FEHR PEERS

MEMORANDUM

Date: February 28, 2019

To: Sean Scully, Planning Manager, City of Redondo Beach
Jin Kim, Traffic Engineer, City of Redondo Beach

From: Drew Heckathorn and Michael Kennedy, Principal, Fehr & Peers

Subject: ***Artesia-Aviation Area Plan Parking Study – Existing Conditions***

Ref: 2905

This memorandum documents the existing parking supply and peak demand during both a weekday and weekend day within the Artesia-Aviation Area Plan boundary. The existing parking demand will be used to calibrate an existing conditions shared parking model, consistent with the Urban Land Institute (ULI) shared parking methodology. The shared parking model will then be adjusted with future land use changes in order to estimate future parking demand for land uses within the Area Plan boundary.

DATA COLLECTION PARAMETERS

The Artesia-Aviation Area Plan corridor stretches approximately 1.9 miles along Artesia and Aviation Boulevards and includes portions of adjacent side-streets (see **Figures 1-4** for maps of the corridor). The study area encompasses all available on-street parking and 88 private off-street parking lots within the Area Plan boundary. The non-residential land uses within the Area Plan boundary include retail, service, office, automotive, restaurant, hotel and institutional uses. Residential uses are assumed to generally be self-parked and thus are not further considered in this analysis.

A manual inventory of on- and off-street parking was conducted in mid-December 2018. The inventory included length of unmarked curb space, where on-street parking is permitted; number of marked on-street spaces; off-street spaces in private lots; and all time limits, special curb designations, and other restrictions on parking. This manual inventory captures the overall supply of parking within the study area.

Once parking supply was calculated, on- and off-street parking surveys were conducted to capture existing parking occupancy. These parking surveys were also completed in December (typically the peak season for retail). Parking occupancy data was collected once during each period (weekday and weekend) through manual parking counts for all on-street parking spaces and off-street lots. These counts were conducted from 12:30pm to 2:30pm for each period. This timeframe includes the collection period Fehr & Peers recommended (1pm to 2pm) in our Artesia-Aviation Area Plan Parking Study memorandum dated November 21, 2018. The collection

time period was extended to two hours on each day in order to give workers in the field adequate time to do a full sweep of the study area.

ON-STREET PARKING SUPPLY & RESTRICTIONS

There are approximately 688 on-street parking spaces within the study area, as summarized in **Table 1**. This inventory of spaces may be conservative: most on-street spaces are also unmarked. To conform with the City of Redondo Beach's Municipal Code, the length of unmarked curb was measured and divided by 22 feet per space[1] to estimate a count of available parking spaces.

On-street parking throughout the study area is characterized by a mixture of restrictions and time limits. A variety of restrictions are present, including the following:

- 15-minute, 20-minute, 30-minute, 90-minute, 2-hour, or 4-hour parking
- Mail box drop-off zone only

The most common restriction found in the study area is 2-Hour parking (from 9am to 6pm). The 2-Hour parking spaces are located along the dense commercial segments of Artesia Boulevard and Aviation Boulevard. The 2-Hour restriction serves two primary functions: prioritize commercial access towards customers patronizing retail/services adjacent to the spaces and force parking turnover to create more parking availability in high demand areas.

Table 1. Parking Supply within Artesia-Aviation Area Plan Boundary

On-Street Parking	688
Off-Street Parking	2,189
Total	**2,877**

OFF-STREET PARKING SUPPLY & RESTRICTIONS

Approximately 2,189 parking spaces are provided in 88 off-street parking lots in the study area. These lots are privately-owned within primarily commercial developments and are intended for use by customers and employees of each site. Since each lot serves a few uses at the most, the vast majority of these lots are relatively small – 25 spaces is the average lot size within the Plan Area boundary. Typically, each commercial development only provides enough parking to fulfill its own parking requirements as defined in the City's Municipal Code. The study area does not include larger public or shared parking lots intended for use by customers of multiple developments throughout the commercial corridors (the closest shared/public lots within Redondo Beach are located near King Harbor and Redondo Beach Pier about 2-3 miles away).

[1] *City of Redondo Beach Municipal Code, Chapter 10-5.1706,* City of Redondo Beach, 2019

EXISTING PARKING DEMAND

Existing parking demand is assessed by measuring parking occupancy during a specified time of day/season and using a shared parking model to capture peak demand across an entire year. Parking occupancy relates to the level of parking utilization at a specific time as compared to supply. This analysis uses parking utilization counts within the study area conducted on one weekday and one weekend day in December 2018.

