

Fehr & Peers

Park & Ride Usage Database

Technical Memo #1

Prepared for:
TriMet

Submitted on:
June 10, 2025

Table of Contents

Introduction.....	1
Background	2
Project’s Desired Outcomes	4
Existing Conditions	4
Service overview	4
Ownership	7
Inventory.....	8
Occupancy.....	11
Contextual Data.....	15
Recent and On-Going P&R Repurposing.....	29
Finances – A Broad Summary of Cost and Revenue.....	30
Performance Metrics	32
Challenges and Opportunities	34
Challenges	34
Opportunities	34

List of Figures

Figure 1: TriMet Frequent Service Network (<i>Source: TriMet</i>)	5
Figure 2: Locations of Park and Rides in the TriMet Service District	6
Figure 3: P&Rs by Ownership and Capacity	7
Table 1: Summary of amenities at P&Rs	8
Figure 4: Examples of P&R Types.....	10

Table 2: P&R Occupancy Surveys – Dates and Times	11
Figure 5: Daily boardings for select dates (2018 – 2024)	12
Figure 6: Overall Occupancy at TriMet P&Rs in the Surveyed Years	12
Figure 7: Capacity and Occupancy at P&R's (<i>Source: TriMet Survey, November 2024</i>).....	14
Figure 8: Comparison of P&R Occupancy by Transit Corridors	15
Figure 9: P&R Groupings by Transit Corridors.....	16
Figure 10: Population Density	17
Figure 11: Median Household Income	18
Figure 12: Percentage Population Earning less than twice the Poverty Line Income	19
Figure 13: Percentage Population 65 Years and Older.....	20
Figure 14: Percentage households without any vehicles.....	21
Figure 15: Number of Jobs in Census Blocks.....	22
Figure 16: Zoning in TriMet District (<i>Source: Oregon Metro</i>)	23
Figure 17: Transit Score at Park and Rides.....	24
Figure 18: Bike Score at Park and Rides	25
Figure 19: Walk Score at Park and Rides	26
Figure 20: Boardings per Parked Car at P&R Facilities per 2024 Survey	33

List of Tables

Table 3: Observations from the Contextual Indicators	27
Table 4: Sample Permanent P&R Redevelopment Projects	29
Table 5: Sample Temporary P&R Space Activation Projects	30
Table 6: Example of Annual Operational Costs for a Park & Ride.....	31
Table 7: A Sample of Short-Term Rentals at P&Rs	32
Table 8: Summary of all Park & Rides as of April 2025	37

Introduction

TriMet is the primary provider of transit services in the TriMet service district, and mostly shares boundaries with Metro, the Portland region's Metropolitan Planning Organization (MPO). In terms of network density and frequency, TriMet services are more focused where land use and concentration of destinations best support transit. Regionally, this creates the highest concentration of transit service around the regional center, with decreasing coverage moving away from the city center (see **Figure 1**). While there are a variety of modes typically used to access transit also referred to as first/last mile modes such as walking, biking, and local bus connections, a historic tool aimed at increasing suburban access in communities that live or work beyond the reach of public transit and where access to or quality of active transportation modes is poor, has been through Park & Rides ("P&Rs"). These facilities have typically been located adjacent to interstate highways and regional arterials as a means of providing system riders an alternative to congested roadways. While the count of facilities changes regularly depending on TriMet's leases with third-party providers, **as of April 2025, the agency currently maintains 55 P&Rs which provide 11,559 parking spaces throughout the region.** Out of the 55 facilities, 19 are owned and operated by TriMet, 10 are owned by ODOT and leased to TriMet for operations, 26, which are owned by private third-parties and share their parking facility for park & ride use with TriMet.

If the occupancy of parking spaces at P&Rs is an indicator of their utilization, then the pandemic serves as a clear line between high and low utilization. **While transit ridership in 2024 had climbed back up to nearly 80% of 2019 ridership, P&R usage did not see a similar recovery in usage, and it is just 30% of 2019 occupancy levels.** The sustained prevalence of a hybrid work culture among white collar jobs — which are typically concentrated in the city center — can explain most of the reduction in P&R utilization.

As TriMet continues to look for creative means of supporting increased transit ridership throughout the region, while also delivering community benefits with its real property and a constrained agency budget, TriMet is well-positioned to reconsider the provision of P&Rs. Park & Rides are located on land that is highly valuable in terms of not just property rates, but more importantly in terms of the potential it holds for Transit-oriented Development (TOD) and the community benefits that it can provide. TOD is the policy of increasing development along frequent transit services to create a feedback loop of increased population density, high transit usage, and economic growth, while using fewer taxpayer dollars. **The goal of the Park & Ride Optimization Study, then, is to lay out strategies that TriMet can employ to maximize the efficiency and productivity of these facilities.**

This memo is the first step of that optimization process and aims to comprehensively analyze a variety of data, knowledge, and information in regard to facilities operations, management, community value, station access, and future agency investments. In addition, this memo paints a contextual landscape of P&R facilities by mapping demographic data, and quality of modal access to these facilities. Based on the context and continuing performance of P&Rs, this document will define challenges and opportunities, and the resulting performance metrics to be used for crafting strategies going forward. The Park & Ride Optimization Plan will also be shaped by a variety of considerations such as demand, station access, financial resources, land use and TOD goals, State rulemaking and climate goals and ridership generation.

Background

In 2005, the TriMet Board of Directors adopted a Park & Ride Policy¹ to set forth guidelines for TriMet's management and development of Park & Ride facilities. The Policy guided TriMet's focus of its Transit Investment Plan (TIP) to advance the following goals:

1. Maximize ridership and regional mobility
2. Promotion of regional land use and growth management policies
3. Maximize efficiency using partnerships within the public and private sector
4. Design safe and secure facilities that are in areas that enhance convenience, visibility, and circulation of pedestrians.

The Policy outlined key elements for the location, design, resources, and management of Park & Ride facilities. It emphasized establishing facilities in accordance with regional and local planning policies, prioritizing underserved areas, ensuring locations offer direct, frequent transit service, and advocated for protection of pedestrian environments and support for Transit-oriented Development. The policy also included strategies for funding expansion through partnerships and shared use, and managing facilities to optimize usage, including further study on parking charges to manage demand and support development goals.

It is often argued that free parking at P&R facilities is implicitly subsidized by transit funding because when a park & ride facility is built and maintained by the transit agency without charging a market-rate fee for parking, it is essentially subsidizing the cost of parking at destinations for the motorist. This cost is absorbed by the overall transit system through fares and other taxes. On the other hand, a primary justification for providing free park & ride facilities is to incentivize transit ridership, especially in suburban communities. For

reference, daily parking in Downtown Portland² ranges between \$8 to \$20. Monthly parking can be as much as \$110 to \$300. **In 2012, TriMet conducted an evaluation of pay-to-park programs at TriMet facilities,** which analyzed the usage, enforcement costs, revenue potential, and impacts of implementing parking fees. It found that most users are suburban commuters who park at TriMet lots to avoid downtown parking costs. For reference, TriMet's existing P&R facilities allowed parking for up to 24 hours, at no charge to the user. The evaluation considered annual agency operations costs versus revenue generation needed to self-support these facilities. **However, it cost as much as \$1 per space per day for the agency to operate some of the facilities including security.** Per the 2012 findings of the evaluation, TriMet estimated an average maintenance and operational cost of over \$1 per day per parking stall. Under a full scale systemwide parking fee expansion, TriMet estimated that contracting parking enforcement expenses could range from \$150,000 to \$250,000, (in 2012 dollars). It was estimated that enforcement costs could be higher if absorbed in-house with additional fare inspectors. These were one of many expenses (e.g. fare collection, maintenance) required to support a park-pay-and ride program. As an option, enforcement could be higher if absorbed in-house with additional fare inspectors. This is one of many expenses including fare collection, maintenance among others required to support a park-pay-and ride program. TriMet estimates that it would require a \$1-2 daily parking fee to reduce the overall operational costs that Park & Rides place on the Agency's budget. The report outlined possible impacts to a paid parking program, including increased neighborhood parking rather than transit patrons, resentment from riders, payment infrastructure, and the need for additional enforcement staff. The study also highlighted demographic data showing that P&R users tend to be older, more

¹ TriMet Park and Ride Policy, TriMet Board of Directors, Exhibit A, 2005

² <https://parkingaccess.com/blog/portland-monthly-parking>

likely female, and have higher incomes compared to typical transit riders.³

In 2019, a review of TriMet's P&R inventory and usage⁴ was conducted to inform the Southwest Corridor Light Rail Project with respect to project approach on station access and Park & Ride planning. As of April 2025, TriMet has 11,559 P&R spaces, of which 952 are shared-use spaces, mainly through leases with churches. Historic usage counts conducted annually showed steady usage from 2010 to 2017 at around 60%. Less than 5% of daily weekday transit boardings originated from TriMet managed P&R facilities. This number increased to 15% when ad hoc parking spaces are considered (for example, on-street parking adjacent to transit origins). Surveys of transit riders revealed that Park & Ride users primarily travel to work or college in areas where destinations have restrictive parking policies, like Portland Central City and OHSU. Facilities proximate to high-frequency MAX corridors and those closest to downtown Portland have historically seen the highest usage. Some other factors which influenced higher parking usage at P&R facilities included service frequency, and ease of direct automobile access from major regional arterials such as Hwy 26, I-5, I-205, I-84, etc. A prior regression analysis also indicated that facilities that are the first and last P&Rs along a MAX corridor tended to fill first. Provided below are some key lessons learned from this review:

- With aging surface lots, the Eastside MAX corridor saw reduced P&R demand and were due for Park & Ride facility updates/investments or were good candidates for conversion to transit-oriented development (TOD).
- The Westside MAX corridor, with high usage and numerous facilities, benefited from suburban development but faced challenges in serving transit needs.

- The Green Line's I-205 corridor had low utilization due to inconvenient access and less direct routes to downtown. In contrast, the Orange Line's new facilities were found to be in high demand due to better access, newer facility amenities, and frequent service.

The study also noted that special consideration about parking at stations should be given in regard to transit service enhancements. Historically, parking can incentivize people to use private auto access to station areas rather than using local bus service, particularly when it is provided to users free of charge. As a result, reduced ridership makes it difficult to justify providing more frequent service, significantly impacting those solely dependent upon it and hindering the improvement of transit.

In reviewing TriMet's Transit Asset Management (TAM) Plan, **TriMet uses a replacement cycle of 50 years for parking garages owned and operated by TriMet. For P&R lots, it uses a replacement life cycle of 20-50 years depending on the type of facility and specific guidance by Federal Transit Administration (FTA).** Consistent with FTA policy, each year TriMet coordinates with our region's Metropolitan Planning Organization (MPO), Metro, on our annual asset condition assessment and transit performance targets. For assets including parking garages and park & ride facilities, condition scores are assigned based on useful life benchmarks and estimated decay curves for that asset type. TriMet currently uses TERM-Lite to assign these conditions. Condition assessment provides data and independent review of the long-term wear of assets or groups of assets, thus helping us determine the state of good repair for assets as we monitor and predict asset performance. This information, in turn, supports effective capital investment planning, budget decision-making, and maintenance priorities. Condition assessments provide independent review to identify any low score asset conditions (i.e., individual assets or

³ Pay for Parking Update, Budget Task Force, TriMet, 2012

⁴ A Primer on Station Access and Park & Rides, Great Places – SW Corridor, June 2019

components below 3 on the FTA 1–5 scale) that may warrant a more immediate maintenance response. For assets to receive a low score condition rating, maintenance staff will inspect the assets and determine if near-term action is needed. The inspection may affect maintenance priority and lead to a likely short-term response. In some cases, it may be determined that capital investment and/or replacement plans should be adjusted in response. Provided below is a summary from TriMet’s Transit Asset Management (TAM) Plan (2022), which shows conditions of Park & Ride facilities as evaluated in years 2019 – 2022.

Report Year	Category/ Sub-Category	Units Assessed	Average Condition	Excellent (5)	Good (4)	Adequate (3)	Marginal (2)	Worn (1)
2022	Park & Rides	7 Locations	3.5	0.5%	53.7%	45.6%	0%	0%
2021	Park & Rides	10 Locations	3.9	0%	88.0%	11.9%	0%	0%
2020	Park & Rides	12 Locations	3.2	0%	28.8%	67.2%	1.4%	2.7%
2019	Park & Rides	15 locations	3	0%	10.5%	75.6%	11.2%	2.7%

Source: Transit Asset Management (TAM) Plan, September 2022.

Project’s Desired Outcomes

The Park & Ride Optimization Study aims to enhance the efficiency and effectiveness of TriMet’s P&R facilities. Provided below is a list of desired outcomes developed in conjunction with TriMet staff to focus the efforts of the study scope such that these outcomes are achieved:

1. **Achieve the highest and best use of agency land and facilities** by incentivizing transit-oriented development, promoting shared parking, and identifying opportunities for cost recovery and revenue generation.
2. **Optimize parking supply and implement efficient parking management** to support a modal hierarchy that promotes equitable access to transit for all transit riders.
3. **Explore equitable parking pricing models that support patrons** by enhancing safety and security, promote facility upgrades (including for electric vehicles), and reduce the ecological footprint of facilities.

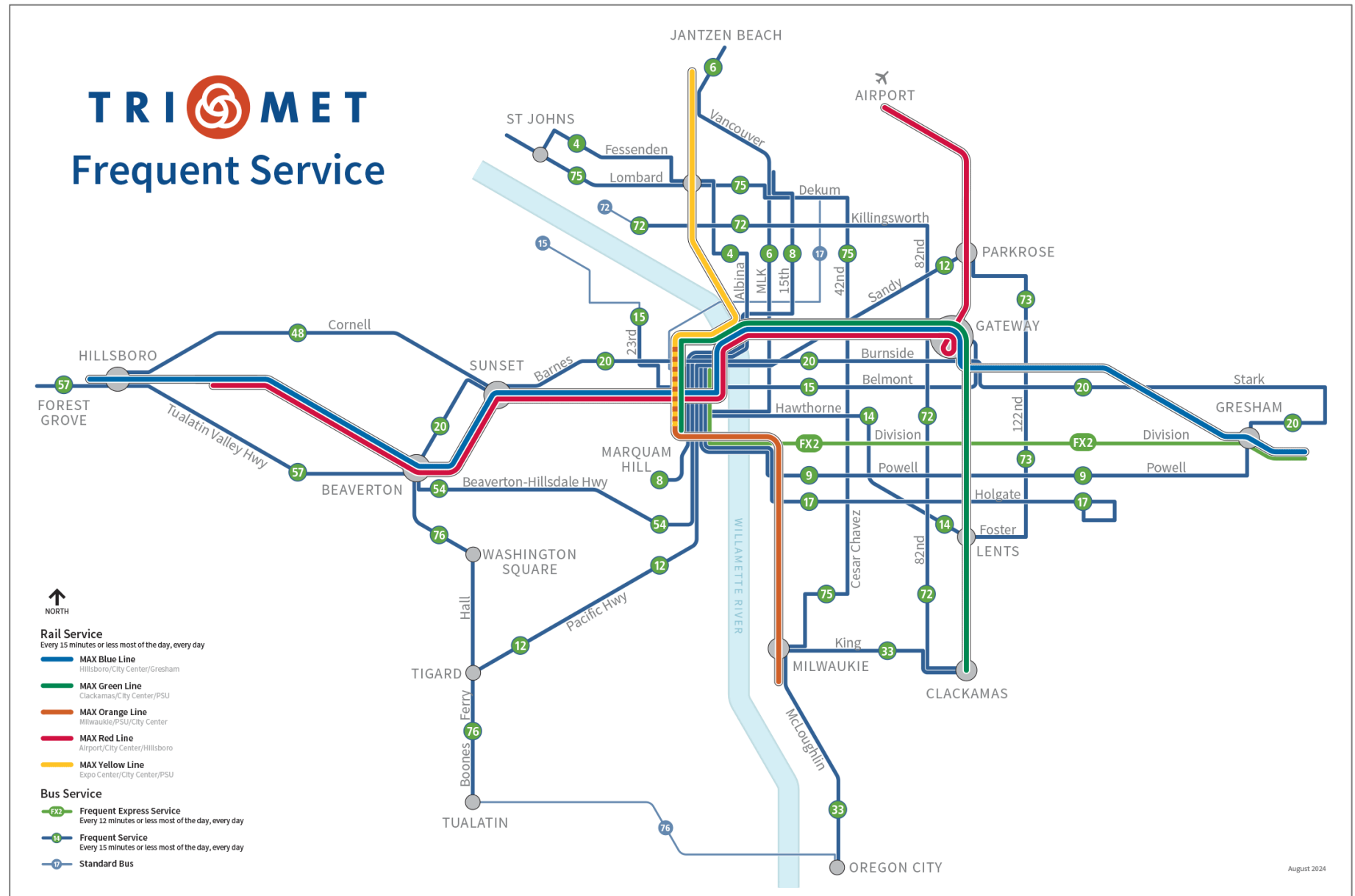
Existing Conditions

Service overview

Figure 1 shows the provision of the major routes operated by TriMet in the Portland Metro region. These include the four MAX lines — Green, Blue, Red, and Yellow/Orange. There are numerous frequent service bus routes, running every 15 minutes or less, which are also tied into TriMet’s TOD policy. Finally, TriMet operates a commuter rail service in the southwest region, the Westside Express Service (WES).

