

# Appendix M

Project  
Parking Demand  
and Supply  
Letter



# Jeff Waller Consulting

May 8, 2019

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MidPen Housing  
275 Main Street, Suite 204  
Watsonville, CA 95076

Re: 1412, 1438, 1500 and 1514 Capitola Road Mixed-Use Development, Santa Cruz County, CA –  
Parking Demand Estimates

Dear Ashley,

Jeff Waller Consulting has prepared weekday and Saturday parking demand estimates for your proposed mixed-use project at 1412, 1438, 1500 and 1514 Capitola Road (“project”) in the Live Oak neighborhood of Santa Cruz County, California. The proposed project includes MidPen Housing’s 56 affordable rental housing units (plus 1 manager’s unit), clinics and office space for Dientes Community Dental and the Santa Cruz Community Health Centers, and a small pharmacy. **Exhibit 1** depicts the location of the proposed project. **Exhibit 2** depicts the site plan for the project.

Due to the mixed-use nature of the proposed project, the peak parking demand for the various site components would occur at different times of day. This will allow for some parking spaces to be shared between different components throughout a typical day, reducing the total parking demand for the project, as compared to Santa Cruz County parking standards. A parking demand estimate (i.e., maximum parking demand per day) has been prepared for the project on both weekdays and Saturdays using this concept of shared spaces. This demand estimate has been compared to the proposed onsite parking supply to determine if it can be fully accommodated at the project site. The following letter identified these parking estimates and summarizes their derivation. Additional information regarding restrictions on parking space usage is also provided.

## **A. Project Definition**

The proposed project is composed of the following elements:

1. MidPen Housing Development:
  - a. 56 affordable rental apartments, plus 1 manager’s unit
  - b. Community building and open green space including BBQs, seating, and children’s playscapes
2. Dientes Community Dental (“Dientes”)
  - a. Clinic: 5,552 square feet

- b. Office (Administrative): 5,486 square feet
- 3. Santa Cruz Community Health Centers (“SCCHC”):
  - a. Clinic: 11,386 square feet
  - b. Office (Administrative): 6,603 square feet
- 4. Pharmacy: 1,308 square feet

The apartments and pharmacy would be new to the area. The Dientes clinic would also be new, augmenting the services of the existing Dientes clinics in Santa Cruz County, including the nearby clinic on Commercial Way near the intersection of Thurber Lane and Soquel Drive (see **Exhibit 1**). However, the Dientes office space would be relocated from its existing location on Soquel Avenue near Chanticleer Avenue in Live Oak (see **Exhibit 1**). The SCCHC clinic and offices would also relocate from their existing location in the Twin Lakes neighborhood at the East Cliff Village Shopping Center between 17<sup>th</sup> and 14<sup>th</sup> Avenues (see **Exhibit 1**). The total relocated clinic and office space on the project site for both Dientes and SCCHC will be larger than at either of their current sites.

## **B. Derivation of Project Parking Demand and Supply Estimates**

Parking demand for the various project components were derived by using parking surveys and various transportation and parking industry publications, as described below.

### Residential and Clinics:

Peak parking demand estimates for the residential and clinic components of the project site are based on parking surveys. These surveys were conducted between Monday, July 9 and Thursday, July 12, 2018 at the existing Dientes facility on Commercial Way, existing SCCHC facility in Twin Lakes, and MidPen affordable housing developments in Scotts Valley and Aptos. Each location was surveyed for one day. Parking demand at each of these facilities were documented for each hour of the survey.

The parking survey locations and hours are as follows:

- 1. Emerald Hill Apartments, 101 Civic Center Drive, Scotts Valley, CA – July 9, 2018, 4:00 – 8:00 PM
- 2. Aptos Blue Apartments, 3200 Aptos Rancho Road, Aptos, CA – July 10, 2018, 4:00 – 8:00 PM
- 3. Dientes Community Dental, 1830 Commercial Way, Santa Cruz, CA – July 11, 2018, 2:00 – 6:00 PM
- 4. Santa Cruz Community Health Centers (East Cliff Clinic), 21501 East Cliff Drive, Santa Cruz, CA – July 12, 2018, 2:00 – 8:00 PM

**Exhibit 3** depicts the locations of the above parking surveys. The survey data can be found in **Appendix A**.



The survey results were used to estimate the peak daily parking demand for each of the two clinics/offices and each residential facility on weekdays and Saturdays, using the hourly percentages of the peak daily parking demand for that specific land use, as documented in *Shared Parking, 2<sup>nd</sup> Edition*, published by the Urban Land Institute in 2005. For example, according to *Shared Parking*, the peak parking demand for a clinic on weekdays occurs at 10:00 AM, 11:00 AM, 2:00 PM and 3:00 PM. However, on Saturdays, the Dientes and SCCHC clinics/offices would be operating at only 40% and 50% of their weekday staffing levels, respectively. These staffing reductions would reduce both employee and patient parking demand on Saturdays, compared to weekdays. Therefore, the peak parking demand on Saturdays for the clinics/offices were reduced by these same 40% and 50% levels, respectively.