On-Street Parking Occupancy

Maps depicting on-street parking occupancy are shown for weekday and weekend data collection in **Figures 1 and 2**, respectively. On-street parking utilization is higher during the weekend peak lunch period – 68% or about 470 spaces utilized – than during the weekday peak lunch period – 54% or about 375 spaces utilized. Overall, on-street parking utilization is highest along the dense commercial corridor of Artesia Boulevard and along side streets immediately adjacent to the corridor. Some parking segments, such as the southside of Artesia Boulevard between Mackay Lane and Phelan Lane were fully occupied in both the weekday and weekend periods.

Off-Street Parking Occupancy

Maps depicting off-street parking occupancy are shown for weekday and weekend data collection in **Figures 3 and 4**, respectively. As shown in the maps, occupancy ranges from less than 40% up to 100% for both weekday and weekend time periods. The overall occupancy for the off-street lots is 50% for the weekday period and 47% for the weekend period. Unlike the on-street occupancy, the off-street occupancy is comparable across the two time periods.

Occupancy during both time periods for all off-street lots included in the study can be found in **Appendix A**.

CONCLUSIONS AND POTENTIAL NEXT STEPS

The overall parking supply within the Plan Area boundary is more than adequate to accommodate existing demand. Ideally, an efficiently parked area would be around 85% utilized, keeping a 15% vacant space buffer to prevent excessive waiting or vehicles circling around blocks looking for available spaces. The on-street occupancy is at most 68% and the off-street occupancy is at most 50% within the study area. By harnessing the efficiencies of shared parking lots (either public or privately-owned) the study area can accommodate existing demand and some future growth in land uses using the existing supply of parking.

Parking occupancy data captured in this analysis will be used to calibrate an existing conditions shared parking model. As part of this calibration effort, we compared the parking demand observed along the Artesia-Aviation corridor for each land use category with the demand ratios recommended by ULI. Generally, the peak parking demand for retail and services along the corridor were less than half of what would be expected based on ULI ratios while the restaurant uses were generally consistent with the ULI ratios. A variety of factors contribute to the difference

