



West Portland Town Center Existing Conditions Analysis: Urban Form Assessment

Draft Report



Bureau of Planning and Sustainability
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City of Portland, Oregon

u r b s w o r k s



West Portland Town Center Urban Form Assessment

Overview and Methods

The team conducted an urban form assessment of the West Portland Town Center (WPTC) study area. Using GIS data, policy documents, and on-the ground fieldwork, we analyzed connectivity, walkability, existing land use patterns, community assets, and building forms. As an outcome of this analysis, we identified the opportunities and constraints for an urban form that would be supportive of healthy, connected communities. The goal of this exercise was to identify the strengths and weaknesses of the existing built form of the study area so that design concepts preserve strengths and address weaknesses with design solutions.

West Portland Town Center is one of two regionally-designated town centers in the southwest area of Portland, out of only five citywide. As such, it presents an opportunity to capture future regional population and job growth. In order to successfully develop as a vibrant town center, there are several key ingredients. These include: vibrant and synergistic land uses; memorable places; high quality parks and schools; and easy and inviting streets and trails that connect destinations to one another. The WPTC has many of these important elements present today; and through recently adopted zoning is encouraging the increased diversity of housing choice across its neighborhoods and higher intensity mixed-use development in its core. Additionally, the proposed light rail will increase multimodal access to regional employment and education opportunities while increasing shopping options and services that will allow residents to access all their daily needs with a short walk or bike ride. With this important groundwork in place, the WPTC is actively seeking

to fulfill its Comprehensive Plan goal of achieving twenty-minute neighborhoods while also providing a full range of affordable housing options and culturally relevant goods and services for the full diversity of Portland residents.

Currently, however, the Town Center lacks a true center. The geographic center of the WPTC area, located at the crossing of SW Barbur Boulevard and SW Capitol Highway, is a busy, auto-oriented intersection surrounded by low buildings set back behind parking lots. There are no street trees or greenery to soften the expanse of paving and invite pedestrians to use the streets. The primary pedestrian connection from south to north is a marked, signal-protected crosswalk that is about 160 feet long and takes roughly 40 seconds to cross. Once the push button is activated, a person on foot must wait several minutes for the right to enter the crosswalk. In short, it's a pedestrian-hostile environment that is equally hostile to people navigating the area by bike. The intersection serves as an important crossing for regional auto access, facilitating the movement of cars coming from all directions on Barbur Boulevard and Capitol Highway, but does so at the expense of all other users.

With the WPTC being bisected by I-5 and Barbur Blvd, it functionally has two hearts: one around the civic campus, Islamic School of Portland, low-cost market-rate apartment complexes, and destinations to the south; the other generally anchored by Barbur World Foods and surrounding destinations to the north. Connecting the two hearts by solving the dangers of the crossroads is critical to the success of the town center.

Key Findings

Opportunities

- Underused mixed-use development capacity is present along SW Barbur Boulevard with many parcels zoned CM2 (Commercial Mixed Use 2). CM2 zoning permits a much greater zoning capacity than is currently being used by developments along Barbur. Developments that take advantage of this zoning designation will translate into a street more human-scaled and urban in character.
- Many of the parcels currently zoned CM2 are designated as CM3 in the Comprehensive Plan, which would thus not need to be amended for them to be re-zoned to CM3.
- Underused mixed-use development capacity is present within the neighborhoods south of SW Barbur Boulevard on either side of SW Capitol Highway and along SW Huber. Limited pockets of parcels zoned CM1 (Commercial Mixed Use 1) could be redeveloped with neighborhood-serving, mixed-use projects.
- Significant residential infill opportunities exist within the Town Center. Areas zones R1 and R2 near SW Barbur Boulevard and SW Capitol Highway permit duplexes, rowhouses, and garden apartments. Parcels zoned R1 also permit multidwelling structures. The proposed Residential Infill Project would permit a wider variety of housing types on those parcels zoned R5 and R7.
- Existing park and ride lot is a large, publicly-owned development site. The site is zoned CM2 and therefore could be developed with higher density, mixed-use projects up to four to five stories in height.
- Schools and parks serve the families of the area while also providing recreation and community activities for the larger community. Jackson Middle School, Markham Elementary School, and the Capitol Hill Library are important public resources. Although located just outside the study area, the Holly Farm Park, Loll Wildwood Natural Area, Woods Memorial Natural Area, and Spring Garden Park also represent important amenities.
- Naturally-occurring low-cost market-rate housing near the mosque is the densest and most affordable in the area, providing housing for a well-established east African immigrant community.
- Existing empty or underutilized commercial buildings present an opportunity for entrepreneurs to take

advantage of lower cost business space.