Figure 2 shows the locations of TriMet’s Park & Rides. Twenty-five of the 55 P&Rs are located along the MAX routes, while the remaining 30 are situated along the frequent bus service and WES routes. The figure differentiates P&Rs based on their ownership, which will be discussed in the following section.

Figure 1: TriMet Frequent Service Network (Source: TriMet)



The map displays the Clackamas County area with various transit routes and stops. The legend indicates the following:

- MAX:** Represented by a dark blue line.
- WES Commuter Rail:** Represented by a light blue line.
- Bus Line along a Park and Ride:** Represented by a thin blue line.
- Freeway:** Represented by a grey line.

Park & Ride Ownership:

- Trimet:** Represented by a blue dot.
- ODOT:** Represented by an orange dot.
- Third Party:** Represented by a yellow square.

Key locations and stops labeled on the map include:

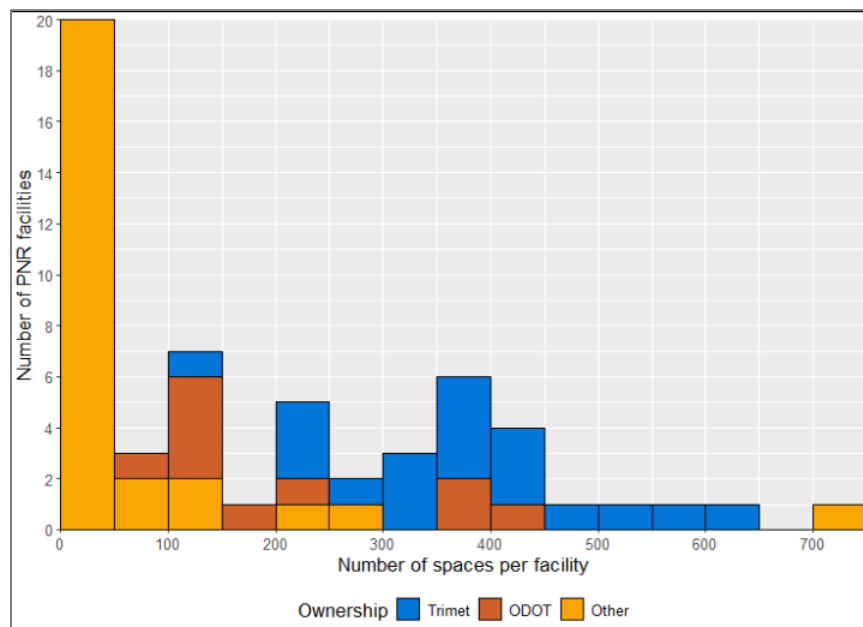
- Expo Center**, **Delta Park/Vanport**, **Parkrose/Sumner TC**, **Gateway Garage**, **Gateway Surface Lot**, **E 122nd/Menlo Park**, **E 181st Ave**, **Reynolds School District**, **Cleveland Ave**, **Gresham Garage**, **SE Main St**, **SE Powell Blvd**, **SE Holgate Blvd**, **SE Fuller Rd**, **Clackamas Town Center**, **SE Park Ave**, **Christ Church Parish**, **Emmanuel Church**, **Clackamas Community College**, **First Presbyterian Church**, **Wilsonville**, **Boones Ferry Church**, **Tualatin**, **Tualatin South**, **Sherwood**, **Sherwood Regal Cinemas**, **Christ the King Lutheran Church**, **Hope Church**, **Tigard TC**, **Tigard**, **Progress**, **Valley Community Church**, **Sunset TC**, **Cedar Hills United Church**, **Willow Creek**, **Quatama**, **Orencia**, **Complex/Hillsboro Airport**, **Hillsboro Garage**, **Fair**, **Beaverton Creek**, **Bethel Church**, **Seventh-Day Church**, **Southminster Church**, **Hall/Nimbus**, **SE Tacoma/Johnson Barbur Boulevard**, **Milwaukie Creek**, **Milwaukie Church**, **Christ Church**, **Clackamas Community College**, **Estacada Public Library**, **City of Estacada**.

Ownership

As of April 2025, TriMet offers Park & Ride spaces at 55 locations throughout the TriMet service district. These facilities are provided in two formats: structured parking, and surface lots. There are three models of ownership for these facilities — TriMet-owned, ODOT-owned, and those shared with third parties. These distinctions are important as underlying P&R ownership will influence which optimization strategy will be applicable to that specific P&R.

Before going into the subsections, **Figure 3** gives an overview of the range of sizes of P&Rs based on ownership. Barring outliers, TriMet-owned facilities are the largest, followed by ODOT-owned, while the shared facilities are on the smaller end.

Figure 3: P&Rs by Ownership and Capacity



Owned and operated by TriMet

There are 19 P&R facilities completely owned and operated by TriMet. Most are located adjacent to MAX stations, along with one at WES station (Wilsonville) and another at the Tigard Transit Center, which is a bus terminal. Only three facilities are parking structures, and the rest are bigger surface lots. TriMet-owned P&Rs have higher capacities, ranging from 220 to 630 spaces.

Owned by ODOT and operated by TriMet

The state transportation department, the Oregon Department of Transportation (ODOT), owns 10 P&R facilities and leases them to TriMet for exclusive usage. They are located either at MAX stations or along the Southwest bus corridor. These are bigger surface lots, and their capacity approximately ranges from 100 to 425 spaces.

The structure of the agreement between ODOT and TriMet for the operation and maintenance of these Park & Ride facilities vary for each facility. Most often it is determined through a “Continuing Control Agreement” which governs the terms of TriMet’s use of the right of way for transit use and related services, including P&R provision. Unless specified otherwise, these agreements place all responsibilities for the development, maintenance, and upkeep of the land on TriMet. They may also define what the land is to be used for. The agreements relate to each specific transit improvement project, so a CCA for the Green Line light rail project will be a little different from the Orange Line Light Rail Extension, etc.

Facilities shared with third parties

Private businesses or institutions own almost half of the P&R locations that TriMet provides in the region and have smaller capacities than the other two types. There are some notable exceptions — the largest P&R overall is located at the Clackamas Town Center at the Southern

terminus of the MAX Green Line as a structure in a parking lot. Others include the Hillsboro Garage, owned by the City of Hillsboro, and Delta Park/Vanport Park & Rides, where the underlying real property is owned by the City of Portland and ODOT and operated by TriMet respectively through an IGA and an Easement.

TriMet operated Park & Rides have a broad variety of capacity depending on each site and location. There are six large P&Rs, with capacity ranging from 110 to 750 spaces. The remaining 21 P&Rs are much smaller and range from 10 to 60 spaces each. These smaller locations, typically operated by TriMet through a lease are mostly shared with religious buildings, public institutions, and a movie theatre, and serve as an access point for transit riders to connect to a local bus. The sharing agreements are complementary as these locations experience low occupancy during weekdays and/or work hours.

Figure 4 on the next page shows examples of a few types of P&Rs.

Inventory

As discussed before, there are 55 P&Rs in the service district which provide a combined 11,559 parking spaces as of April 2025. A typical or median P&R has 197 parking spaces, though there is a lot of variation. The largest is at Clackamas Town Center, with 750 spaces, while Hope Church in Lake Oswego and Columbia Center in East Portland are both the smallest, providing 12 spaces for weekday P&R usage.

Available Amenities

Apart from parking spaces, different P&Rs have quality-of-life, bike, and electric vehicle (EV)-related amenities. These are summarized in Table 1. Generally speaking, TriMet-owned locations are newer and have more amenities, especially compared to third party facilities.

Table 1: Summary of amenities at P&Rs

Owner type	Bike racks	Bike lockers	Bike & Ride	EV stall	Shelter	Lighting	Bench	Rest room
TriMet (19 total)	16	15	8	3	14	19	15	1
ODOT (10 total)	6	8	0	0	8	9	9	0
Third party (25 total)	6	6	0	3	10	10	11	0
Total	28	29	8	6	32	38	35	1

ACCESSING BIKE FACILITIES

TriMet provides three different types of bike facilities, depending on the P&R (see Box for further details). Access to these facilities also varies depending on the P&R. Some bike lockers and Bike & Rides are accessible exclusively through the HOP card. Others are managed by a vendor, BikeLink, which issues its own BikeLink card. While the HOP card needs to be physically activated at the TriMet Customer Service Center in Pioneer Courthouse Square during business hours on weekdays, a BikeLink card can also be activated online. Furthermore, using the BikeLink service is not free — it costs between 1–3 cents/hour, depending on the time of the day, on top of a \$25 fee for purchasing the card.

Twenty-eight out of the 55 P&Rs have a total of 435 bike racks, while 29 P&Rs have 580 storage spaces in bike lockers. Some P&Rs have a much larger number of bike rack or storage facilities than others. Beaverton P&R has 72 and SE Park Ave has 56 bike racks. SE Johnson Creek has 112 bike storage spots, while SE Park Ave also has 74. These amenities are found mostly in TriMet and ODOT-owned facilities, with very few third-party owned locations providing bike storage, benches, shelter etc.

Clearly, biking to a P&R rather than driving is much more complicated. The type of service depends on the P&R, and unlike for drivers, it is not free. Going forward, this study will consider the supply of bike

facilities at P&Rs along with bike accessibility levels to tailor strategies.

Types of bike facilities

There are three types of bike facilities at different P&Rs:

1. **Bike rack:** This is the classic “staple” design to which a bike can be locked. It is uncovered.
2. **Bike locker:** This is a small cargo box with a diagonal split. It can hold two bikes, each with individual access.
3. **Bike & Ride:** This is a large, secured storage facility that can be accessed through a single access-controlled door.

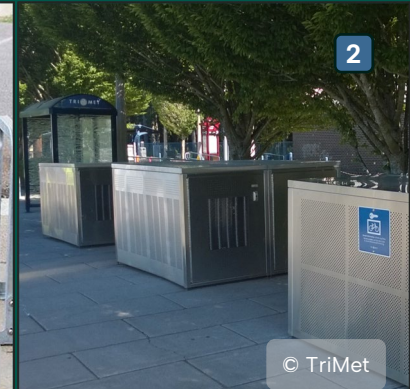
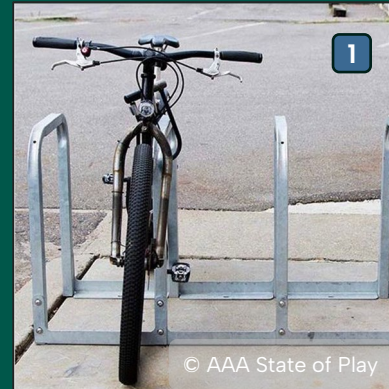
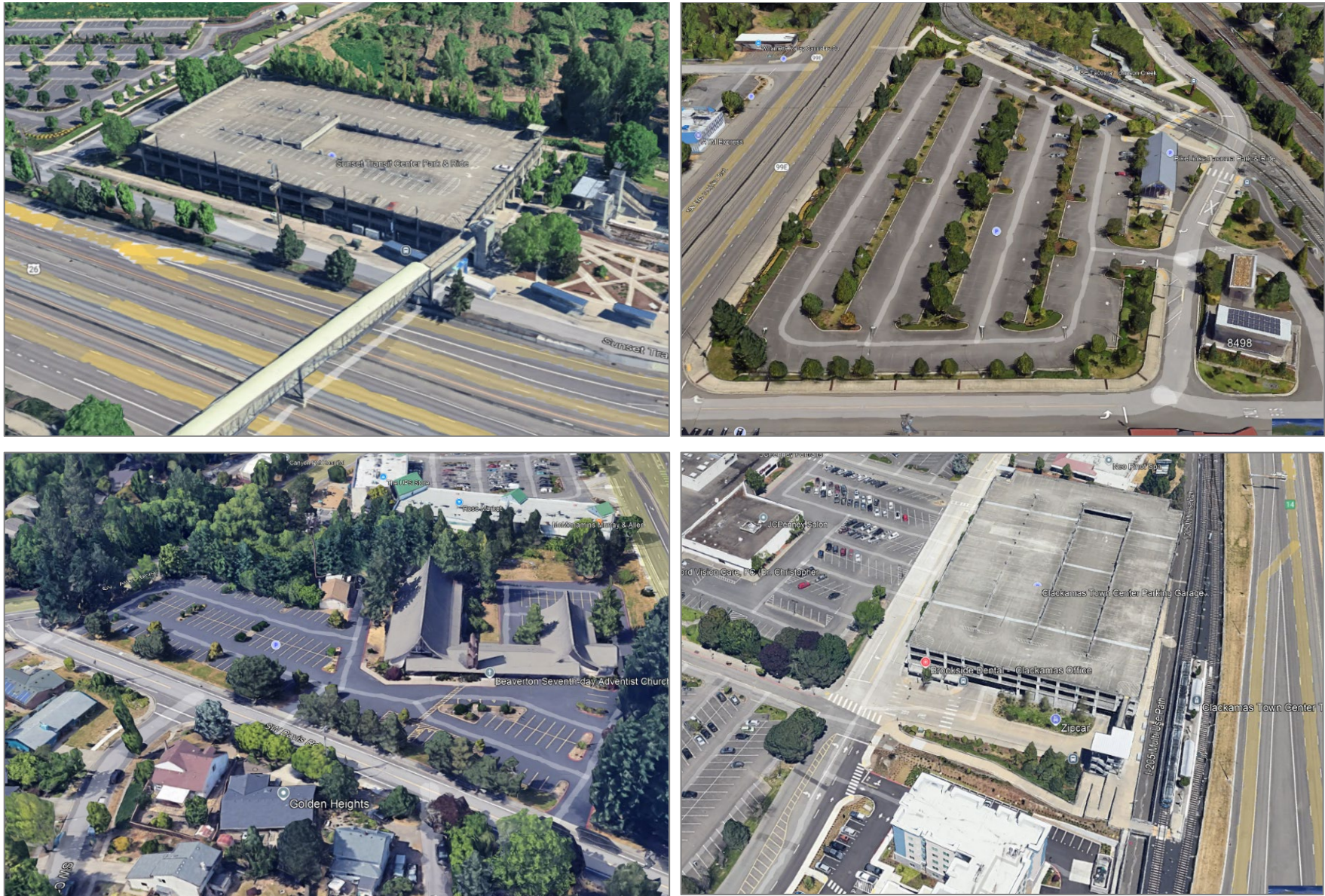


Figure 4: Examples of P&R Types



Clockwise from top left: (a) Sunset Transit Center Structure, (b) SE Tacoma/Johnson Creek Surface Lot, (c) Clackamas Town Center Shared Structure, (d) Seventh Day Church Beaverton Shared Surface Lot (Source: Google Earth Satellite Imagery)

Occupancy

The occupancy of P&Rs is the percentage of individual spaces being used at the time of the survey. Table 2 shows the date and time period of the past surveys, wherever available. Surveys were conducted in the first or second week of November, in the middle of the week, and between morning and afternoon peak hours to account for the arrival or departure of peak hour commuters. Before 2023, the occupancy surveys did not include third party shared facilities and were limited to TriMet and ODOT-owned locations.