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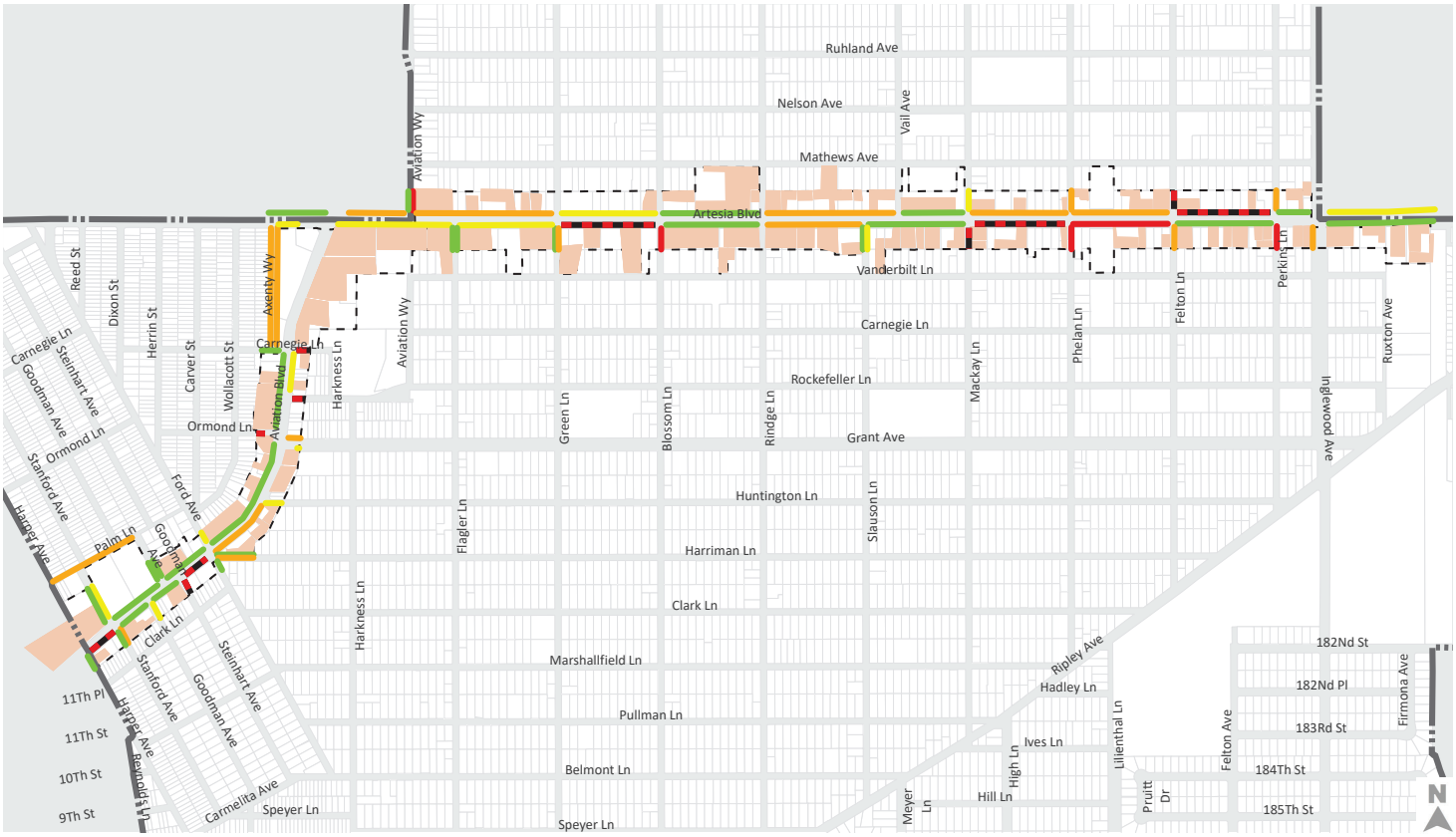
between the observed demand on the corridor and the ULI ratios, including the possibility of vacant units in shared commercial buildings. Another aspect to consider, while our midday counts reliably capture the peak demand for most retail and service uses, other less common uses on the corridor – such as hotels – have peak demand at other times of day. We will assess land use considerations in detail as part of our shared parking model development. The model can then be adapted to assess a variety of future growth scenarios and whether existing parking supply can accommodate different amounts of growth.