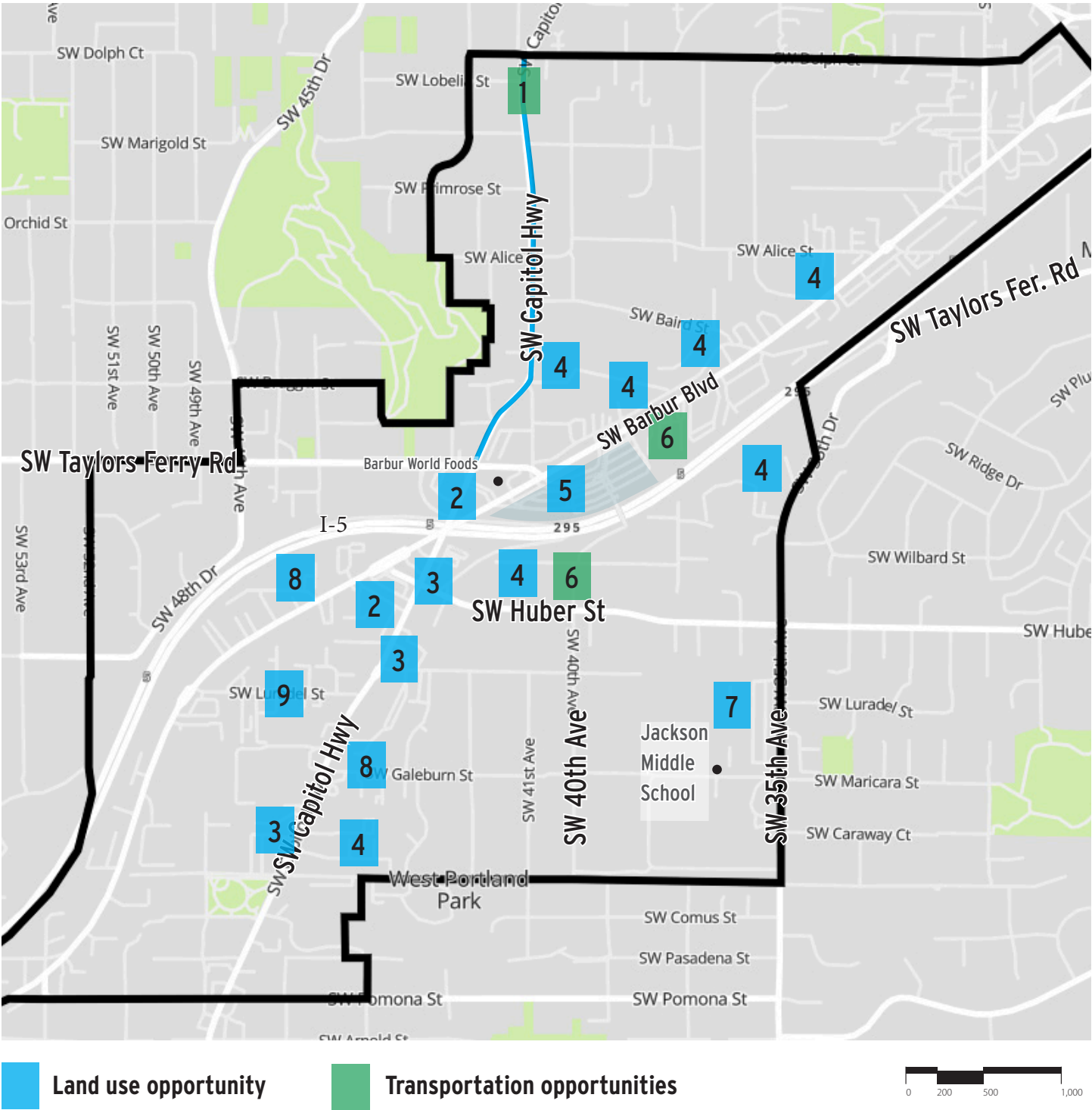
- SW Capitol Highway sidewalk improvements make an important pedestrian and bicycle link between Multnomah Village and the WPTC area.
- Protected pedestrian/bike-only crossing of I-5 offers one of the few connections across the barrier of the highway while a protected pedestrian crossing provides a safe crossing of Barbur. The park and ride side connects south of I-5 residents; the protected pedestrian crossing allows connection to the north of SW Barbur Boulevard.

Constraints

- I-5 bisects the WPTC. Only two pedestrian crossings exist (one of which is unfamiliar to many local residents), leaving many areas unconnected to one another.
- On and off-ramps to I-5 further degrade the urban environment and create peak-hour auto congestion. The right-of-ways for ramps are wide, forcing pedestrians to cross lengthy intersections with queued cars. Small islands are the only resource to protect pedestrians, translating into a hostile crossing environment.
- The number of auto-turning movements at the crossing of SW Barbur Boulevard and SW Capitol Highway compromises the intersection for use by others, both on foot and by bike.
- Pedestrians and cyclists are forced to use major streets designed primarily for regional auto access. In the commercial areas of the town center sidewalks are often non-existent or inadequate. Likewise, bicycle lanes are non-existent or don't meet best practices. This makes it very challenging for users to access the town center.
- Pedestrian access is limited throughout the WPTC area. Sidewalks are rare and discontinuous. Both the street-path network, and the quality of the pedestrian environment discourage walking. Many pedestrian connections are stairs, which limit some people's access.
- Even if additional connections could be built over the freeway, steep topography and the other previously described constraints make connecting the north and south sides of the town center for bicycles and pedestrians a challenging proposition that will require innovative solutions.

West Portland Town Center

Opportunities



1 SW Capitol Highway sidewalk improvements. Makes important pedestrian and bicycle link between Multnomah Village and West Portland Town Center along Capitol Highway and will provide walkways, bikeways and stormwater management.

2 Underused mixed use development capacity along Barbur. CM2 zoning (Commercial Mixed Use 2) along SW Barbur Boulevard permits much greater zoning capacity than is currently used, especially if SW Barbur Boulevard becomes more human-scaled and urban in character. Existing drive-through suburban style businesses could be redeveloped to create walkable commercial areas that better serve the civic campus and multi-family housing to the south, and support the emergence of a stronger community heart in the north.



3 Underused mixed use development capacity within the neighborhoods. CM1 zoning (Commercial Mixed Use 1) in limited pockets permits neighborhood-serving mixed-use development to the south of Barbur Boulevard, on SW Huber and SW Capitol Highway.

4 Significant residential infill opportunities within Town Center. R1 and R2 zoning near Barbur and SW Capitol Highway permits multidwelling structures (in R1), and in both zones duplexes, rowhouses, and garden apartments. The proposed Residential Infill Project may permit a greater variety of housing types on R5 and R7

5 Large publicly-owned development site. Existing park and ride lot, zoned CM2.

6 Pedestrian and bike-only crossing of I-5. Park and ride site connects the south of I-5 residential neighborhood; protected pedestrian crossing at Barbur allows connection to the north of SW Barbur Boulevard.