Crucially, this survey approach has its limitations. One is that conducting it takes up a lot of resources for TriMet since it is done manually across the region in one day. Secondly, it is just one day in a year with monthly and seasonal travel trends. Finally, due to the increased prevalence of hybrid work schedules which vary between commuters, conducting the survey on a single day may not capture the full picture of occupancy trends at P&Rs. The occupancy levels should be viewed with this context in mind.

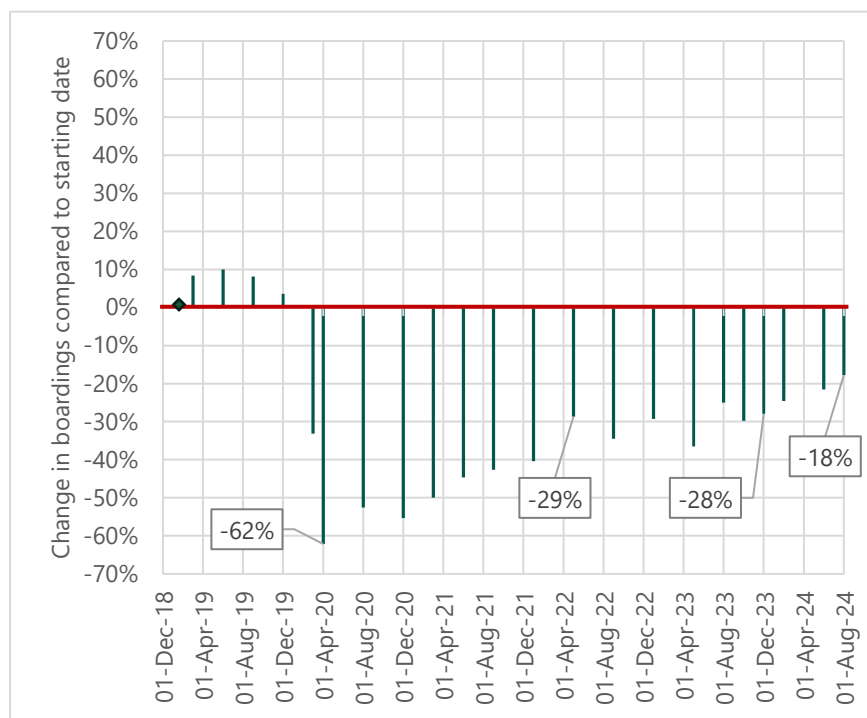
Table 2: P&R Occupancy Surveys – Dates and Times

Survey year	Date of survey	Time of survey
2015	Data not available	
2016	Data not available	
2017	Data not available	
2018	Survey was not conducted	
2019	Data not available	
2020	Survey was not conducted	
2021	2 Nov, Tue	8:30 am – 12 pm
2022	15 Nov, Tue	8:30 am – 12 pm
2023	8 Nov, Wed	8:30 am – 12 pm
2024	13 Nov, Wed	8:30 am – 12 pm

As a reminder, P&Rs are designed and situated to meet the needs of daily commuters. In Portland, they are located outside of the central city area and mostly along MAX corridors. Thus, they best serve commuters traveling towards employment centers in Downtown Portland and surrounding neighborhoods. In this context, the relaxation in office attendance requirements during and after the pandemic have led to a sustained reduction in peak-hour, downtown-oriented transit usage of P&Rs. The following tables and figures illustrate this ongoing narrative.

Figure 5 shows the change in total number of boardings at all TriMet stops, as a proxy for ridership, for select dates from 2018 to 2024 as obtained from TriMet. The percentage change is in relation to the starting date in the graph, December 2018. Thus, if one accounts for seasonal changes, ridership was steady until the pandemic lockdown in March 2020, after which ridership was 62% lower than in December 2018. Since then, it has slowly recovered — the most recent December data is from December 3, 2023, when ridership was 28% less compared to the 2018 numbers.

Figure 5: Daily boardings for select dates (2018 – 2024)



Following ridership, **Figure 6** shows the results of the P&R occupancy surveys for the years in which they were conducted. A similar drop in occupancy occurred after the pandemic. However, the main difference is that the recovery of P&R usage is worse compared to that of ridership. While ridership has now recovered to 78% of pre-pandemic figures, P&R usage has dropped 43 percentage points after the pandemic to just 19% overall occupancy in 2024.

Thus, out of the total 11,581 available parking spaces, 2,187 were occupied and 9,394 were vacant on Wednesday, 13 November 2024.

Figure 6: Overall Occupancy at TriMet P&Rs in the Surveyed Years

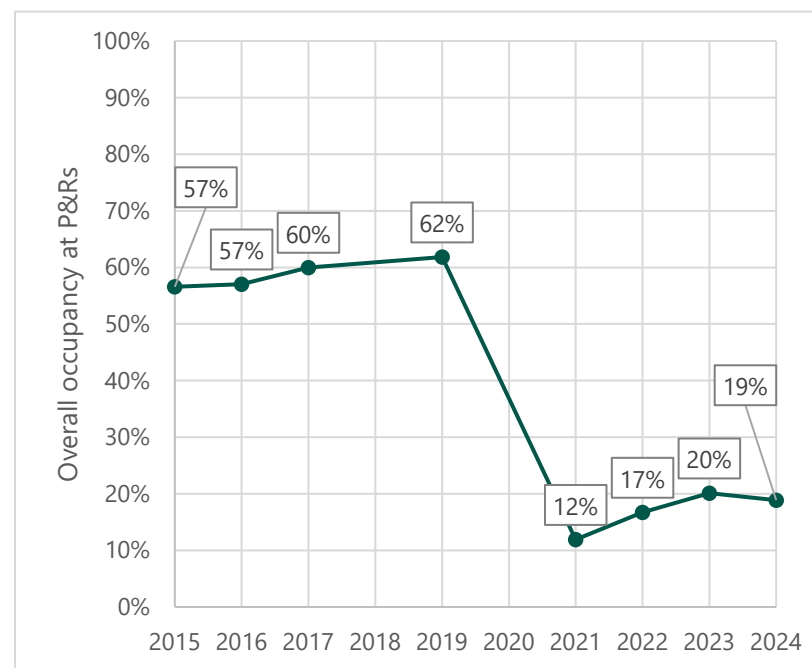


Figure 7 shows the occupancy at each P&R as recorded for this survey. The map has P&R titles only for locations with more than the average occupancy of 19%.

The figure shows that very few P&Rs have any substantial occupancy. Sunset Transit Center (413/630), SE Tacoma/Johnson Creek (190/318), and Gateway Garage (139/480), are amongst the very few that stand out. A majority of the remaining P&Rs have occupancy in single and low double digits with hundreds of empty spaces.

A different perspective of this discussion is by estimating the contribution of P&R usage to TriMet ridership. Assuming that, on the day of the occupancy survey, every person who parked at a P&R took transit to a location in central Portland and back to that P&R later in the day, without having to take connecting routes in the middle. Thus,

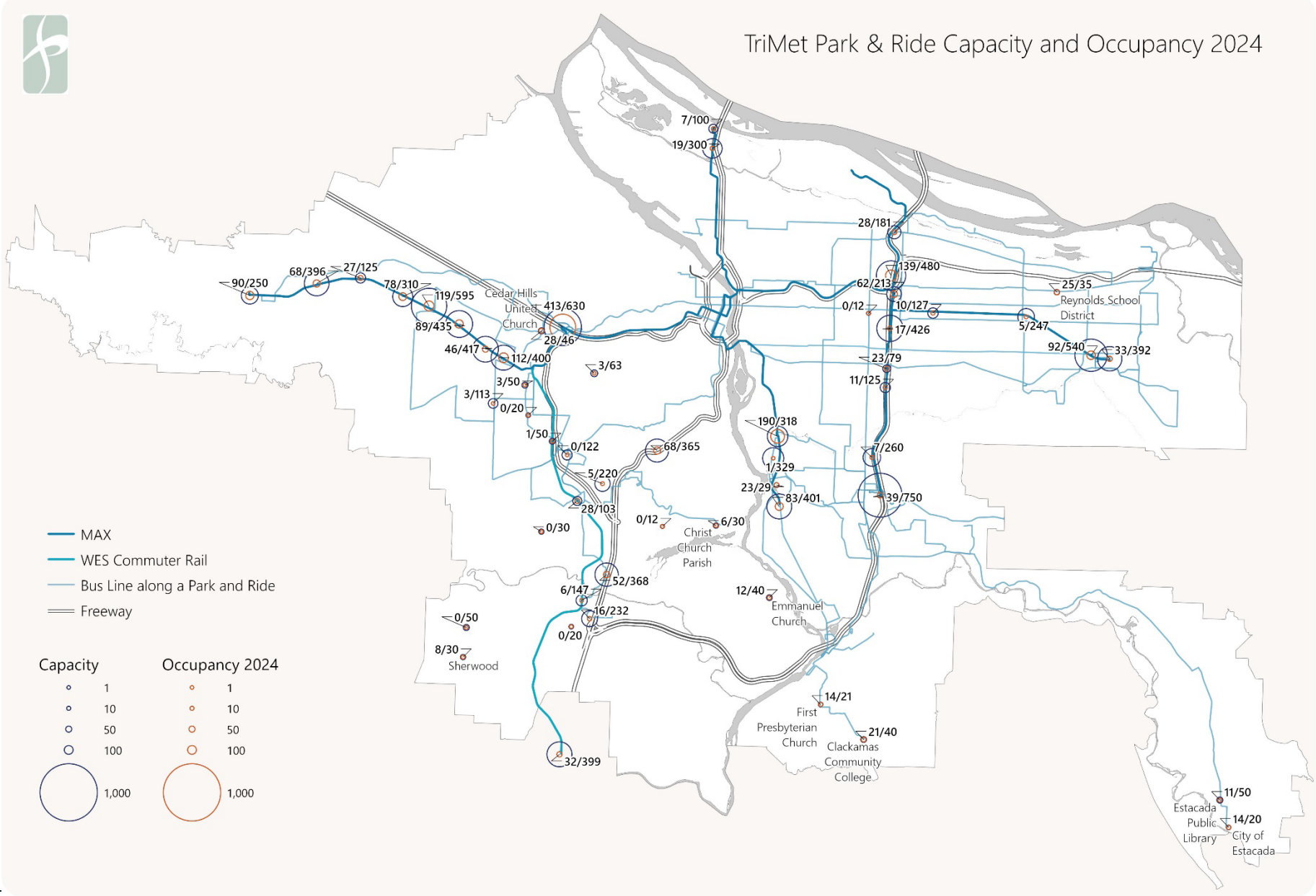
the 2,187 parked cars contributed roughly 4,400 trips on a day with about 200,000 individual transit trips⁵. That equates to only 2% of all trips on that weekday. Furthermore, despite this reduced contribution of P&Rs to transit ridership, the cost of maintaining them has not gone down (and has potentially gone up due to inflation). P&Rs, in their currently underused state, require consistent resources and funding from the agency's limited budget while contributing much less to the agency's ridership and revenue goals.

The real percentage contribution to ridership will be influenced by the fact that not everyone who parks at a P&R uses transit, and that the number of transfer trips varies based on the final destination. Still, these results and the charts suggest a truly new normal — one where, owing to a mix of work-from-home and reduction in peak hour transit usage, P&Rs play a reduced role in extending transit accessibility to the farther reaches of the metropolitan region.

On the other hand, it is important to keep in mind that, by using a P&R, a person does reduce the number of vehicle miles traveled (VMTs) by substituting a portion of their car trip with transit. Balancing this consideration against the possible alternative uses of the land on which P&Rs sit will be key to the desired outcomes of this project.

⁵ The average weekday ridership for November 2024 was ~200,000 trips (<https://trimet.org/about/pdf/2024/Nov%202024%20MPR.pdf>). Each transfer trip counts as one complete trip.

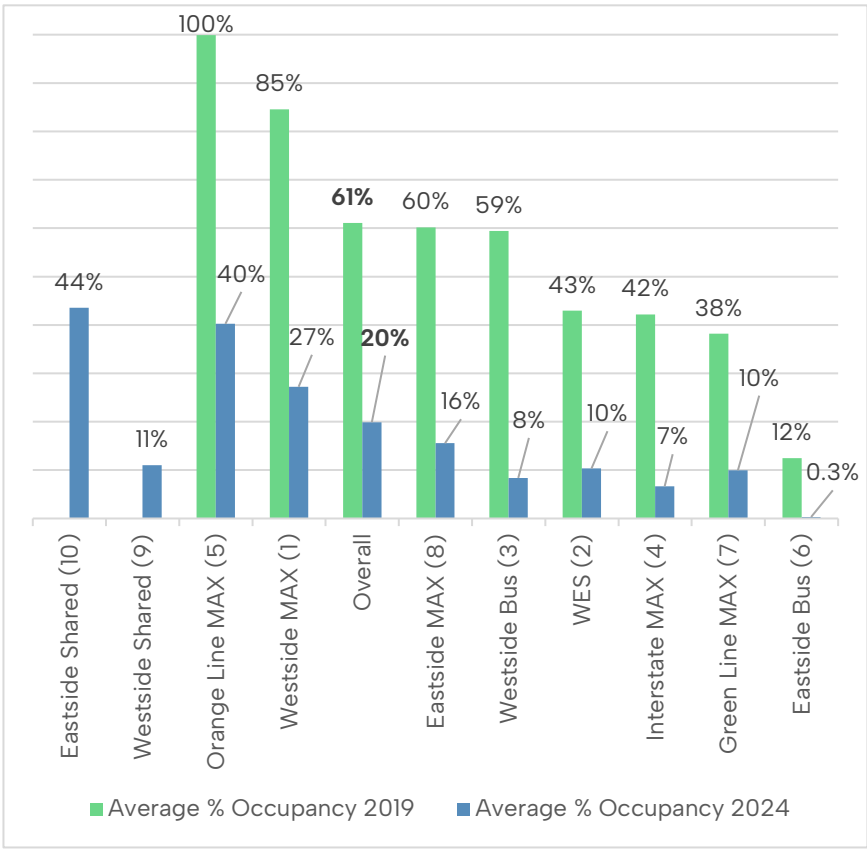
Figure 7: Capacity and Occupancy at P&R's (Source: TriMet Survey, November 2024)



Comparison of Occupancy by Transit Corridor

TriMet categorizes its P&Rs based on the transit corridors they serve, separately for MAX and bus route groups (**Figure 9 on the next page**). A key purpose for categorizing occupancy by corridor is to understand how Park & Ride facilities are used along different MAX lines and to understand where and why people prefer to park along their commute routes. MAX lines also usually run parallel to major arterials or highways, like the West side blue line next to Highway 26, and the Green line next to I-205. Finally, they have investments of a similar era based on the corridor. For example, the orange line has

Figure 8: Comparison of P&R Occupancy by Transit Corridors



historically seen higher P&R use than older segments. Whether this is because the investments are newer and meet the expectations of commuters, or because of geographic and demographic reasons based on which roadway they run parallel to, needs to be investigated further as this study progresses.

