

# TECHNICAL MEMORANDUM

**Project:** Greenwood Apartments – Affordable Housing

8601 Fremont Avenue N (SDCI #3036071-LU)

**Subject:** On-Street Parking Utilization Study

**Date:** July 29, 2024

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This memorandum describes on-street parking conditions in the vicinity of the proposed Greenwood Apartments project at 8601 Fremont Avenue N in Seattle.

A detailed on-street parking utilization study was performed according to the City's Tip #135,1 which outlines the City's preferred methodology to determine the number and type of on-street parking spaces that may exist within a defined study area, and how much of that supply is utilized.

The study area for the on-street parking analysis included all roadways within an 800-foot *walking* distance from the project site. The 800-foot walking distance results in a study area that extends west to Dayton Avenue N, north to N 90<sup>th</sup> Street, just east of Linden Avenue N, and south to N 83<sup>rd</sup> Street. Details about parking supply and occupancy are provided in the following sections. The study area consists primarily of single-family residential land uses with some multifamily/commercial pockets located near N 85<sup>th</sup> Street. Many of the residential driveways in the vicinity are accessed via streets versus alleys.

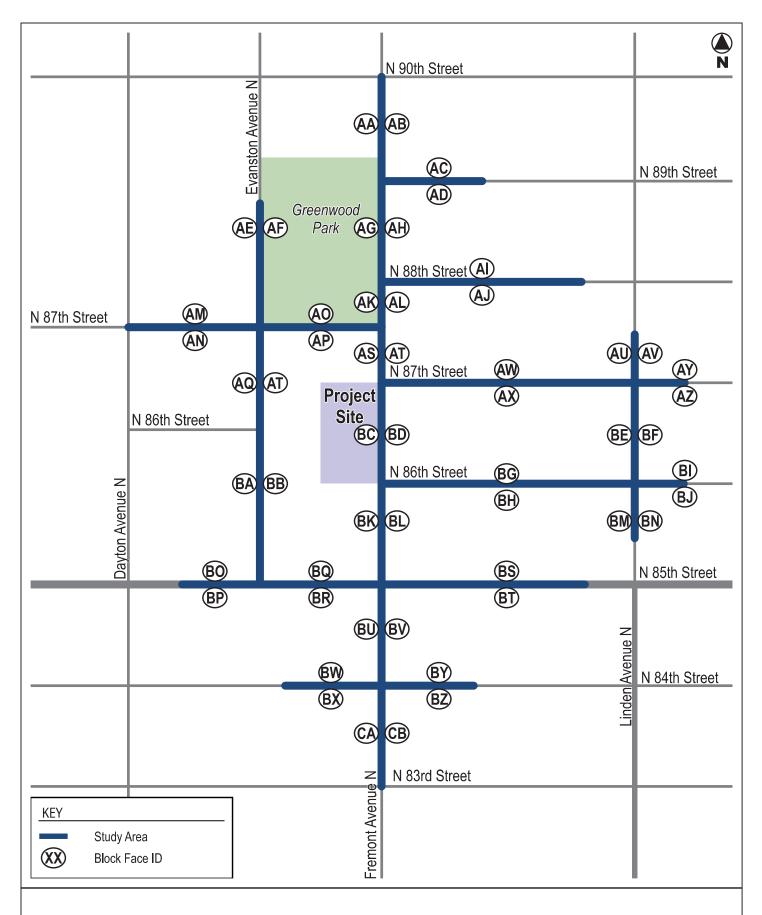
# 1. On-Street Parking Supply

The study area was separated into individual block faces. A block face consists of one side of a street between two cross-streets. For example, the north side N 87<sup>th</sup> Street between Evanston Avenue N and Fremont Avenue N is one block face (identified as block face 'AO' for this study). Figure 1 shows the study area and block face designations.

Each block face was measured and analyzed to determine the number of legal on-street parking spaces. First, common street features—such as driveways, fire hydrants, and special parking zones—and their buffer requirements were identified according to Seattle's Municipal Code Regulations. The remaining unobstructed lengths between street features were converted to legal on-street parking spaces using values in the City's Tip #135. Detailed parking supply by block face and methodology used are provided in Attachment A.

The parking supply survey determined that there are 301 on-street parking spaces within the study area. Of the total on-street spaces, 285 have no signed restriction, 14 have a 2-hour time limit, two are load zones and one is reserved for vehicles with a disabled parking permit.

Seattle Department of Construction and Inspection (SDCI), October 5, 2022.