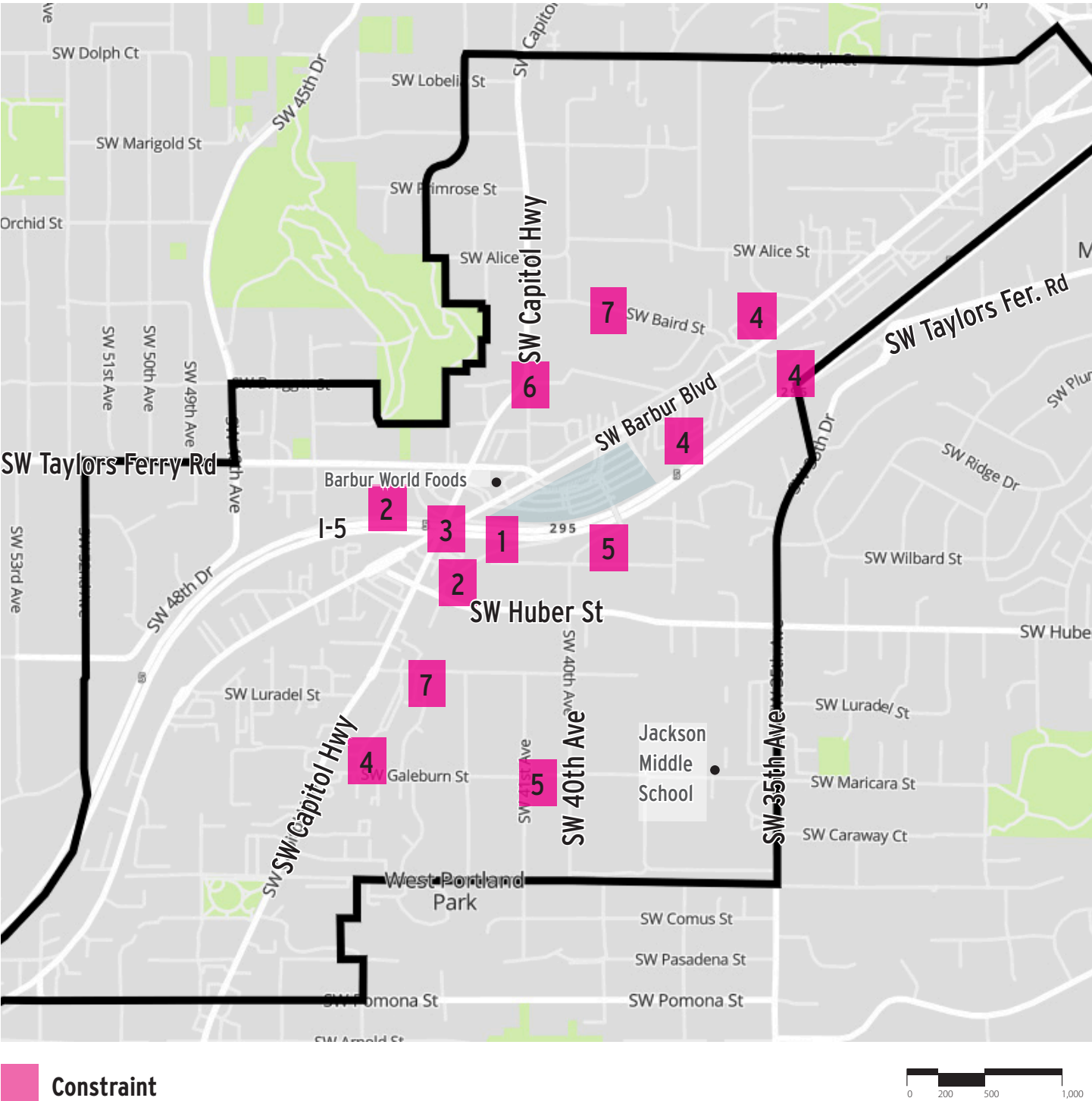


7 Schools and parks serve families and also provide recreation and community activities.

8 Suburban-in-transition development pattern provides naturally occurring affordable business and housing opportunities.

9 Low-cost market-rate existing housing is already relatively dense, affordable, and culturally important. Because it is not protected from market forces, this housing is at risk of rising market rents.

Constraints



- 1 I-5 bisects the town center.** The only two crossings of I-5 in this location are the pedestrian bridge to the park and ride, and the crossing of SW Barbur Boulevard and SW Capitol Highway.



- 2 On and off-ramps to I-5 further degrade the urban environment and create peak hour auto congestion.**



- 3 The number of auto turning movements at the crossing of Barbur Boulevard and SW Capitol Highway compromises the intersection for use by other users, on foot and on bikes or other low-speed mobility devices.**

- 4 In the commercial areas of the town center, pedestrians and cyclists are forced to use major streets designed primarily for regional auto access.** Sidewalks are nonexistent or inadequate. Bicycle lanes are nonexistent or don't meet best practices.

- 5 Elsewhere in the town center area, pedestrian access is limited.** Sidewalks are rare and discontinuous. Both the street-path network and the quality of the pedestrian environment discourage walking. Many pedestrian connections are stairs, which limits some people's access.

- 6 Bicycling access is challenging** for many of the same reasons, and exacerbated by steep topography of many routes.