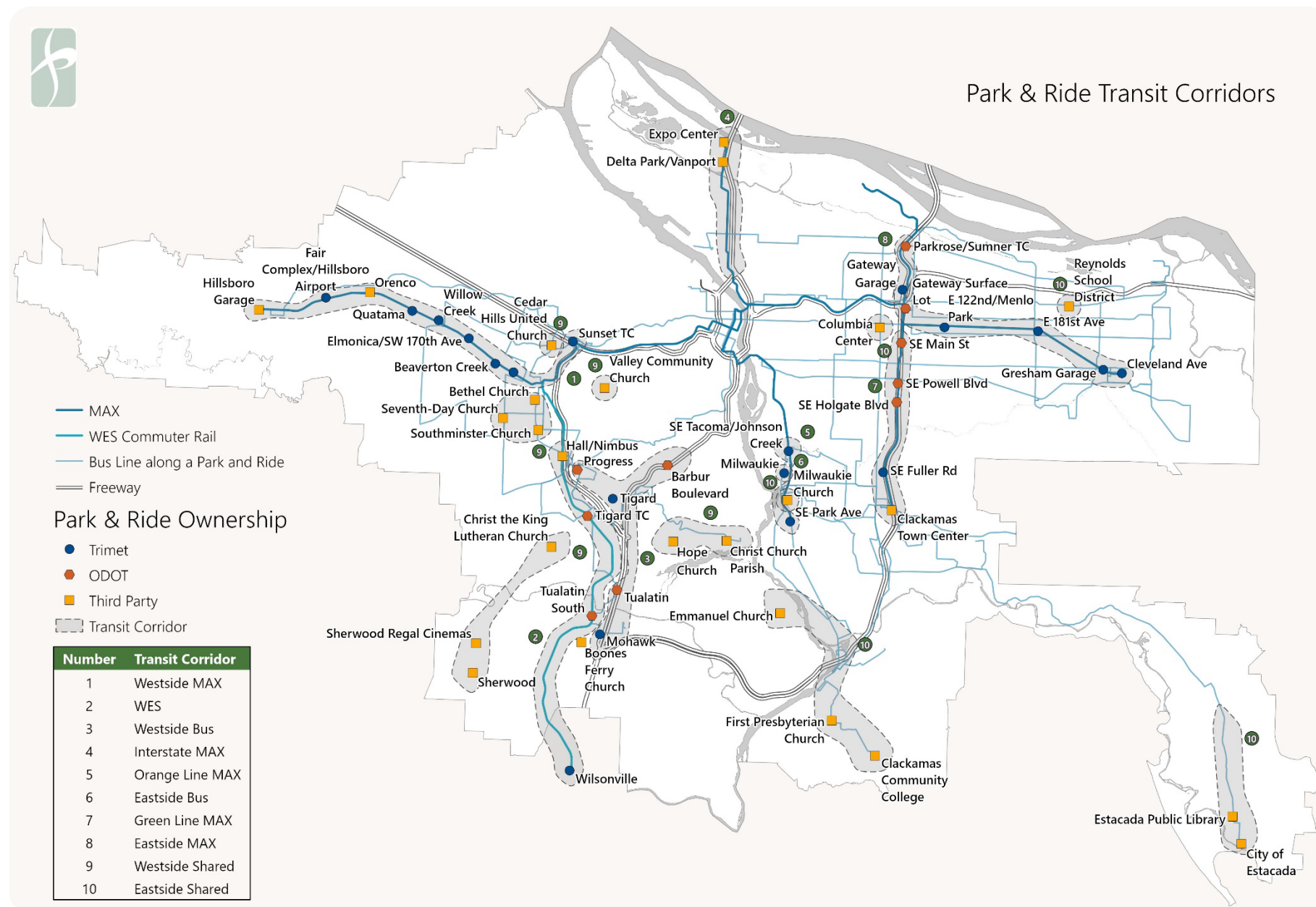
Going forward, optimization strategies in this project will also depend on the corridor they're applied to. Keeping this in mind, **Figure 8** compares the occupancy percentages across different corridors between 2019, when it was the highest, and 2024. Though the overall occupancy decreases from 61% to 20%, there is significant variation across the corridors. Commuters used P&Rs along the southern Orange and the Westside MAX lines much more than the others before the pandemic. In 2024, their occupancies are still higher than the others, but the gaps are smaller. On the lower end, P&Rs along the Green Line and Interstate (serving the northern Yellow Line) MAX corridors were comparatively less occupied and continued to be so in 2024. As a reminder, TriMet did not survey third-party P&Rs before 2023, and hence Eastside and Westside Shared P&Rs do not have 2019 occupancy levels available. This analysis indicates the presence of a regional pattern in P&R usage — the southern and eastside see higher usage than the other regions. Secondly, these regional patterns have sustained over the 5 years.

Contextual Data

The previous sub-sections gave an overview of the types of P&Rs, a history of their occupancy, and a measure of their performance in the context of transit usage. This section adds important context about where they are located by mapping various demographic indicators, land use patterns around the facilities, and the Walk, Bike, and Transit Scores at these locations from the Walk Score website.

The goal of the added contextual data is to better inform the strategies to efficiently use valuable land at P&Rs based on where they're located in the region.

Figure 9: P&R Groupings by Transit Corridors



Demographic maps

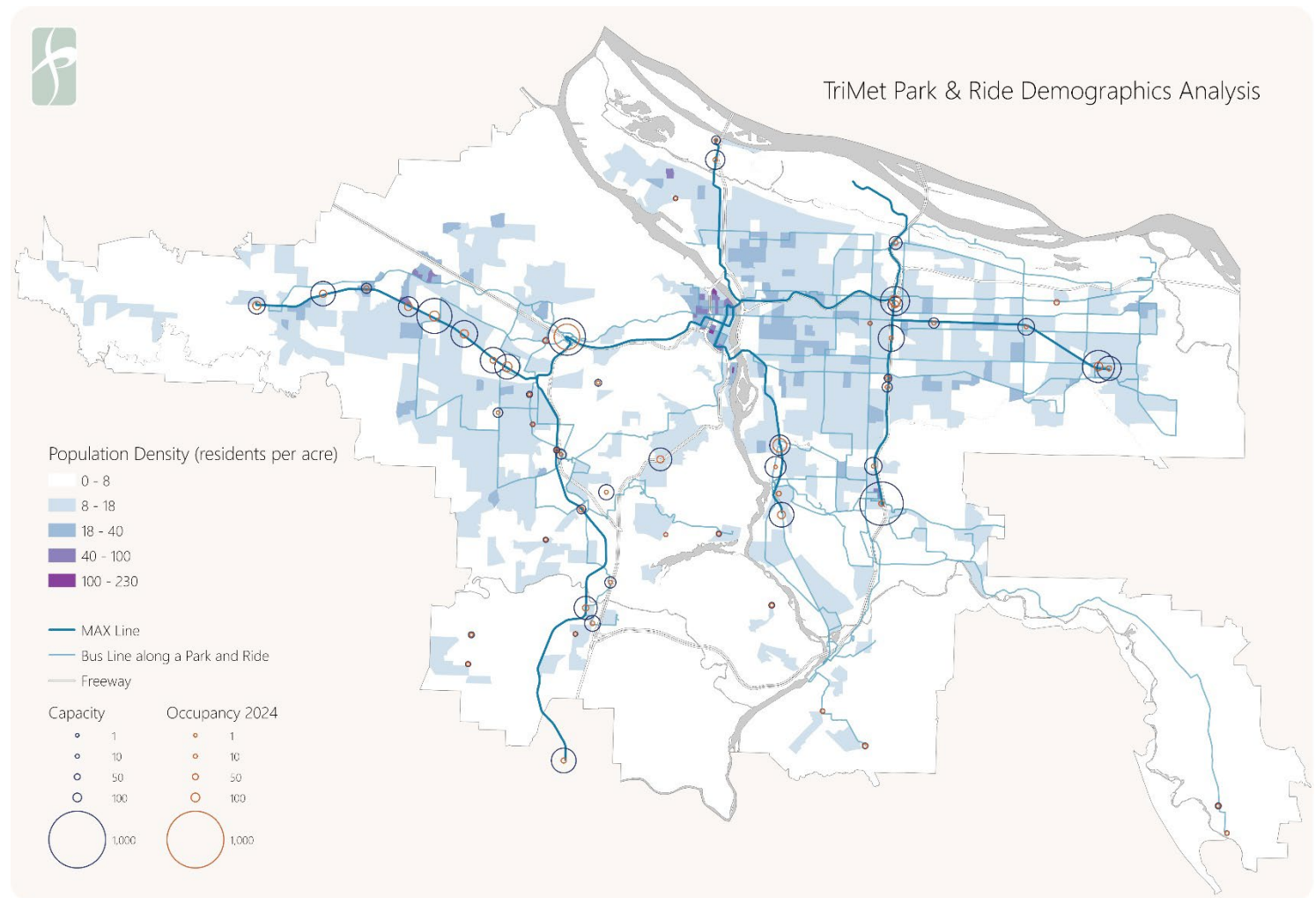
Starting with **Figure 10**, each demographic indicator is plotted at the smallest available unit, that is, the census block. Unless otherwise noted, they are sourced from the 2023 American Community Survey

POPULATION DENSITY

The density of households and population positively influences transit ridership. In return, over time more people are attracted to housing and jobs closer to transit corridors. In Portland, population density reduces as one moves farther from the city center. However, it is also higher along transit corridors, as evidenced by the darker census blocks along the MAX lines in **Figure 10**.

The TriMet service district and the Metro Urban Growth Boundary (UGB) mostly share boundaries, and the UGB has historically played a role in reducing sprawl and promoting infill. That and the region's TOD policies have led to a higher population density along the MAX corridors.

Figure 10: Population Density

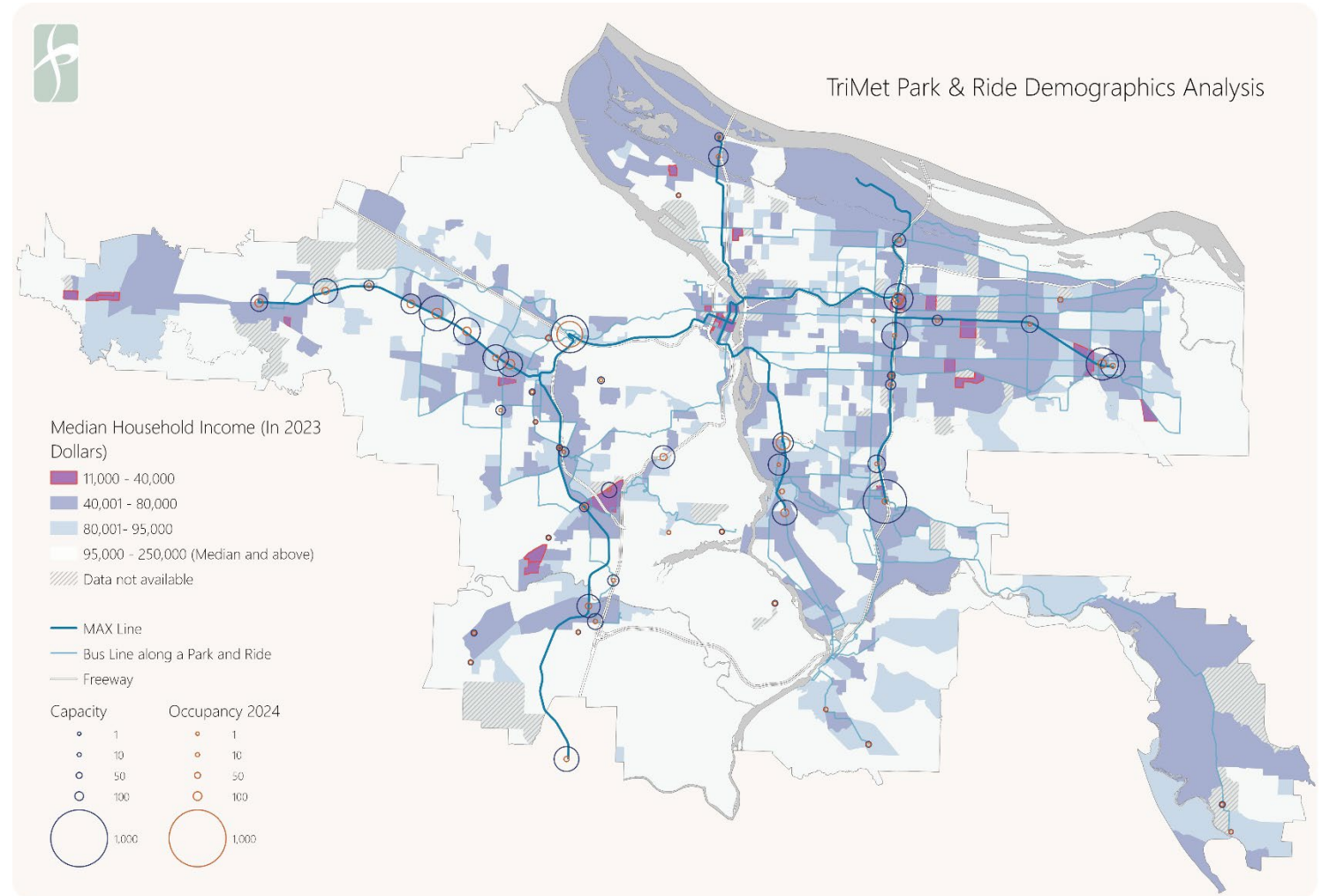


MEDIAN HOUSEHOLD INCOME

Figure 11 shows the median household income in each census block for 2023. The median of the median household income of all blocks is roughly \$95,000. The legend and the map data are focused on showing income distribution up to this income level.

In general, blocks with similar income appear more likely to be next to each other. Furthermore, apart from central Portland, more blocks along the MAX lines have a household income lower than the median value than at other locations. This is especially apparent on the east-west MAX corridor.

