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Jo Ann Hardesty Commissioner Chris Warner Director

Eliot Parking Task Force Meeting # 5

Wednesday, Feb. 1, 2023, 5:30-7:30 p.m.

To attend the virtual Zoom meeting:

<https://us06web.zoom.us/j/85323219724?pwd=VnRuMFBKemVEZzZGMjF5Tmg2RzgrQT09>

OR call in by phone: 1-888-788-0099

Meeting ID: 853 2321 9724

Passcode: 414240

Time	Task and Action	Presenter
5:30-5:35 p.m.	Welcome & introductions	Kathryn
5:35- 5:55 p.m.	Full Parking Study Data Overview Presentation & discussion	Owen Ronchelli
5:55-6:30 p.m.	Case Studies Presentation & Discussion	William Reynolds
6:30-6:50 p.m.	Goals discussion Discussion & decision	All
6:50-7:15 p.m.	Open discussion (if needed, wanted)	All
7:15-7:25 p.m.	Public Comment	
7:25-7:30 p.m.	Next Steps & Close	Kathryn

*Members of the public are also welcome to email or call the PBOT project manager to ask questions or provide comment ahead of the meeting. The comments will be shared with the Task Force and project team and kept in the project files. Contact via email Kathryn.doherty-chapman@portlandoregon.gov or phone 503-823-4761.



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2022

Eliot Neighborhood Parking Assessment Summary

January 9, 2023

Prepared for:



Prepared by:



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2022 Eliot Neighborhood Parking Assessment Summary

I. Introduction

This summary presents initial data findings of the 2022 Eliot Neighborhood Parking Study and Assessment. The data collected for this study represents the first ever comprehensive assessment of parking activity in the Eliot Neighborhood. This data can serve as a baseline for strategic planning with Eliot Neighborhood stakeholders around solutions to parking issues over time.

Methodologies for collecting data included cataloguing hourly license plate data for all parking stalls in the designated study area over a 12-hour study day. An additional “overnight” (1:00 – 4:00 AM) data sample was also conducted (for occupied stalls only) to provide a sense of parking activity that would more exclusively reflect use by residents of the neighborhood. The 2022 survey was conducted in the early morning hours of Wednesday, October 25th, 2022.

- **During the overnight hours, the cause of constraints at the block face level is demand by residential vehicles, not out-of-neighborhood users.**

II. Surveyed Parking Inventory

Per the recommendation of the Portland Bureau of Transportation (PBOT) and the Eliot Parking Task Force, a neighborhood study area was established as well as data collection areas that were sampled from within the larger area.

Figure A (page 3) displays the selected 2022 study area (black boundary lines). As illustrated, the Eliot Neighborhood parking study area ranges generally from N Fremont Street (north), NE Broadway (south), N Interstate/N Larrabee Avenues (west), NE Martin Luther King Blvd (east). In total, there are 3,094 on-street parking stalls within this boundary.

Figure B (page 4) provides a map of all block faces within the study area where hourly parking usage data was collected. Because of the large size of the neighborhood, care was taken to structure the

Key 2022 Outcomes

- The *typical weekday* peak occupancy of the neighborhood is 56.2%, with an average hourly occupancy of 50%.
- Peak occupancy for *residential parking* is 44.7% (1:00 AM count).
- **During daytime hours, use of neighborhood parking is low to moderate with no significant constraints identified.**
- On block faces where parking is constrained, empty stalls are generally visible and close by.
- In the overnight hours, parking is constrained in three small residential clusters. This is often a particular concern of residents wanting their vehicles as close to their residence as possible.
- **The cause of constraints at the block face level during late evening hours is demand by residential vehicles, not out of neighborhood users.**
- A traditional daytime parking permit program would likely have limited effect on the constrained blocks identified in the overnight count.
- This data does not yet consider the impact of events on the neighborhood supply of parking.

data sample areas to ensure geographic coverage of the neighborhood, broad representation of parking type and a statistically valid sample of use that could reasonably be extrapolated to the entire neighborhood. A total of 2,112 stalls were surveyed, representing a 68% sample size.

General Considerations

It is acknowledged that the findings of the 2022 study may be influenced by the **impacts of the COVID-19 pandemic**. Input from the City and consultant led to the decision to move forward with data collection in 2022 in order to inform near- and mid-term decision making related to parking as well as to establish a new baseline of data. Understanding what some call "the new normal" is important, as data established now provides a statistical view of how parking in the Eliot Neighborhood may have been affected by the pandemic. This will lead to strategies that are appropriate to residential, employee, and visitor users of the neighborhood.

2022

City of Portland
Eliot Neighborhood
Inventory Boundary

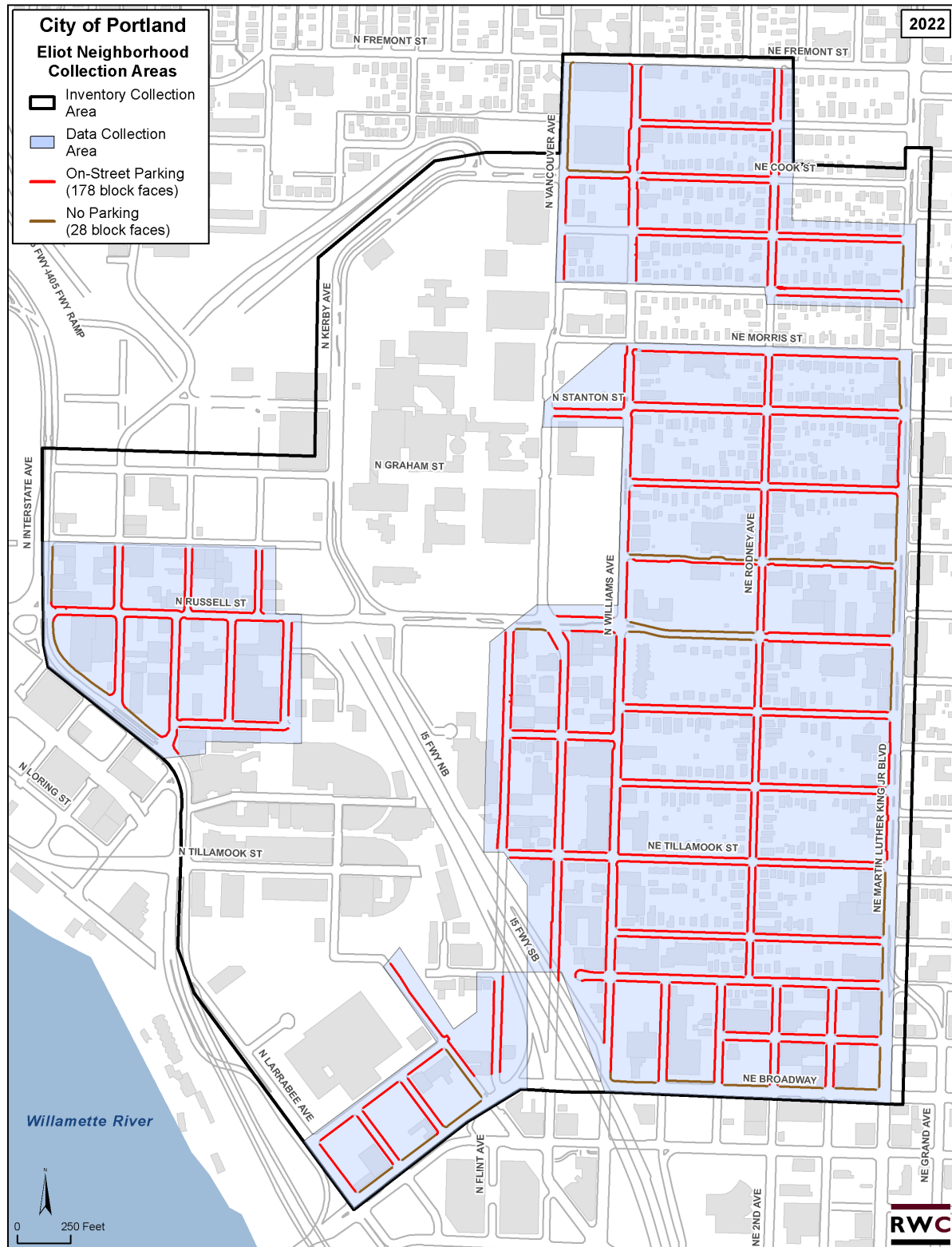
Legend:
Data Collection Area

Scale: 0 to 250 Feet

Willamette River

Streets shown include: N Fremont St, N Ivy St, N Cook St, N Monroe St, N Stanton St, N Graham St, N Knott St, N Commercial Ave, N Gantenbein Ave, N Kerby Ave, N Borthwick Ave, N Mississippi Ave, N Michigan Ave, N Interstate Ave, N Knott St, N Russell St, N Albina Ave, N Page St, N Thompson St, N Tillamook St, N Wheeler Pl, N Hancock St, N Dixon St, N LaPrairie Ave, N Ramsay Way, N Weidler St, N Flint Ave, N Vancouver Ave, N Williams Ave, N Loring St, N River St, N Unnamed Rd, N 405 Fwy-15 Fwy Ramp, N 15 Fwy-Greeley Ave Ramp, N 15 Fwy-NB, N 15 Fwy-SB, NE Fremont St, NE Ivy St, NE Cook St, NE Monroe St, NE Morris St, NE Stanton St, NE Graham St, NE Knott St, NE Rodney Ave, NE Sacramento St, NE Thompson St, NE Tillamook St, NE San Rafael St, NE Schuyler St, NE Broadway, NE Clackam, NE Grand Ave, NE 2nd Ave, and NE Weidler St.

Figure B: Study Sample Project Area



III. Inventory

Table 1 provides a detailed breakout of the 2022 surveyed inventory. The table denotes the larger inventory size (shown in orange) contrasted to the actual supply sampled for data collection (shown in blue).

- 2022 sampled 2,112 of the total 3,094 stalls in the neighborhood study area.
- The most common stall type in the neighborhood are No Limit stalls. These stalls allow unrestricted use (i.e., no time stay limit) and comprise 86.3% (2,671) of all stalls in the neighborhood. The number of No-Limit stalls sampled (1,794) comprise 84.9% of the sample, which is nearly identical to how these stalls are represented overall in the neighborhood.
- In general, the consultant endeavored to match the sampled supply to the larger supply as to how stall types are distributed in the neighborhood. As indicated, all represented sample stalls are within percentage points of their distribution in the larger inventory.

Table 1: Parking Inventory (Study Sample vs. Areawide)

Stall Type	All		Signed		Signed Or By Permit		Metered	
	Stalls	% Total	Stalls	% Total	Stalls	% Total	Stalls	% Total
On-Street Supply ¹	2,112 3,094	100.0% 100.0%	182 277	8.6% 9.0%	121 131	5.7% 4.2%	15 15	< 1% < 1%
5 Minute	7 9	< 1% < 1%	7 9	< 1% < 1%	- -	- -	- -	- -
10 Minute	5 7	< 1% < 1%	5 7	< 1% < 1%	- -	- -	- -	- -
15 Minute	14 15	< 1% < 1%	14 15	< 1% < 1%	- -	- -	- -	- -
20 Minute	2 2	< 1% < 1%	2 2	< 1% < 1%	- -	- -	- -	- -
30 Minute	17 32	< 1% 1.0%	17 32	< 1% 1.0%	- -	- -	- -	- -
1 Hour	55 65	2.6% 2.1%	55 65	2.6% 2.1%	- -	- -	- -	- -
2 Hour	200 273	9.5% 8.8%	73 136	3.5% 4.4%	121 131	5.7% 4.2%	6 6	< 1% < 1%
5 Hour	9 9	< 1% < 1%	- -	- -	- -	- -	9 9	< 1% < 1%
ADA accessible	9 11	< 1% < 1%	9 11	< 1% < 1%	- -	- -	- -	- -
No Limit ²	1,794 2,671	84.9% 86.3%	- -	- -	- -	- -	- -	- -

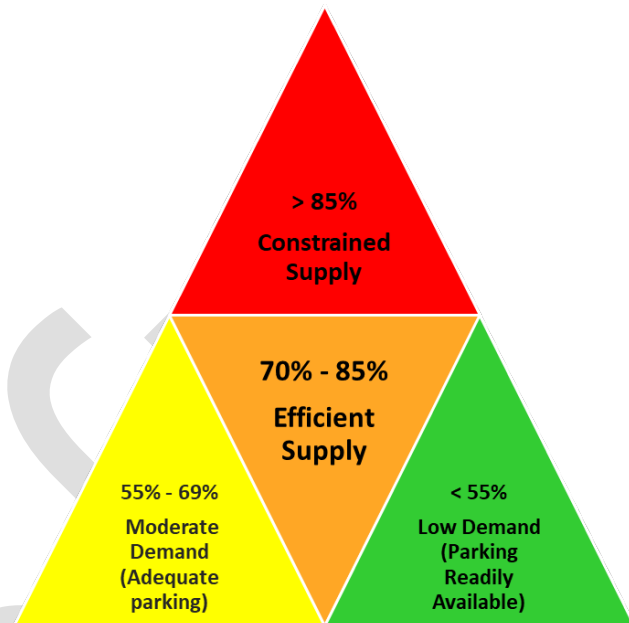
¹ This row does not total to 2,095 as 76 stalls are No Limit and cannot be distributed in stall type categories of metered, signed, or signed - or by permit. As such, they are only represented in the "All" column of this table.

² No Limit stalls are considered unrestricted and not signed nor metered.

IV. Measuring Performance

Parking becomes constrained when 85% or more of the available supply is occupied, particularly when the constrained period is of a sustained duration. This is illustrated in the graphic at right, within the red triangle. The figure provides a simple visual means to illustrate levels of performance within a supply of parking; at the parking system, district, sub-zone, lot, and/or block face level.

In a constrained system (red in the figure), finding an available spot is difficult. This can cause frustration and negatively affect perceptions of parking in an area. Continued constraint can make it difficult to absorb and attract new growth, or to manage fluctuations in demand—for example, seasonal or event-based spikes. In neighborhoods, sustained parking constraints can impact perceptions of livability and safety.



Occupancy rates of 55% or less (green) indicate a low demand for parking and empty supply is readily available. While availability may be high, this may also indicate a volume of traffic inadequate to support active and vital businesses in corridors, for instance, adjacent to neighborhoods. Occupancy rates between the upper and lower thresholds indicate either moderate (55% to 69%) or efficient (70% to 85%) use.

An efficient supply of parking shows active use but little constraint that would create difficulty for users. Efficient use supports neighborhood vitality, sustainable ground-level businesses and business growth, attractiveness of an area to visitors, and can respond to routine fluctuations.

This analysis of parking in the Eliot Neighborhood uses these categories to evaluate the performance of the system.

V. Data Collection

All daytime data was collected on Tuesday, October 25th, 2022. Additionally, an occupancy count of all sample areas took place between 1:00 and 4:00 AM on Wednesday, October 26th, 2022 to gauge use that would indicate primarily residential vehicles.³ The weather was moderate (57 degrees), with intermittent showers in the late afternoon/evening.

VI. Occupancy

Figure C identifies differences in hourly parking occupancies across the study day. Note that the figure has banded colors representing performance measurements described in **Section IV** above.

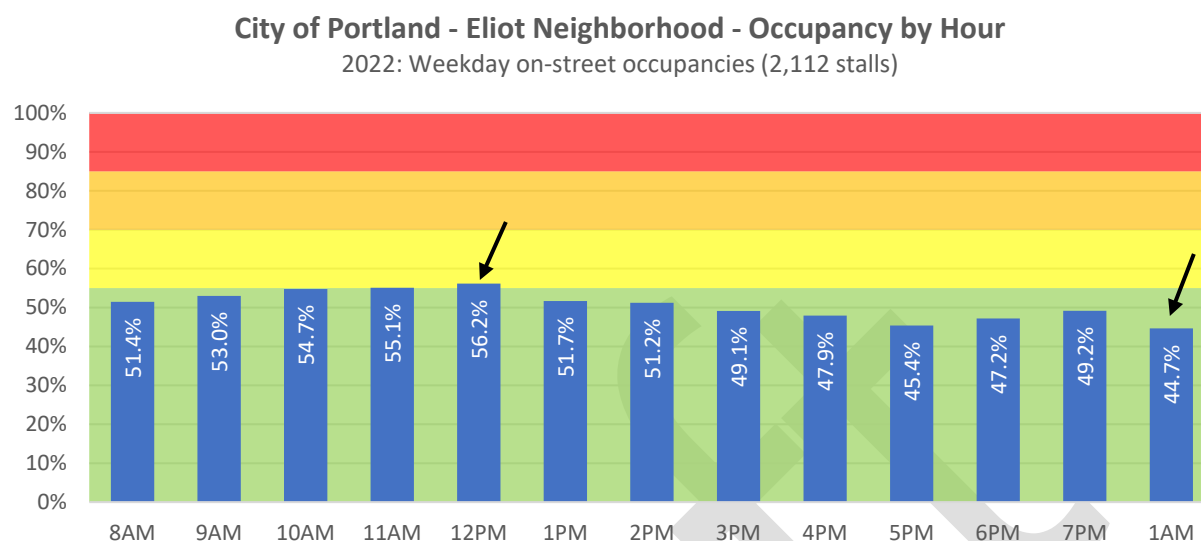
Figure D (page 12) provides a block-face level “heat map” view of the 2022 peak hour (12:00 PM – 1:00 PM) for the entire sampled study area.

