1.01</b>	--	<b>0.38</b>	<b>0.55</b>	--	<b>0.42</b>	<b>0.61</b>	--	<b>0.69</b>	<b>1.00</b>	--	<b>0.59</b>	<b>0.87</b>	--	--	<b>0.45</b>	<b>0.66</b>	--	<b>0.65</b>	<b>0.94</b>
Sheridan	57	57	21	0.37	0.35	17	0.81	0.30	19	0.90	0.33	20	0.95	0.35	17	0.81	0.30	3	16	0.76	0.28	18	0.86	0.32
Lytton	51	51	51	1.00	0.69	31	0.61	0.61	26	0.51	0.51	25	0.49	0.49	31	0.61	0.61	0	23	0.45	0.45	35	0.69	0.69
Stevenson	120	120	50	0.42	0.34	33	0.66	0.28	39	0.78	0.33	41	0.82	0.34	35	0.70	0.29	0	35	0.70	0.29	36	0.72	0.30
<b>Senior Average:</b>				<b>0.60</b>	<b>0.46</b>	--	<b>0.69</b>	<b>0.39</b>	--	<b>0.73</b>	<b>0.39</b>	--	<b>0.75</b>	<b>0.39</b>	--	<b>0.71</b>	<b>0.40</b>	--	--	<b>0.64</b>	<b>0.34</b>	--	<b>0.75</b>	<b>0.43</b>

Notes:

a. Only a portion of the on-street parked vehicles are associated with the apartment complex.

b. On-site demand rate per unit.

**Appendix C:**  
**Resident Intercept Survey Results**

**Resident Intercept Surveys - The Marc, 6/21/2018**

Questions			
Gender	What is your overall sense of the parking supply at this complex? (Too much parking, too little parking, or about the right amount of parking)	How do you feel about parking in the garage compared to on-street parking/parking in neighboring lots?	How do you feel about using the parking structure at this complex? Do you feel safe using the parking structure at this complex?
Female	Fine, has a reserved space	In complex preferred, has own space	Yes, feels safe
Male	Fine, has a reserved space	In complex preferred, has own space, really does not like street parking	Feels safe, sometimes homeless activity around parking structure
Female	Right amount	She lives here with a designated spot, feels satisfied parking in structure	Yes, positive
Female	Right amount, has a reserved spot	Prefer to park in structure, on-street is a hassle as you have to move it constantly	Yes, positive
Male	Right amount	Prefer parking in garage	Yes, it is safe
Male	Right amount	Prefer parking at garage because of designated spaces	Yes, completely safe
Female	Sometimes it's packed, but most of the time the right amount. Never felt it's too little.	Prefers parking at garage, has a designated space, wont' get into hassle of finding on-street parking	Yes, completely safe