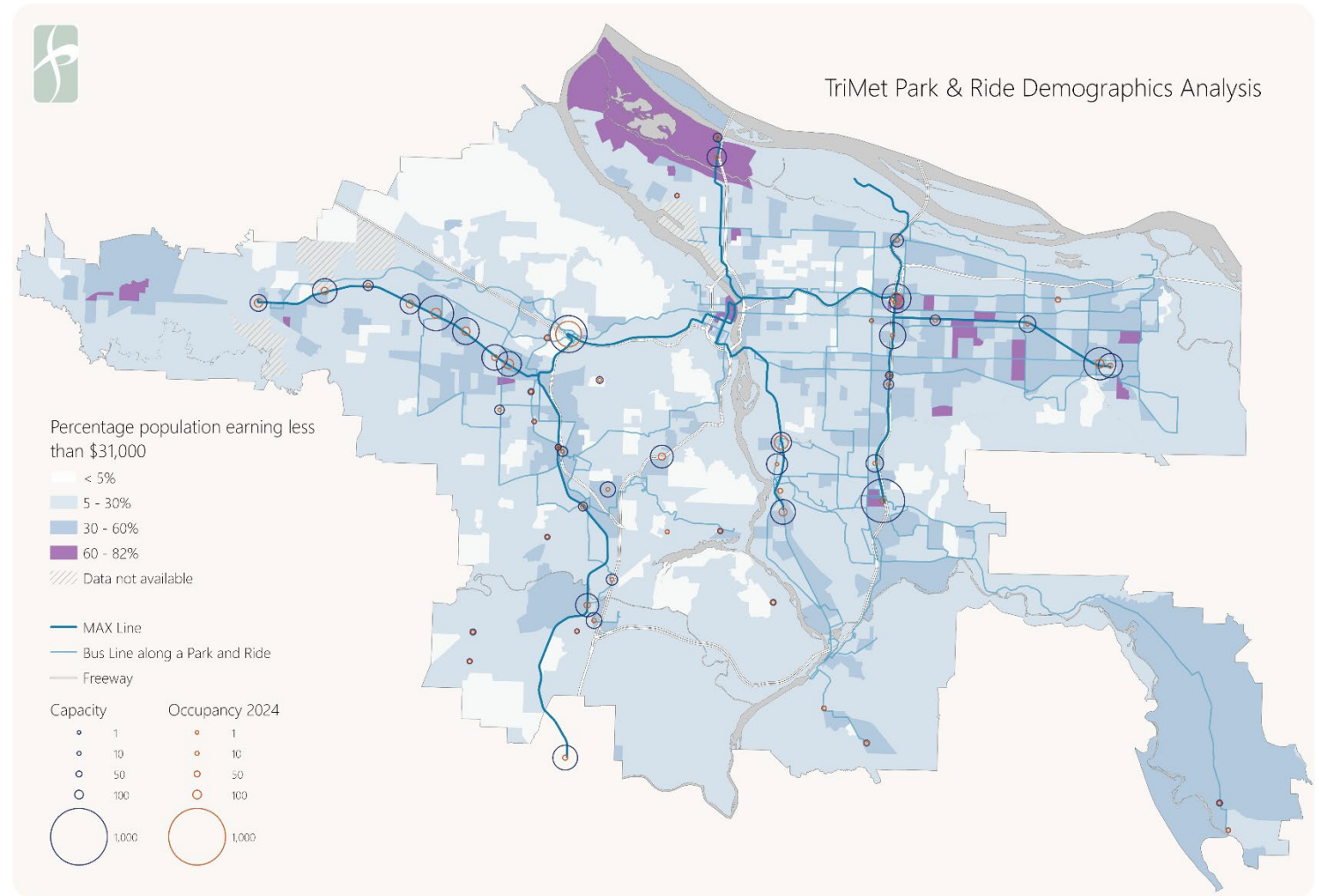
Figure 11: Median Household Income



POVERTY

Figure 12 presents the income distribution from the previous figure a little differently, with more emphasis on lower income populations. It shows the percentage of population in each block which earns less than twice the Poverty Line income of \$15,800 as individuals in the region. The most income-stressed blocks, having between 60–82% of the population that earns less than \$31,000, are mostly located on the east side and closer to the Blue line. There are a few on the west side, closer to the boundary of the TriMet service district. Finally, blocks in Downtown are also in this category, but the percentages here are likely higher due to the high number of student population.

Figure 12: Percentage Population Earning less than twice the Poverty Line Income



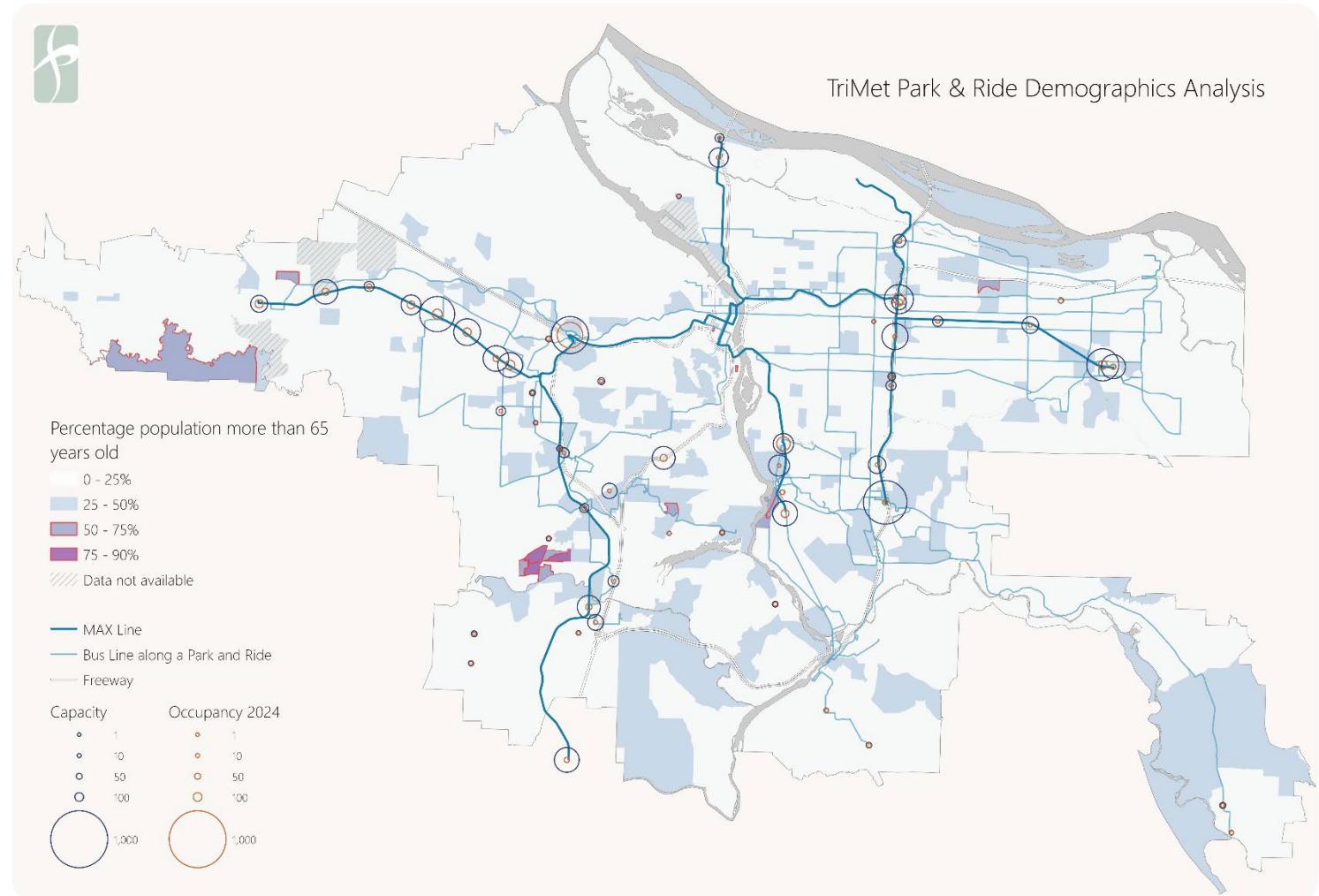
Relying on the two income-related maps, a cursory look suggests that the further that one lives away from a MAX station the more affluent they will be.

PERCENTAGE POPULATION 65 YEARS AND OLDER

Figure 13 shows the percentage of senior citizens in each block. Categorizing the population into four ranges shows that most of the region is quite young; in most blocks less than 1 in 4 people is a senior citizen. A few blocks in the southeast and in the far west have high percentages of senior citizens (75 – 90%).

This information will be useful for strategizing the improvements needed at TriMet's P&Rs. For example, an area with a higher number of older population could have more space to accommodate their special needs like drop-off points or circulator shuttles.

Figure 13: Percentage Population 65 Years and Older



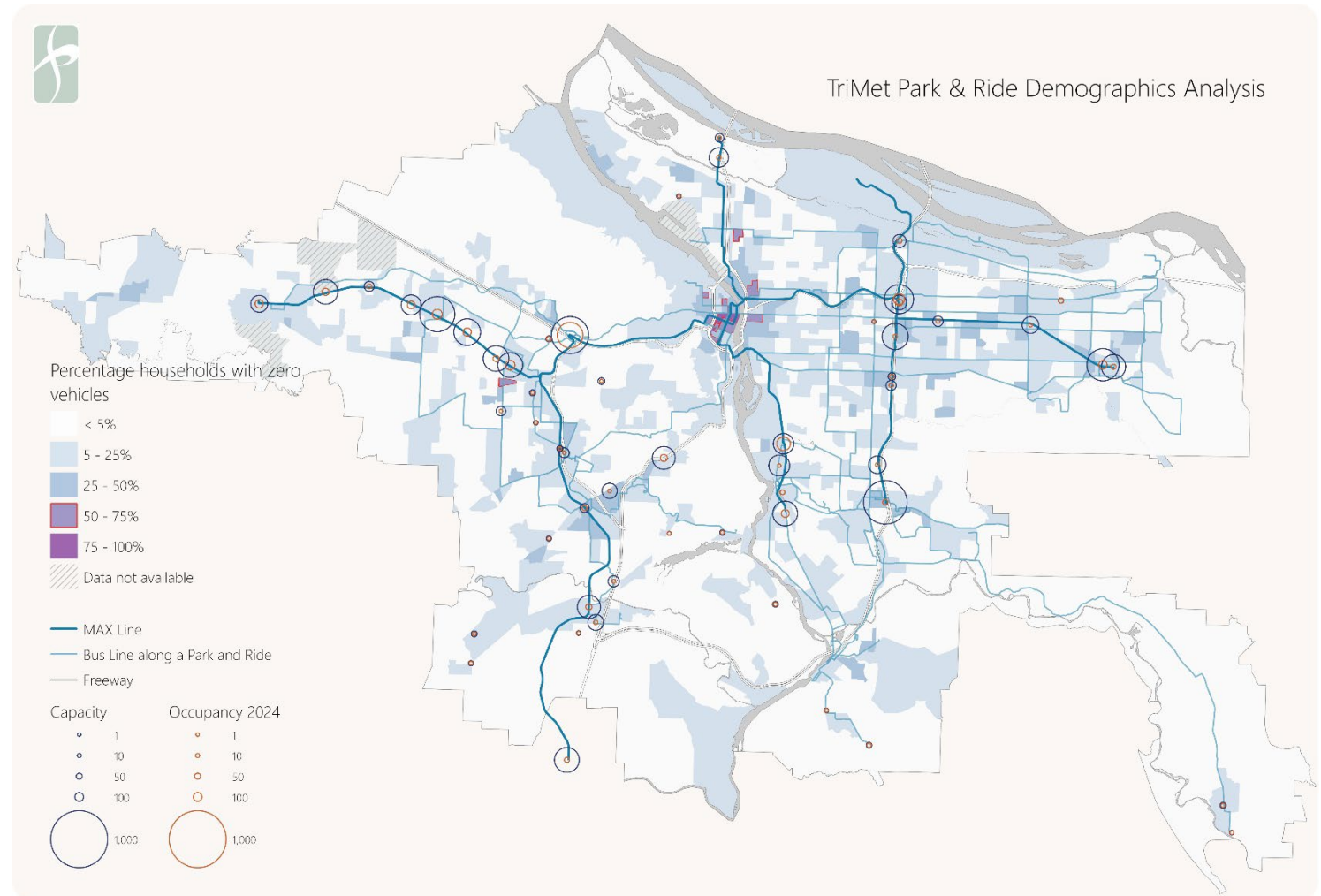
PERCENTAGE HOUSEHOLDS WITH ZERO VEHICLES

Figure 14 shows the percentage of households in each block which do not own private automobiles. Blocks with 50–75% of such households have been highlighted using a red border. This is because blocks with higher percentages are few in count and exist only in central city.

Most households in the region own at least one car. This is evidenced by the high number of blocks with less than 5% zero car households.

Car ownership is lower along the transit corridors and higher away from the MAX lines.

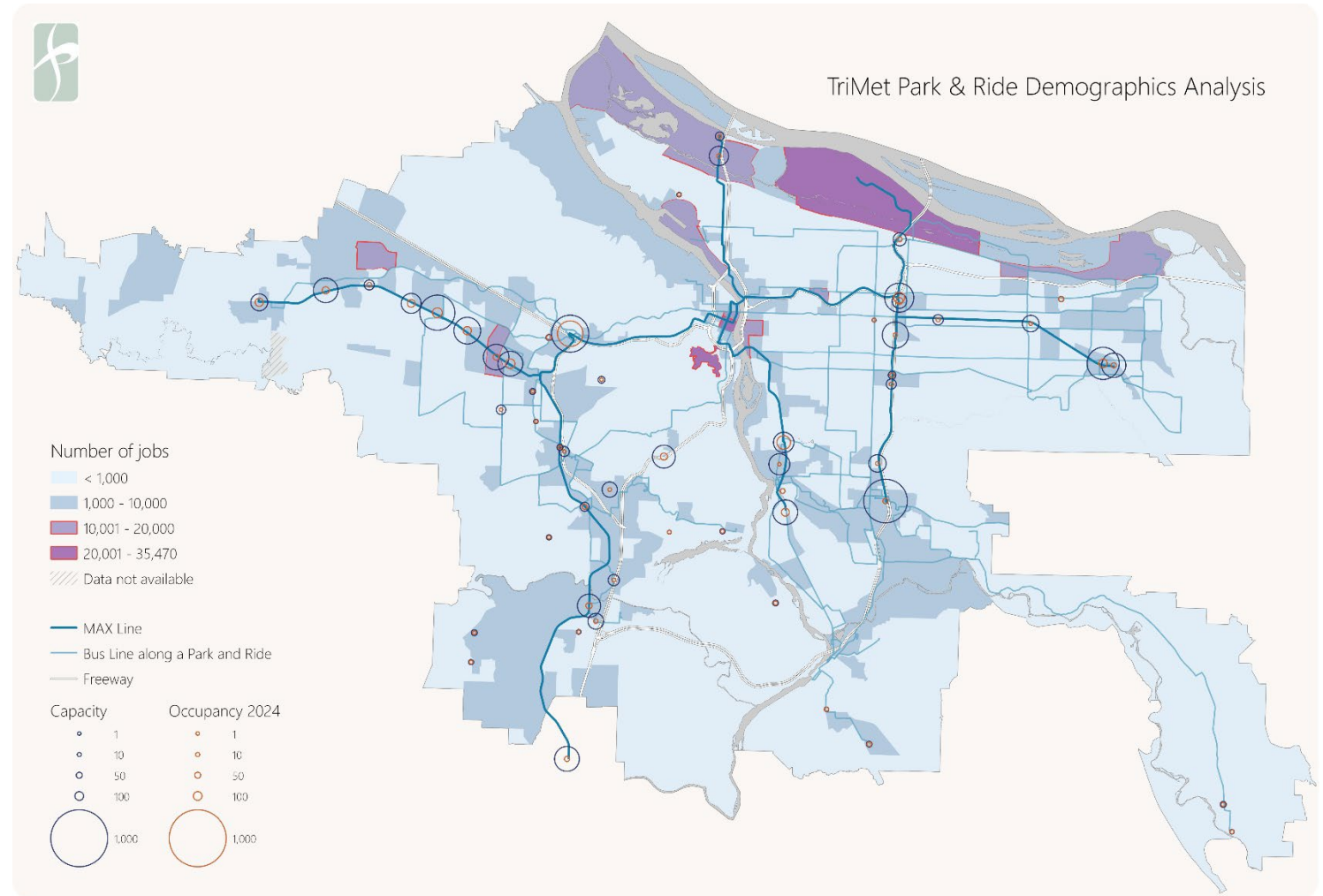
Figure 14: Percentage households without any vehicles



JOB DENSITY

Figure 15 shows the number of jobs in each census block as of 2022. Major job areas, outlined in red and with more than 10,000 jobs in each, can be seen on the map. They reflect the locations of bigger employers like the airport in the north, OHSU in southwest, and Intel and Nike west of Portland City. Furthermore, it is generally visible that blocks with more jobs (between 1,000 to 10,000) are along transit corridors, especially in the west, southwest, and southeast.

