

PARKING STUDY

109 E 17th Street

Addendum

Parkingshed definition and in-person parking availability observations for 109 E 17th Street, Richmond Virginia.



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Appendix A – Parkingshed – Maps and Figures



Figure 1: Aerial Overview of 109 E 17th St



Figure 2: Parkingshed as defined within study

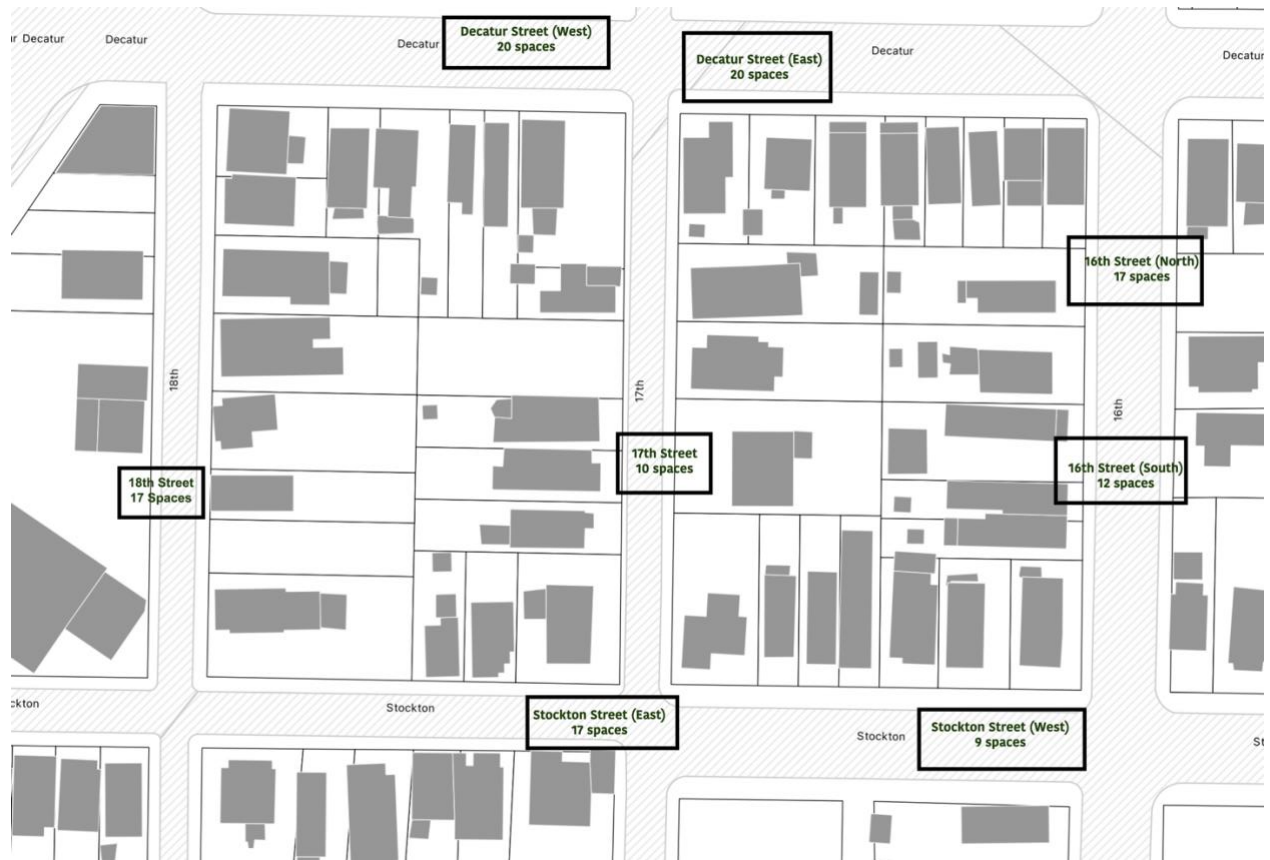


Figure 3: Total available parking spaces per block

The parkingshed was evaluated according to the Zoning Ordinance, Sec. 30-710.3:1, relating to dimension of parking spaces and Chapter 27 Traffic and Vehicles, Sec 27-197, relating to the prohibition on on-street parking in certain specified areas.