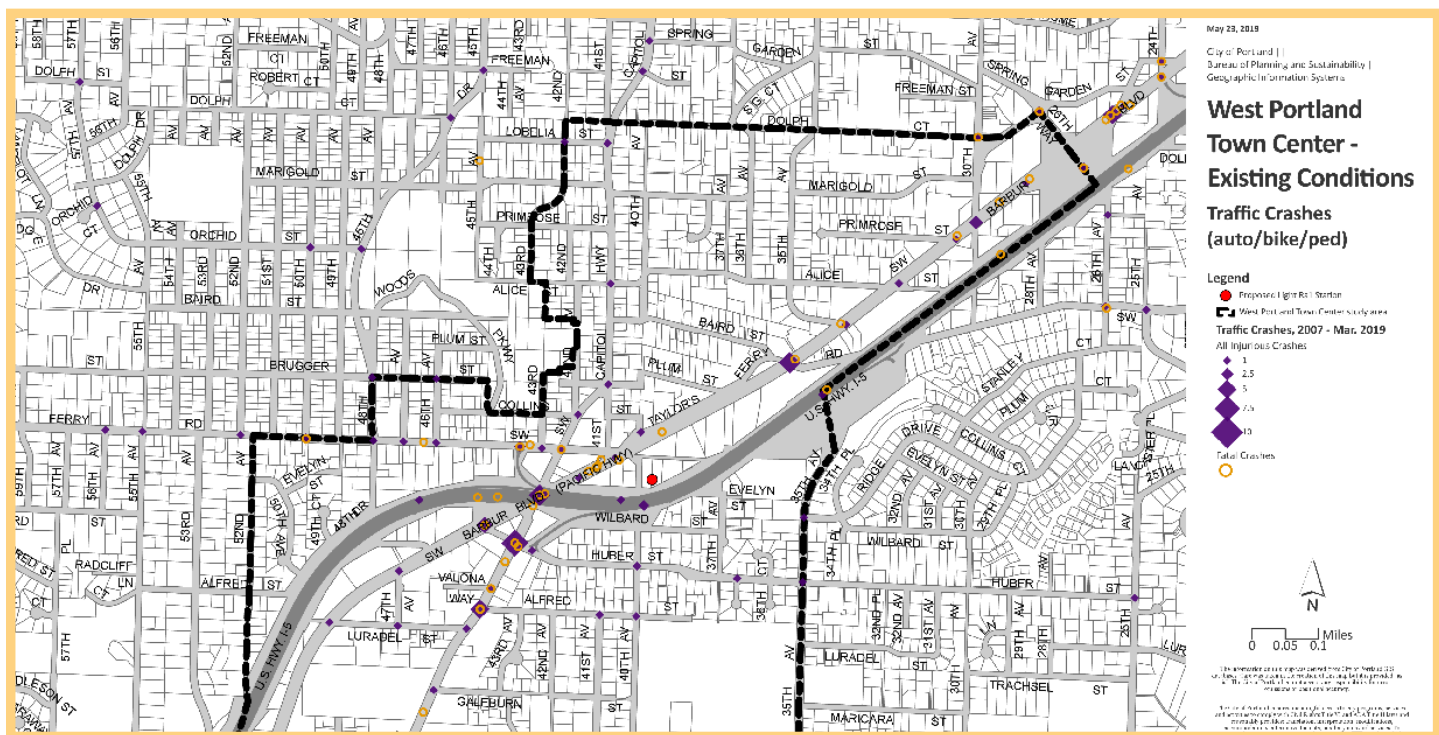
- 7 Even if additional connections could be built over the freeway, steep topography makes connecting the north and south sides of the town center difficult.**

Barbur and SW Capitol Highway are both high-crash corridors.



Aerial view of SW Barbur and SW Capitol Highway intersection. Google Earth, earth.google.com/web/

Portland data showing traffic-related deaths and injuries.





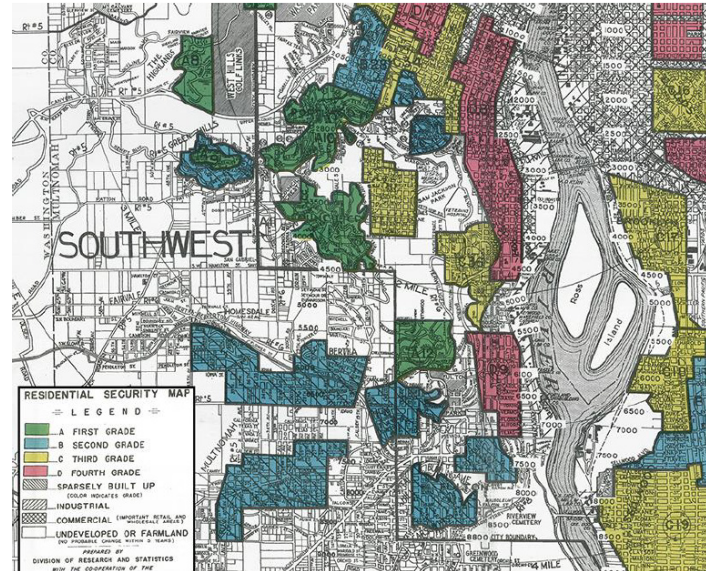
Land Use Patterns, Building Forms, and Community Assets

Land Use: Single-Family Residential Zoning

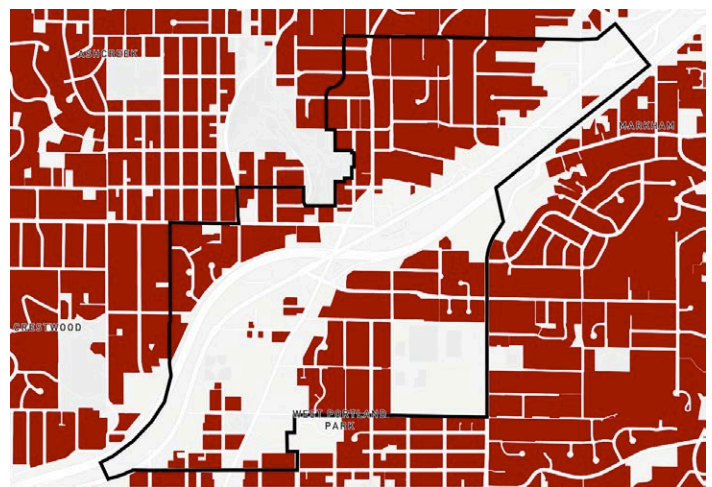
Equity and Community Implications

- Portland's zoning code refers to zones R2.5, R5, R7, R10, R20 and RH collectively as the Single Dwelling Zones. This report uses the terminology Single Family Residential (SFR) to refer to these existing zones, to distinguish them from the new Single Dwelling Zone definitions that are proposed for adoption under the Residential Infill Project.
- Single Family Residential (SFR) zoning has historically been used as a tool to enforce racial and economic segregation.
- The large amounts of land area dedicated to SFR in this area, 86% of all buildable or built acreage, are a lingering reminder of the historical intent for this area to be focused on occupancy by white homeowners.
- As shown in the “redlining” map at right, communities of color were also systematically discriminated against in the provision of federal home loan insurance. Overcoming this legacy of racial and economic exclusivity is thus a challenge for the successful creation of opportunity for all.
- Single family zoning results in low densities (below 8 homes per acre) that do not support frequent transit service or nearby walkable destinations, and do not provide sufficient population to sustain more robust local-serving commercial areas. Instead, commercial uses rely on customers arriving by automobile, which drive auto-oriented site and building designs leading to vehicular travel improvements being prioritized over those for pedestrians and bicycles.
- Low-density SFR development patterns require a more decentralized pattern of daily activity, which generally is associated with high rates of drive-alone commute and other trips, resulting in higher GHG emissions per capita than development patterns that support more walkability.
- By reinforcing the need for the expense and use of private automobiles, SFR zones can lead to the disenfranchising of those with mobility, economic and other limitations.
- Most SFR development patterns generally do not generate sufficient revenue to cover the operations and maintenance costs related to providing them with city services.