Residential and clinic/office uses typically have their highest weekly parking demands on weekdays. For residential uses, peak parking demands on weekdays and Saturdays will typically be nearly identical. For the remaining commercial uses, peak parking demand will vary, depending on the hours of operation on weekdays and Saturdays. Due to the reduced staffing on Saturdays, the clinics would generate less parking demand on Saturdays, compared to weekdays. Hence, parking surveys on weekdays best identify the weekly parking demand for these uses.

Twenty-four-hour profiles of the parking demand for each surveyed facility – both on weekdays and Saturdays – were developed, again using the *Shared Parking* percentages. Adjustments to some of the hourly parking demand percentages from *Shared Parking* were made, for two reasons:

1. Variations in hours of operation for certain project components on weekdays and Saturdays, as compared to *Shared Parking*. The anticipated hours of operation for the clinics are as follows:
  - a. Dientes Clinic:
    - i. Weekday: 8:00 AM – 5:00 PM
    - ii. Saturday: 8:00 AM – 4:00 PM
  - b. SCCHC Clinic:
    - i. Weekday: 8:00 AM – 8:00 PM
    - ii. Saturday: 8:00 AM – 4:00 PM
2. Estimated parking demand projections due to incomplete data from *Shared Parking* during the overnight hours (generally 12:00 AM – 5:00 AM and 10:00 PM – 11:00 PM). For the clinics and pharmacy, overnight parking demand projections would be zero, as they are not open. For the residential component, overnight demand projections would be nearly 100%, as nearly all residents would be home during these hours.

The parking profiles of the two surveyed residential facilities were averaged to create composite residential profiles for both weekdays and Saturdays.

The 24-hour parking demand profiles for the proposed project residential and clinic components were then created by proportionally scaling up the profiles of the surveyed facilities, based on the ratio of each surveyed facility's size to the overall proposed project component size.

#### Pharmacy:

Peak daily parking demand for the pharmacy component was estimated using the proposed project square footage and maximum parking demand rates for a pharmacy from *Parking Generation*, 4<sup>th</sup> Edition, published by the Institute of Transportation Engineers in 2018.

Pharmacies typically have higher patronage on Saturdays compared to weekdays. However, the small size of the pharmacy – especially compared to drugstores like CVS or Walgreens – limits the difference in maximum parking demand to only one vehicle. In addition, most of the pharmacy patrons are anticipated to be patients of the two clinics, hence, the pharmacy parking demand could vary somewhat based on the number of patients per day at each of the two clinics.

Twenty-four hour profiles of the parking demand for the pharmacy – weekday and Saturday – were developed, again using the *Shared Parking* percentages. Adjustments to the *Shared Parking* percentages were also made for the pharmacy, for the same reasons as the residential and clinic components.

#### Total Project Parking Demand

The resulting 24-hour project parking demand profiles for each of the project components – residential, the two clinics/offices and the pharmacy – were then summed together for each hour of the day to create the total project parking profiles shown on **Exhibit 4** (weekday) and **Exhibit 5** (Saturday).

Note: Some of the project site parking spaces will be reserved for exclusive use by apartment residents – one space for every apartment unit, plus one space for the on-site property manager, or 57 spaces. These spaces will not be available to be shared by other project components, such as the clinics, even when empty. To account for this in the parking demand estimate, a minimum parking demand for the residential component is set at 57 spaces for hours when residential parking demand would otherwise be lower. This minimum demand effectively increases the residential parking demand between the hours of 10:00 AM and 3:00 PM.



As shown on **Exhibits 4 and 5**, the peak parking demand for the project is 180 spaces on weekdays – which occurs at 11:00 AM, 2:00 PM and 3:00 PM – and 119 spaces on weekends – which occurs on 1:00 PM, 2:00 PM and 3:00 PM. The peak parking demand for each project component at those times is as follows:

- Residential: 57 spaces (weekday), 57 spaces (Saturday)
- Dientes: 38 spaces (weekday), 16 spaces (Saturday)
- SCCHC: 82 spaces (weekday), 42 spaces (Saturday)
- Pharmacy: 3 spaces (weekday), 4 spaces (Saturday)

The project's preliminary site plan shown in **Exhibit 2** proposes 190 on-site parking spaces, which is more than the parking demand of 180 spaces (weekday) and 119 spaces (Saturday). It is concluded that the proposed project supply can accommodate all of the project parking demand.