8601 FREMONT AVENUE N PARKING STUDY

Figure 1
Study Area for On-Street
Parking Occupancy Surveys



# 2. On-Street Parking Occupancy

Parking occupancy counts were performed on two days (Tuesday, July 9 and Thursday, July 11, 2024) at 7:30 P.M. to reflect evening parking conditions.

The counts for each day were compiled and results are summarized in Table 1. On-street parking utilization was calculated using the methodology described in Tip #135 and is the number of vehicles parked on-street divided by the number of legal on-street parking spaces within the study area or on a specific block face. The study area utilization totals are also shown. Detailed summaries of the on-street parking occupancy by block face for all counts are provided in Attachment A.

As shown, the survey determined that parking utilization ranged from 58% to 67% on typical weekday evenings; the number of unused parking spaces ranged from 99 to 127 spaces.

Table 1. On-Street Parking Occupancy Survey Results

| Time Berind Surveyed        | Dorking Cumply | Total           | 0/ Hitilization |
|-----------------------------|----------------|-----------------|-----------------|
| Time Period Surveyed        | Parking Supply | Vehicles Parked | % Utilization   |
| Evening (7:30 to 8:00 P.M.) |                |                 |                 |
| Tuesday, July 9, 2024       | 301            | 202             | 67%             |
| Thursday, July 11, 2024     | 301            | 174             | 58%             |
| Average                     | 301            | 188             | 62%             |

Source: Heffron Transportation, Inc., July 2024.

Attachment: Attachment A – On-Street Parking Supply and Occupancy Details, and Inventories



# **Parking Supply Calculation Methodology**

### **Parking Prohibitions**

Parking was assumed to be prohibited in the following locations based on provisions in the Revised Code of Washington (RCW):

- Crosswalk approach No parking within 20 feet. (RCW 46.61.570(b)(iii))
- Fire hydrant No parking within 15 feet. (RCW 46.61.570(1)(b)(ii))
- Intersection No parking within an intersection. (RCW 46.61.570(1)(a)(iii))
- **Traffic-control signal approach** No parking within 30 feet approaching any traffic-control signal located at the side of a roadway. (RCW 46.61.570(1)(b)(iv))
- **Stop sign approach** No parking within 30 feet approaching any stop sign located at the side of a roadway. (RCW 46.61.570(1)(b)(iv)) *Note: provision also applied to Yield signs*.
- **Driveway or alley entrance** No Parking in front of a public or private driveway or within 5-feet of the end of the curb radius leading thereto. (RCW 46.61.570(1)(b)(i))

### **Parking Supply**

The number of spaces in each segment of unobstructed parking were based on long-utilized conversion tables that the City of Seattle has used to estimate parking for thousands of projects. Heffron Transportation has found that these tables conservatively underestimate the potential supply given the increased popularity of smaller cars and the tendency for drivers to park closer together in areas with higher utilization. Table A-1 presents the conversion for parallel parking stalls. Angle parking capacity is estimated by assuming 9-foot-wide stalls (unless parked vehicles indicate wider spacing).

Table A-1. Number of Legal On-Street Parking Spaces (Parallel Spaces per Curb Length)

| Unobstructed<br>Distance <sup>a</sup> | Number of<br>Parking Spaces | Unobstructed<br>Distance | Number of<br>Parking Spaces | Unobstructed<br>Distance | Number of Parking<br>Spaces |
|---------------------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|
| 0 – 15 feet                           | 0                           | 206 – 221 feet           | 11                          | 412 – 433 feet           | 22                          |
| 16 – 31 feet                          | 1                           | 222 – 243 feet           | 12                          | 434 – 449 feet           | 23                          |
| 32 – 53 feet                          | 2                           | 244 – 259 feet           | 13                          | 450 – 471 feet           | 24                          |
| 54 – 69 feet                          | 3                           | 260 – 281 feet           | 14                          | 472 – 487 feet           | 25                          |
| 70 – 91 feet                          | 4                           | 282 – 297 feet           | 15                          | 488 – 509 feet           | 26                          |
| 92 – 107 feet                         | 5                           | 298 – 319 feet           | 16                          | 510 – 525 feet           | 27                          |
| 108 – 129 feet                        | 6                           | 320 – 335 feet           | 17                          | 526 – 547 feet           | 28                          |
| 130 – 145 feet                        | 7                           | 336 – 357 feet           | 18                          | 548 – 563 feet           | 29                          |
| 146 – 167 feet                        | 8                           | 358 – 373 feet           | 19                          | 564 – 585 feet           | 30                          |
| 168 – 183 feet                        | 9                           | 374 – 395 feet           | 20                          | 586 – 601 feet           | 31                          |
| 184 – 205 feet                        | 10                          | 396 – 411 feet           | 21                          | 602 – 623 feet           | 32                          |

Source: City of Seattle, TIP #135. The numbers of parking spaces for unobstructed lengths over 319 feet were derived by Heffron Transportation using the City's methodology.



a. Excludes the length of curb where parking is prohibited.