- The 2022 peak hour occurs at 12:00 PM when occupancy reaches 56.2%, reaching yellow in the performance band (moderate use).
- At the peak hour 1,187 vehicles are parked, leaving 925 stalls empty.
- The residential late evening peak (between 1:00 AM and 4:00 AM) reaches 44.7%; this is generally low overall use (within the green band), but some block faces are constrained.
- The overall hourly average occupancy is 51.0%, indicating low use across the operating day.

From a combined supply perspective, parking demand in the neighborhood during the daytime hours, as measured by occupancy is low and largely unconstrained. Peak occupancy demand at the block face level is discussed in **Section VIII**, which shows a small number of residential block faces with constraints during the overnight hours.

³ In the parking industry, peak hour parking is a commonly sought metric. For commercial areas, studies have shown that high employee parking demand usually “peaks” between the hours of 7:00 AM and 9:00 AM as employees reach their worksites and begin their weekday workday. Commercial retail/visitor peak hours generally fall between 11:00 AM and 12:00 PM, reflecting the highest point of visitor traffic. Residential parking occupancy (demand) has been shown to fall in the hours between 1:00 and 4:00 AM, when all other forms of traffic in an area (visitor, employee) have left an area (neighborhood) leaving mostly residential vehicles home from any other activities.

Figure C: On-Street Occupancy – Hourly Count



VII. Utilization

Table 2 provides a breakout of key utilization metrics by stall type. These include peak hour, peak occupancy, empty stalls, average length of stay and violation rate (where applicable). This allows for a look at how individual stall types perform against the larger study area average.

Key findings include:

- Peak hour occupancy for all stalls occurs at 12:00 PM, reaching 56.2%.
- As noted previously, the largest supply of parking is No Limit (with a peak occupancy of 57% beginning at 10:00 AM). The highest peak occupancy of a stall type with a meaningful supply of spaces—more than 50 stalls—are in 1 Hour (Signed) and 2 Hour (Signed or by Permit). These stalls reach 60.4% and 60.3%, respectively (outlined in brown on the table). Though only a small percentage of the total supply, these stalls do run somewhat higher than the neighborhood average and a little higher than No Limit stalls. That said, performance is still moderate (yellow).
- The average length of stay for a user in the neighborhood is 4 hours and 31 minutes. This is not surprising given the high percentage of No Limit stalls and residential parking need in the study area.
- In timed stalls, the average length of stay ranges from 2 hours and 20 minutes in 2 Hour (Metered) stalls to 3 hours and 56 minutes in 2 Hour (Signed) stalls.

- The overall rate of violation (i.e., non-permit vehicles exceeding the posted time stay) is 42.6%.⁴ This is high by industry standards that would target a rate of between 7% and 9%. However, given the low to moderate occupancies in the neighborhood, the high violation rate does not likely create access issues for users seeking a parking stall under current conditions.

Table 2: On-Street Parking Utilization by Time Stay

Stall Type	Stalls	Peak Hour	Peak Occupancy	Stalls Empty	Average Length of Stay ⁵	Violation Rate
On-Street Supply Studied	2,112	12:00 PM – 1:00 PM	56.2%	925	4:31 hours	42.6%
5 Minute (Signed)	7	3:00 PM – 4:00 PM	42.9%	4	-	0%
10 Minute (Signed)	5	multiple	80.0%	1	-	50.0%
15 Minute (Signed)	14	multiple	42.9%	8	-	33.3%
20 Minute (Signed)	2	-	0%	2	-	-
30 Minute (Signed)	17	2:00 PM – 3:00 PM	64.7%	6	-	60.9%
1 Hour (Signed)	55	12:00 PM – 1:00 PM	60.4%	21	2:24 hours	57.8%
2 Hour (Signed)	73	11:00 AM – 12:00 PM	49.3%	35	3:56 hours	56.5%
2 Hour (Signed OBP)	121	12:00 PM – 1:00 PM	60.3%	48	2:40 hours	31.0%
2 Hour (Metered)	6	multiple	16.7%	5	2:20 hours	33.3%
5 Hour (Metered)	9	multiple	11.1%	8	3:30 hours	0%
ADA accessible	9	multiple	66.7%	3	4:33 hours	27.3%
No Limit (Unrestricted)	1,794	10:00 AM – 11:00 AM	57.0%	760	4:52 hours	-

⁴ "Violation" rates are a measurement of observed vehicles parking longer than the posted time limit (for all non-permit vehicles). They are not a reflection of citations issued.

⁵ Average length of stay is filtered to show non-permit users only (ADA accessible and No Limit exempt) during enforcement hours (No Limit and On-Street Supply exempt).

Table 3 provides a summary of key metrics by type of user (all, non-permit, and permit) across several utilization metrics.

Table 3: Other Characteristics of Use

Use Characteristics	All Users
Length of Stay	4:31 hours
Vehicle Trips	2,767
Vehicle Hours Parked	12,478
Turnover Rate	2.22

- Using license plate data, the number of unique vehicles that enter the district and park on street within the study area during the study day can be quantified. This becomes a reflection of traffic and user volume at the curb (parking in front of a residence or street level businesses).
- In 2022, 12,478 parked vehicle hours were recorded across the survey day. These hours were associated with 2,767 unique license plates.
- The turnover rate of 2.22 is considered low and suggests low overall traffic throughout the day. Higher rates of turnover (usually targeted at 5.0) is a better measure of commercial/retail parking, with the higher rate translating to increased visitor trips.⁶ As such, the 2.22 turnover rate is not unexpected, reflecting a use pattern that is very common in an area with a high percentage of unregulated stalls (i.e., No Limit is 85% of all stalls in Eliot)

VIII. Heat Map Assessment

The figures that follow provide a block level “heat map” view of the peak hour for on-street parking for the 2022 survey day.⁷ Heat maps display occupancy by color with red indicating occupancies of 85% or more (constrained). Intensity of use then decreases from red, to orange, to yellow, to green; this correlates to performance categories described in **Section IV**.

Heat maps are also useful in observing parking activity at the site or block face level. This allows for identification of areas of constraint that are not evidenced in an overall combined system use format as provided in **Figure C** and **Table 2**, above. As such, even in low use environments, constraints can occur in specific locations within a study zone.

⁶ Turnover is a factor of time stay limits. For example, a 2 Hour time stay suggests that over a 10 hour “typical day,” the system is designed to turnover five types (10 hours / 2 hour time stay). The closer to the typical day design (and higher) suggests robust vehicle activity. This is not necessarily the goal for parking in a neighborhood but should be taken into account for commercial corridors/streets that abut or move through a neighborhood, to understand the balance between business and residential parking need.

⁷ Heat maps for each hour surveyed, for the on-street supply, are available from the City of Portland.

Peak Hour Occupancy – Heat Maps

There are a total of 310 city block faces in the entire study zone. A total of 250 allow parking; 60 block faces do not. Within the **sampled supply**, data was collected at 206 block faces; 178 allow parking; 28 block faces do not.

Figure D (below) illustrates the peak hour for the 2022 “**typical day**” on-street survey. **Figure E** illustrates occupancy findings for the **late evening (1:00 AM – 4:00 AM) “residential”** on-street survey.

Typical Day (Figure D)

- 1,187 vehicles parked at the 12:00 PM peak hour (56.2% occupancy).
- As the heat map indicates, the **majority of block faces in the neighborhood are low (green) to moderate (yellow) use**. This is particularly evident on block faces east of N Williams Avenue.
- There are three **small clusters of constrained block faces** (indicated by blue circles on the map).
- In these small clusters, **parking is generally available within a short walk** from any red block face.

Late Evening – Residential (Figure E)

- 989 vehicles parked in the neighborhood in the late evening hour (44.7% occupancy). This is only 198 vehicles less than the typical day peak hour, likely **indicating a transition to residential vehicles from a more diverse mix of commercial/residential vehicles during the typical day**.
- Use patterns are similar to the typical day, with **low/moderate use at most block faces**.
- There are three small clusters of constrained block faces during the residential peak hour (blue circles).
- Though small in the total number of block faces affected, parking **could feel inconvenient in these clustered areas** because immediately adjacent block faces are also constrained. This is often a particular concern of residents wanting their vehicles as close to their residence as possible.
- During the overnight hours, **the cause of constraints at the block face level is demand by residential vehicles**, not out of neighborhood users.

Figure D: 2022 On-Street Peak Hour Occupancy Heat Map

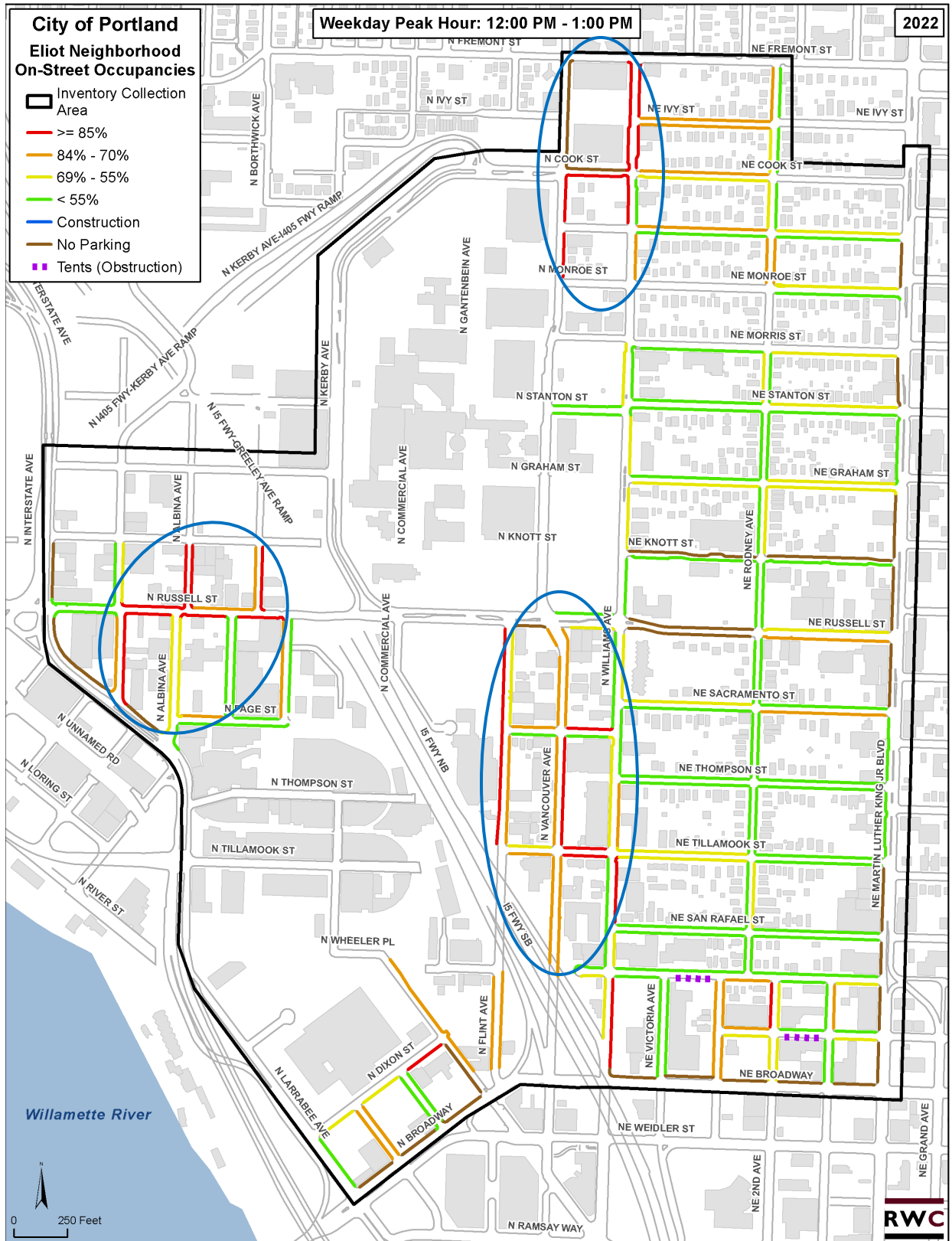
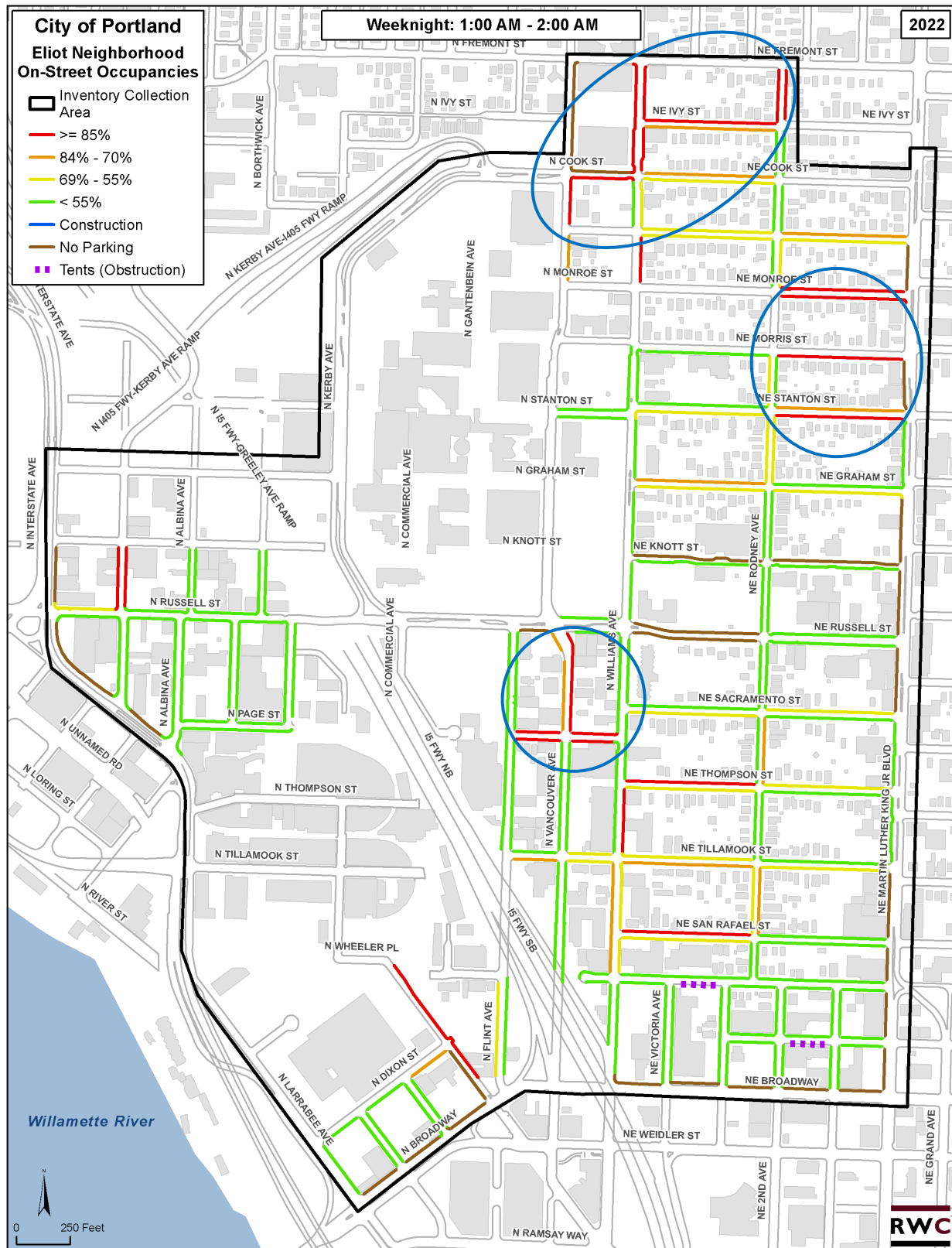


Figure E: 2022 On-Street Night Count Occupancy Heat Map



IX. Summary and Next Steps

This assessment of parking use and performance in the Eliot Neighborhood is the first ever comprehensive study of parking in this important Portland neighborhood. In this respect, this study should be seen as a baseline of information from which new and strategic decision making can be made by PBOT and Eliot Neighborhood stakeholders to evaluate beneficial solutions for parking management in Eliot. The goal being to use good data to craft strategies tailored to Eliot's unique dynamics and need.

Overall, the study found that during the daytime hours, use of neighborhood parking is low to moderate. No significant constraints were identified within the combined supply of parking or at the level of individual block faces. Where constrained block faces, or clusters of block faces, indicated a constraint, empty stalls are generally available and close by.

As regards impacts of parking to residents, the late-night occupancy count conducted for the neighborhood for the most part mirrored findings found during the course of a typical weekday. In the late evening residential peak, parking use is low (only 44.7% occupied). However, though small in the total number of block faces affected, peak hour parking in three small residential clusters could feel inconvenient to residents because immediately adjacent block faces are also constrained. This is often cited reasonable concern of residents wanting their vehicles as close to their residence as possible.