Figure 15: Number of Jobs in Census Blocks



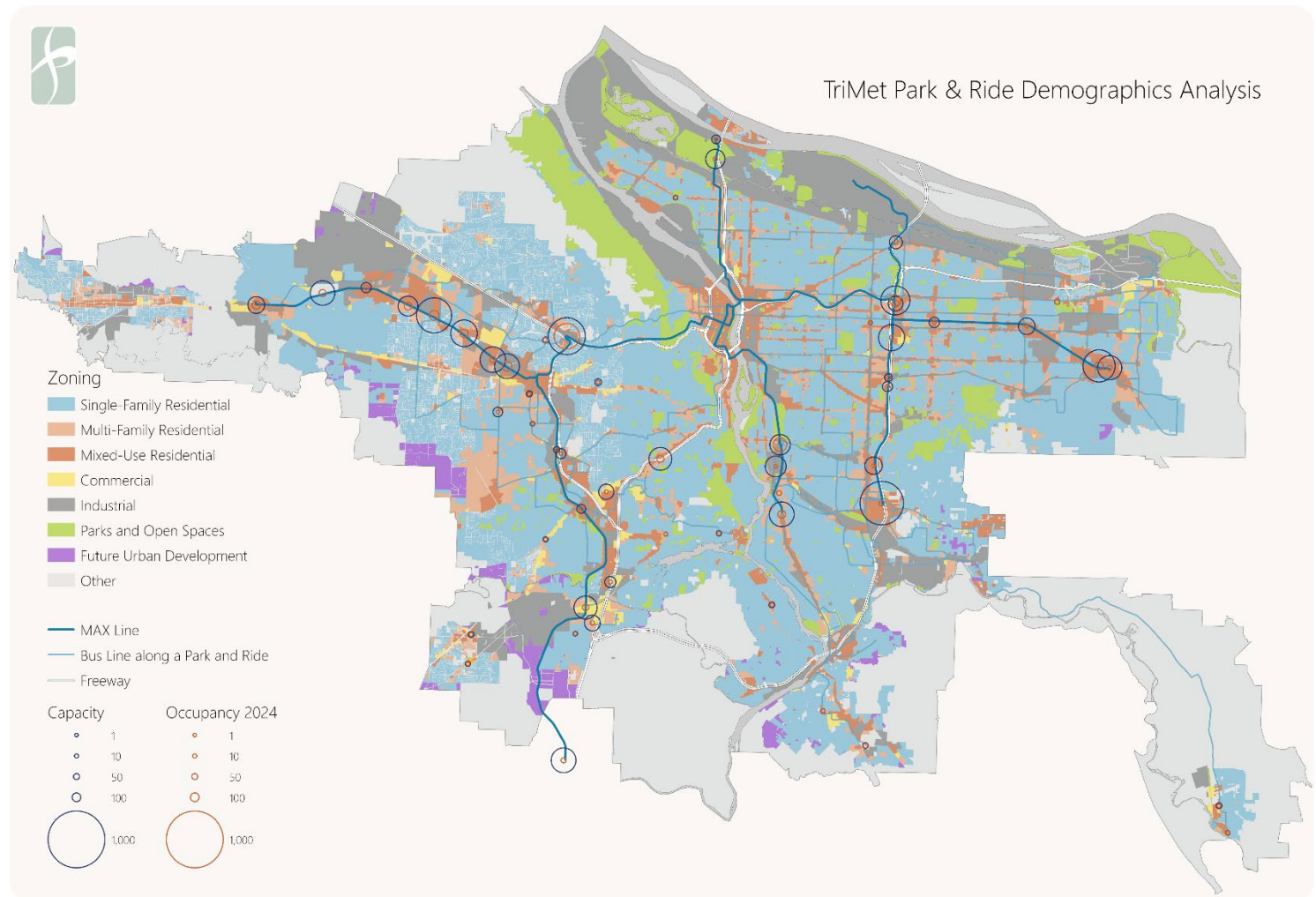
Zoning

Figure 16 shows the zoning distribution for the region. Though single-family housing (blue) dominates the landscape, the effect of TOD policies is clearly visible, with multi-family (light pink) and mixed-used residential (light brown) zoning along the transit corridors, including the MAX lines and bus routes on primary roadways.

Let us bring together a qualitative understanding of demographics, car ownership, and zoning in the Metro region. People with lower incomes and those owning fewer cars are closer to MAX lines. Furthermore, the region's development model has consistently encouraged denser residences along transit corridors. P&Rs, most typically large surface lots, are also

located right next to transit, and thus in areas with lower incomes, lower car ownership, and denser developments. This contrast indicates an opportunity to reconsider the amount of space that should be dedicated to car parking.

Figure 16: Zoning in TriMet District (Source: Oregon Metro)



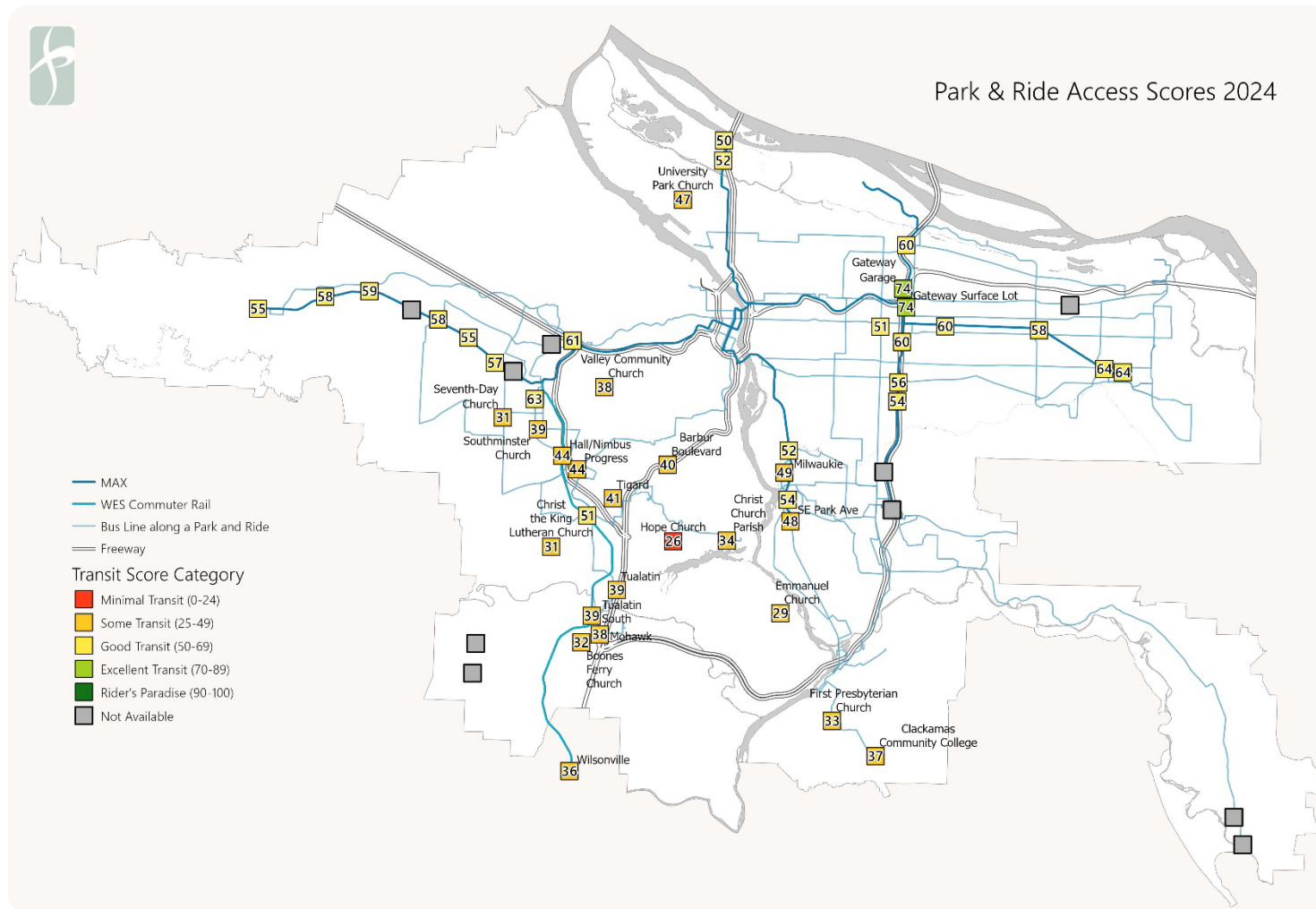
The Walk Score provides a calculated access score for walking, biking, and transit at a given location, through its website. As they are used commonly in academia and the development industry, the scores are employed for this Memo to get a sense of non-private automobile access at the TriMet P&Rs.

TRANSIT SCORE

Even though all P&Rs are located adjacent to transit stations and stops, there is significant variation in their Transit Scores, as seen in **Figure 17**. Transit Centers, which act as a

intersection point for multiple routes, have higher scores (Gateway TC in the east with 74, Sunset TC in the west with 61). Generally, P&Rs along the east-west corridors have better scores than those along the north-south corridors. P&Rs in the south of Portland, in particular, have very low scores. It remains to be seen if there is any correlation between the Transit Scores and P&R occupancy levels.

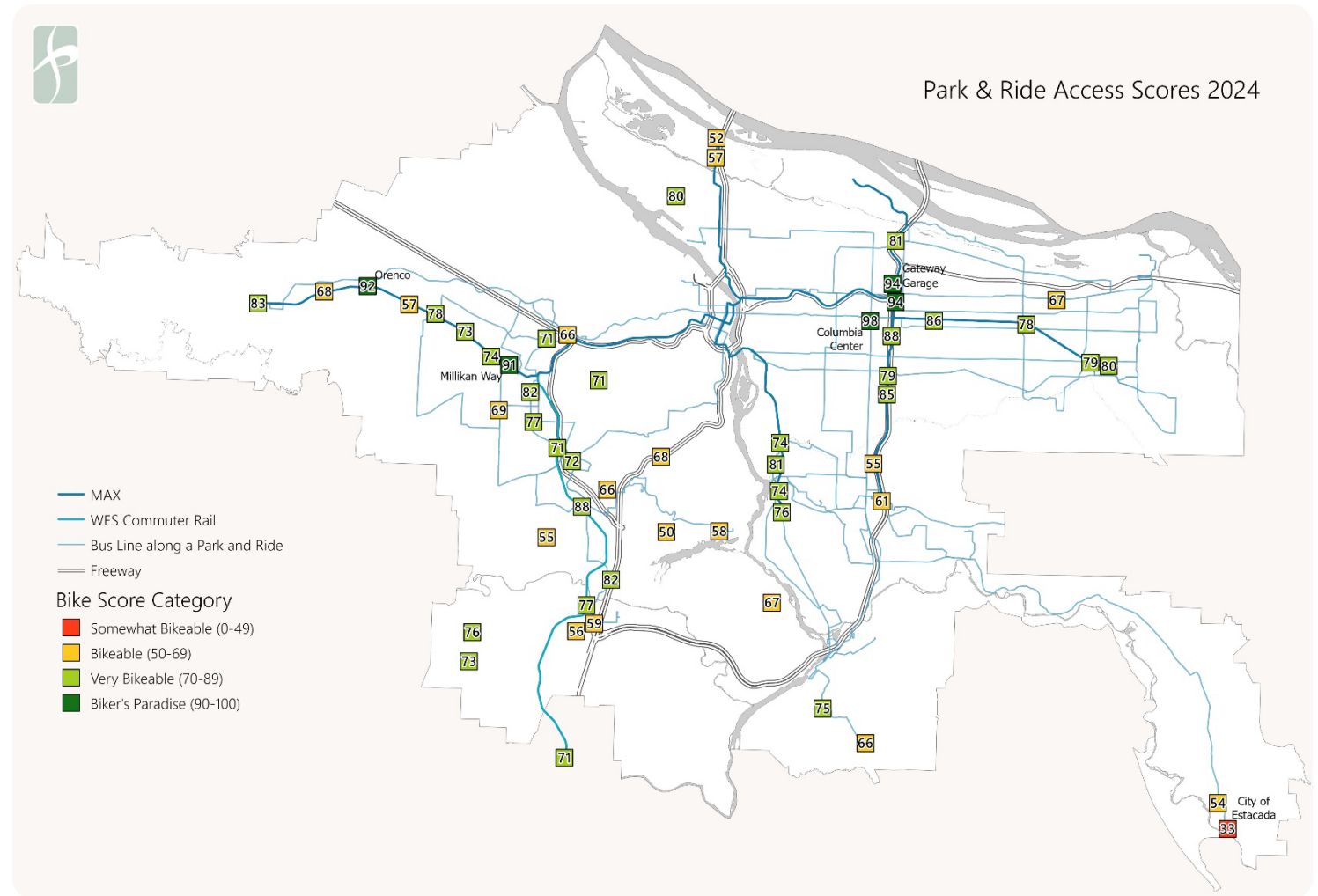
Figure 17: Transit Score at Park and Rides



BIKE SCORE

Portland is regarded highly for its bike infrastructure in comparison to other cities in the US. Consequently, most P&Rs fall within the Very Bikeable (70–89 score) category of the Bike Score, meaning that there's adequate bike infrastructure in the immediate vicinity of these locations. There are a few exceptions at the terminus of a few transit corridors in the north and in the southeast.

Figure 18: Bike Score at Park and Rides



WALK SCORE

Though for P&Rs, good walkability may be less important, from a strategic perspective their Walk Scores will be useful in deciding the relevant interventions. There is a lot of variation in the Walk Scores around different P&Rs.

Key takeaways:

1. Walkability proximate to stations located in the east section of the Blue Line between Gateway Transit Center and Gresham is generally good.
2. Beaverton Creek (Blue and Red Line Station), Hillsboro Airport (Blue Line), and Expo Center (Yellow Line station) are locations with poor walkability.
3. P&R facilities with relatively higher capacity including Sunset Transit Center, and facilities between Orenco Station and Beaverton Creek have lower walkability scores. Fifteen out twenty six third-party P&R facilities have lower walkability scores, ranging from "Car-Dependent" to "Somewhat Walkable".

The table below collects some of the observations and key takeaways together from the demographic and modal accessibility maps.