# Attachment A: Parking Survey Inventory

Project: Greenwood Apartments - 8601 Fremont Avenue N

|                | _                | -6                                  | %                       | •                       | •<br>•                          | %                               | •<br>•                      | %                           | %                       | %                       | %                               | %                               | %                         | %                         | %8                              | %                               | < <                                | %                                  | < 1                     | < <                     | %                           | <b></b> %                   |
|----------------|------------------|-------------------------------------|-------------------------|-------------------------|---------------------------------|---------------------------------|-----------------------------|-----------------------------|-------------------------|-------------------------|---------------------------------|---------------------------------|---------------------------|---------------------------|---------------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|-----------------------------|-----------------------------|
| ion            | Evening (7:30PM) | Average                             | , 25%                   | %0                      | %0                              | 20%                             | 2%                          | %96 <b> </b> %              | 38%                     | 30%                     | 20%                             | 41%                             | 33%                       | 17%                       | , 133%                          | , 75%                           | N<br>A                             | %09                                | Ž<br>V                  | ¥<br>E                  | %57                         | 09   1                      |
| Utilization    | ning (7          | 4/11/2024                           | 33%                     | %0                      | %0                              | 20%                             | 10%                         | 100%                        | 20%                     | 30%                     | 38%                             | 31%                             | %29                       | 33%                       | 133%                            | 20%                             | ž                                  | %09                                | ₹                       | Ž                       | 20%                         | %09                         |
|                | Eve              | \$\05\Z0Z\6\Z                       | 17%                     | %0                      | %0                              | 20%                             | %0                          | 95%                         | 25%                     | 30%                     | %89                             | 20%                             | %0                        | %0                        | 133%                            | 100%                            | ₹                                  | %09                                | ₹                       | ₹                       | 100%                        | 20%                         |
| ,              | DPM)             | Ауегаде                             | 2                       | 0                       | 0                               | က                               | -                           | 12                          | က                       | က                       | 4                               | 7                               | -                         | ~                         | 4                               | က                               | 0                                  | 9                                  | 0                       | 0                       | 7                           | _                           |
| Occupancy      | Evening (7:30PM) | 4Z0Z/11/Z                           | 2                       | 0                       | 0                               | ဗ                               | -                           | 12                          | 4                       | ဗ                       | က                               | 5                               | 2                         | _                         | 4                               | 2                               | 0                                  | 9                                  | 0                       | 0                       | _                           | _                           |
| 0              | Even             | <b>₽</b> 202/6/ <i>L</i>            | 7                       | 0                       | 0                               | က                               | 0                           | 7                           | 2                       | က                       | 2                               | ∞                               | 0                         | 0                         | 4                               | 4                               | 0                                  | 9                                  | 0                       | 0                       | 2                           |                             |
|                |                  | Total Parking Spaces                | 9                       | 2                       | က                               | 9                               | 9                           | 12                          | <b>∞</b>                | 9                       | œ                               | 16                              | ო                         | ო                         | ო                               | 4                               | 0                                  | 9                                  | 0                       | 0                       | 7                           | 7                           |
| ply            |                  | bəldssiQ                            | 0                       | 0                       | 0                               | 0                               | 0                           | 0                           | 0                       | 0                       | 0                               | 0                               | 0                         | 0                         | 0                               | 0                               | 0                                  | 0                                  | 0                       | 0                       | 0                           | 0                           |
| Parking Supply | :                | ox∃ q∂-s√ γlnO U\J nim0£<br>loH\nu∂ | 0                       | 0                       | 0                               | 0                               | 0                           | 0                           | 0                       | 0                       | 0                               | 0                               | 0                         | 0                         | 0                               | 0                               | 0                                  | 0                                  | 0                       | 0                       | 0                           | 0                           |
| Park           |                  | Shr 7a-6p Exc Sun∕Hol               | 0                       | 0                       | 0                               | 0                               | 0                           | 0                           | 0                       | 0                       | 0                               | 0                               | 0                         | 0                         | 0                               | 0                               | 0                                  | 0                                  | 0                       | 0                       | 0                           | 0                           |
|                |                  | Unrestricted                        | 9                       | 5                       | ဗ                               | 9                               | 10                          | 12                          | 80                      | 10                      | 80                              | 16                              | က                         | က                         | 3                               | 4                               | 0                                  | 10                                 | 0                       | 0                       | 2                           | 7                           |
|                |                  | Side of<br>Street                   | M                       | ш                       | z                               | တ                               | >                           | ш                           | >                       | ш                       | z                               | တ                               | >                         | ш                         | z                               | တ                               | z                                  | ഗ                                  | >                       | ш                       | >                           | ш                           |
|                |                  | Street Segment                      | N 89TH ST AND N 90TH ST | N 89TH ST AND N 90TH ST | FREMONT AVE N AND 800' BOUNDARY | FREMONT AVE N AND 800' BOUNDARY | N 87TH ST AND 800' BOUNDARY | N 87TH ST AND 800' BOUNDARY | N 88TH ST AND N 89TH ST | N 88TH ST AND N 89TH ST | FREMONT AVE N AND 800' BOUNDARY | FREMONT AVE N AND 800' BOUNDARY | N 87TH N ST AND N 88TH ST | N 87TH N ST AND N 88TH ST | DAYTON AVE N AND EVANSTON AVE N | DAYTON AVE N AND EVANSTON AVE N | EVANSTON AVE N AND FREMONT N AVE N | EVANSTON AVE N AND FREMONT N AVE N | N 86TH ST AND N 87TH ST | N 86TH ST AND N 87TH ST | N 87TH S ST AND N 87TH N ST | N 87TH S ST AND N 87TH N ST |
|                |                  | Street Name                         | FREMONT AVE N           | FREMONT AVE N           | N 89TH ST                       | N 89TH ST                       | EVANSTON AVE N              | EVANSTON AVE N              | FREMONT AVE N           | FREMONT AVE N           | N 88TH ST                       | N 88TH ST                       | FREMONT AVE N             | FREMONT AVE N             | N 87TH ST                       | N 87TH ST                       | N 87TH ST                          | N 87TH ST                          | EVANSTON AVE N          | EVANSTON AVE N          | FREMONT AVE N               | FREMONT AVE N               |
|                |                  | Block Face ID                       | AA                      | AB                      | AC                              | AD                              | AE                          | AF                          | AG                      | АН                      | A                               | P                               | AK                        | AL                        | AM                              | AA                              | АО                                 | АР                                 | AQ                      | AR                      | AS                          | АТ                          |