### **C. Guidance on Parking Space Restrictions**

Beyond the proposed reserving of 57 spaces for residential use only, any further restrictions on parking to one specific site component should be limited to no more than 15% of the remaining spaces, or approximately 20 additional spaces. Exceeding this amount of restricted spaces would reduce the ability of the overall project parking area to accommodate the parking demand reductions with a shared-use parking area. Excessive further parking restrictions could potentially lead to use of restricted parking spaces by frustrated drivers for other site uses not able to find parking elsewhere on the project site, thus defeating the purpose of restricting use of the spaces for any one use.

That said, time and component restrictions between specific complementary components of the project could be added to some spaces outside of the regular retail and clinic hours. These restrictions, if structured correctly, would control exactly when specific parking spaces are shared between different site components. For example, spaces roughly equidistant from both the residential and clinic components could be restricted for use only by residents of the project site between the hours of 6:00 PM and 7:00 AM of the following day – when the residential parking demand is heaviest – while the spaces are open to all project components during the remainder of the day – when the parking demand for the clinic and retail components are heaviest. Regardless of how any parking restrictions are structured, all use or time restriction on individual parking spaces should be signed to alert drivers of the restriction prior to parking.

#### **D. ADA Spaces**

The project site plan (**Exhibit 2**) depicts eight ADA, or disabled, parking spaces. This exceeds the County of Santa Cruz zoning regulations, which would require six ADA spaces.

While some disabled parking demand is inferred from the surveys, *Shared Parking* and *Parking Generation* estimates, the exact amount of ADA parking demand is not clear. To be conservative, assuming that none of the project parking demand includes ADA demand, adding the additional 8 ADA spaces would increase the minimum parking supply to 188 spaces (weekday) and 127 spaces (Saturday). The number of parking spaces proposed on the preliminary project site plan is 190 spaces; hence, the project can also accommodate all of the necessary ADA spaces and the projected parking demand.

#### **E. CONCLUSION**

In summary, the projected parking demand for the project has been estimated at 180 spaces (weekdays) and 119 spaces (Saturdays), using parking demand surveys of residential uses and clinics in Santa Cruz County, additional hourly parking demand information for all of the project components, restrictions on the use of some spaces and a sharing of the remaining on-site parking spaces between the different project components. The parking demand estimate is less than the 190 spaces proposed on the project site plan. It is therefore concluded that the project on-site parking supply will be adequate for the projected parking demand.

Any further restrictions on parking to one specific site component -- beyond the proposed reserving of 57 spaces for residential use only -- should be limited to no more than 15% of the remaining spaces, or approximately 20 additional spaces. However, time and component restrictions between specific complementary components of the project could be added to some spaces outside of the retail and clinic hours of operation. Regardless of how any parking restrictions are structured, all use or time restriction on individual parking spaces should be signed to alert drivers of the restriction prior to parking.

The exact amount of ADA (or disabled) parking from the surveys, *Shared Parking* and *Parking Generation* estimates is not clear. To be conservative, assuming that none of the project parking demand includes ADA demand, adding the additional 8 ADA spaces – as proposed on the project site plan – would increase the minimum parking supply to 188 (weekdays) and 127 (Saturday) spaces. This is below the 190 spaces proposed on the project site plan. Hence, the project can also accommodate all of the necessary ADA spaces and the projected parking demand.

Ashley Schweickart  
May 8, 2019

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If you have any questions regarding the contents of this letter or need additional information, please contact me at your convenience. Thank you for the opportunity to assist you with this project.