Parking Space Dimensions:

End Stall: 17.5'

Captive Stall: 22'

Overall Total: 122 spaces

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Average
Cars Parked	73	64	73	67	71	62	68.33
Spaces Available	49	58	49	55	51	60	53.7
Percent Occupied	60%	52%	60%	55%	58%	51%	56%

Figure 4: Parking usage observations



Figure 5: Parking shed features and dimensions

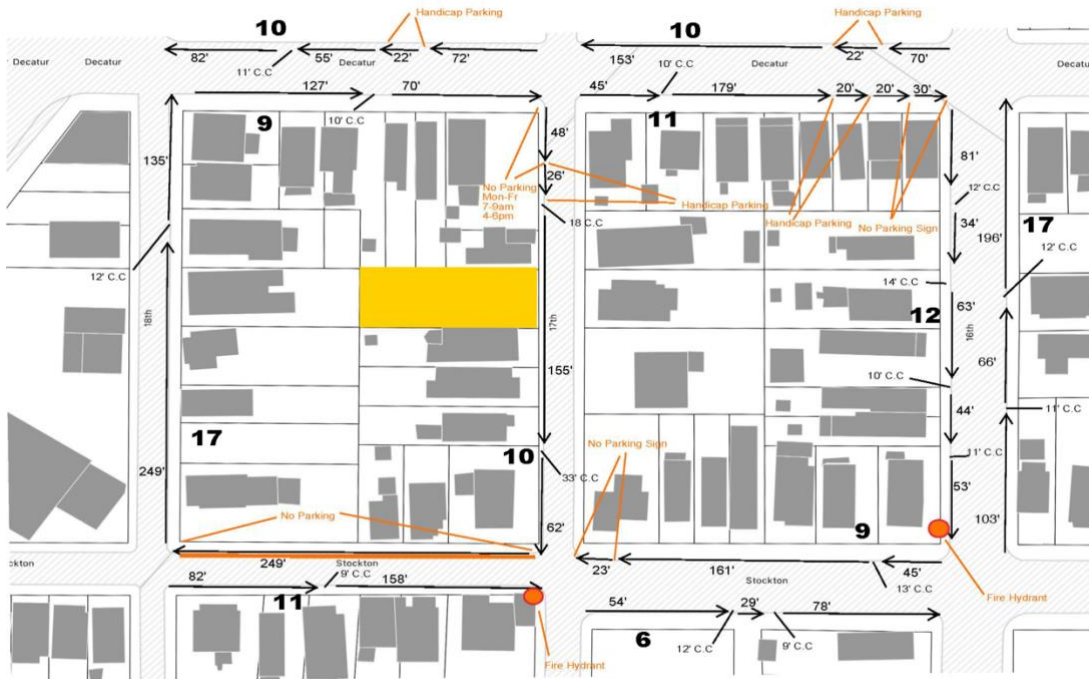


Figure 6: Available parking spaces

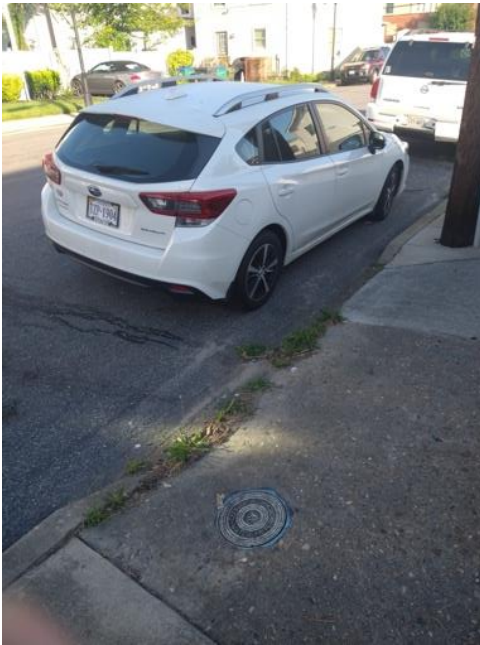
Appendix B – Individual Observations – Counts and Images

Wednesday, June 29th - 7:30am

Block	Count
Decatur to 16th	13
Decatur to 18th	14
18th	9
17th	9
16 th to Stockton	4
16 th to Decatur	9
Stockton to 16th	10
Stockton to 18th	5
TOTAL	73/122

Parking occupancy rate: 60%

Available parking spaces: **49**





Wednesday, June 29th - 6:15pm

Block	Count
Decatur to 16th	9
Decatur to 18th	12
18th	11
17th	9
16 th to Stockton	3
16 th to Decatur	9
Stockton to 16th	7
Stockton to 18th	4
TOTAL	64/122

Parking occupancy rate: 52%

Available parking spaces: **58**





Thursday, June 30th - 7:45am

Block	Count
Decatur to 16th	11
Decatur to 18th	14
18th	9
17th	9
16 th to Stockton	4
16 th to Decatur	10
Stockton to 16th	11
Stockton to 18th	5
TOTAL	73/122