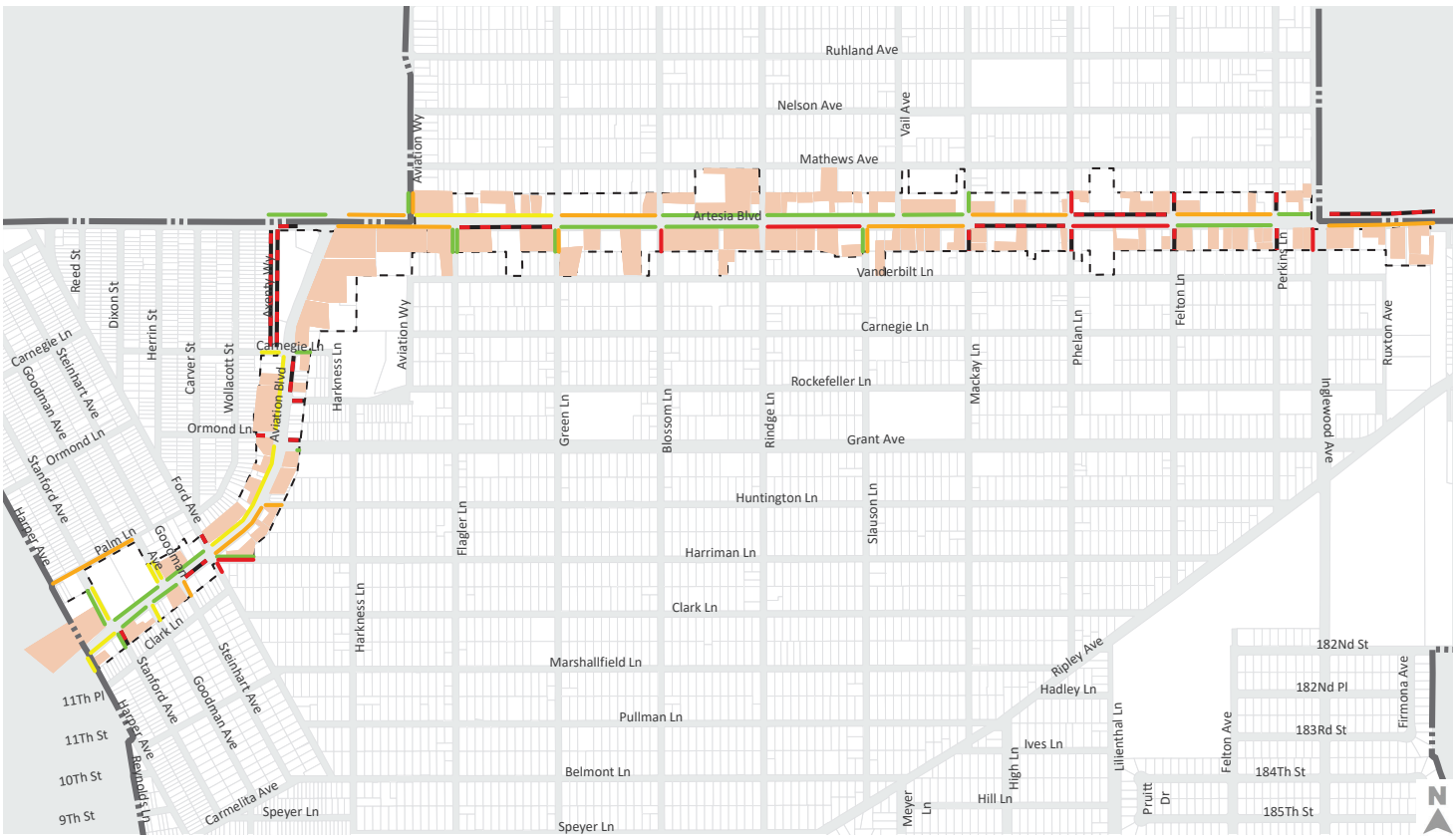
Occupancy Percent

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- Artesia-Aviation Area Plan Boundary
- Off-Street Parking Lots