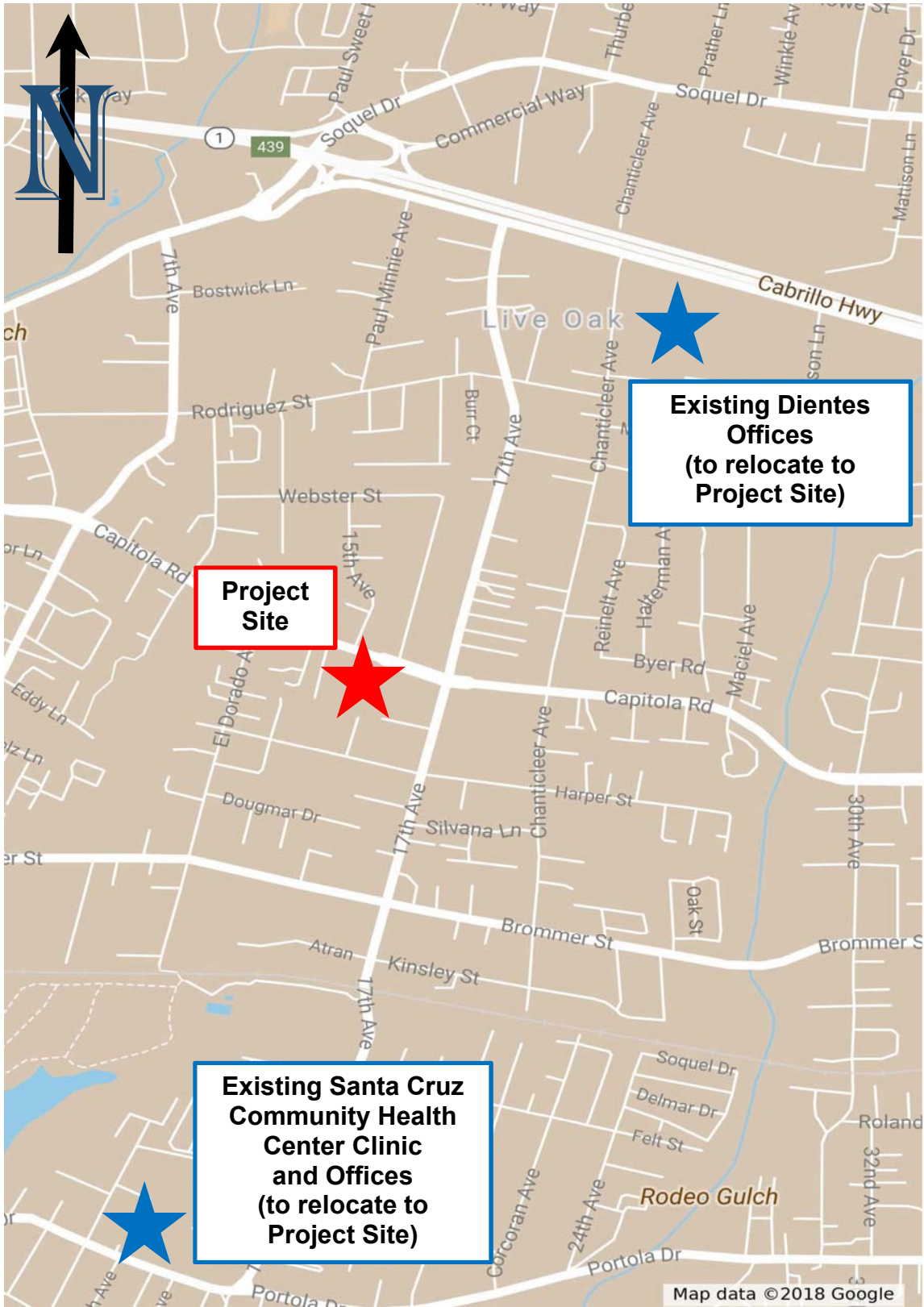
Respectfully submitted,



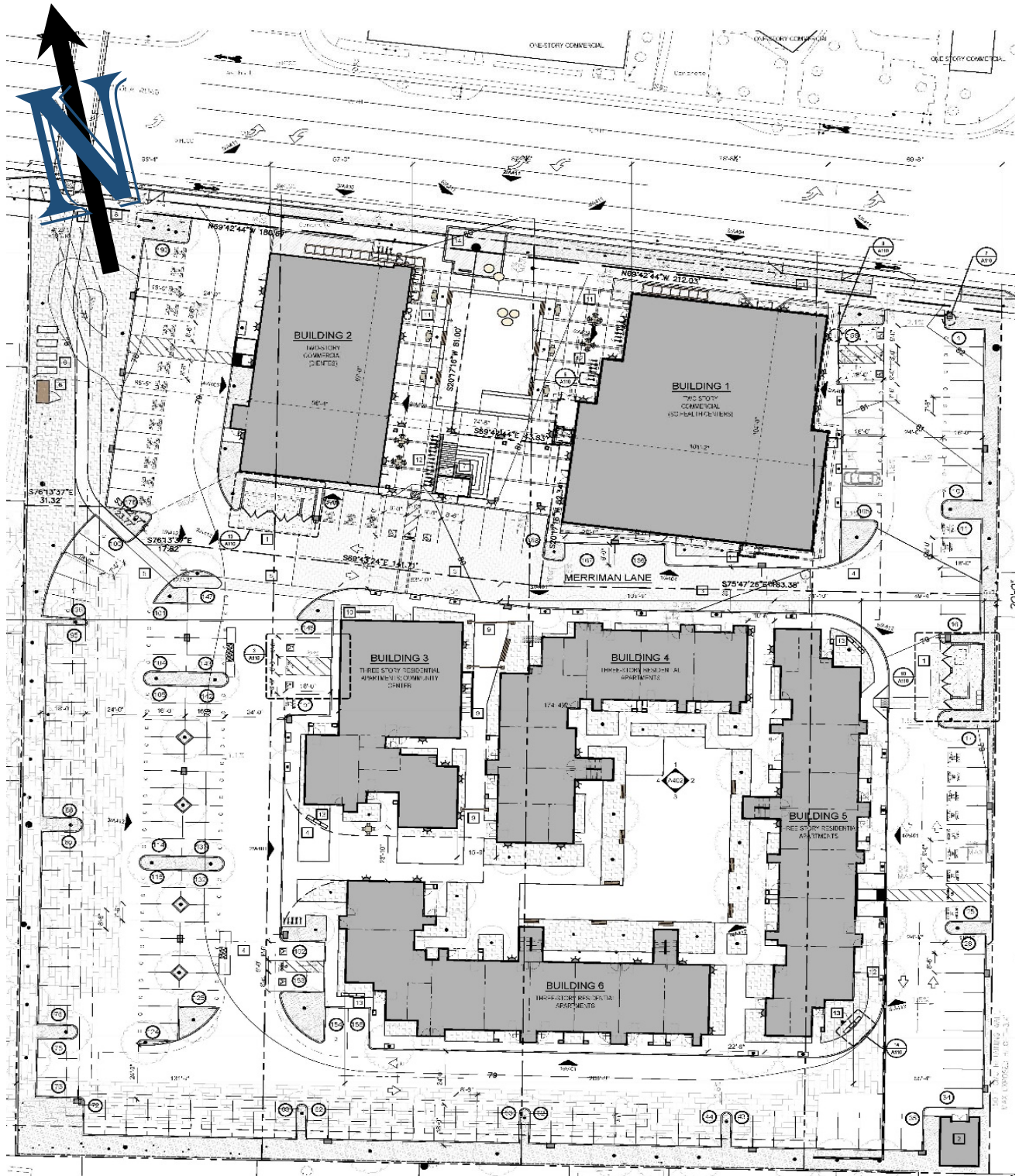