Also, and importantly, during the overnight hours, the cause of the constraint at those identified block faces is demand by residential vehicles, not by vehicles from out of neighborhood users. This is important given that residential permit programs are traditionally designed to control occupancy by non-residents; an issue for PBOT and the Eliot Parking Task Force to consider.

Finally, occupancy data specifically related to vehicle occupancies during events has not yet been examined or correlated to the data collected here. That type of analysis will be considered.

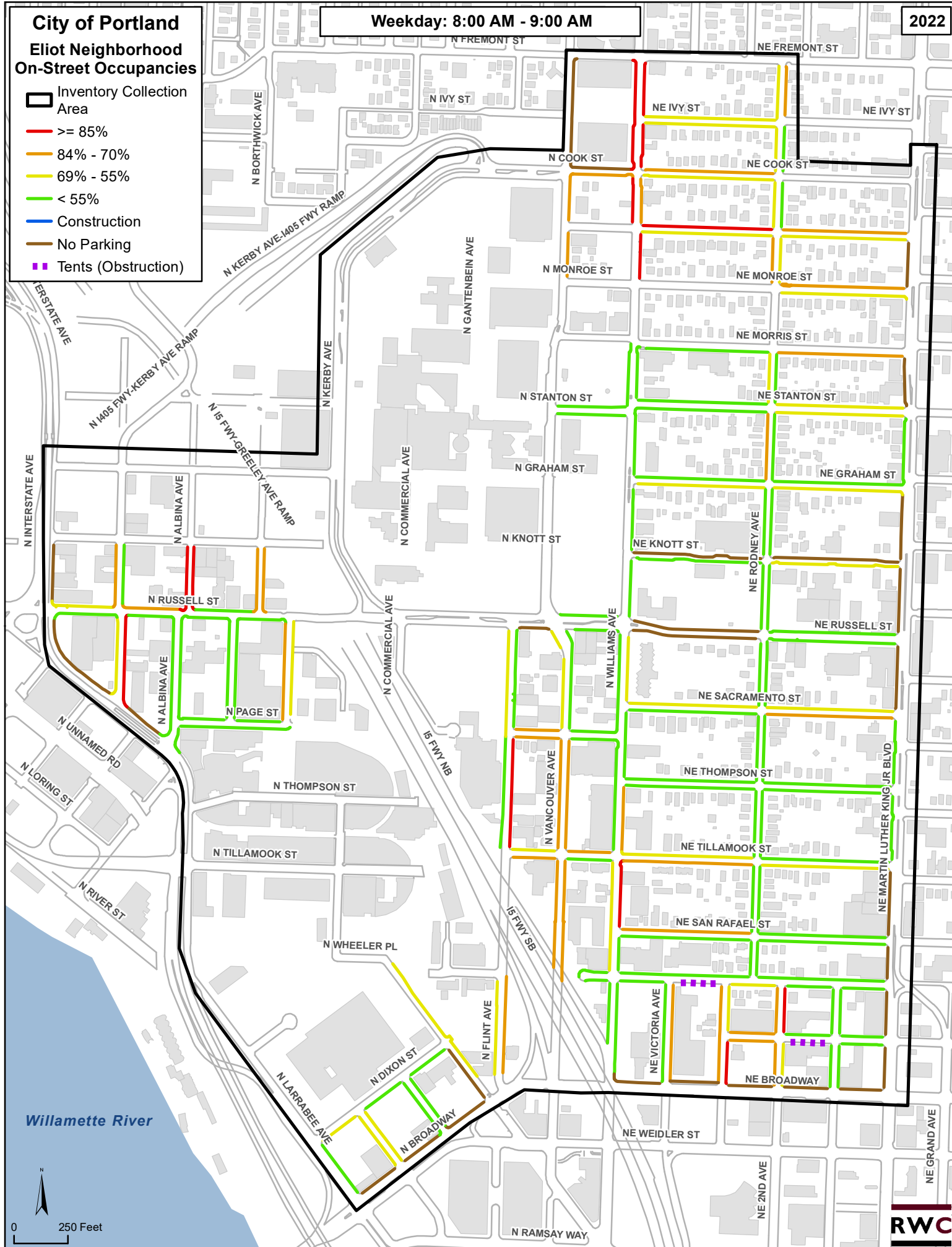
In summary, this data provided here is intended as a first step in the Eliot Parking Assessment Study process; providing an informative resource to PBOT and the Eliot Parking Task Force.

City of Portland
Eliot Neighborhood
On-Street Occupancies

Weekday: 8:00 AM - 9:00 AM

2022

- Inventory Collection Area
- $\geq 85\%$
 - $84\% - 70\%$
 - $69\% - 55\%$
 - $< 55\%$
 - Construction
 - No Parking
 - Tents (Obstruction)

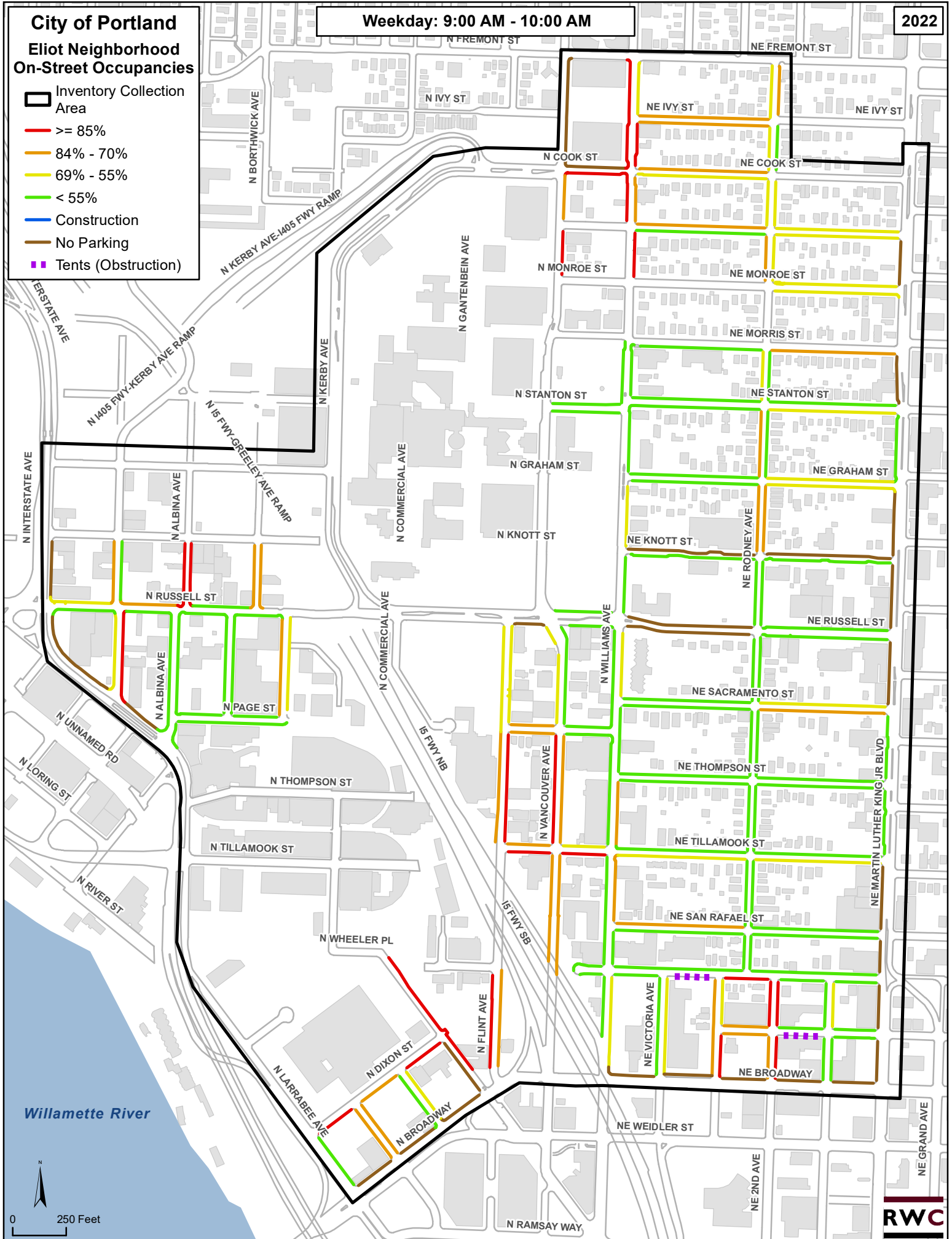


City of Portland
Eliot Neighborhood
On-Street Occupancies

Weekday: 9:00 AM - 10:00 AM

2022

- Inventory Collection Area
- $\geq 85\%$
 - $84\% - 70\%$
 - $69\% - 55\%$
 - $< 55\%$
 - Construction
 - No Parking
 - Tents (Obstruction)

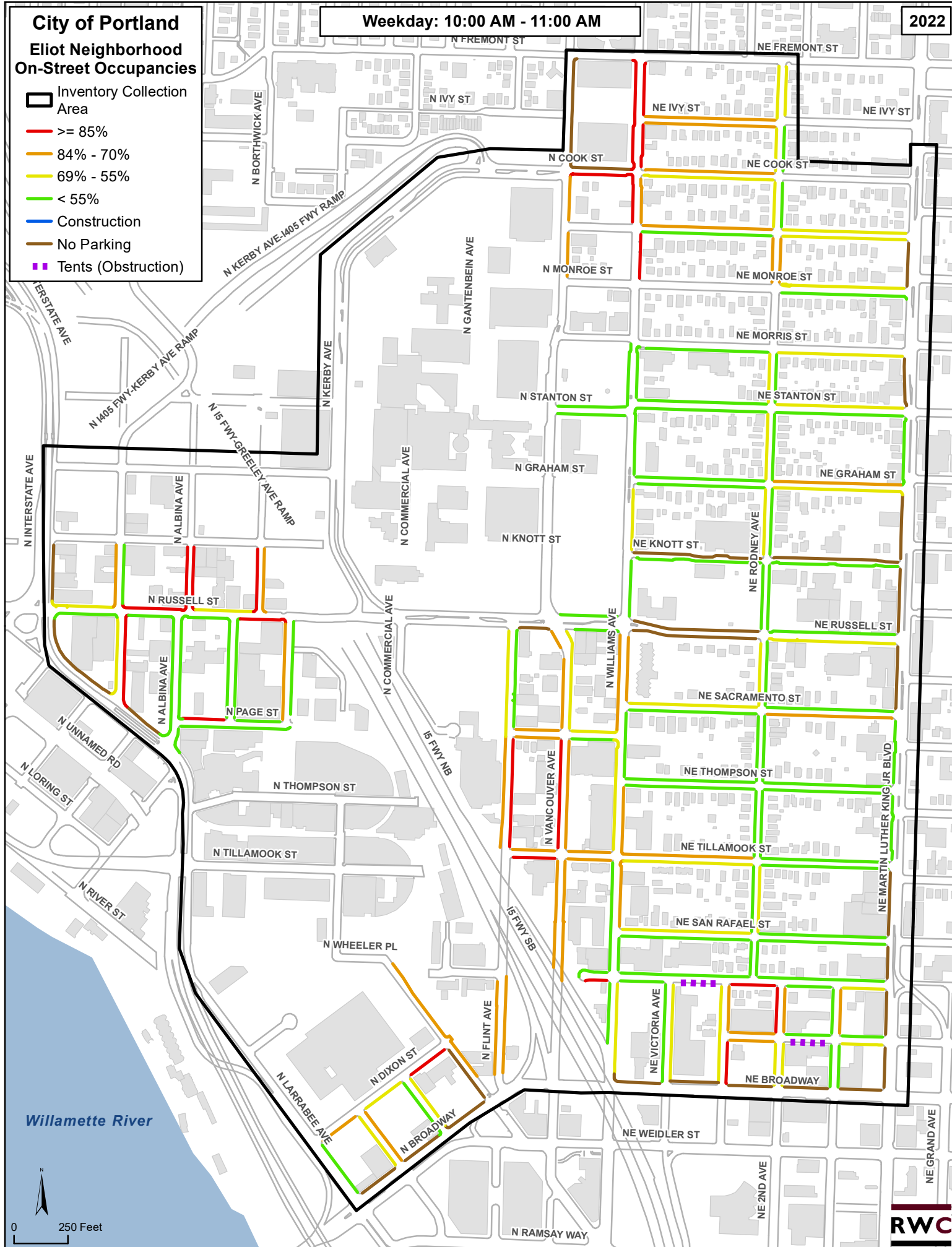


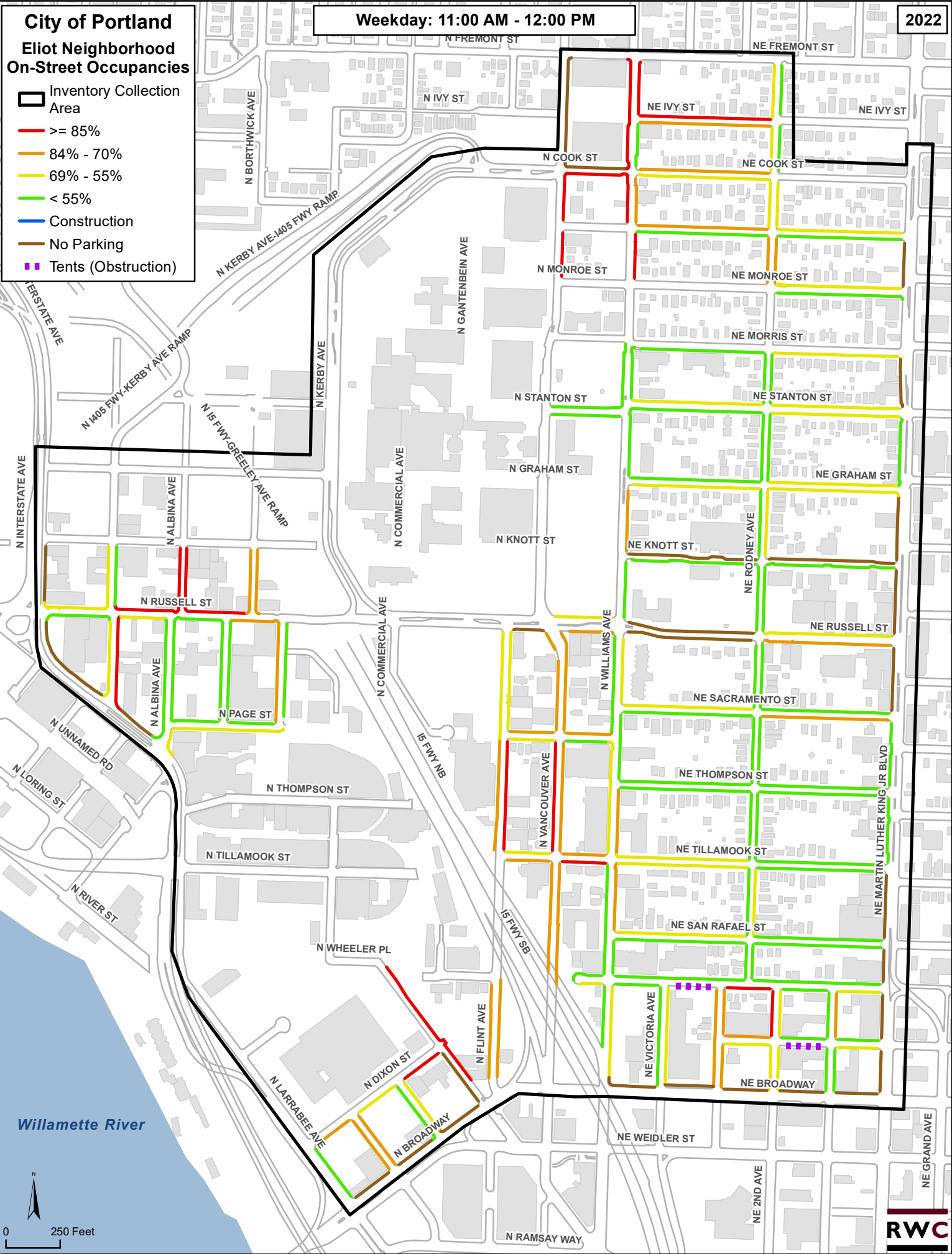
City of Portland
Eliot Neighborhood
On-Street Occupancies