Figure 1

On Street Parking Occupancy - Thursday

Fehr & Peers, 2019



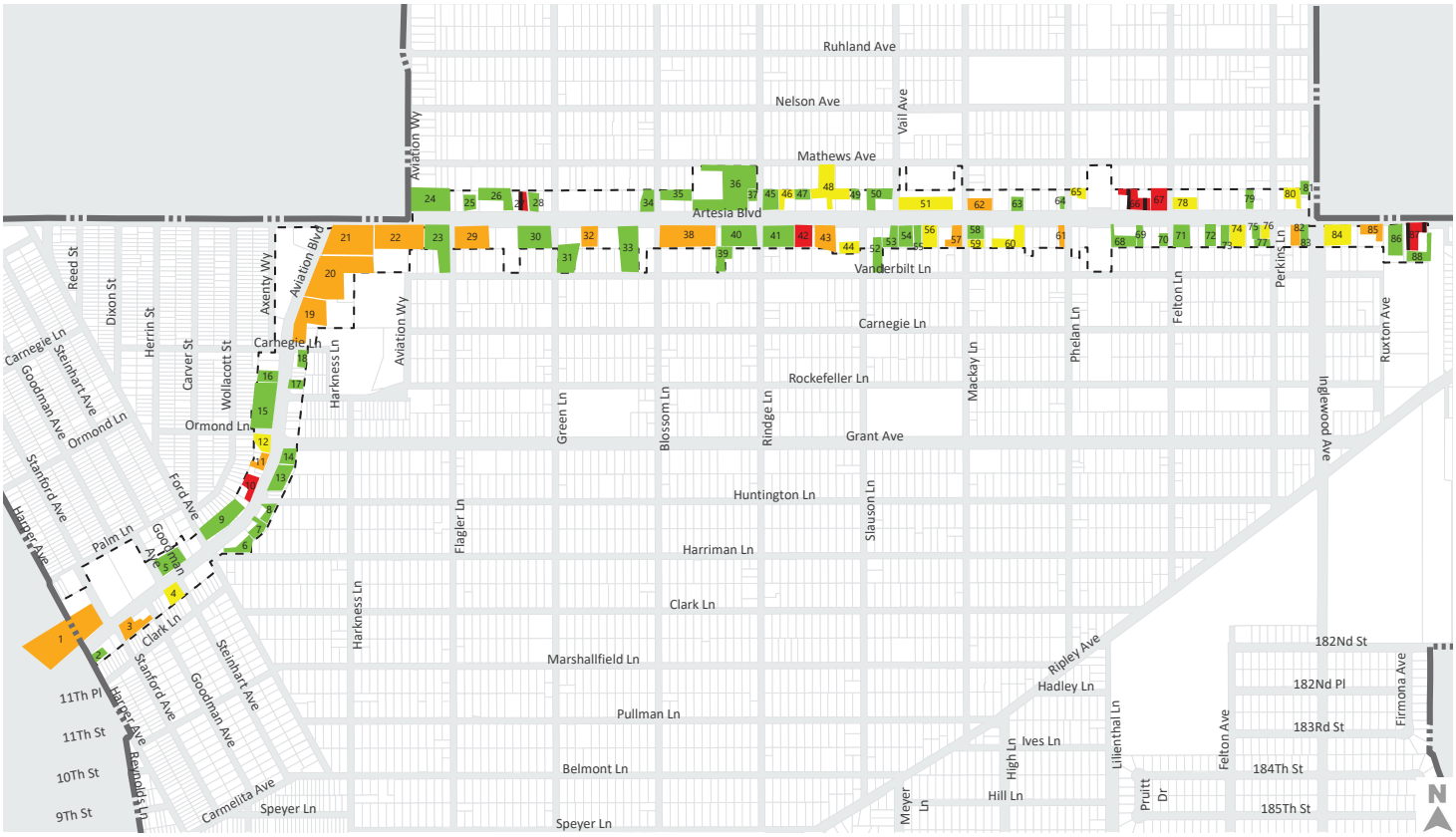
Occupancy Percent

- 0% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 90%
- 91% - 100%
- Artesia-Aviation Area Plan Boundary
- Off-Street Parking Lots