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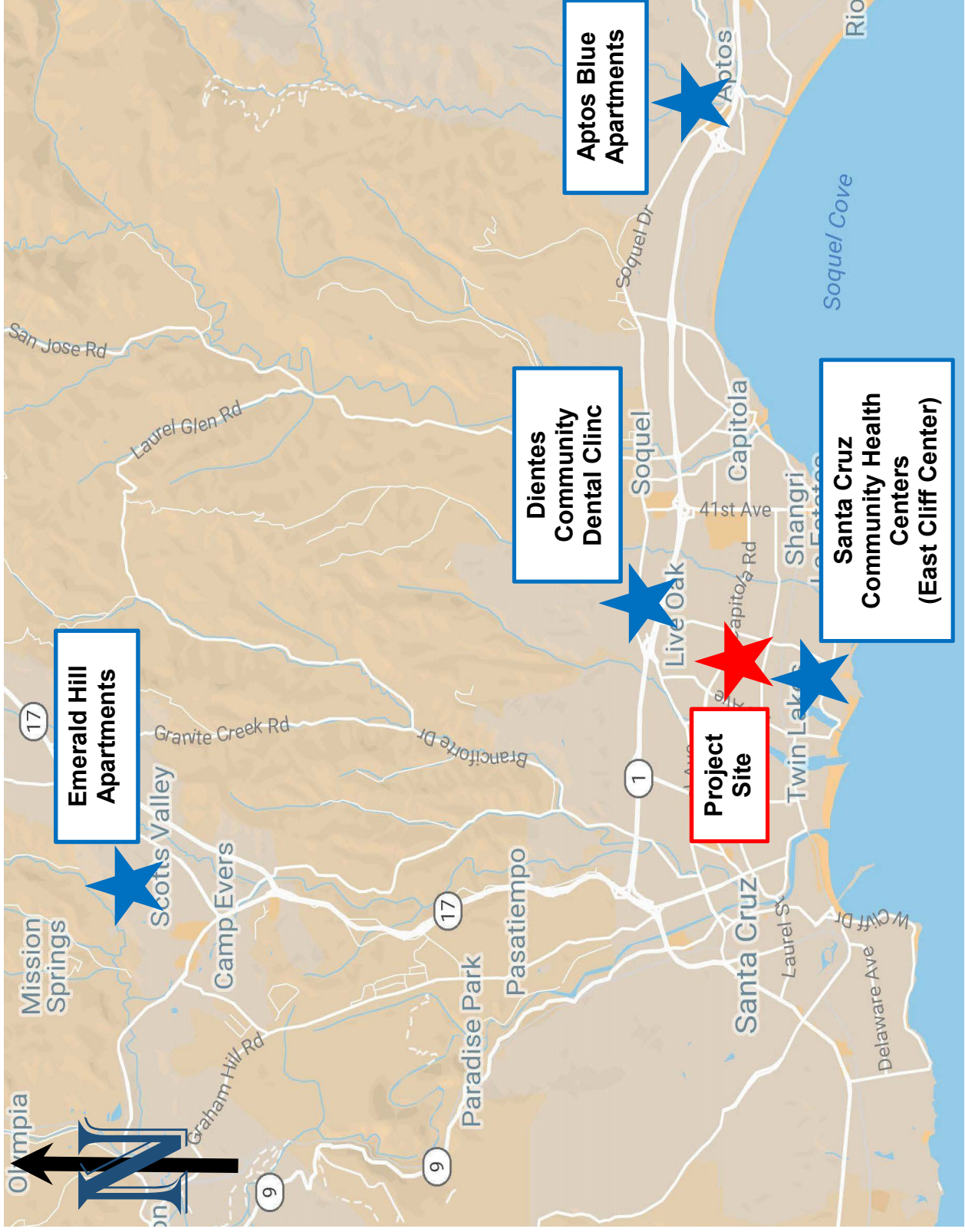