Home Owners Loan Corporation - 1938 Map



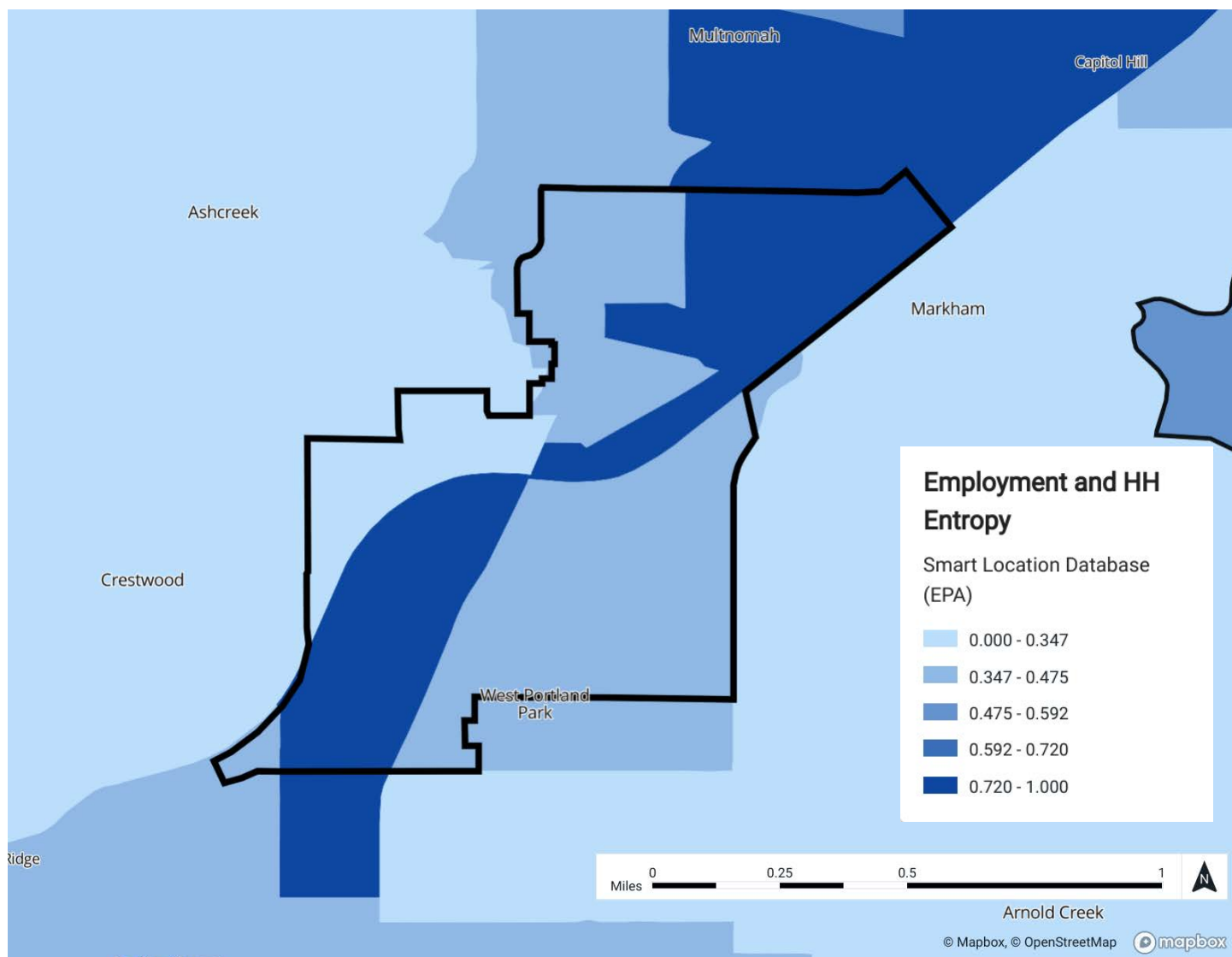
Existing Single Family Residential Zones