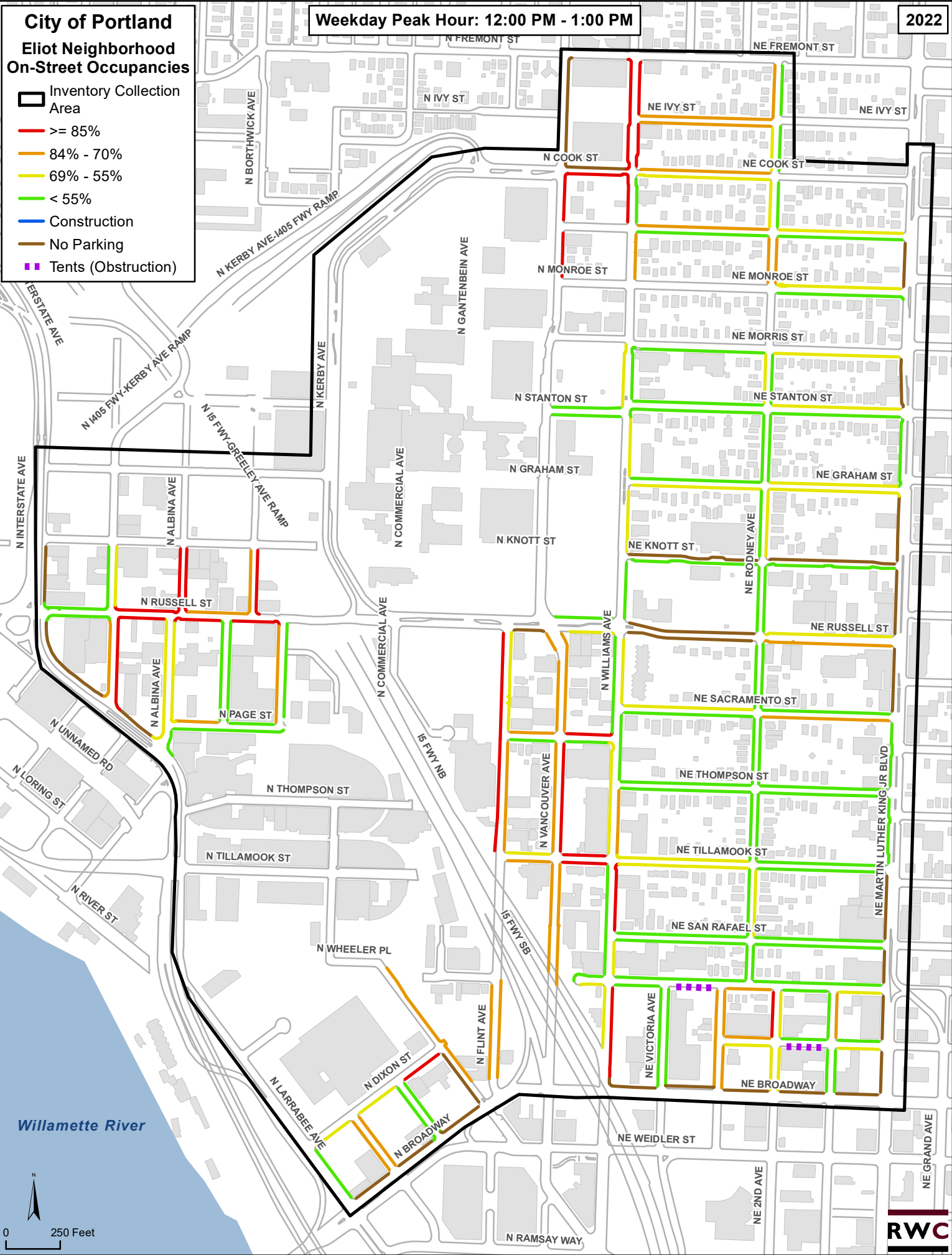
Weekday: 10:00 AM - 11:00 AM

2022

- Inventory Collection Area
- $\geq 85\%$
 - $84\% - 70\%$
 - $69\% - 55\%$
 - $< 55\%$
 - Construction
 - No Parking
 - Tents (Obstruction)





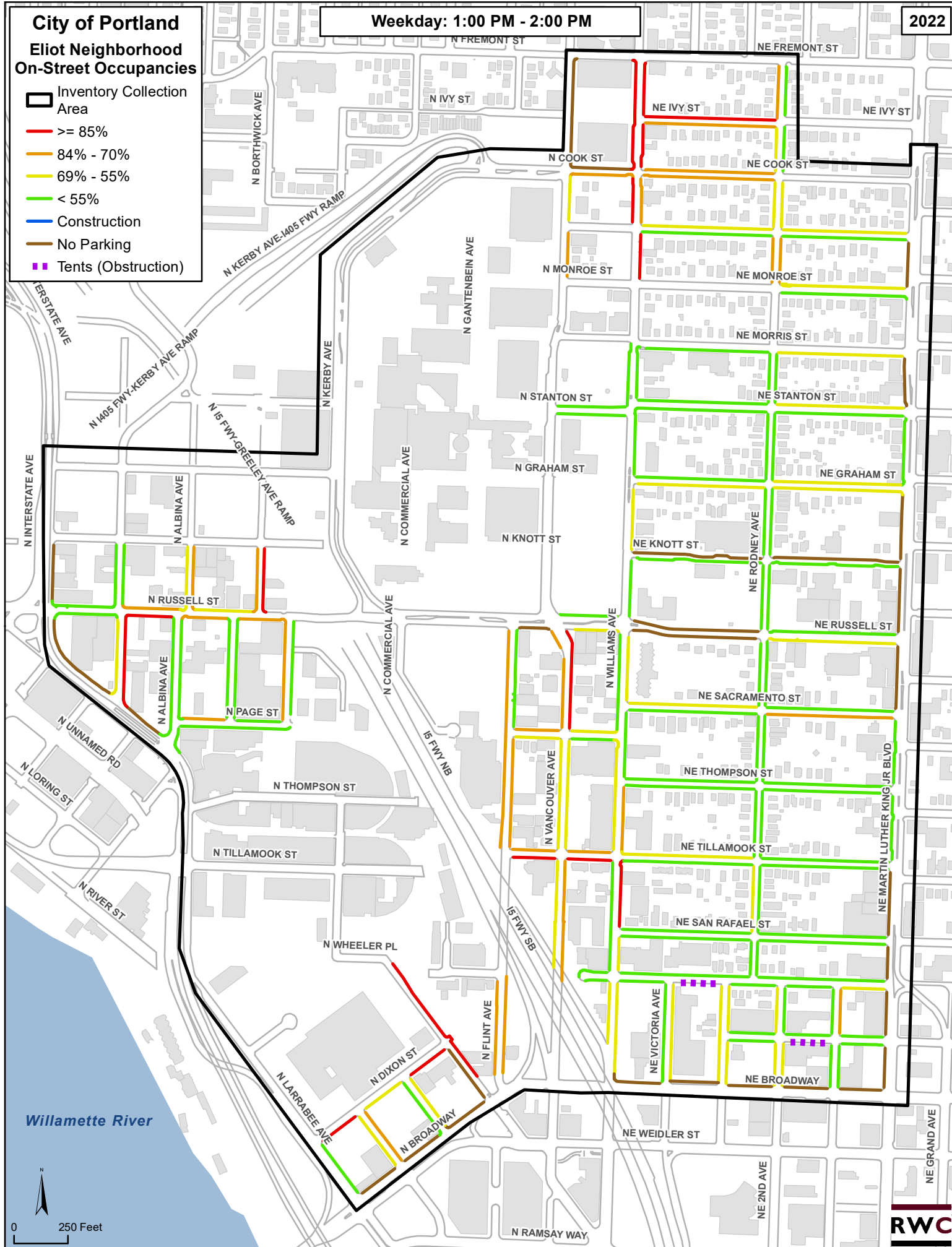


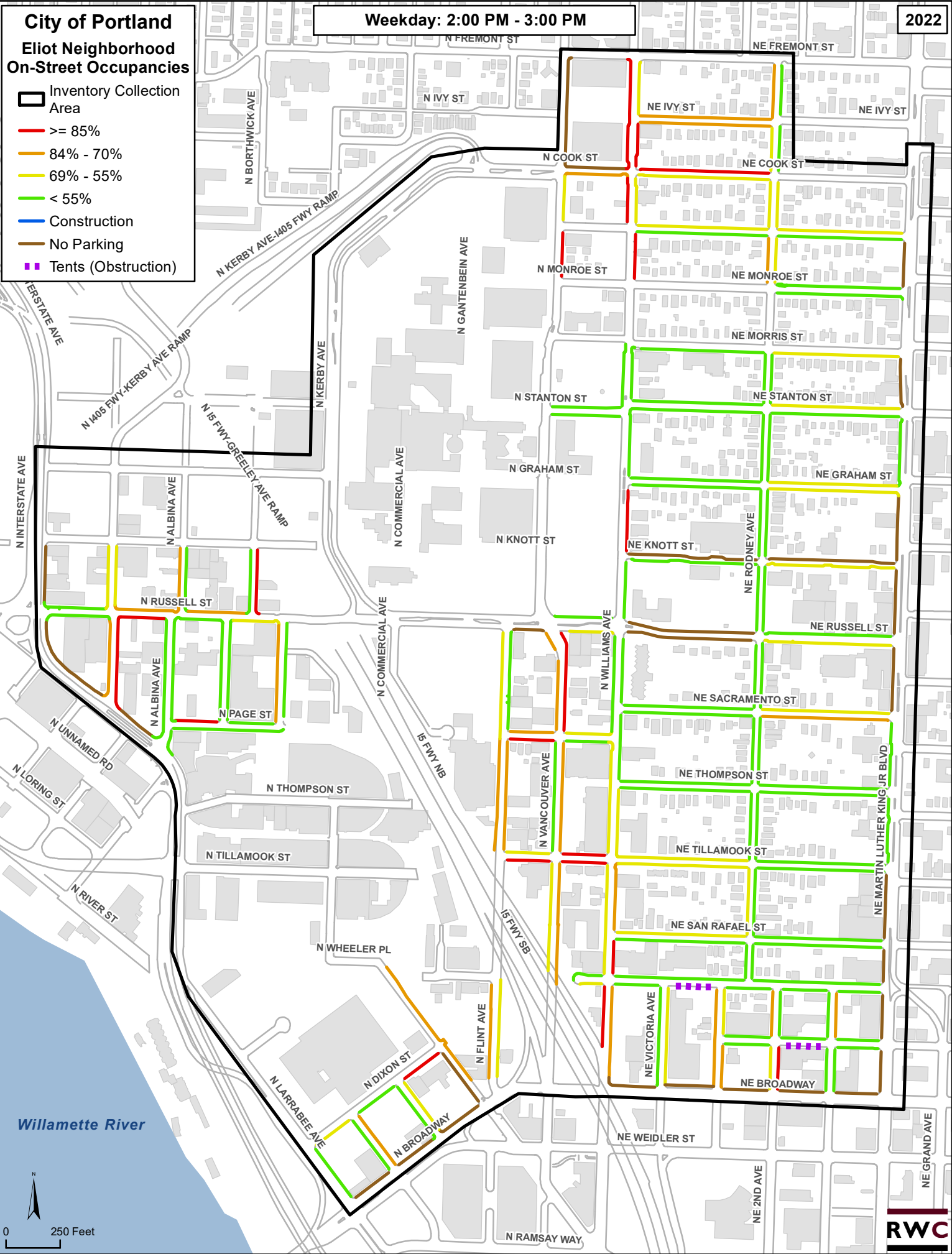
City of Portland
Eliot Neighborhood
On-Street Occupancies

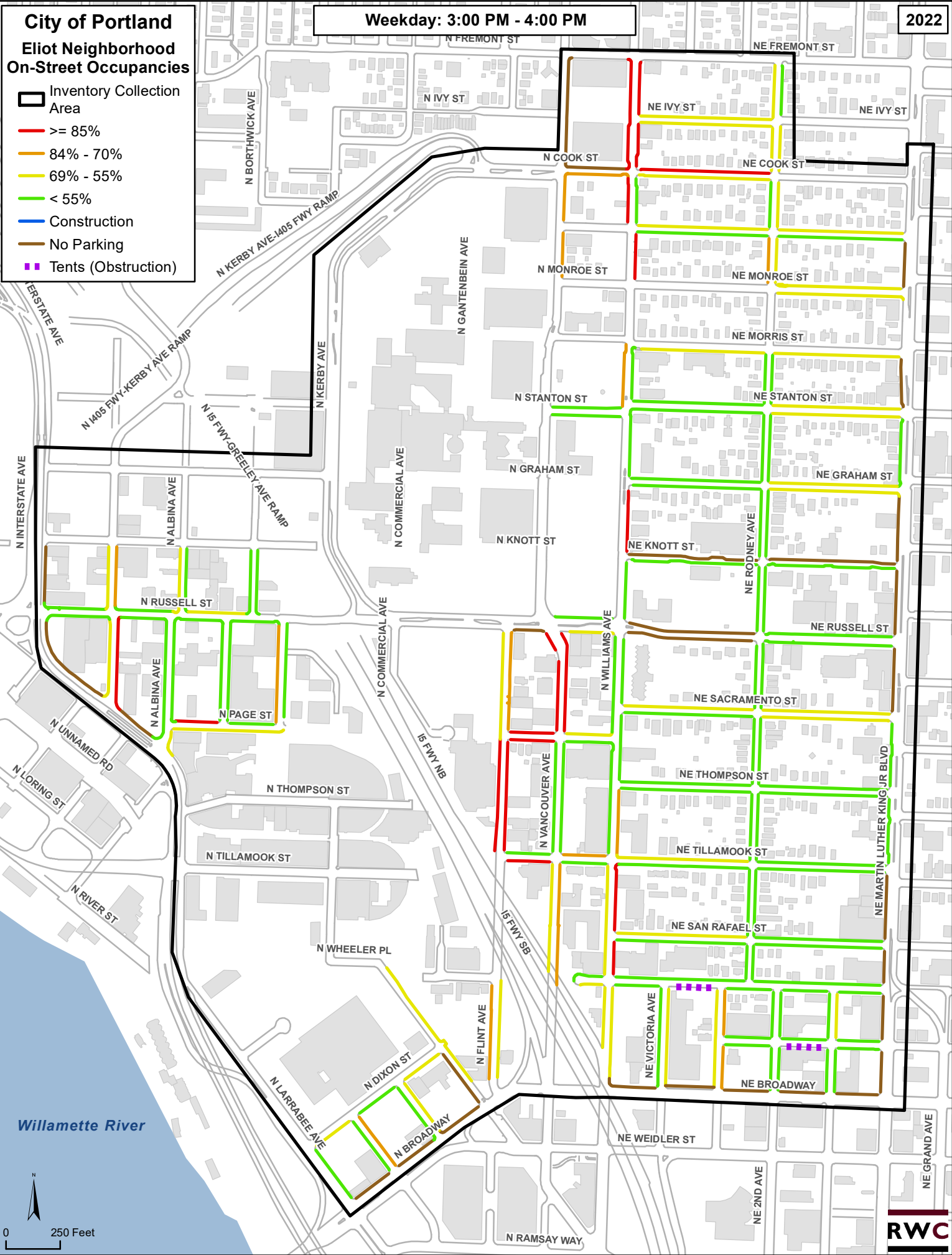
Weekday: 1:00 PM - 2:00 PM

2022

- Inventory Collection Area
- $\geq 85\%$
 - $84\% - 70\%$
 - $69\% - 55\%$
 - $< 55\%$
 - Construction
 - No Parking
 - Tents (Obstruction)