Basemap Source: Google Maps, 2018.

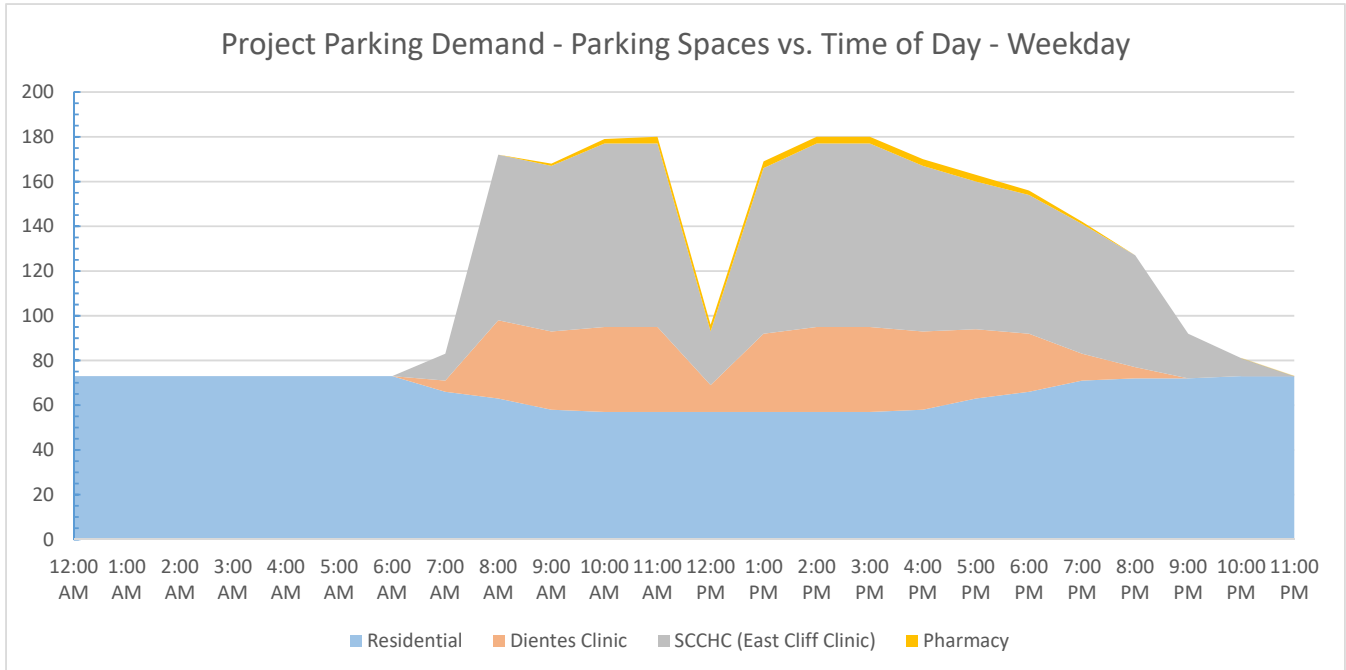


Source: Wald Ruhnke & Dost Architects, April 24, 2019.





Basemap Source: Google Maps, 2018.