Single Family Residential (SFR) Zoning



Mix of Uses: Employment and Households

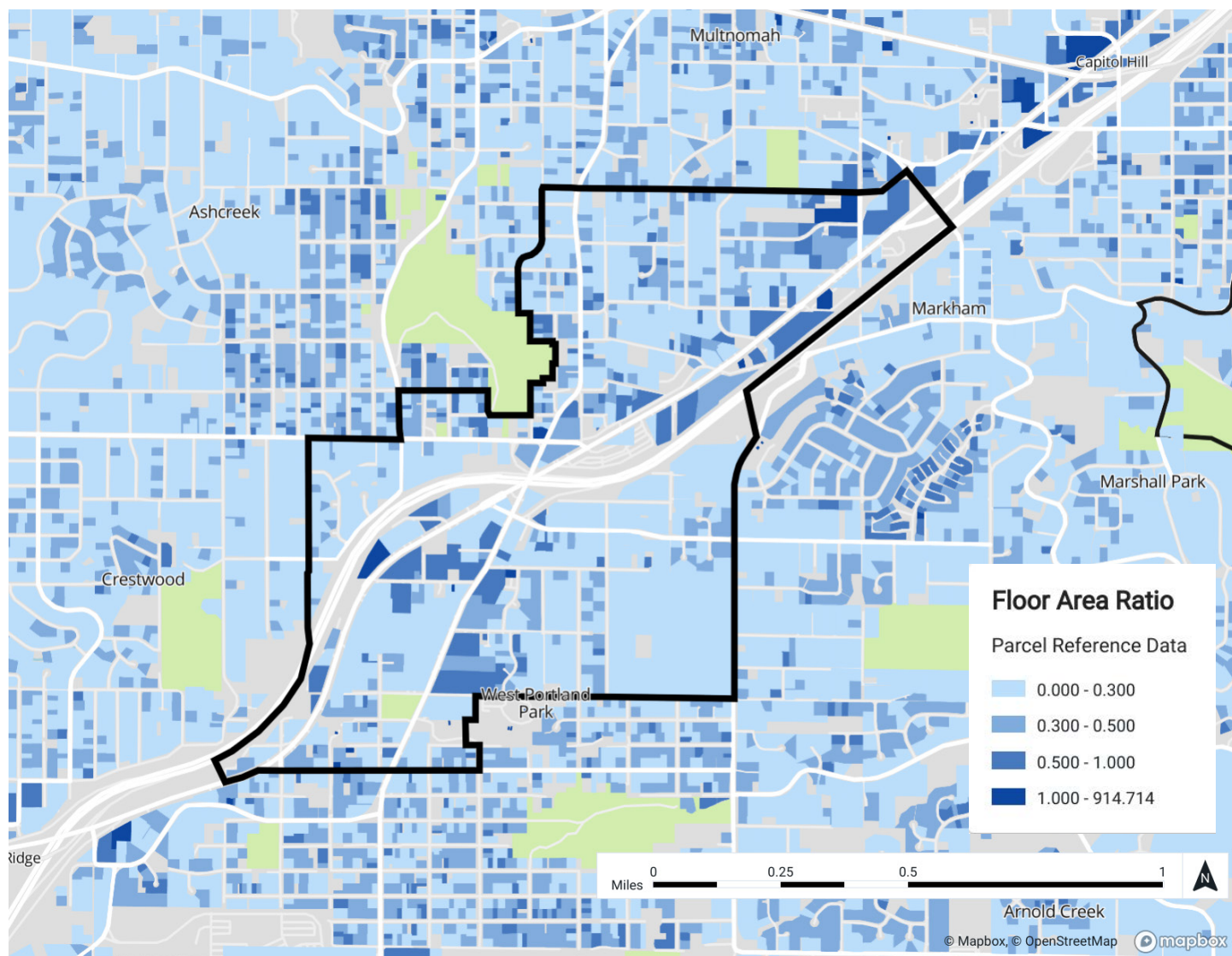


Equity and Community Implications

- In general, single-use buildings dominate the WPTC area; where the area does see a mix of uses, those different uses are in individual buildings, separated from one another by parking and landscaping and thus reducing the attractiveness of the area to pedestrians.
- Areas with a greater mix of uses are associated with greater walking, bicycling, and transit usage.
- Areas with a low mix of uses, dominated by single uses, are associated with high rates of automobile usage.
- The WPTC area has a generally low mix of uses, indicating the dominance of single-use buildings in the area that are a legacy of its development with an automobile-focused built form.
- The exiting built form's low mix of uses is a strong contributing factor that reinforces the high rates of automobile travel in the WPTC area.
- Areas with a greater mix of uses tend to be more attractive to pedestrian-oriented businesses, by concentrating more potential customers nearby to build greater levels of local aggregate demand.