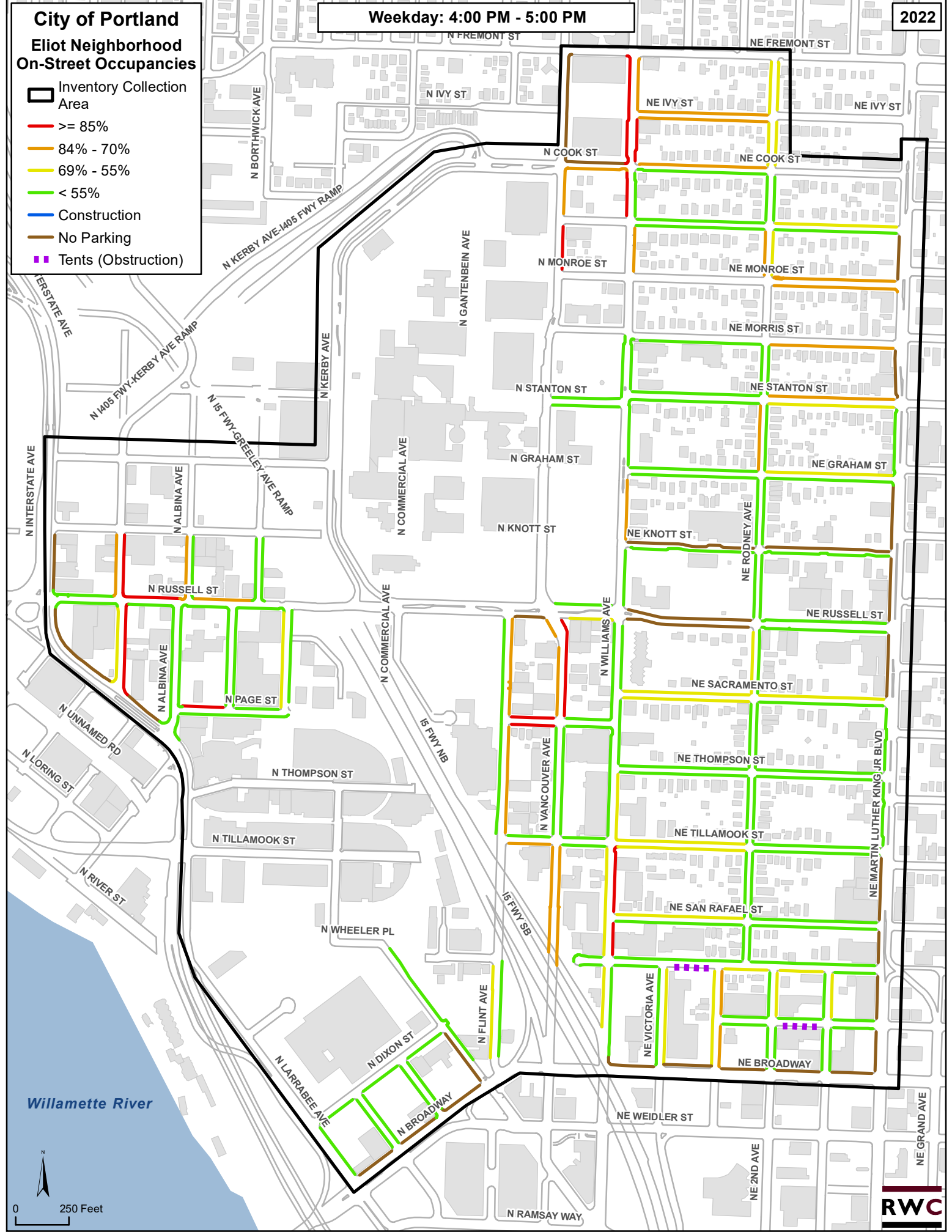


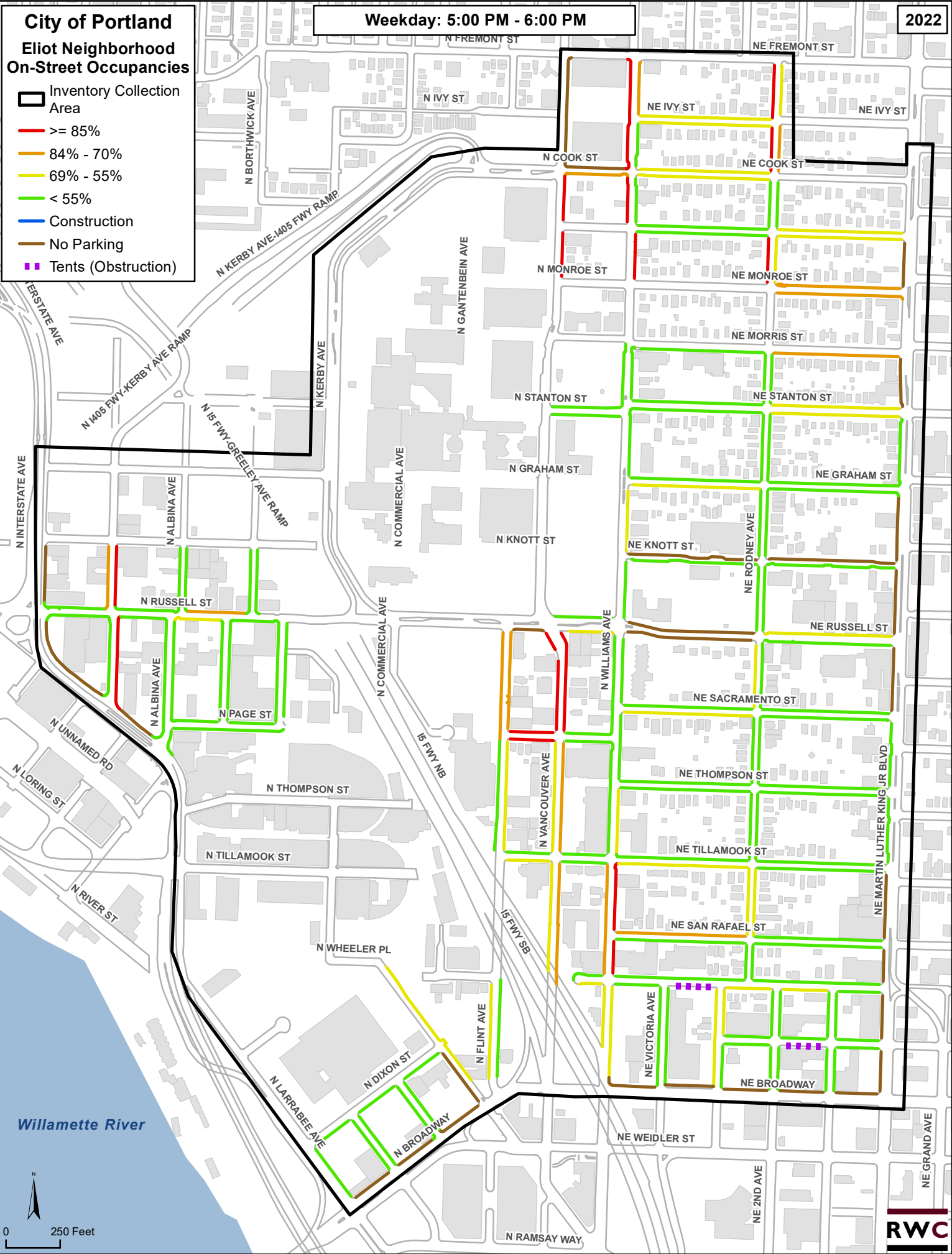
City of Portland
Eliot Neighborhood
On-Street Occupancies

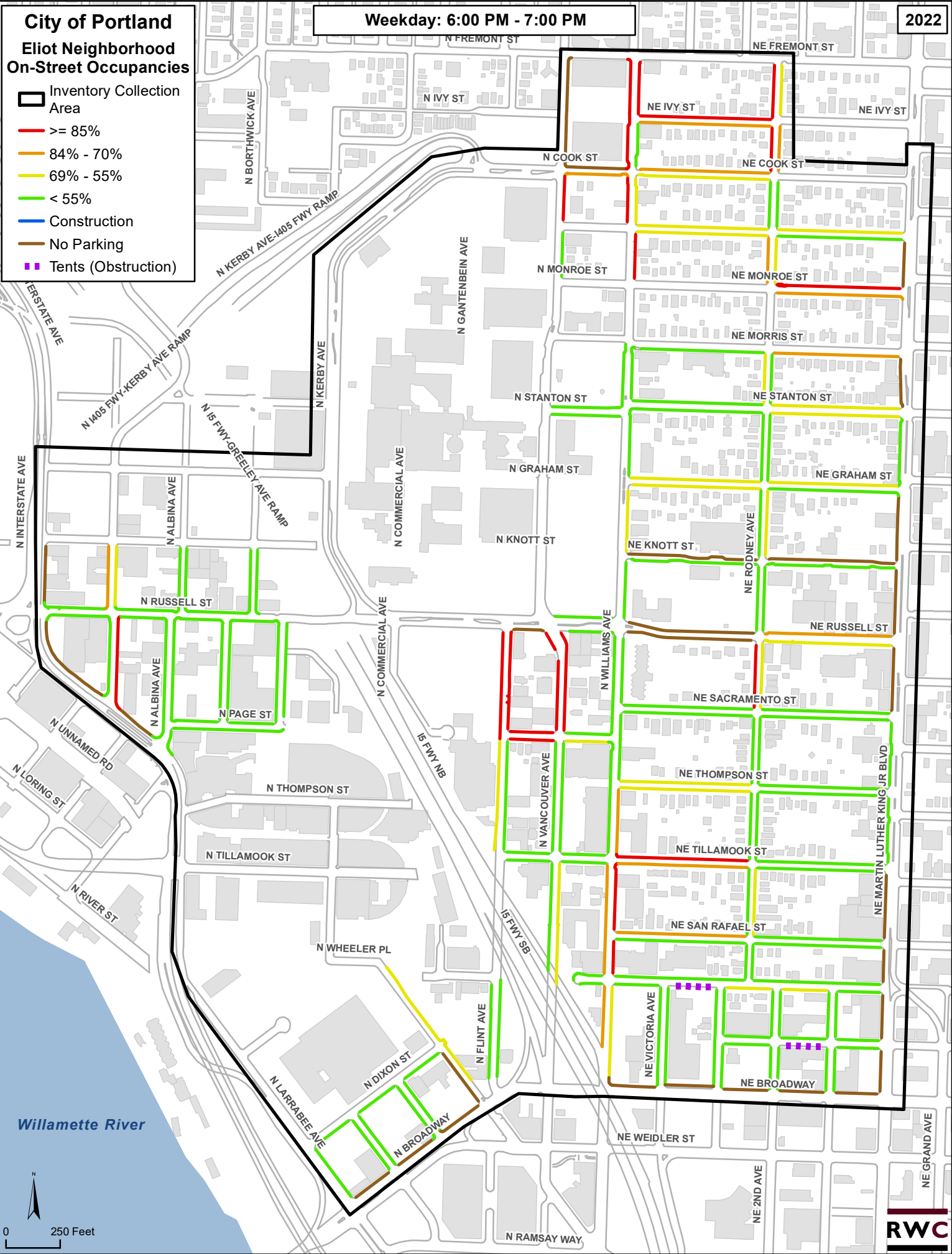
- Inventory Collection Area
- $\geq 85\%$
- 84% - 70%
- 69% - 55%
- $< 55\%$
- Construction
- No Parking
- Tents (Obstruction)

Weekday: 4:00 PM - 5:00 PM

2022





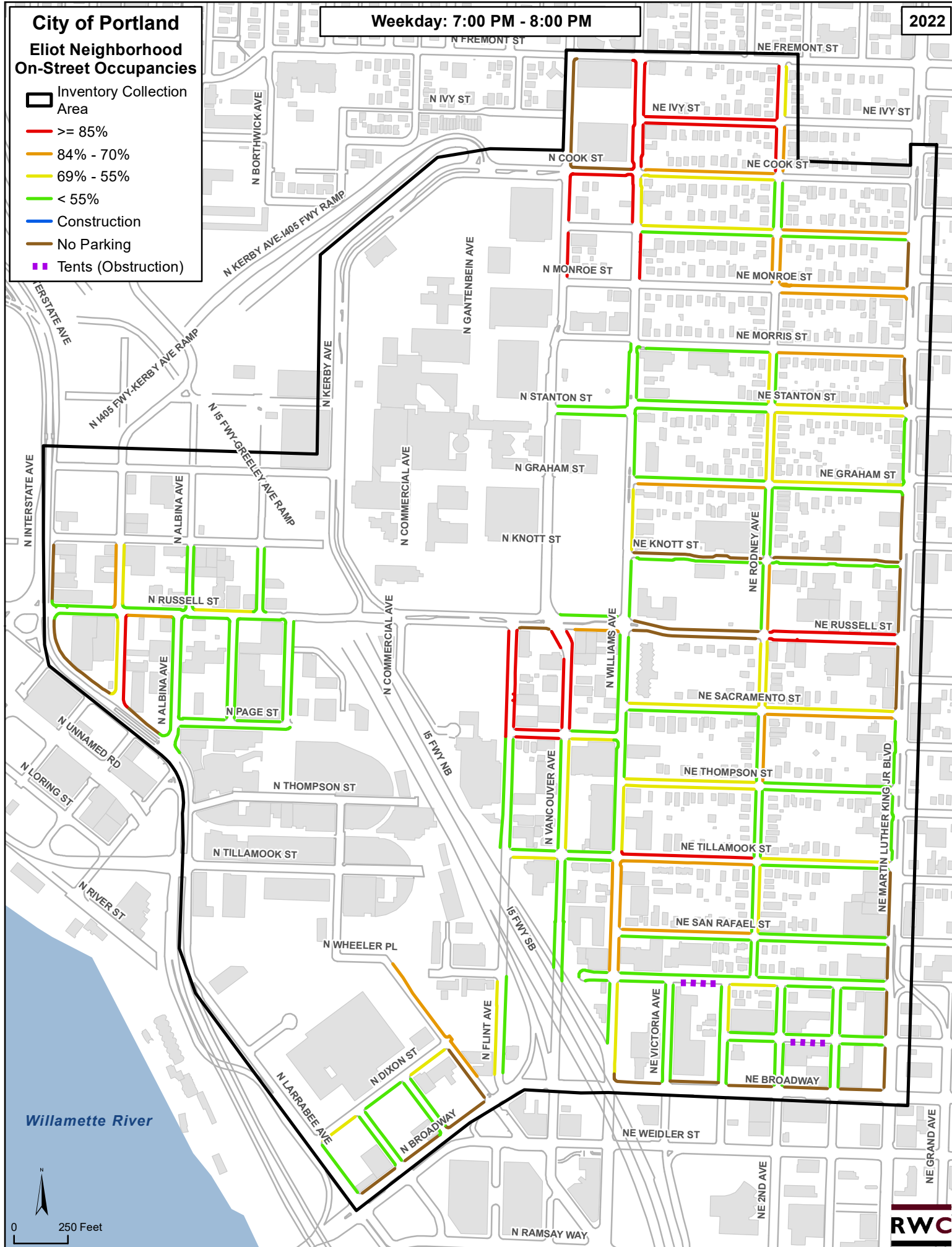


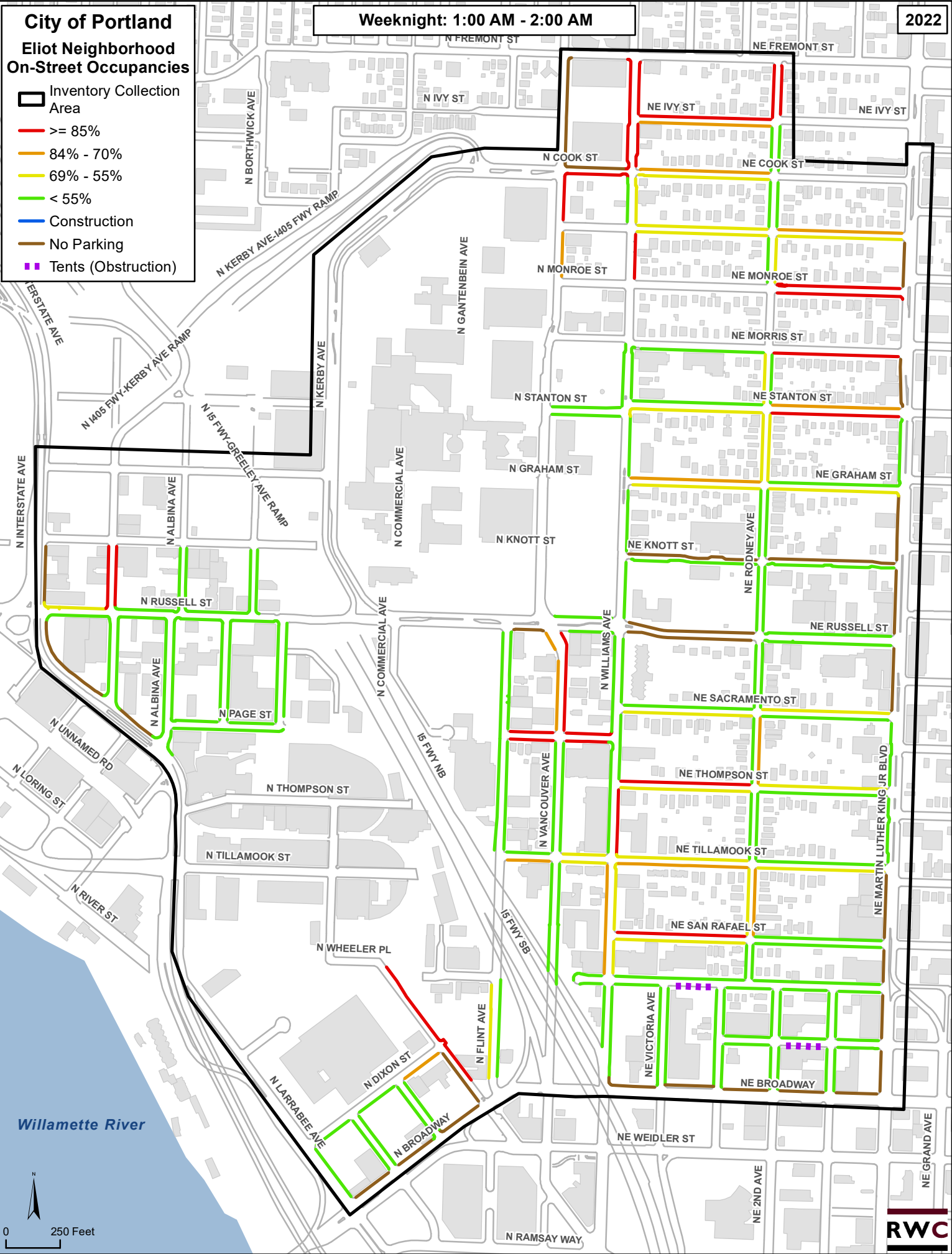
City of Portland
Eliot Neighborhood
On-Street Occupancies

Weekday: 7:00 PM - 8:00 PM

2022

- Inventory Collection Area
- $\geq 85\%$
 - $84\% - 70\%$
 - $69\% - 55\%$
 - $< 55\%$
 - Construction
 - No Parking
 - Tents (Obstruction)





Parking Permit Program Case Studies

January 20, 2023

Introduction

The Eliot Task Force has identified four initial goals to consider when developing any parking permit program:

- Discourage **event goers** from parking on-street.
- Prioritize **residents**.
- Consider the needs of small businesses and short-term parking for **customers** and provide appropriate time-limits near businesses.
- Do no harm. Consider the history of neighborhood, the **needs of those who visit** and ensure that they still have access to family and friends and **low-income residents** are not disproportionately impacted.