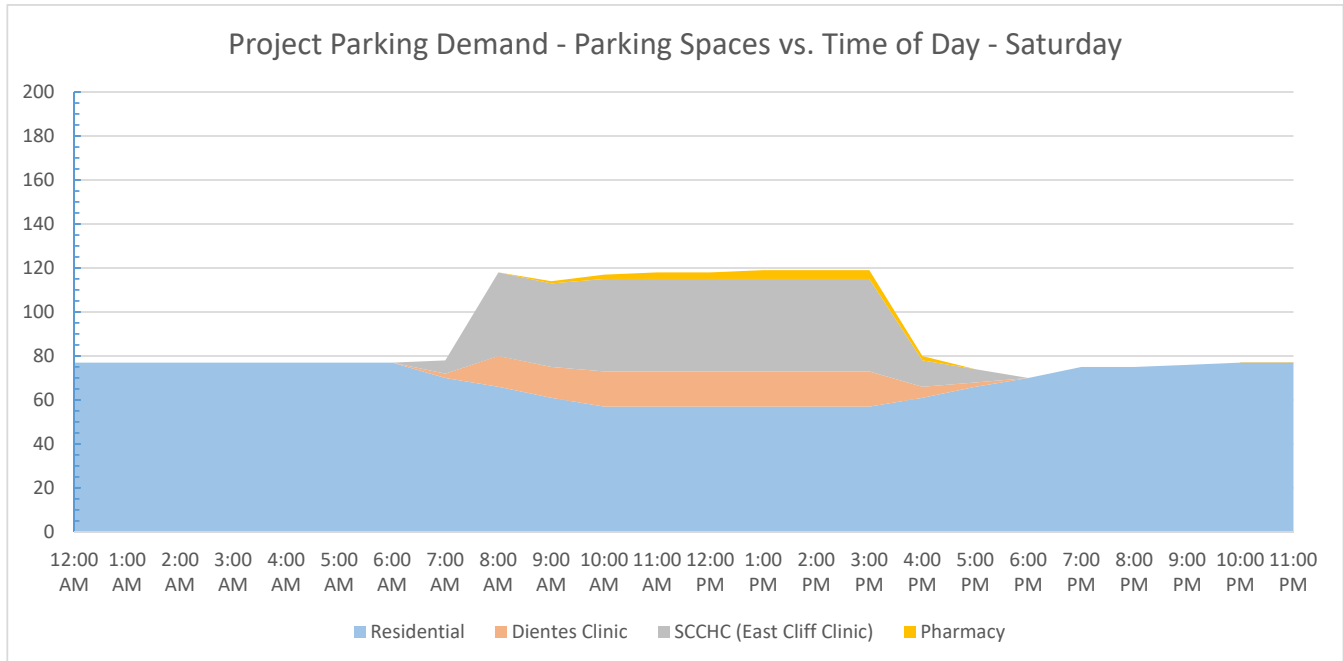


Peak Demand occurs at: 11:00 AM 2:00 PM 3:00 PM (Weekday)  
180 spaces

Provided Spaces: 190 spaces  
(per site plan - **Exhibit 2**)

Notes:

1. Parking demand for residential and clinics are estimated using parking surveys in Santa Cruz County and the proportion of maximum demand per hour. Parking demand for pharmacy is estimated using estimated parking demand and the proportion of maximum demand per hour.
2. Parking survey locations, dates and times:
  - a. Emerald Hill Apartments, Scotts Valley, CA -- July 9, 2018, 4-8 PM
  - b. Aptos Blue Apartments, Aptos, CA -- July 10, 2018, 4-8 PM
  - c. Dientes Community Dental, Santa Cruz, CA -- July 11, 2018, 2-6 PM
  - d. Santa Cruz Community Health Centers (East Cliff Drive), Santa Cruz, CA -- July 12, 2018, 2-8 PM
3. Percentage of parking demand per hour for all uses cited from *Shared Parking*, 2nd Edition, Urban Land Institute, 2005. Adjustments to percentages made due to extended hours at East Cliff Family Health Clinic and incomplete data from cited source.
4. Maximum parking demand for pharmacy is estimated using parking demand rates from *Parking Generation*, 4th Edition, Institute of Transportation Engineers, 2018.



Peak Demand occurs at: 1:00 PM 2:00 PM 3:00 PM  
119 spaces

Provided Spaces: 190 spaces  
(per site plan - **Exhibit 2**)

Notes:

1. Maximum Saturday parking peak demand for residential and pharmacy are assumed to be equal to weekday maximum demand.
2. Clinics with both be open on Saturdays, but Dientes will only be operating with 40% of weekday staffing and SCCHC will only be operating with 50% of weekday staffing. Hence, maximum parking demand for these uses is assumed as 40% and 50% of the weekday maximum parking demand, respectively.
3. Percentage of parking demand per hour for all uses cited from *Shared Parking*, 2nd Edition, Urban Land Institute, 2005. Adjustments to percentages made due to anticipated hours at both clinics (i.e., 8:00 AM - 4:00 PM) and Pharmacy (i.e., 8 AM - 5 PM).
4. Maximum parking demand for pharmacy is estimated using parking demand rates from *Parking Generation*, 4th Edition, Institute of Transportation Engineers, 2018.