Project: Greenwood Apartments - 8601 Fremont Avenue N

|                | ŝ                | Average                                 | %0                          | 20%                         | 71%                              | 20%                              | ega                            | 63%                            | 95%                     | 15%                     | 78%                       | 42%                       | 19%                     | 30%                     | 15%                            | 17%                            | ₹                              | %0                             | 121%                    | 19%                     | 100%                        | 113%                        |   |
|----------------|------------------|---|-----------------------------|-----------------------------|----------------------------------|----------------------------------|--------------------------------|--------------------------------|-------------------------|-------------------------|---------------------------|---------------------------|-------------------------|-------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------|-------------------------|-----------------------------|-----------------------------|---|
| Utilization    | Evening (7:30PM) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | ) %0                        | 20% 2                       | 75%   7                          | 42% 5                            | <u></u>                        | 9   %09                        | 92%                     | 75%   7                 | 89%   7                   | 33% 4                     | 13% 1                   | 30% 3                   | 2 899                          | 54%   7                        | <br>≰                          | ) %0                           | 143% 12                 | 86%   7                 | 67%   10                    | 75%   1.                    |   |
| Utiliz         | vening           |   |                             |                             |                                  |                                  |                                |                                |                         |                         |                           |                           |                         |                         |                                |                                |                                |                                |                         |                         |                             |                             | _ |
|                | Ш                | 7/9/2024                                | %0                          | 20%                         | %29                              | 28%                              | Illega                         | 75%                            | 95%                     | 75%                     | %29                       | 20%                       | 25%                     | 30%                     | 94%                            | 100%                           | ₹                              | %0                             | 100%                    | 71%                     | 133%                        | 150%                        |   |
| cy             | OPM)             | Average                                 | 0                           | _                           | 6                                | 9                                | _                              | က                              | 12                      | 9                       | 7                         | က                         | 7                       | က                       | 12                             | 10                             | 0                              | 0                              | 6                       | 9                       | က                           | 2                           |   |
| Occupancy      | Evening (7:30PM) | \$20Z/LL/\Z                             | 0                           | ~                           | 6                                | 2                                | 0                              | 2                              | 12                      | 9                       | ∞                         | 2                         | ~                       | 3                       | 6                              | 7                              | 0                              | 0                              | 10                      | 9                       | 2                           | က                           |   |
| 0              | Ever             | <b>1/9/202</b> 4                        | 0                           | _                           | 80                               | 7                                | _                              | ဗ                              | 12                      | 9                       | 9                         | လ                         | 2                       | က                       | 15                             | 13                             | 0                              | 0                              | 7                       | 2                       | 4                           | 9                           |   |
|                |                  | Total Parking Spaces                    | 4                           | 2                           | 12                               | 12                               | 0                              | 4                              | 13                      | 8                       | 6                         | 9                         | 8                       | 10                      | 16                             | 13                             | 0                              | 4                              | 7                       | 7                       | က                           | 4                           |   |