Figure 19: Walk Score at Park and Rides

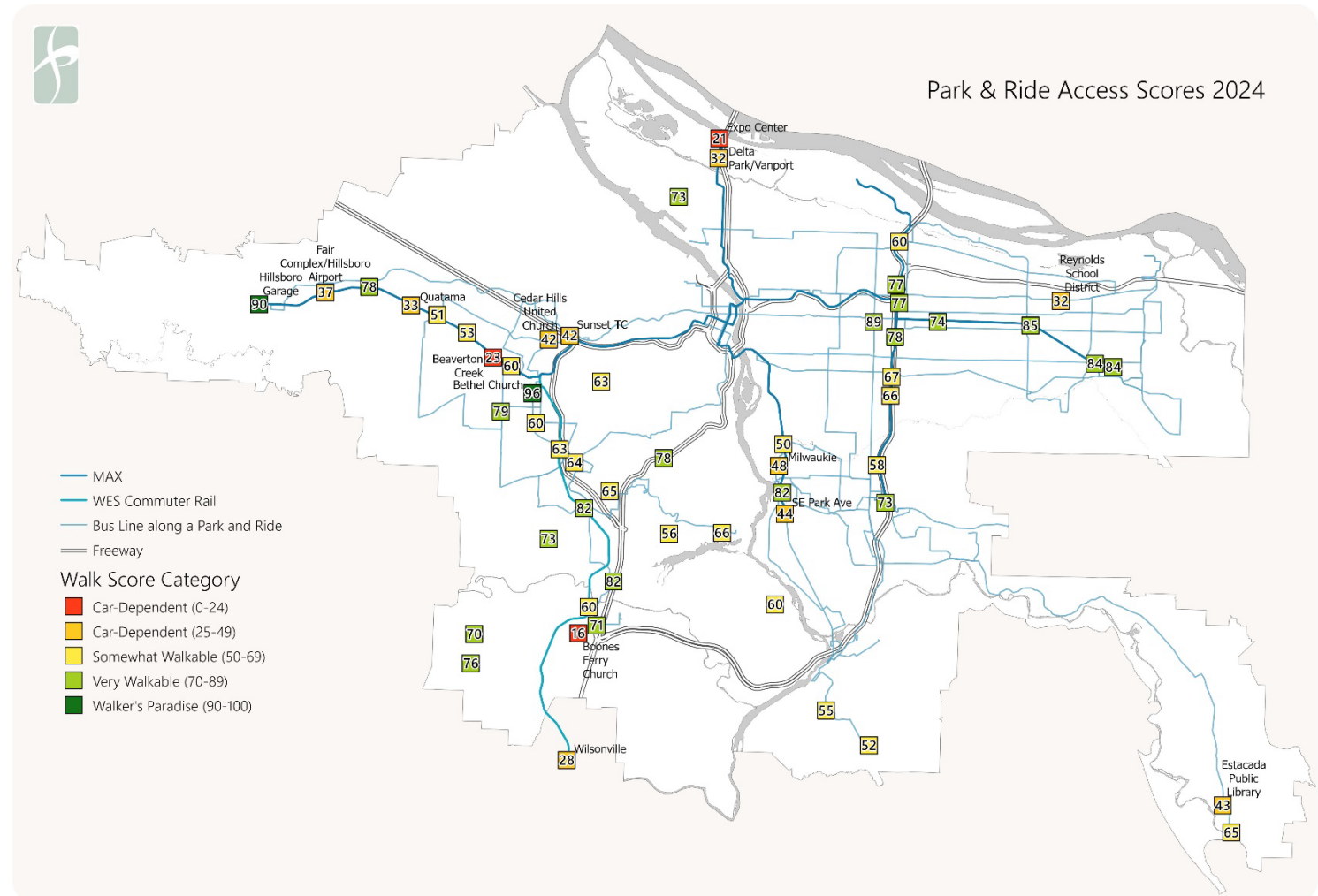


Table 3: Observations from the Contextual Indicators

Indicator	Observations
Population Density	<p>In urban environments, higher population density along frequent-transit corridors typically means that riders live close to transit stations. This proximity reduces the need for riders to rely on P&R spaces to connect to the station. The map review reveals that parking occupancy at P&R facilities is relatively low, making it difficult to establish any direct connections between parking occupancy at these lots and population density. However, the map highlights potential opportunities to increase density adjacent to transit stations through TODs. Specifically, along Westside MAX, WES, and the Green Line Max, there are several medium-to-large P&R facilities that are currently operating at very low occupancies. Thus, these areas could be prime candidates for TODs to enhance the efficiency and accessibility of the transit system by bringing more residents and amenities closer to the stations.</p>
Median Household Income and Poverty Line	<p>Lower-income households generally rely more on transit and less on automobiles. This trend suggests a reduced need for these individuals to use P&R facilities to connect to transit, as these households are more likely to live closer to transit lines and rely on public transportation. Conversely, households with higher incomes may reside farther from transit stations and thus depend more on P&R facilities to access transit.</p> <p>An analysis of census blocks along the MAX lines reveals that household incomes in these areas are generally lower than the median value, particularly along the east-west MAX corridor. This demographic pattern aligns with the observed lower occupancy rates at P&R facilities. The map indicates that when P&R occupancy was higher, it was likely due to riders commuting to higher paying jobs in Downtown. However, with many of these riders now working from home, the demand for P&R spaces has decreased, leading to lower occupancy rates at these facilities. This shift underscores the changing dynamics of transit usage and the potential for re-evaluating the need for P&R facilities in areas with high transit accessibility and lower-income populations.</p>
Population over 65	<p>Most census blocks adjacent to transit stations are relatively "young," with less than one in four residents being senior citizens. However, there are a few blocks in the southeast and far west that have higher percentages of senior citizens. In areas with a significant older population, it is essential to consider their connection to transit. For these areas, amenities at the transit stations or modifications to existing P&R facilities could be implemented to better accommodate the needs of older adults. This could include features such as designated drop-off points, circulator shuttles, and other accessibility enhancements. These adjustments would ensure that senior citizens can easily and safely access transit services, thereby improving their mobility and overall quality of life.</p>

Indicator	Observations
Zero Vehicle Households	This map shows that blocks with higher percentages of zero-car households are few in number and exist only in the central city. Most households in the region own at least one car, as evidenced by the high number of blocks with less than 5% of zero-car households. Car ownership is notably lower along the transit corridors and higher further from the MAX lines. This pattern indicates that areas with frequent-transit services see reduced reliance on personal vehicles, which in turn diminishes the need for P&R facilities. By highlighting these blocks, the map underscores the potential for increased transit usage and reduced car dependency in areas well-served by transit.
Job Density	A higher concentration of jobs in this context indicates job destinations connected with the MAX line network. Based on our review of prior studies, a significant number of P&R users included riders who wanted to avoid paying for parking in Downtown. Consequently, P&R facilities closer to downtown generally operated with higher occupancy compared to those further away from downtown. If parking is managed, scarce, and priced at these major job destinations along the MAX network, it is more likely that riders will use P&R facilities to complete the first and last leg of their trip on transit. Recent “return-to-office” trend could result in increasing occupancy P&R facilities proximate to Downtown given parking costs remain consistently higher.
Zoning	Except for a few P&R locations which are surrounded by single-family residential zoning, most of the P&R facilities are in multi-family and mixed-use residential zoning, highlighting the effect of TOD policies along the transit corridors, including the MAX lines and bus routes on primary roadways.
Walking, Biking and Transit Accessibility	<p>Transit Centers, which serve as intersection points for multiple routes, have higher transit access scores, such as Gateway TC in the east with a score of 74 and Sunset TC in the west with a score of 61. Generally, park & ride (P&R) facilities along the east-west corridors have better transit access scores compared to those along the north-south corridors, with P&Rs in the south of Portland having particularly low scores.</p> <p>Most P&Rs fall within the “Very Bikeable” category (70–89 score) of the Bike Score, indicating adequate bike infrastructure in the immediate vicinity. However, there are a few exceptions at the terminus of some transit corridors in the north and southeast.</p> <p>The walkability near stations in the east section of the Blue Line, between Gateway Transit Center and Gresham, is generally good. In contrast, Beaverton Creek (Blue and Red Line Station), Hillsboro Airport (Blue Line), and Expo Center (Yellow Line station) are locations with poor walkability. Additionally, P&R facilities with relatively higher capacity, such as Sunset Transit Center and those between Orenco Station and Beaverton Creek, have lower walkability scores.</p>

Recent and On-Going P&R Repurposing

Over the years, TriMet has adapted some of its P&R facilities to non-parking usage permanently or temporarily, as briefly discussed below.

Permanent conversion

Table 4 shows some of the permanent repurposing projects TriMet has taken up to convert P&Rs into developments in collaboration with other agencies and developers.

Table 4: Sample Permanent P&R Redevelopment Projects

Location	Description	No. of new housing units	Year of completion
Goose Hollow Parking Site #3 (Peter Hoffman Property)	Converted a 0.28 acre TriMet site with 18 City of Portland operated off-street paid parking stalls, part of a bigger land assemblage effort to deliver a mixed-use development project.	140	2015
Orenco P&R	Converted 1.98 acres containing 150 surface stalls into a mixed use building with 5,000 sq ft of ground floor commercial space, and 125 replacement P&R stalls in a structured garage.	228	2016
Goose Hollow Parking Site #1 (SW 18 th and Salmon aka Butler Block)	Converted a 0.49 acre TriMet site with 76 City of Portland operated off-street paid stalls into a mixed-use development project (The Sawbuck) with ground floor commercial space.	186	2021
E 122 nd / Menlo Park P&R	W'East Plaza Apartments through partial property sale – 1.31 acres	175	2020
Fuller Road P&R	Fuller Station Apartments through partial property sale – 2.07 acres	100	2024
Gresham City Hall P&R	Phase 1 – New East County Library and a new civic plaza through partial property sale.	95,000 sq ft civic space	2026 (expected)
Gresham City Hall P&R	Phase 2 – A 25,000 sq ft parcel will be made available for TOD. Exact program TBD.	TBD	Phase to begin in 2025
Willow Creek / SW 185th Ave Transit Center P&R	Phase 1 – a 2.89-acre parcel within the current TriMet property will be made available for an Affordable Housing Project as a joint solicitation with the City of Hillsboro.	TBD	Project construction is expected to start in Winter 2026.

The above list does not include non-P&R redevelopment projects and also is not exhaustive owing to a lack of proper record-

keeping by TriMet over the decades. Most projects involve a reduction in the size of the P&R by removing parking spaces and

introducing a mixed-use building with affordable housing units on top of ground floor commercial spaces.

Temporary space activation history

Apart from permanent redevelopments at P&R locations, TriMet also offers some surface area for temporary purposes, a process known as space activation. **Table 5** shows some of the space activation uses in recent years. Similar to the list of permanent projects, TriMet has not maintained a complete list of space activation projects, because of which potential ideas don't always come to fruition.

Table 5: Sample Temporary P&R Space Activation Projects

Location	Temporary Use	Year
E 122nd/Menlo Park P&R	Safe Rest Village	Lease initiated in 2023 with the City of Portland and renewed annually
Willow Creek/SW 185th Ave Transit Center P&R	Washington County Bike Rodeo	Summer 2025
Farmers Markets, Community Events, Mobile Library, Mobile Services	Various	Various

Finances – A Broad Summary of Cost and Revenue

This section will provide a high-level overview of the costs associated with owning and maintaining TriMet's P&Rs and will also summarize the recent history of revenue from P&Rs.

Capital expenditure on P&Rs

Capital funding for P&Rs has historically come from two sources:

1. Major Regional Transportation Projects: These often have a Full Funding Grant Agreement that draws on a variety of project partners and funding sources, including Federal, State, Regional, Local Resources. For example, in 2015, the MAX Orange Line was constructed for operations. This major transportation project constructed 2 total new Park & Ride stalls.
2. Capital Projects/ State of Good Repair: New P&Rs or improvements to existing P&Rs can also be funded through the agency's Capital Improvement Project Program.

Operational expenditure on P&Rs

TriMet categorizes recurring costs under different functions and not for individual P&Rs. Because of this, quantifying operational expenditures for one or different P&Rs is not a completely accurate exercise, but should still give a helpful idea of the range of expenditures.

For example,

Table 6 lists the operational costs for the SE Tacoma/Johnson Creek P&R for 2023–2024, as shared by the Facilities Management department. This is a typical-sized surface lot with 318 spaces over 2.4 acres. The department has estimated

recurring costs like regular maintenance, trash service, irrigation, landscaping, while also noting one-time expenditures that can vary by P&R. Since it is new and contains more amenities and landscaping features than other locations, the maintenance expenditure is the highest of all P&Rs. Approximately, the annual expenditure on recurring activities amounts to \$87,000, which is slightly more than \$1/day per parking space.

Table 6: Example of Annual Operational Costs for a Park & Ride

Activity	Type	Annual cost	Annual cost/sq ft	Annual cost/parking space
Maintenance	Varying frequency	68,196	\$0.66	\$214
Trash service	Varying frequency	4,800	\$0.05	\$15
Irrigation repair	Varying frequency	4,609	\$0.04	\$14
Sweeping	Varying frequency	2,662	0.03	\$8
Bark every 4 years	Varying frequency	2,500	\$0.02	\$8
Landscape services	Varying frequency	5,000	\$0.05	\$16
Safety and Security	One time	35,700	\$0.34	\$112
Estimated Total (regular costs only)		87,767	\$0.84	\$268
Estimated Total		123,467	\$1.19	\$388 (\$1.04/day)

Note: This is representative info and note comprehensive data.

Phase 4 of this project will consider the expenses of building and operating P&Rs more deeply as part of performance measurement.

Revenue through rentals

As mentioned earlier, TriMet offers limited spaces at P&Rs for space activation and temporary rentals. The table below is a list of some of those projects from the past 6 years, detailing the number of spaces given away, the revenue, and the revenue rate based on the spaces. Shared parking rentals are quite common, in which TriMet allows a business to use excess space at a monthly price per spot. Construction staging is also common, since P&Rs are conveniently located next to developable land. Finally, some P&Rs have dedicated spots for car share providers like Zipcar. TriMet could use this model as a template for an EV charging facility going forward.

Table 7: A Sample of Short-Term Rentals at P&Rs

Park & Ride	Rental type	# of spaces	Annual revenue	Revenue/ parking space
Beaverton Creek	Shared parking	41	\$20,376	\$497
Beaverton, Orenco, Gateway, Parkrose	Car share parking	2	\$2,400	\$1,200
Elmonica	Shared parking	42	\$15,120	\$360
Elmonica	Construction staging	50	\$9,000	\$180
Elmonica	Construction staging	150	\$27,000	\$180
Gateway Garage	Shared parking	18	\$6,912	\$384
Gresham Garage	Shared parking	150	\$18,000	\$120
Gresham Garage	Shared parking	10	\$3,000	\$300
Hillsboro/Fairplex	Shared parking	12	\$6,000	\$500
Menlo Park	Shared parking	91	\$38,340	\$421
Willow Creek	Shared parking	130	\$24,473	\$188
Total			\$170,621	\$4,030

Performance Metrics

Based on our review of the metrics used by TriMet and other peer transit agencies, providing clear metrics would allow the agency to better understand and track the effectiveness of its P&R facilities in the future. These measurements may be useful for

identifying the performance of individual P&R facilities and throughout the span of a corridor.

Daily boarding per parking supply (Also tracked by the Federal Transit Administration)

Daily boardings per parking supply is a standard federal metric representing the average number of transit boardings that occur per available parking space at a facility on a daily basis. This metric helps transit agencies like TriMet and Sound Transit assess how well their parking resources are supporting transit ridership and identify opportunities for optimization.

Daily boarding per parked car

Daily boardings per parked car is a metric used to measure the average number of transit boardings generated by each parked vehicle at P&R facilities. This metric helps assess the effectiveness of P&R lots in directly facilitating transit use and can inform decisions on optimizing parking supply and management to support transit ridership.

Peak Parking Utilization at Park & Ride Facilities

Peak parking utilization at P&R facilities is a metric that refers to the highest level of occupancy observed during a specific period, typically during morning or evening rush hours. This metric helps transit agencies understand the maximum parking accumulation during the course of a day.