Parking occupancy rate: 60%

Available parking spaces: **49**





Thursday, June 30th - 7:30pm

Block	Count
Decatur to 16th	10
Decatur to 18th	11
18th	6
17th	9
16 th to Stockton	5
16 th to Decatur	9
Stockton to 16th	8
Stockton to 18th	9
TOTAL	67/122

Parking occupancy rate: 55%

Available parking spaces: **55**





Friday, June 1st - 7:30am

Block	Count
Decatur to 16th	12
Decatur to 18th	12
18th	9
17th	7
16 th to Stockton	6
16 th to Decatur	9
Stockton to 16th	10
Stockton to 18th	6
TOTAL	71/122

Parking occupancy rate: 58%

Available parking spaces: **51**





Friday, July 1st – 6:40pm

Block	Count
Decatur to 16th	9
Decatur to 18th	10
18th	8
17th	6
16 th to Stockton	6
16 th to Decatur	9
Stockton to 16th	8
Stockton to 18th	6
TOTAL	62/122

Parking occupancy rate: 51%

Available parking spaces: **60**





Land Use: 221

Low/Mid-Rise Apartment

Description

Low/mid-rise apartments are rental dwelling units located within the same building with at least three other dwelling units: for example, quadraplexes and all types of apartment buildings. The study sites in this land use have one, two, three, or four levels. High-rise apartment (Land Use 222) is a related use.

Database Description

The database consisted of a mix of suburban and urban sites. Parking demand rates at the suburban sites differed from those at urban sites and, therefore, the data were analyzed separately.

- Average parking supply ratio: 1.4 parking spaces per dwelling unit (68 study sites). This ratio was the same at both the suburban and urban sites.
- Suburban site data: average size of the dwelling units at suburban study sites was 1.7 bedrooms, and the average parking supply ratio was 0.9 parking spaces per bedroom (three study sites).
- Urban site data: average size of the dwelling units was 1.9 bedrooms with an average parking supply ratio of 1.0 space per bedroom (11 study sites).

Saturday parking demand data were only provided at two suburban sites. One site with 1,236 dwelling units had a parking demand ratio of 1.33 vehicles per dwelling unit based on a single hourly count between 10:00 and 11:00 p.m. The other site with 55 dwelling units had a parking demand ratio of 0.92 vehicles per dwelling unit based on counts between the hours of 12:00 and 5:00 a.m.

Sunday parking demand data were only provided at two urban sites. One site with 15 dwelling units was counted during consecutive hours between 1:00 p.m. and 5:00 a.m. The peak parking demand ratio at this site was 1.00 vehicle per dwelling unit. The peak parking demand occurred between 12:00 and 5:00 a.m. The other site with 438 dwelling units had a parking demand ratio of 1.10 vehicles per dwelling unit based on a single hourly count between 11:00 p.m. and 12:00 a.m.

Four of the urban sites were identified as affordable housing.

Several of the suburban study sites provided data regarding the number of bedrooms in the apartment complex. Although these data represented only a subset of the complete database for this land use, they demonstrated a correlation between number of bedrooms and peak parking demand. Study sites with an average of less than 1.5 bedrooms per dwelling unit in the apartment complex reported peak parking demand at 92 percent of the average peak parking demand for all study sites with bedroom data. Study sites with less than 2.0 but greater than or equal to 1.5 bedrooms per dwelling unit reported peak parking demand at 98 percent of the average. Study sites with an average of 2.0 or greater bedrooms per dwelling unit reported peak parking demand at 13 percent greater than the average.

For the urban study sites, the parking demand data consisted of single or discontinuous hourly counts and therefore a time-of-day distribution was not produced. The following table presents a time-of-day distribution of parking demand at the suburban study sites.

Land Use: 221 Low/Mid-Rise Apartment

**Average Peak Period Parking Demand vs. Dwelling Units
On a: Weekday
Location: Urban**

Statistic	Peak Period Demand
Peak Period	10:00 p.m.–5:00 a.m.
Number of Study Sites	40
Average Size of Study Sites	70 dwelling units
Average Peak Period Parking Demand	1.20 vehicles per dwelling unit
Standard Deviation	0.42
Coefficient of Variation	35%
95% Confidence Interval	1.07–1.33 vehicles per dwelling unit
Range	0.66–2.50 vehicles per dwelling unit
85th Percentile	1.61 vehicles per dwelling unit
33rd Percentile	0.93 vehicles per dwelling unit