| <u>~</u>       |                  | beldsald                                | 0                           | 0                           | 0                                | 0                                | 0                              | 0                              | 0                       | 0                       | 0                         | 0                         | 0                       | 0                       | 0                              | 0                              | 0                              | 0                              | 0                       | 0                       | 0                           | 0                           |   |
| Parking Supply |                  | 30min L/U Only 7a-6p Exc<br>Sun/Hol     | 0                           | 0                           | 0                                | 0                                | 0                              | 0                              | _                       |                         | 0                         | 0                         | 0                       | 0                       | 0                              | 0                              | 0                              | 0                              | 0                       | 0                       | 0                           | 0                           |   |
| Parkir         |                  | 2hr 7a-6p Exc Sun/Hol                   | 0                           | 0                           | 0                                | 0                                | 0                              | 0                              | 7                       | 7                       | 0                         | 0                         | 0                       | 0                       | 0                              | 0                              | 0                              | 0                              | 0                       | 0                       | 0                           | 0                           |   |
|                |                  | Unrestricted                            | 4                           | 2                           |                                  |                                  | 0                              | 4                              | 2                       | 0                       |                           | 9                         | <u> </u>                | 10                      | 16                             |                                | 0                              | 4                              |                         |                         | <br>8                       | 4                           |   |
|                |                  | Side of                                 |                             | ш                           |                                  | `<br>တ                           | z                              | S                              |                         | ш                       | >                         | ш                         | <u> </u>                | <u>`</u>                |                                | <u>`</u><br>ຶ                  |                                | <u> </u>                       |                         | ш                       | >                           | ш                           |   |
|                |                  | Sid                                     | ^                           |                             | _                                |                                  |                                |                                | <u>&gt;</u>             |                         | <u>&gt;</u>               |                           | <u>&gt;</u>             |                         | _                              |                                |                                |                                | <u>&gt;</u>             |                         | <u>&gt;</u>                 |                             |   |
|                |                  | Street Segment                          | N 87TH ST AND 800' BOUNDARY | N 87TH ST AND 800' BOUNDARY | FREMONT S AVE N AND LINDEN AVE N | FREMONT S AVE N AND LINDEN AVE N | LINDEN AVE N AND 800' BOUNDARY | LINDEN AVE N AND 800' BOUNDARY | N 85TH ST AND N 86TH ST | N 85TH ST AND N 86TH ST | N 86TH ST AND N 87TH S ST | N 86TH ST AND N 87TH S ST | N 86TH ST AND N 87TH ST | N 86TH ST AND N 87TH ST | FREMONT AVE N AND LINDEN AVE N | FREMONT AVE N AND LINDEN AVE N | LINDEN AVE N AND 800' BOUNDARY | LINDEN AVE N AND 800' BOUNDARY | N 85TH ST AND N 86TH ST | N 85TH ST AND N 86TH ST | 800' BOUNDARY AND N 86TH ST | 800' BOUNDARY AND N 86TH ST |   |
|                |                  | Street Name                             | LINDEN AVE N                | LINDEN AVE N                | N 87TH ST                        | N 87TH ST                        | N 87TH ST                      | N 87TH ST                      | EVANSTON AVE N          | EVANSTON AVE N          | FREMONT AVE N             | FREMONT AVE N             | LINDEN AVE N            | LINDEN AVE N            | N 86TH ST                      | N 86TH ST                      | N 86TH ST                      | N 86TH ST                      | FREMONT AVE N           | FREMONT AVE N           | LINDEN AVE N                | LINDEN AVE N                |   |
|                |                  | Block Face ID                           | AU                          | AV                          | AW                               | ¥                                | ΑΥ                             | AZ                             | ВА                      | BB                      | BC                        | ВD                        | BE                      | BF                      | BG                             | ВН                             | BI                             | BJ                             | ВК                      | BL                      | BM                          | BN                          |   |

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