Other metrics to consider for this study

- Land value per square foot
- Quality of active transportation connections to the station
- Vehicle Miles Travelled

Boardings per Parked Car

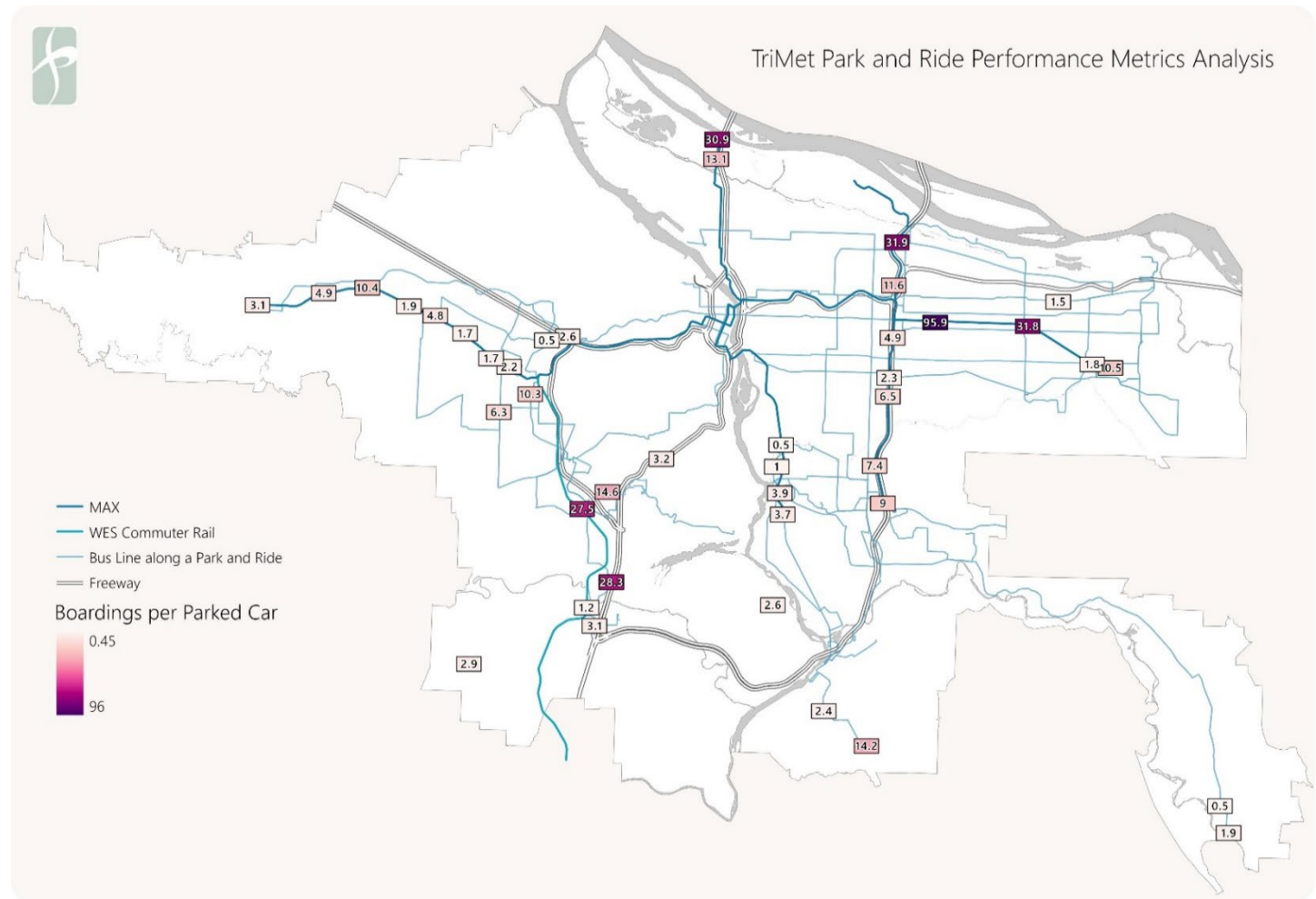
As shown in **Figure 20**, the boardings per parked car (BPPC) ratio ranges between 0.5 at a third-party Park & Ride (P&R) located at United Church of Christ in Cedar Mill, Portland, and 95.9 at the E 122nd/Menlo Park P&R along the Eastside MAX corridor.

Generally, P&Rs with lower BPPC are situated in the middle of the MAX line corridors, predominantly in residential neighborhoods characterized by:

- Low density
- Low diversity of land uses
- Relatively lower walk and bike scores
- Lower bus transfers

Typically, third-party owned P&Rs have lower BPPC because parking is shared with non-transit riders at these facilities. BPPC generally increases with proximity to Downtown, or unless the P&R is located at a terminus location or key regional destination. Higher residential density, quality active transportation infrastructure, bus transfer points, and TODs near P&R facilities increase the BPPC ratio. When considering downsizing of P&R facilities, this metric helps determine if alternative use of replaced parking spaces will maintain or boost ridership and reduce dependency on parking to access the station.

Figure 20: Boardings per Parked Car at P&R Facilities per 2024 Survey



Challenges and Opportunities

Challenges

1. Significantly Underutilized Facilities dedicated to Park & Ride

TriMet is faced with a key challenge of significantly underutilized P&R facilities post-pandemic. Despite recovering up to 80% of its daily ridership, P&R lots are only at approximately 20% of their pre-pandemic occupancy. This discrepancy is likely due to factors such as the shift to remote work, increased safety concerns, aging facilities, and economic changes affecting commuting patterns.

2. Changing Travel Behavior

- The Portland Metro region has experienced significant changes in travel behavior and preferences post-pandemic. Some of these changes may be permanent, stemming from the shift to remote work. Others could be more temporary, such as the increased use of personal vehicles.

3. Parking Violations and Nuisance

- Underutilized P&R lots can lead to increased parking violations and nuisances when not properly secured or managed. Without regular oversight, these areas may attract unauthorized parking, illegal dumping, and other disruptive activities. This can further create the perception of safety hazard and discourage transit riders from parking at the facility.

4. Operational Costs

- The cost to operate and maintain the facilities has been increasing, especially when considering unanticipated cleanup and repair expenses resulting from illegal dumping, camping, vandalism, and other disruptive activities. Additionally, the cost of hiring security personnel has significantly increased

over the last five years. These combined costs make it much more challenging for TriMet to operate the facilities.

5. Lack of Proper Data Collection Process and Established Metrics

Effectively managing P&R facilities requires establishing performance metrics and regularly collecting comprehensive data regarding usage, maintenance, redevelopment etc. This approach will enable TriMet to make informed decisions about P&R's utility and its alignment with systemwide goals, such as maximizing ridership. Improved data and metrics will guide management strategies, including shared parking, mobility amenities, and conversions to TOD.

Opportunities

1. Right-Size Facilities

Underused P&R facilities present a great opportunity for TriMet to right-size the spaces based on changing needs and demands in the station areas. By assessing the variety of parking demand influencing factors and correlating it to usage patterns and future projections, TriMet can optimize the allocation of parking spaces, ensuring they are neither overbuilt nor underused.

2. Transit Oriented Development

P&R facilities can be transformed into TODs to create vibrant, sustainable communities centered around its transit network. These TODs can provide much needed affordable housing adjacent to high quality transit. By integrating mixed-use developments, increasing density, enhancing connectivity, and promoting environmental sustainability, TriMet can optimize the transit parking needs with other land-use priorities at station areas.

3. Parking Management

TriMet can consider developing systemwide parking management strategies that can be deployed at its P&R facilities to discourage misuse, illegal dumping, and other disruptive activities while encouraging parking for transit ridership and adding complementary transit rider amenities to enhance connections to the transit stations including bike and e-scooter parking, EV charging stations, kiss-and-ride pick-up/drop-off lanes, etc.

4. Space Activation and Placemaking

Streamlining the process of promoting and leasing parking spaces for other purposes, like farmers' markets, sports courts, meet-up spaces, to name a few can allow for efficient usage if and until TriMet decides to right-size the facility permanently. TriMet can create a sense of ownership and belonging by involving surrounding communities in this process.

The project will explore the challenges and understand the opportunities in more detail through the following tasks. We will develop a deeper understanding of factors influencing parking demand at P&R (P&R) facilities and then create a decision-making framework for TriMet to optimize existing facilities and plan future P&Rs accordingly.

Appendix.

Table 8: Summary of all Park & Rides as of April 2025

Corridor	Name	Address	Owner	Year built ¹	Capacity 2024	Occupancy % 2024	ADA spots	Bike racks	Bike lockers	EV Stalls	Walk Score ²	Bike Score	Transit Score
Eastside Bus	Milwaukie	9600 SE Main St	TriMet	2010	329	0%	8	0	4	0	48	81	49
Eastside Max	Cleveland Ave	1200 NE 8th St	TriMet	1986	392	8%	7	5	4	0	84	80	64
Eastside Max	E 122nd/Menlo Park	12202 E Burnside St	TriMet	1986	127	8%	14	14	12	0	74	86	60
Eastside Max	E 181st Ave	18324 E Burnside St	TriMet	1986	247	2%	8	0	0	0	85	78	58
Eastside Max	Gateway Garage	1250 NE 99th Ave	TriMet	2006	480	29%	13	8	12	0			
Eastside Max	Gateway Surface Lot	NE Pacific Street	ODOT	1986	213	29%	0	0	0	0	77	94	74
Eastside Max	Gresham Garage	523-575 NE 8th St	TriMet	1986	540	17%	8	16	0	2	84	79	64
Eastside Max	Parkrose/Sumner TC	9525 NE Sandy Blvd	ODOT	2001	181	15%	6	6	8	0	60	81	60
Eastside Shared	City of Estacada	590 SE Short St	Other		20	70%	0	0	0	0	65	33	--
Eastside Shared	Clackamas Community College	19600 S Molalla Ave	Other		40	53%	4	0	0	2	52	66	37
Eastside Shared	Columbia Center	8147 SE Pine St	Other		12	0%	1	0	0	0	89	98	51
Eastside Shared	Emmanuel Church	19200 S Willamette Dr	Other		40	30%	0	0	0	0	60	67	29
Eastside Shared	Estacada Public Library	825 NW Wade St	Other		50	22%	6	0	0	1	43	54	--
Eastside Shared	First Presbyterian Church	1321 Linn Ave at Williams St	Other		21	67%	0	0	0	0	55	75	33
Eastside Shared	Milwaukie Church	2416 SE Lake Rd	Other		29	79%	2	0	0	0	82	74	54
Eastside Shared	Reynolds School District	1204 NE 201st Ave	Other		35	71%	0	0	0	0	32	67	--
Green Line Max	Clackamas Town Center	9225 SE Sunnyside Rd	Other	2009	750	5%	16	8	8	0	73	61	--
Green Line Max	SE Fuller Rd	9608 SE Fuller Rd	TriMet	2009	260	3%	13	0	30	0	58	55	--
Green Line Max	SE Holgate Blvd	9639 SE Holgate Blvd	ODOT	2010	125	9%	5	5	8	0	66	85	54
Green Line Max	SE Main St	1119 SE 96th Ave	ODOT	2009	426	4%	9	0	10	0	78	88	60
Green Line Max	SE Powell Blvd	3618 SE 92nd Ave	ODOT	2009	79	29%	4	0	10	0	67	79	56
Interstate Max	Delta Park/Vanport	1940 N Victory Blvd	Other	2004	300	6%	8	8	8	0	32	57	52
Interstate Max	Expo Center	2060 N Marine Dr	Other		100	7%	8	8	8	3	21	52	50
NA	Cedar Mill Church	12208 NW Cornell Rd	Other		16	—	4	0	0	0	—	—	—
Orange Line Max	SE Park Ave	2750 SE Park Ave	TriMet	2015	401	21%	9	56	74	7	44	76	48
Orange Line Max	SE Tacoma/Johnson Creek	8300 SE McLoughlin	TriMet	2015	318	60%	10	16	112	2	50	74	52
WES	Hall/Nimbus	8505 SW Cascade Ave	Other	2009	50	2%	2	16	10	0	63	71	44
WES	Tigard TC	8960 SW Commercial St	ODOT	2009	103	27%	5	18	12	0	82	88	51
WES	Tualatin South	18955 SW Boones Ferry Rd	ODOT	2009	147	4%	7	8	4	0	82	82	39
WES	Wilsonville	9699 SW Barber St	TriMet	2009	399	8%	14	10	48	0	28	71	36
Westside Bus	Barbur Boulevard	9712 SW Barbur Blvd	ODOT	2012	365	19%	4	4	8	0	78	68	40
Westside Bus	Mohawk	SW Martinazzi Ave and Mohawk St	TriMet	2014	232	7%	7	11	0	0	71	59	38
Westside Bus	Progress	SW Scholls Ferry Rd and Hwy 217	ODOT	1995	122	0%	5	0	0	0	64	72	44
Westside Bus	Tigard	SW 74th Ave and Pacific Hwy	TriMet	1995	220	2%	7	12	0	0	65	66	41
Westside Bus	Tualatin	SW 72nd and Bridgeport Rd	ODOT	1995	368	14%	5	24	6	0	60	77	39
Westside Max	Beaverton Creek	SW 153rd Ave and Millikan Way	TriMet	1998	417	11%	8	72	16	0	23	74	57
Westside Max	Elmonica/SW 170th Ave	1200 SW 170th Ave	TriMet	1998	435	20%	14	10	18	0	53	73	55
Westside Max	Fair Complex/Hillsboro Airport	601 NE 34th Ave	TriMet	1998	396	17%	8	18	18	0	37	68	58

Corridor	Name	Address	Owner	Year built ¹	Capacity 2024	Occupancy % 2024	ADA spots	Bike racks	Bike lockers	EV Stalls	Walk Score ²	Bike Score	Transit Score
Westside Max	Hillsboro Garage	110 SW Washington St	Other		250	36%	8	10	8	0	90	83	55
Westside Max	Millikan Way	SW Millikan Way and 141st	TriMet	1998	400	28%	13	18	14	0	60	91	--
Westside Max	Orenco	967 NE Orenco Station Loop	Other		125	22%	6	22	50	0	78	92	59
Westside Max	Quatama	NE Quatama St and John Olsen Ave	TriMet	1998	310	25%	8	32	32	0	33	57	--
Westside Max	Sunset TC	10470 SW Barnes Rd	TriMet	1998	630	66%	13	14	12	0	42	66	61
Westside Max	Willow Creek	375 SW 185th Ave	TriMet	1998	595	20%	8	10	14	0	51	78	58
Westside Shared	Bethel Church	5150 SW Watson Ave	Other		50	6%	0	0	0	0	96	82	63
Westside Shared	Boones Ferry Church	20500 SW Boones Ferry Rd	Other		20	0%	0	0	0	0	16	56	32
Westside Shared	Cedar Hills United Church	11695 SW Park Way	Other		46	61%	0	0	0	0	42	71	--
Westside Shared	Christ Church Parish	1060 Chandler Rd	Other		30	20%	0	0	0	0	66	58	34
Westside Shared	Christ the King Lutheran Church	11305 SW Bull Mountain Rd	Other		30	0%	0	0	0	0	73	55	31
Westside Shared	Hope Church	14790 SW Boones Ferry Rd	Other		12	0%	0	0	0	0	56	50	26
Westside Shared	Seventh-Day Church	14645 SW Davis Rd	Other		113	3%	7	0	0	0	79	69	31
Westside Shared	Sherwood	SW Main & Railroad	Other		30	27%	0	0	0	0	76	73	--
Westside Shared	Sherwood Regal Cinemas	15995 SW Tualatin-Sherwood Rd	Other		50	0%	0	0	0	0	70	76	--
Westside Shared	Southminster Church	12250 SW Denney Rd	Other		20	0%	2	0	0	0	60	77	39
Westside Shared	Valley Community Church	8060 SW Brentwood St	Other		63	5%	2	0	0	0	63	71	38

Notes:

- This list is subject to changes as TriMet enters into or ends leases for shared facilities.
 - Values marked in red indicate the need for further verification.
1. *Year built* is not available for P&Rs not owned by TriMet or ODOT.
 2. Walk, Bike, and Transit Scores are sourced from data provided by the Walk Score website.