# Appendix A

## Parking Survey Data

Emerald Hill Apartments

Aptos Blue Apartments

Dientes Community Dental

Santa Cruz Community Health Centers  
(East Cliff Center)

<b>Legend</b>				
<i>Abbreviation</i>	<i>Location</i>	<i>City/Community</i>	<i>Parking Count Locations</i>	
			<i>On-Site</i>	<i>Adjacent On-Street</i>
EH Lot/Block Face	Emerald Hill Apartments	101 Civic Center Drive, Scotts Valley	Yes	Yes
AB Lot	Aptos Blue Apartments	3200 Aptos Rancho Road, Aptos	Yes	No
DHC Lot	Dientes Community Dental	1830 Commercial Way, Santa Cruz	Yes	No
SCCHC Lot	Santa Cruz Community Health Centers (East Cliff Center)	21501 East Cliff Drive, Santa Cruz	Yes	No

Note: Emerald Hill has adjacent on-street parking along its frontage and directly across the street. Aptos Blue, Dientes and Santa Cruz Community Health Centers do not have any adjacent on-street parking near them.

**Parking Survey**

**Emerald Hill Apartments (MidPen Housing Corporation)**  
101 Civic Center Drive, Scotts Valley, CA 95066

Data Collected: Monday, July 9, 2018

<b>Location</b>	<b>Time</b>	<b>Unique ID</b>	<b>Kapturit ID</b>	<b>Block ID</b>	<b>Occupancy %</b>	<b>Supply</b>	<b>Vehicle Count</b>
Survey 1	4:00 PM	1	1	1 EH Lot, EH Block Face 1 & EH Block Face 2	47%	114	54
Survey 1	5:00 PM	1	1	1 EH Lot, EH Block Face 1 & EH Block Face 2	51%	114	58
Survey 1	6:00 PM	1	1	1 EH Lot, EH Block Face 1 & EH Block Face 2	50%	114	57
Survey 1	7:00 PM	1	1	1 EH Lot, EH Block Face 1 & EH Block Face 2	54%	114	62
Survey 1	8:00 PM	1	1	1 EH Lot, EH Block Face 1 & EH Block Face 2	56%	114	64

Note: Data collected by IDAX Data Solutions.



## Parking Survey

Aptos Blue Apartments (MidPen Housing Corporation)

3200 Aptos Rancho Road, Aptos, CA 95003

Data Collected: Tuesday, July 10, 2018

Location	Time	Unique ID	Kapturit ID	Block ID	Occupancy %	Supply	Vehicle Count
Survey 2	4:00 PM	4		1 AB Lot	31%	98	30
Survey 2	5:00 PM	4		1 AB Lot	31%	98	30
Survey 2	6:00 PM	4		1 AB Lot	34%	98	33
Survey 2	7:00 PM	4		1 AB Lot	36%	98	35
Survey 2	8:00 PM	4		1 AB Lot	43%	98	42

Note: Data collected by IDAX Data Solutions.

## Parking Survey

Dientes Community Dental Clinic  
1830 Commercial Way, Santa Cruz, CA 95065  
Data Collect Wednesday, July 11, 2018

Location	Time	Unique ID	Kapturit ID	Block ID	Occupancy %	Supply	Vehicle Count
Survey 3	2:00 PM	5	1	DCD Lot	71%	31	22
Survey 3	3:00 PM	5	1	DCD Lot	58%	31	18
Survey 3	4:00 PM	5	1	DCD Lot	65%	31	20
Survey 3	5:00 PM	5	1	DCD Lot	19%	31	6
Survey 3	6:00 PM	5	1	DCD Lot	10%	31	3

Note: Data collected by IDAX Data Solutions.

### Parking Survey

Santa Cruz Community Health Centers (East Cliff Center)  
21501 East Cliff Drive, Santa Cruz, CA 95062

Data Collected: Thursday, July 12, 2018

Location	Time	Unique ID	Kapturit ID	Block ID	Occupancy %	Supply	Vehicle Count
Survey 4	2:00 PM	6	1	SCCHC Lot	93%	42	39
Survey 4	3:00 PM	6	1	SCCHC Lot	76%	42	32
Survey 4	4:00 PM	6	1	SCCHC Lot	88%	42	37
Survey 4	5:00 PM	6	1	SCCHC Lot	71%	42	30
Survey 4	6:00 PM	6	1	SCCHC Lot	60%	42	25
Survey 4	7:00 PM	6	1	SCCHC Lot	52%	42	22
Survey 4	8:00 PM	6	1	SCCHC Lot	33%	42	14

Note: Data collected by IDAX Data Solutions.