Figure 2

On Street Parking Occupancy - Saturday

Fehr & Peers, 2019



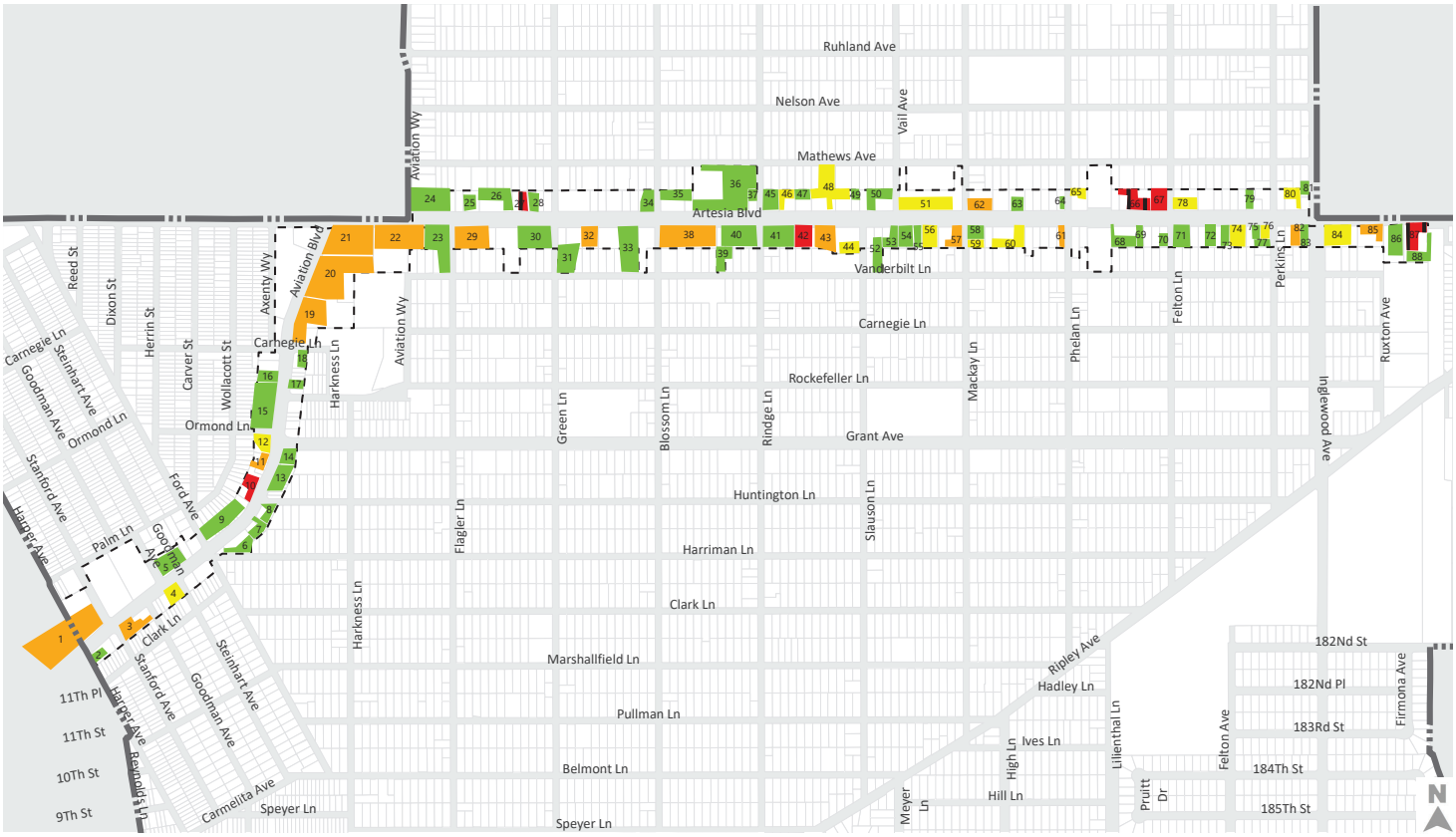
Occupancy Percent

0% - 40%	61% - 80%	91% - 100%	Artesia-Aviation Area Plan Boundary
41% - 60%	81% - 90%		

Figure 3

Off Street Parking Occupancy - Thursday

Fehr & Peers, 2019



Occupancy Percent

0% - 40%	61% - 80%	91% - 100%	Artesia-Aviation Area Plan Boundary
41% - 60%	81% - 90%		

Figure 4

Off Street Parking Occupancy - Saturday

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Appendix A: Off-Street Lot Occupancy (Weekday and Weekend Peak Periods)

Lot #	Land Use	Supply	Weekday Vehicles	Weekend Vehicles	Weekday Occupancy	Weekend Occupancy	Restriction Notes
1	Retail, Restaurant, Services	174	108	135	62%	78%	7 ADA, 6 10-Minute
2	Services	10	4	0	40%	0%	8 Reserved, 1 Guest, 1 ADA
3	Services	18	15	11	**83%**	61%	1 ADA
4	Retail	8	2	4	25%	50%	1 ADA
5	Automotive	0	0	0	0%	0%	*Auto storage lot not included
6	Services	35	19	8	54%	23%	1 ADA
7	Services	0	0	0	0%	0%	*No current building tenant
8	Services	16	3	2	19%	13%	1 Reserved, 1 ADA
9	Automotive	0	0	0	0%	0%	*Auto storage lot not included
10	Restaurant, Retail	15	7	13	47%	**87%**	1 ADA
11	Restaurant, Services	16	8	10	50%	63%	15 1-Hour, 1 ADA
12	Retail	9	6	5	67%	56%	1 ADA
13	Retail	13	4	4	31%	31%	1 ADA
14	Retail	9	5	2	56%	22%	1 ADA
15	Services	55	13	15	24%	27%	2 ADA
16	Services	17	2	0	12%	0%	10 2-Hour, 1 ADA, 6 Tandem
17	Services	8	3	3	38%	38%	1 ADA
18	Services	20	13	6	65%	30%	2 ADA
19	Restaurant, Retail	76	51	52	67%	68%	68 2-Hour, 4 ADA, 4 15-Minute
20	Services, Restaurant, Retail	129	59	82	46%	64%	121 2-Hour, 4 ADA, 2 Reserved, 2 15-Minute
21	Services	28	16	22	57%	79%	1 ADA
22	Retail	85	56	54	66%	64%	3 ADA, 23 Rental Car
23	Services	13	4	3	31%	23%	3 ADA
24	Restaurant	47	30	10	64%	21%	3 ADA
25	Hotel	15	1	5	7%	33%	1 ADA
26	Services	35	13	8	37%	23%	2 ADA
27	Restaurant	11	9	10	**82%**	**91%**	1 ADA
28	Services	11	8	3	73%	27%	1 ADA
29	Services, Restaurant	27	17	17	63%	63%	6 10-Minute, 2 ADA, 3 Parallel
30	Institution	34	20	9	59%	26%	2 ADA, 2 Police
31	Institution	37	22	14	59%	38%	2 ADA, 4 Staff
32	Services	16	4	11	25%	69%	1 ADA
33	Services	77	15	27	19%	35%	3 ADA
34	Services	8	5	0	63%	0%	1 ADA
35	Services, Restaurant	33	10	12	30%	36%	3 ADA
36	Retail	0	0	0	0%	0%	*Former Haggen Grocery Store
37	Restaurant	11	2	3	18%	27%	1 ADA
38	Services, Restaurant	56	49	41	**88%**	73%	3 ADA, 4 10-Minute
39	Services	25	17	5	68%	20%	1 ADA
40	Services	13	6	3	46%	23%	2 ADA
41	Retail	17	1	2	6%	12%	2 ADA
42	Restaurant	27	23	22	**85%**	**81%**	2 ADA
43	Retail	35	33	24	**94%**	69%	3 ADA