Residential parking permit programs generally fall into one or more of the following categories:

- **Traditional Residential Parking Permit Programs:** These programs are typically enforced during daytime hours (e.g. 8 AM – 6 PM), and are designed to reduce long-term parking in neighborhoods by non-residents (such as employees or long-term customers/visitors). These programs often allow parking for a limited amount of time to serve the short-term parking needs of customers, visitors, and residential guests. Most Portland Area Parking Permit Programs (APPPs) fall within this category.
- **Venue-Targeted Programs:** These programs are typically enforced during evening hours when events typically take place to minimize parking spillover into neighborhoods from event goers. Many of these programs are developed as extensions of traditional permit programs, with longer enforcement hours. The time stays are often calibrated to prevent the typical parking needs of event goers (2+ hours) while continuing to serve the short-term needs of customers, visitors, and residential guests. For example, Portland's Zone A and Zone S both have 90 minute time limits during evening hours to discourage parking by event goers.
- **Overnight Programs:** Some cities have all day and/or overnight permit programs, restricting overnight parking to residents and their guests only.

In general, regardless of the program type, permit programs that come with an annual fee tend to have the effect of encouraging residents to park off-street when possible (to avoid the need to purchase a permit), reducing on-street demand by both residents and non-residents.

Notably, addressing long-term daytime parking demand from non-residents in neighborhoods (e.g. employees and long-term customers/visitors) is a key issue that should be monitored over time. However, the data suggests that impacts from employee parking on residential streets in Eliot are minimal at this point and addressing this issue has not yet emerged as a key goal for the permit program.

The common theme among the following case studies is that they all include evening enforcement hours (between 6 PM and 12 AM), making them suitable to address event demand. There are a variety of options to consider when implementing a permit program with evening enforcement, and each of these cities have structured their programs to address the unique needs of each neighborhood.

Case Studies

PERMIT ONLY: ALL HOURS ALL DAYS

Wrigley Field, Chicago, IL

- **Signage:** Permit Parking Only
- **Days/Hours:** All Hours All Days
- **Permit Type:** Sticker
- **Enhanced Penalty:** Tow Zone during Games 5-10 PM (otherwise, ticket only)
- **Permit Costs:** \$120/year (\$95 City + \$25 Permit)¹
- **Guest Passes:** \$0.50/Day²
- **Guest Pass Type:** Paper



PERMIT ONLY: EVENT DAYS ONLY

California Memorial Stadium (UC Berkeley), Berkeley, CA

- **Signage:** Permit Parking Only (Game Days) / 2 Hour or By Permit (All Other Days)
- **Days/Hours:** 8 AM – 11 PM (Game Days)
8 AM – 7 PM (All Other Days)
- **Permit Type:** License Plate
- **Enhanced Penalty:** Fines more than double during events
- **Permit Costs:** \$66/year
- **Cap:** Up to 3 per Address (waiver/fee available)
- **Guest Passes:** \$3/day (20 max per year)
\$34/14-day period (3 max per year)
- **Guest Pass Type:** License Plate or Hangtag



¹ In this Neighborhood, a City sticker is required for all vehicles (\$95); In permit areas, there is an additional \$25 charge.

² Guest Passes not currently limited during games but have been in the past.

PERMIT ONLY: EVENINGS

Climate Pledge Arena, Seattle, WA

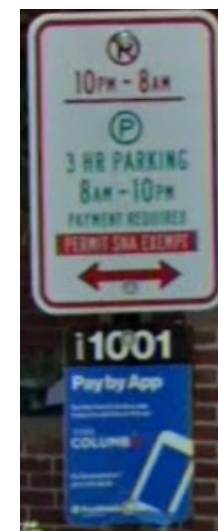
- **Sign Types:** 2-Hour Parking (Except by Permit): 7 AM – 6 PM
No Parking (Except by Permit): 6 PM – 12 AM
- **Days/Hours:** All Days
- **Permit Type:** License Plate
- **Permit Costs:** \$95/year³
- **Cap:** Up to 4 per Address
- **Guest Passes:** \$95/year (1 per address)
- **Guest Pass Type:** Hangtag



PERMIT ONLY: OVERNIGHT

Short North District, Columbus, OH

- **Signage:** No Parking (Permit Only): 10 PM – 8 AM
3-HR Pay to Park (Permit Exempt): 8 AM – 10 PM
- **Days/Hours:** All Days
- **Permit Type:** License Plate
- **Hourly Rates⁴:** \$2/Hour (8 AM – 3 PM)
\$3/Hour (3 PM – 10 PM)
- **Permit Costs:** \$25/year
- **Cap:** Up to 2 per Address
- **Guest Passes:** \$6/24-hours, online⁵
Up to 300 guest passes issued per year
- **Guest Pass Type:** License Plate



Other example of similar type:

- Raleigh, NC (Permit Parking Only: 11 PM – 7 AM)

³ \$10/year permit for SNAP or rental assistance recipients

⁴ Mobile payment only, no pay stations

⁵ Residents can also validate one license plate at a time for free for a 24-hour period within their online account for no charge.

1 or 2 HOUR OR BY PERMIT: ALL DAYS

Knight Arena (University of Oregon), Eugene, OR

- **Signage:** 1 Hour or By Permit (Zone J or Event Permit)
2 Hour or By Permit (Zone J or Event Permit)
- **Days/Hours:** 7 AM – 11 PM All Days
- **Permit Type:** License Plate
- **Enhanced Penalty:** Fines double during events
- **Permit Costs:** \$40/year (first 2 free, paid by UO⁶)
- **Cap:** Up to 5 per Address
- **Guest Passes:** Free, online, issued for up to 3 days
Not Valid on Game Days
- **Guest Pass Type:** License Plate or Paper



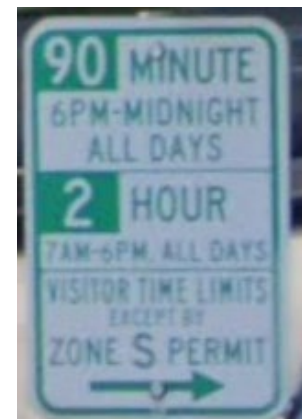
Other example of similar type:

- Sacramento, CA (1 Hour or By Permit, 8 AM – 10 PM)
- San Francisco, CA (2 Hour or By Permit, 8 AM – 10 PM)

VARIABLE TIME LIMIT OR BY PERMIT: ALL DAYS

Revolution Hall, Buckman Neighborhood (Zone S), Portland, OR

- **Signage:** 90 Minute or By Permit: 6 PM – 12 AM
2 Hour or By Permit: 7 AM – 6 PM
- **Days/Hours:** All Days
- **Permit Type:** License Plate
- **Permit Costs:** \$75/year
- **Guest Passes:** \$1.50/day or \$75/year (limit 1 per permit)
- **Guest Pass Type:** License Plate



⁶ UO sells up to 500 event permits for up to 22 events per year that are valid in the permit area.

Summary and Key Issues

The following is a brief summary of key issues that should be considered when developing a permit program for the Eliot Neighborhood:

Residents

- Annual costs
- Time burden (License plate entry, etc.)
- Caps per household

Residential Guests

- Costs
- Logistical challenges (Pop-in guests, parties, etc.)
- Caps or restrictions

Customers

- Adequate time limits

Event Goers

- Time of transition to/from free/unlimited parking
- Adequate Penalty (\$85 APPP penalty currently)

Days of Enforcement

- Days of active enforcement vs. on-demand only

Additionally, daytime parking on residential streets by non-residents (employees and long-term customers/visitors) should be monitored over time, but recent data (2022) indicates that a permit program is likely not necessary at this time to address the very limited amount of spillover observed under current conditions.

Any residential permit program will create new requirements for residents to obtain permits to park on street in order to better prioritize residential vehicles. The following table summarizes the effectiveness of each potential program type in addressing the other key goals of the program.

Program Type	Discourage Event Goers	Maintain Customer Access	Maintain Guest Access
Permit Only (All Hours)	✓	X	High Burden
Permit Only (Events*)	✓	+/-	Low Burden
Permit Only (Evenings)	✓	X	High Burden
Permit Only (Overnight)	+/-	✓	Low Burden
2 Hour OBP (6 PM – 12 AM)	+/-	✓	Moderate Burden
90 Min OBP (6 PM – 12 AM)	✓	✓	Moderate Burden
1 Hour OBP (6 PM – 12 AM)	✓	+/-	Moderate Burden

* Event-only permit program likely not feasible given the number of events



PORTLAND BUREAU OF TRANSPORTATION

1120 SW Fifth Ave, Suite 1331, Portland OR 97204

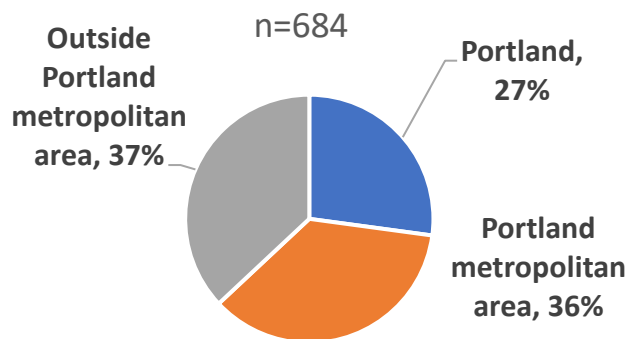
Phone: 503-823-4000 Portland.gov/Transportation

Mingus Mapps Commissioner **Chris Warner** Director

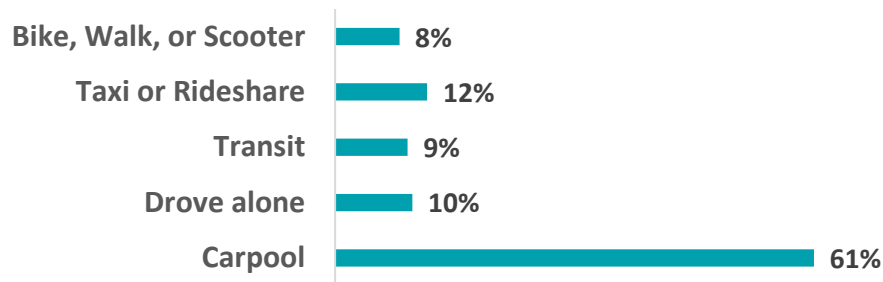
Rose Quarter visitor travel survey 2022

Prior to implementing the Lloyd Event Parking District in September 2022, visitors who attended events at the Moda Center venues with more than 10,000 attendees were asked to complete a survey. The survey included questions about how they traveled to the venue and if they parked where they parked. The survey was conducted in spring and summer 2022 and was sent to attendees of five events. We received 684 complete responses.

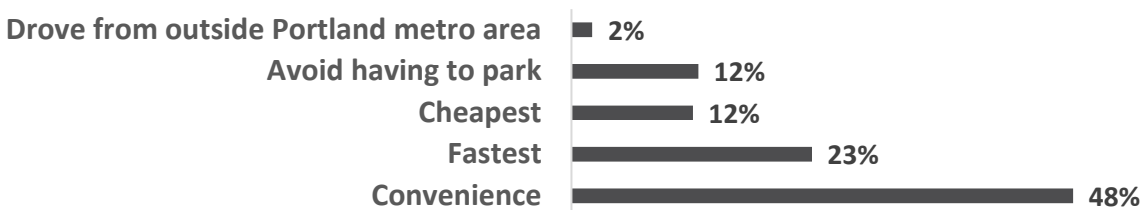
Where were visitors traveling from?



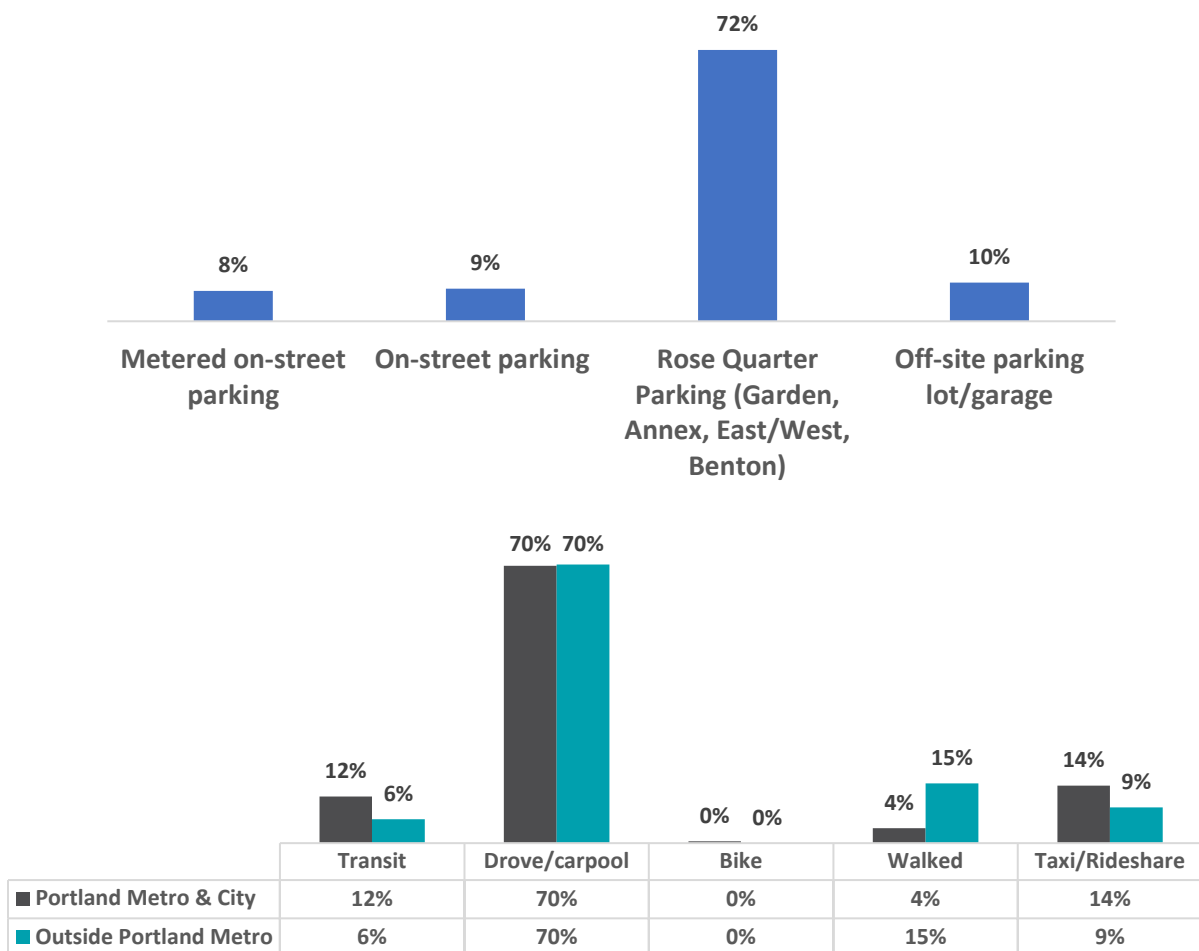
How did you travel to the Moda Center today? n=684



Why did you choose this travel mode?