Building Forms: Average District FAR & Map of FAR



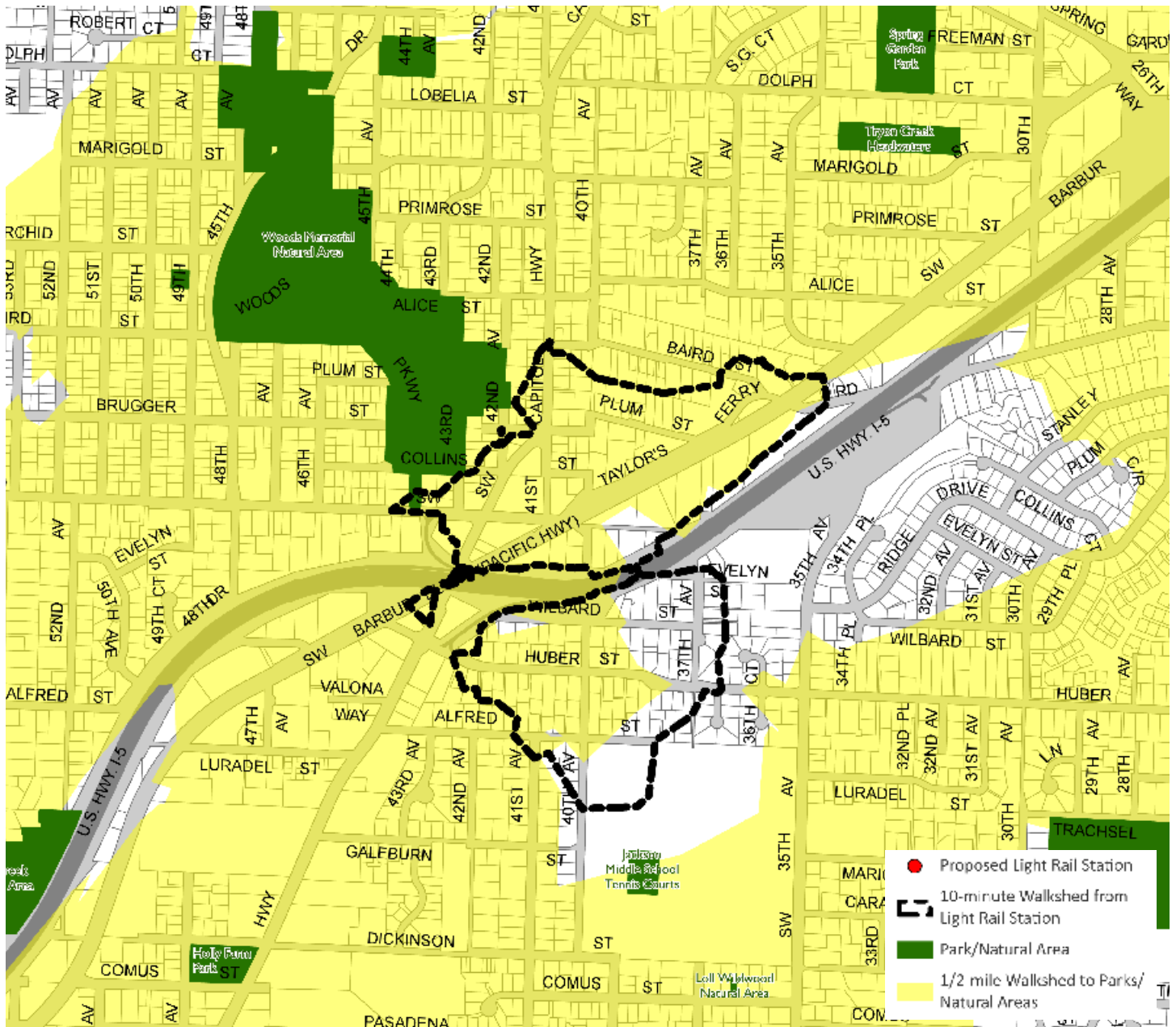
The District FAR for WPTC is: 0.26

Equity and Community Implications

- Lower levels of Floor Area Ratio (FAR), especially below 0.5, indicate a low intensity of land use, and a corresponding greater focus on automobile usage for most trips than in areas with a greater intensity of use, indicated by a higher FAR.
- The additional cost burden of owning a car for lower-income households can drive racial disparities based on larger housing and transit cost burdens as a percentage of overall household budgets.
- Higher-FAR buildings that replace on-site parking by locating in a pedestrian-focused district can support more, smaller commercial spaces without needing to provide additional off-street parking for each business on site.
- Smaller businesses in smaller spaces, that tend to find space in such areas with a greater mix of uses, are more accessible to new business entrepreneurs by reducing the costs and barriers to entry.



Parks: Areas within 1/2 Mile of a Park or Natural Area



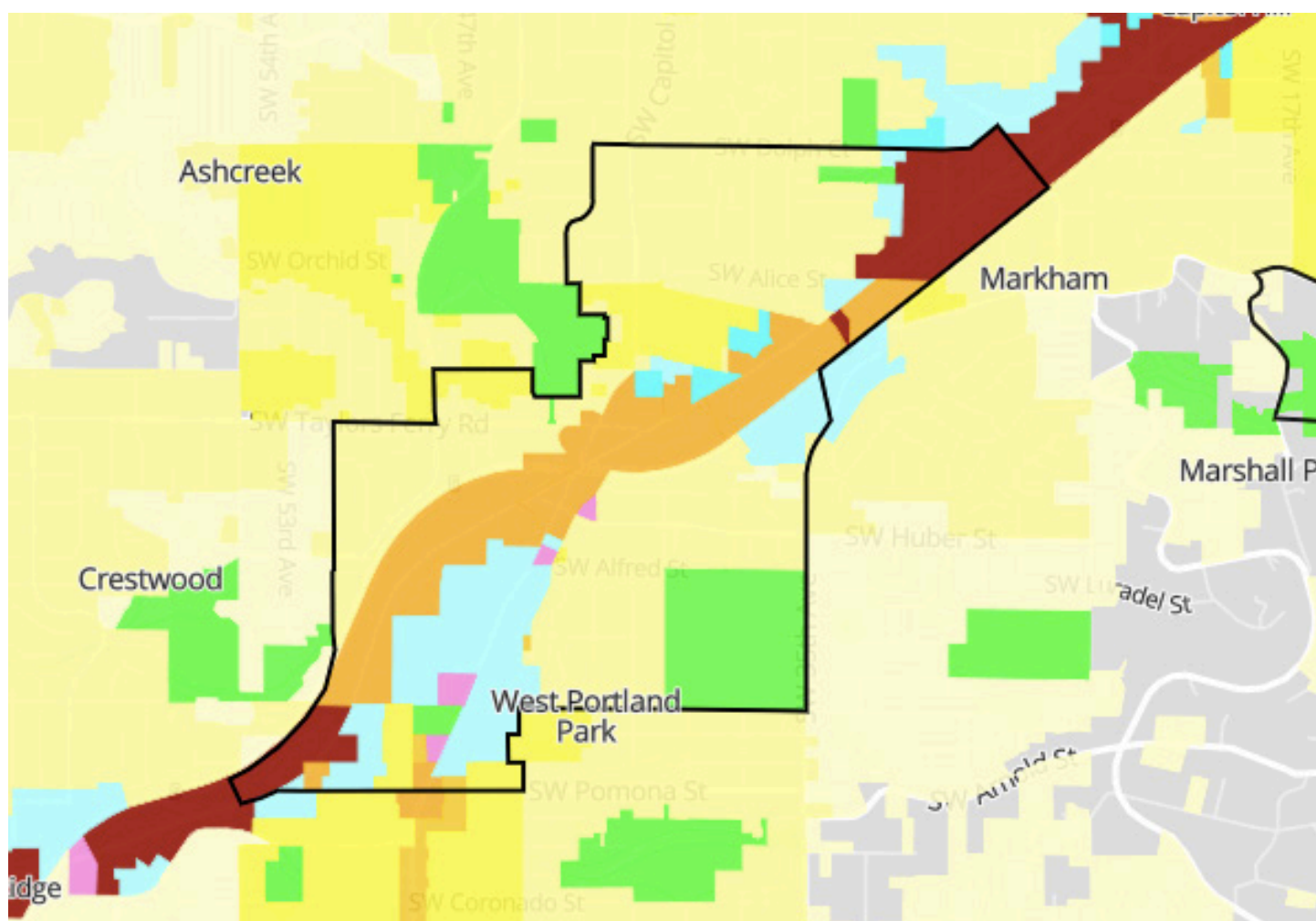
Equity and Community Implications











- Most parts of the WPTC are within a 1/2-mile walk of a park or natural area.
- A gap in access has been identified by the Portland Parks Bureau in the eastern portion of the southern part of the study area.
- In addition to this identified locational gap, there may be a mis-match between the type of parks facility available,

and those desired by the community. For instance, there are no urban plazas currently in the study area, though an urban plaza is an amenity type that may support community aspirations for multi-cultural gathering space in the Town Center area.