Lot #	Land Use	Supply	Weekday Vehicles	Weekend Vehicles	Weekday Occupancy	Weekend Occupancy	Restriction Notes
44	Services, Retail	17	2	7	12%	41%	1 ADA
45	Restaurant	15	12	5	**80%**	33%	1 ADA
46	Services	23	15	10	65%	43%	2 ADA
47	Retail	19	1	2	5%	11%	1 ADA
48	Services, Restaurant, Retail	71	53	35	75%	49%	69 2-Hour, 2 ADA
49	Restaurant	8	1	2	13%	25%	1 ADA
50	Services	33	8	4	24%	12%	2 ADA
51	Services, Restaurant, Retail	64	13	33	20%	52%	4 ADA, 1 15-Minute, 2 10-Minute
52	Services	35	4	3	11%	9%	2 ADA
53	Services	18	7	4	39%	22%	4 Compact, 1 ADA
54	Services	15	8	0	53%	0%	
55	Services	8	5	0	63%	0%	1 ADA
56	Services	19	10	8	53%	42%	4 Guest, 15 Reserved
57	Retail	19	12	14	63%	74%	2 Compact, 1 ADA
58	Restaurant	15	14	5	**93%**	33%	1 ADA
59	Retail	12	5	5	42%	42%	
60	Retail	32	17	18	53%	56%	2 ADA
61	Restaurant	6	1	4	17%	67%	1 ADA
62	Services, Restaurant, Retail	25	11	16	44%	64%	1 ADA
63	Retail	13	3	2	23%	15%	1 ADA
64	Restaurant	7	0	1	0%	14%	1 ADA, *Closed until 4 PM
65	Services, Retail	15	10	9	67%	60%	2 Staff
66	Services, Restaurant	41	41	37	**100%**	**90%**	2 ADA
67	Restaurant	14	4	12	29%	**86%**	1 ADA
68	Services	29	0	7	0%	24%	2 ADA
69	Services	15	7	2	47%	13%	2 Compact, 1 ADA
70	Services	9	2	2	22%	22%	
71	Restaurant	29	22	9	76%	31%	1 ADA
72	Services	20	6	0	30%	0%	2 ADA
73	Services	10	2	0	20%	0%	
74	Services	13	8	7	62%	54%	1 ADA
75	Restaurant	5	1	1	20%	20%	1 ADA
76	Services	2	1	1	50%	50%	1 ADA
77	Services	14	3	3	21%	21%	
78	Services, Retail	19	19	10	**100%**	53%	1 ADA
79	Services, Retail	16	1	0	6%	0%	1 ADA
80	Restaurant	18	17	10	**94%**	56%	1 ADA
81	Retail	7	3	2	43%	29%	1 ADA
82	Services	11	7	8	64%	73%	1 ADA
83	Retail	5	3	2	60%	40%	1 ADA
84	Services, Retail	13	7	7	54%	54%	1 ADA
85	Services	19	16	15	**84%**	79%	1 ADA
86	Hotel	40	8	8	20%	20%	2 ADA
87	Services, Retail	39	19	37	49%	**95%**	3 ADA, 1 Compact
88	Services, Retail	23	10	7	43%	30%	1 ADA
Total		2,189	1,102	1,031	50%	47%	

Bold indicates occupancy greater than or equal to 80%.