Where did you park? n=483

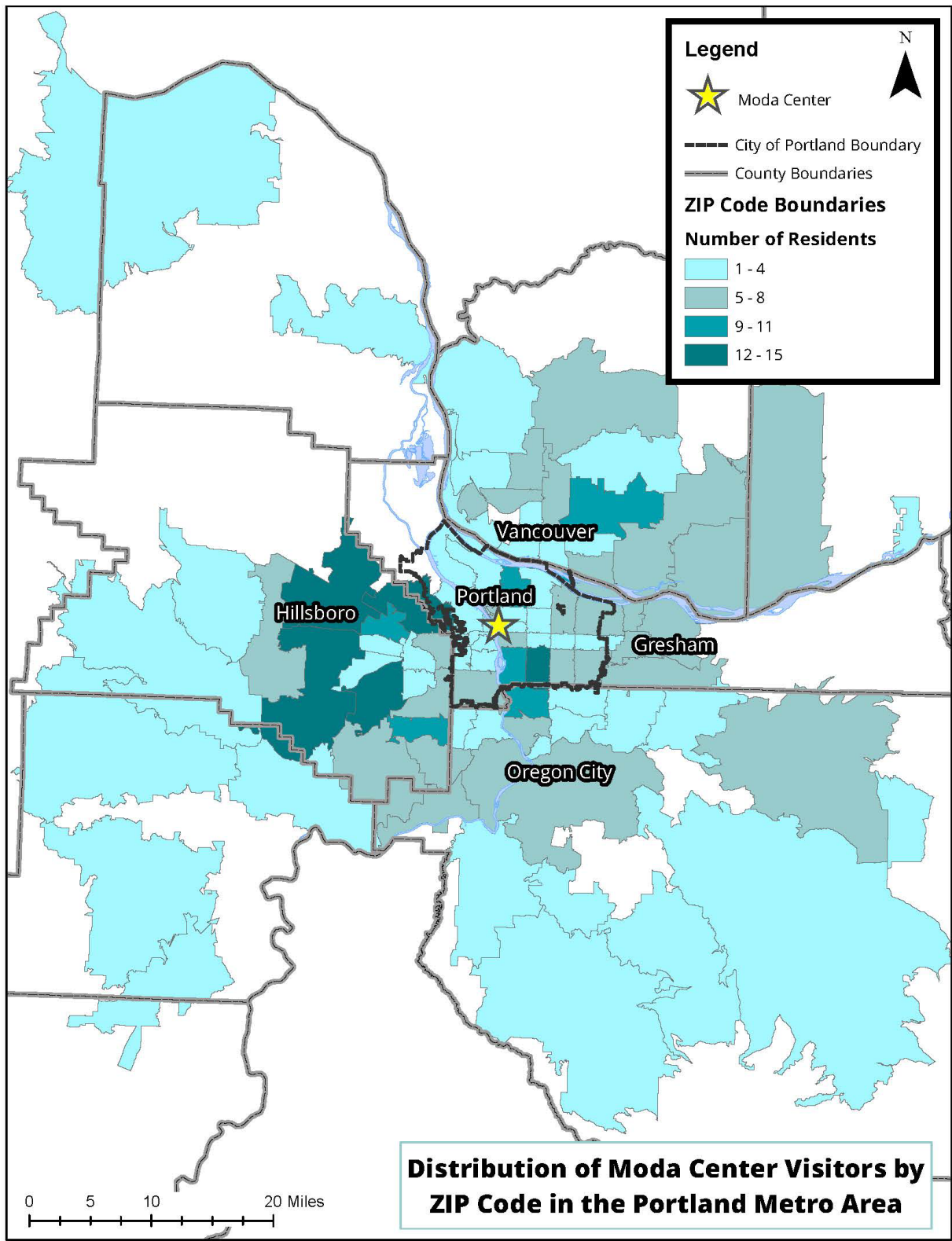


The outside of Portland Metro area walkers reported walking to the Moda Center from their hotel.

Summary

- Less than 1/3 of event attendees come from within the City of Portland, about 1/3 came from outside the Metro region (see map of home locations in next page).
- Most event attendees drove or carpooled to the event, with the majority of them carpooling at 61% of all respondents.
- Most of the people driving, parked in the Moda Center garages (72%).
- Attendees who drove, drove, and carpooled at the same rates regardless of if they were coming from outside or in the Portland Metro area.
- Attendees from the City were more like to take transit or taxi than those from outside the region.
- The people who reported walking mostly were from outside the metro area and walked from their hotels to the Moda Center venue.
- Only 2 people biked, they were from the city.
- Half of the people who parked in the Moda Center garage were from outside the Portland metro area.
- 2/3 of the people who parked on-street were from the Portland Metro area.

Resident locations by zipcode





PORTLAND BUREAU OF TRANSPORTATION

1120 SW Fifth Ave, Suite 1331, Portland OR 97204

Main: 503-823-5185 TTY: 503-823-6868 Fax: 503-823-7576 Portland.gov/Transportation

Jo Ann Hardesty Commissioner Chris Warner Director

Memorandum

To: the Eliot Parking Task Force

From: Kathryn Doherty-Chapman, Project Manager, PBOT Parking Operations

Date: December 28, 2022- Updated 1/10/2023

RE: January meeting materials

Eliot Parking and transportation survey findings

1. Who took the survey?

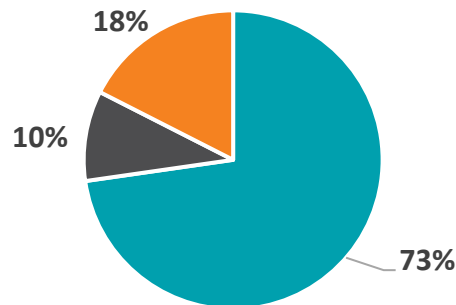
- **297 complete responses between September and December 2022**

- Note, not everyone responded to all questions.
- This is a statistically viable response rate for the population in the Eliot neighborhood at 95% confidence level.

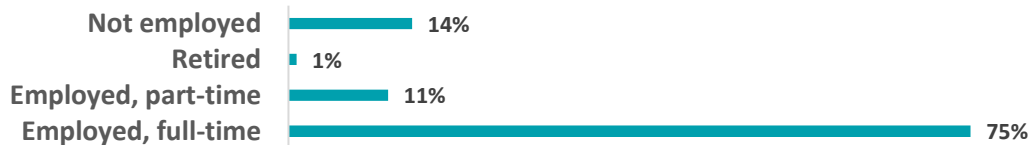
- Resident

- Employees/
Business
owners

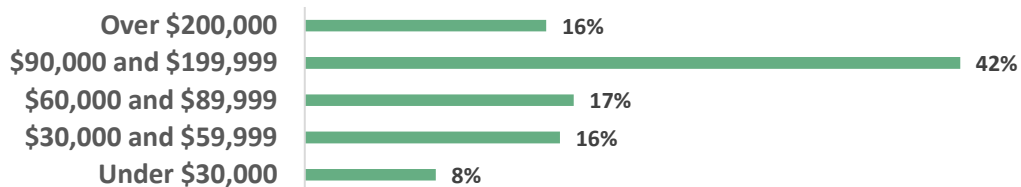
- Both



Employment status all respondents n=225



Household income all respondents n=225

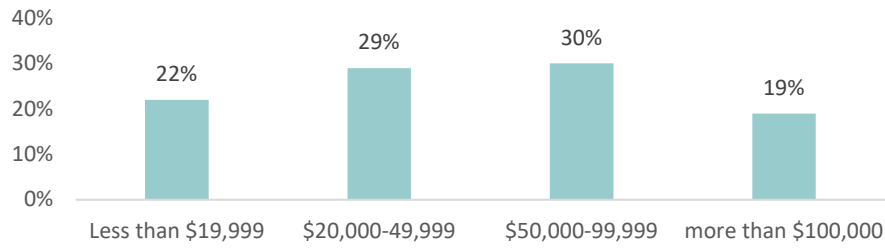


n= the number of responses to that question

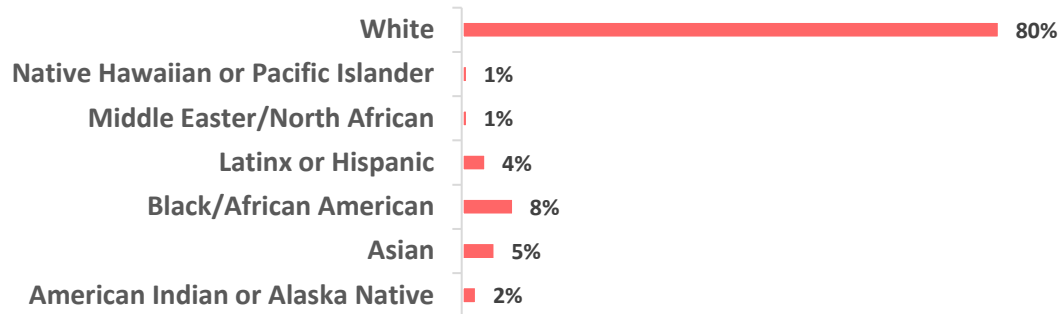
The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-5185, City TTY 503-823-6868, Relay Service: 711.



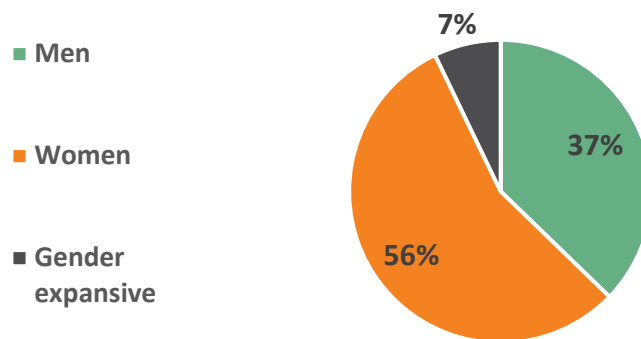
Census Data (ACS 2016-2020) Household Income



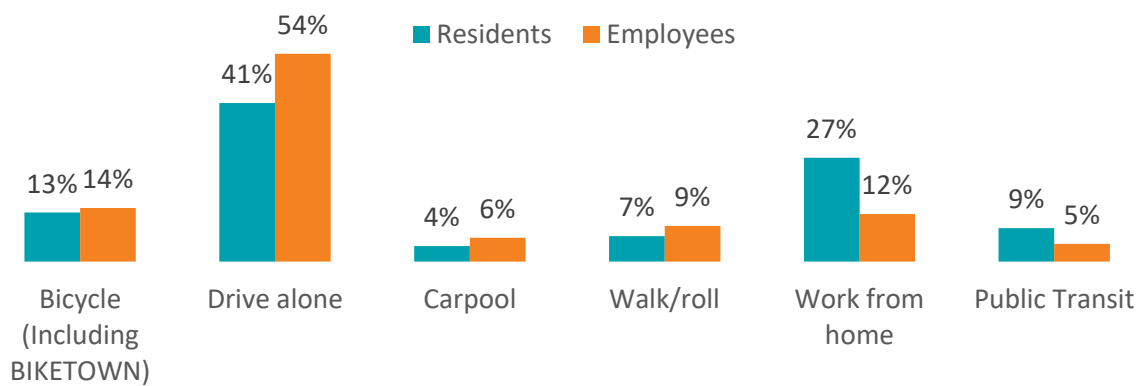
All Respondents Ethnicity/Race n=220



Gender all respondents n=196



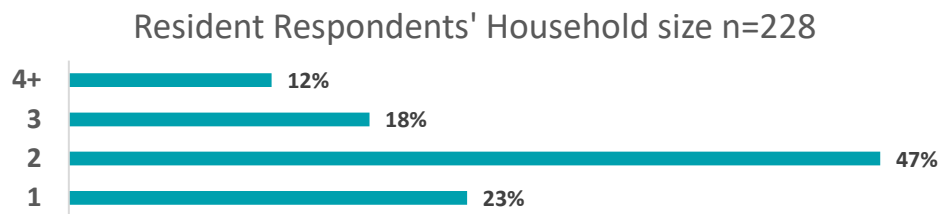
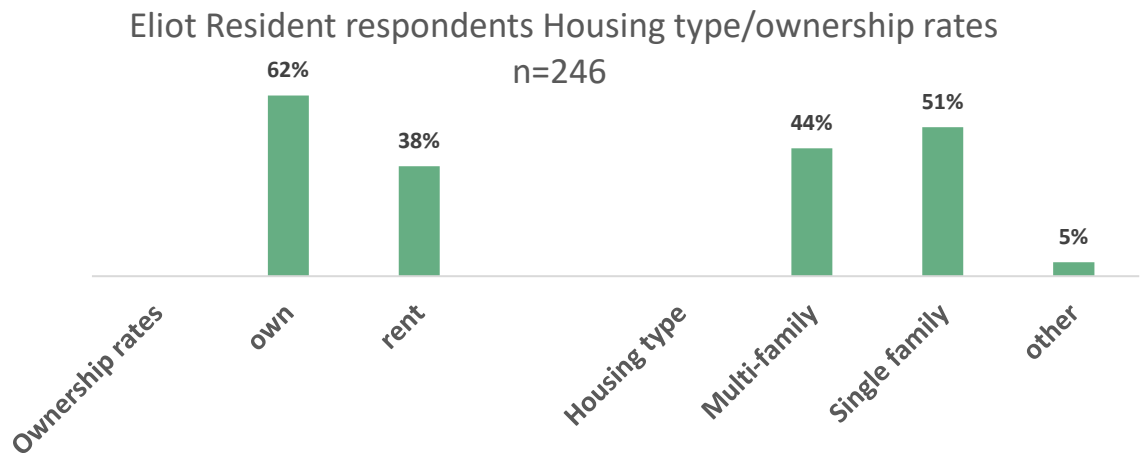
Commute mode n=262



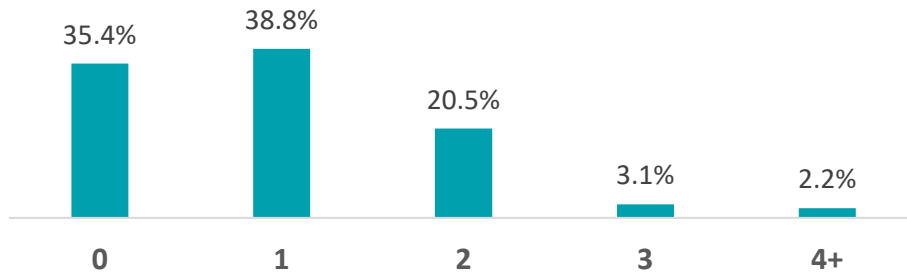
Summary

- There were significantly more responses from residents than employees and business owners.
- The respondents' demographics generally track with the Portland data in terms of race, ethnicity, income, and gender.
- More employee respondents drive to work than residents (41% versus 54%), resident respondents were more likely to take transit to work (9% versus 5%) which is lower than the citywide average
- Both employees and residents' respondents' bike to work more than the citywide average (~14% versus 5%)

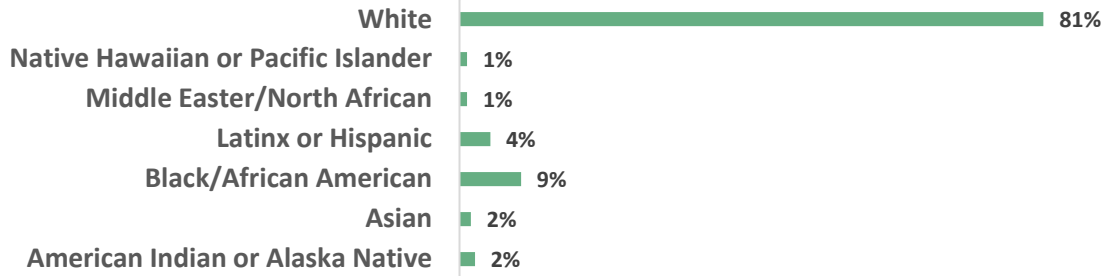
2. Residents



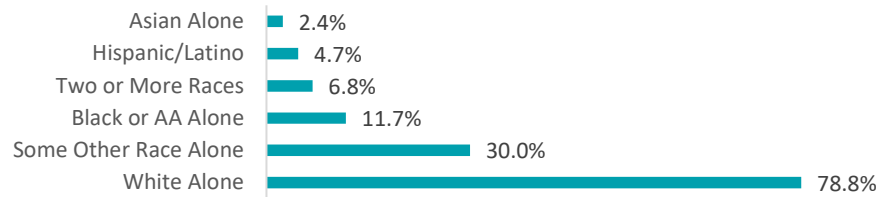
2020 Census # of Household vehicles



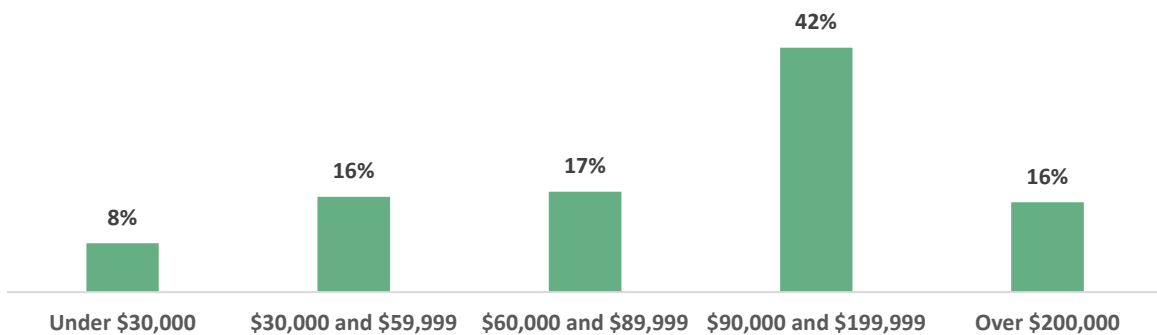
Resident Respondents' Race/Ethnicity n =187



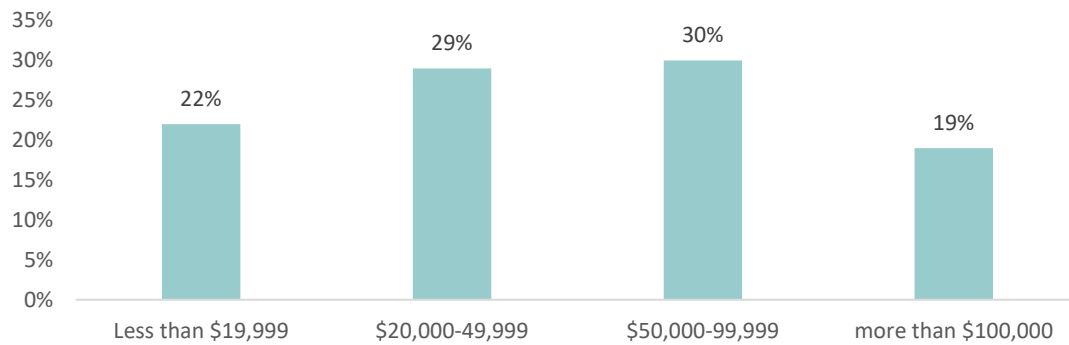
2022 Census % Household Race/Ethnicity*



Resident Respondents' Household income n=225

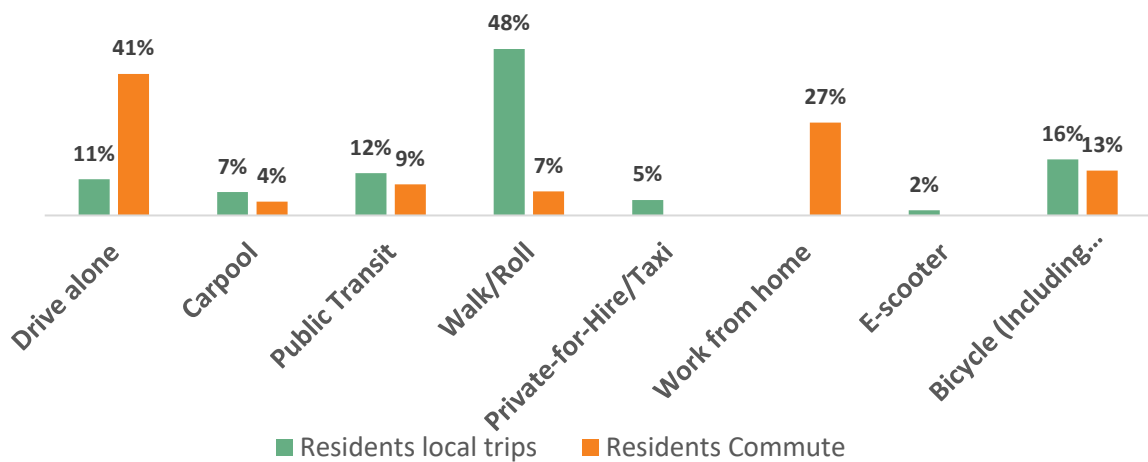


2020 Census Data Household Income

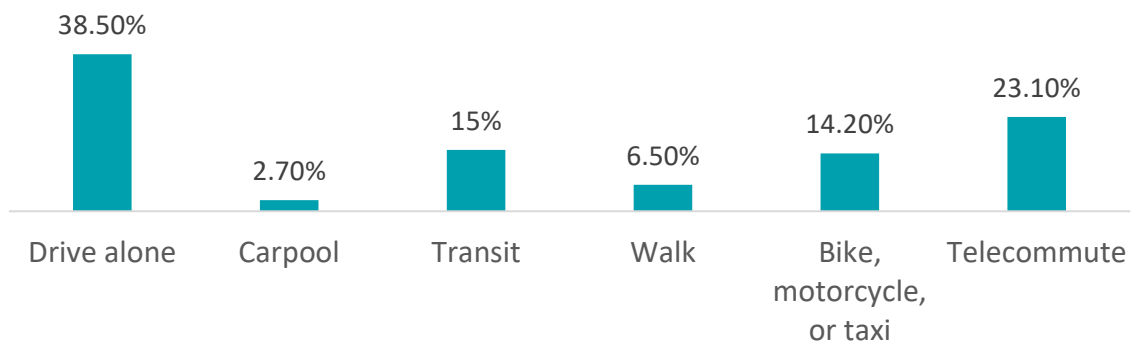


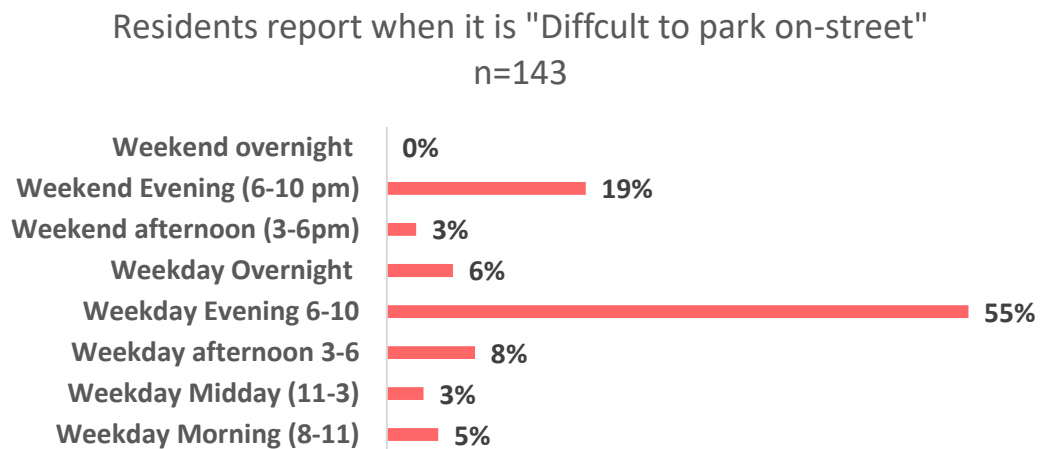
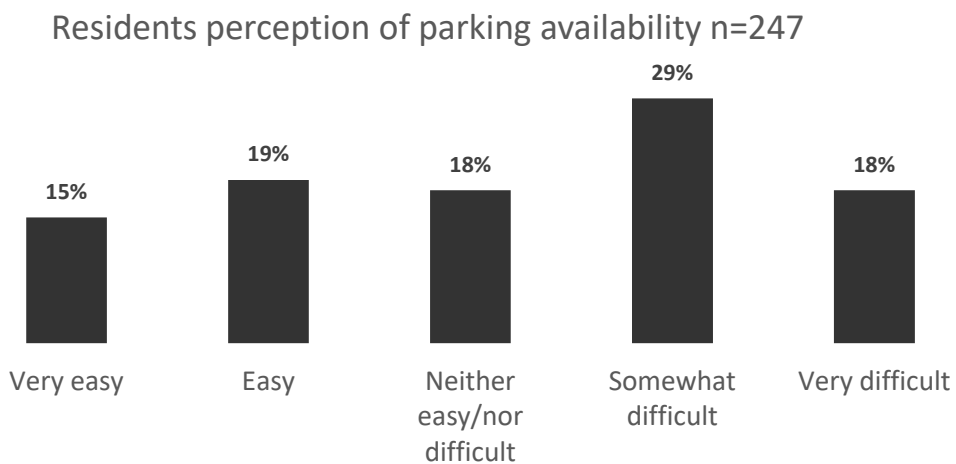
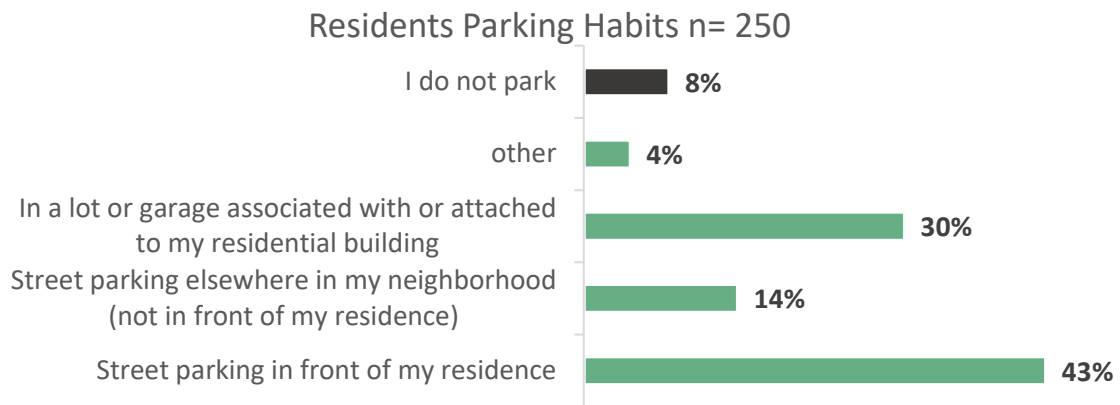
Resident Respondents' Travel Habits n=197

Note, non-commute trips could be multiple options, most residents report using multiple modes for local neighborhood trips



2020 Census Residents Commute





Summary

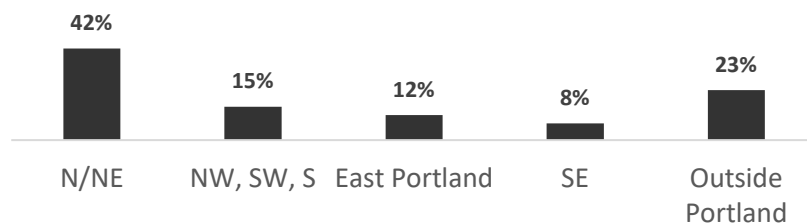
- Resident respondents' demographics are in line with the Census data demographics of the Eliot neighborhood in terms of race and income.
 - There were slightly fewer Black respondents (9% versus 11%) and more white respondents (78% versus 80%) than the census data reports for the area. Respondents generally had higher incomes than the census data for the area (median HH income is \$60,781).

- Respondents were more likely to own household vehicles than the census data reports for the area (6% versus 35% have 0 household vehicles).
- Residents commute by driving alone significantly less than the city (41% versus 60%) and bike more than the city overall (13% versus 5%).
- Respondents were more likely to live in smaller households than the census data for the area reports, with 70% of respondents living in 1-2 person households.
- 57% of resident respondents do not have off-street parking or park on the street.
- 47% of resident respondents reported that parking is either somewhat difficult to find or very difficult to find overall.
 - The most common time that residents reported difficulty finding parking is on weekday evenings 6-10 p.m.

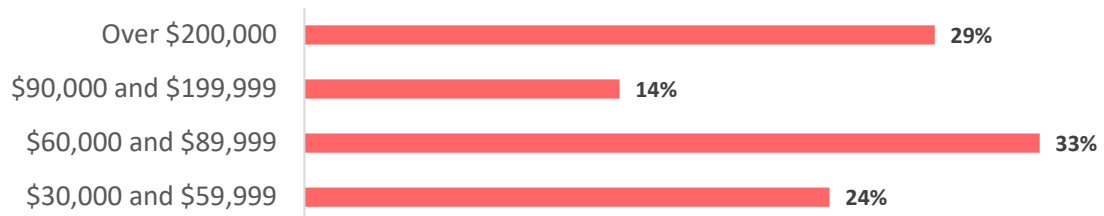
3. Business/Employee responses n=67*

**The small sample size is not enough to draw conclusions*

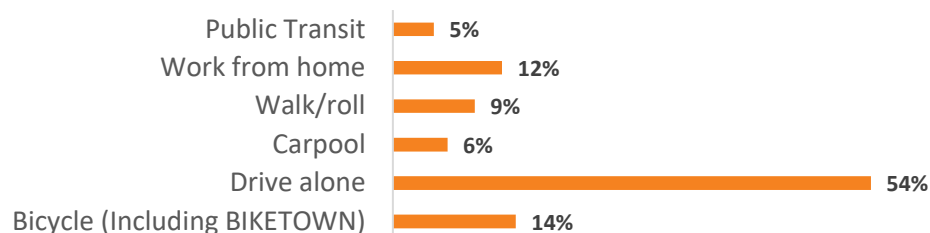
Where are employees/business owners commuting to Eliot from n=26



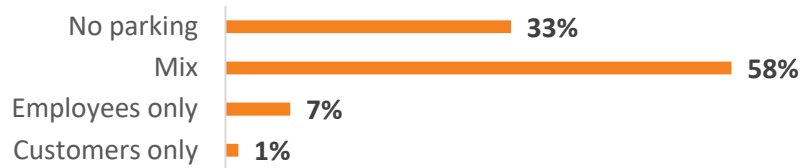
Employee/business owner household income n=21



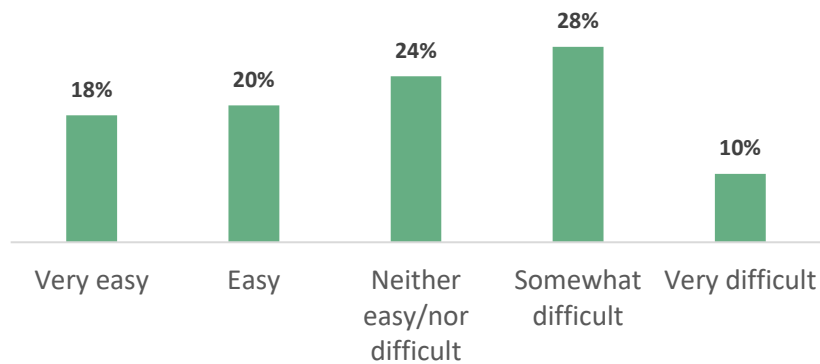
Employee/Business owner commute n=65



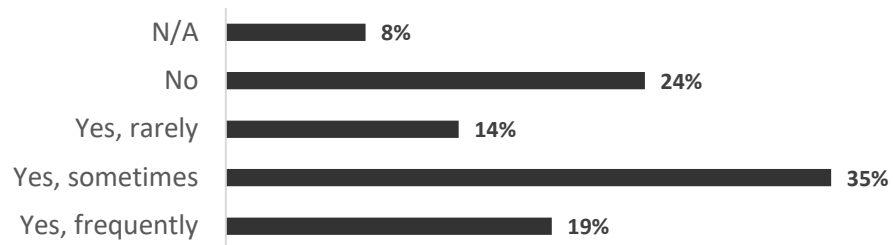
Business off-street parking availability n=67



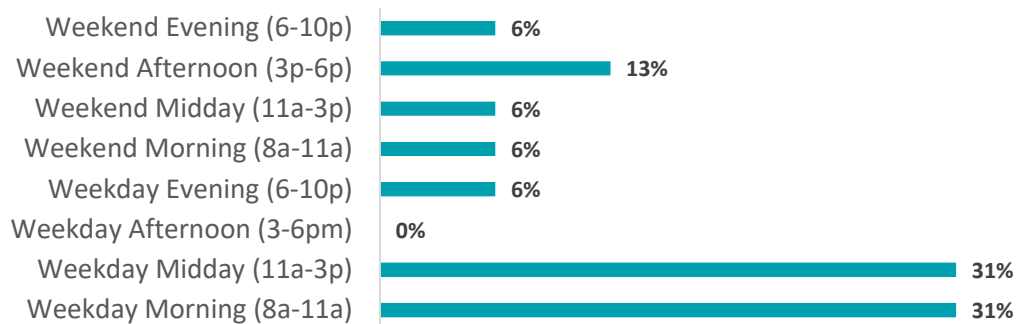
Employee/business perception of parking ease/difficulty n=71



Do businesses hear from customers they find parking difficult to find? n=37



Business owners/employees reported most difficult time parking n=16



Summary

- A significant number of employee respondents commute from North and Northeast Portland (42%)
- Employee respondents drive alone to work at a slightly lower rate than the city (54% versus 60%)
- Significantly more employee respondents' bike to work in Eliot than the city average (14% versus 5%)
- Employee/business owners' incomes were slightly higher than resident respondents but overall, fairly balanced across different income brackets.
- Employees were less likely to report that parking was difficult than residents 38% versus 47% residents.
- A third of employees/businesses did not have any off-street parking. The businesses that did mostly offered to both employees and customers.

Comments & concerns

We asked an open-ended question about parking & transportation concerns or comments, these were the top themes we heard and frequency:

%	# of mentions	Theme/topic
19%	50	Event parking is the problem
13%	34	Traffic safety concerns, primarily walking and biking safety, intersection vision clearance, cars speeding, etc.
13%	34	Not enough parking overall/too much demand
12%	31	Crime, personal safety concerns
8%	22	Abandoned vehicles, houselessness
5%	14	Don't want to have to pay for parking
5%	12	Supportive of an APP program
4%	11	Concerned about visitors parking (family, customers, etc.)
3%	9	Mobility issues & concerns/People with disabilities
2%	4	Need to better use existing off-street parking
2%	5	Need to have low-income waivers/discounts

Examples of some comments:

- "Too many vehicles left unmoved for long periods of time"
- "Abandoned cars, semi cabs parked for days on the street, frequent breakins"
- "My biggest transportation desire is for continued enhancement and development of bike infrastructure. I also think it would be a good idea to have some type of paid permit for street parking that is enforced, because parking has become increasingly difficult and it only makes sense to give residents the opportunity to pay to have less parking competition."
- "Parking is difficult because of Moda center events . Not to mention all the new apartment complexes developed without any parking spots."
- "I'm very concerned about parking in my neighborhood and transportation in my neighborhood. Just two houses down a 29 unit apartment building WITH NO PARKING is scheduled to be built. How can our street possibly handle this number of new residents parking on the street? I already can't find a parking spot most days near my home and I have a hip issue that makes it difficult to walk. I also worry about the fast driving that happens in our neighborhood."
- "There is little parking on our street now and there about 200 apartment units going up now. I think it will only get more difficult to find parking when the apartments are occupied."

- “If we are changing parking, we should start enforcing Oregon Law which requires a 20ft setback at crosswalks, marked or unmarked. Parking up to the intersection makes it more difficult for drivers to see and makes it more dangerous for pedestrians and cyclists to use their right of way on streets safely. Further, reducing the number of single occupancy vehicles parked on public streets by enforcing permits will make the street safer to use for pedestrians and cyclists and has my complete support.”