Zoning

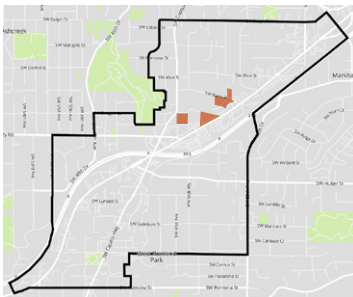
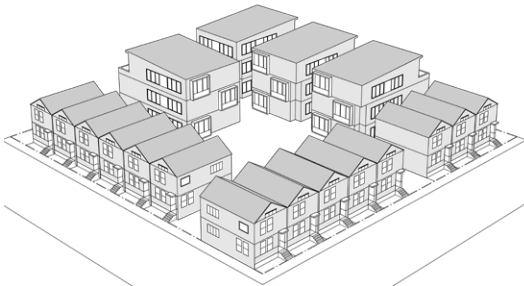
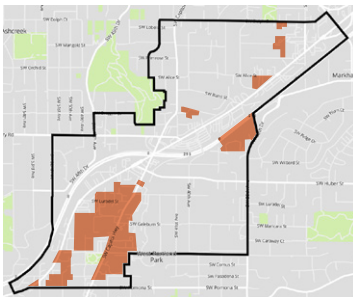

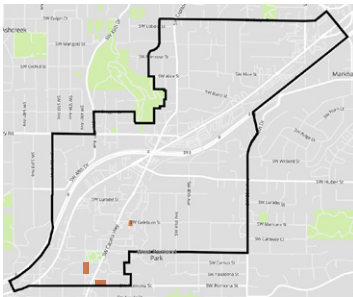
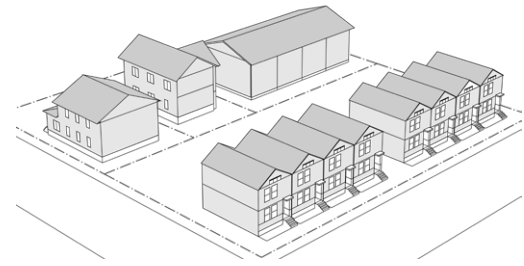


Zone		Acres	Share of Study Area
	Residential 1,000 (R1)	3	0.5%
	Residential 2,000 (R2)	48	7.3%
	Residential 2,500 (R2.5)	2	0.3%
	Residential 5,000 (R5)	30	4.6%
	Residential 7,000 (R7)	191	29.0%
	Residential 10,000 (R10)	4	0.6%
	Commercial Mixed Use 1 (CM1)	45	6.8%
	Commercial Mixed Use 2 (CM2)	121	18.4%
	Commercial Employment (CE)	117	17.8%
	Open Space (OS)	97	14.7%

In order to understand development capacity and compare it to existing land uses, we looked at each zone to see what is permitted. The following pages show where each zone exists in the SW study area along with the City's zoning summary highlighting permitted uses, maximum density, and allowable height and overall character.

Note: This summary table is for the total land within the WPTC study area as indicated by the black boundary line on the map on this page.

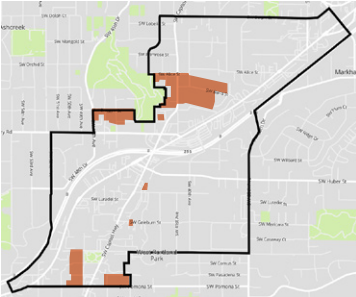
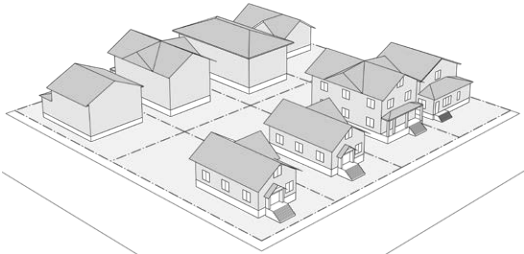
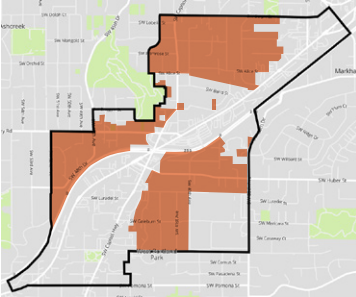
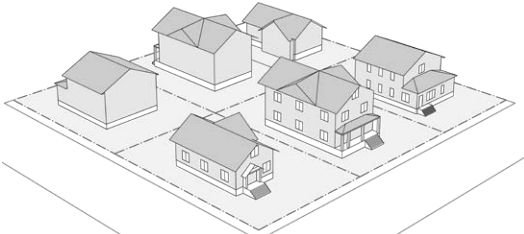
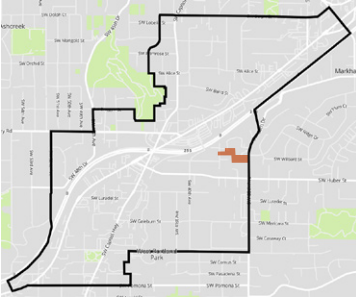
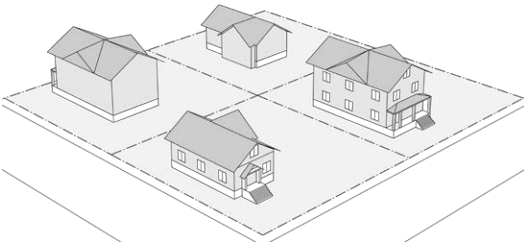


Zone	Description and Map	Share of Study Area	Max Height	Max Density or FAR
R1	<p>The R1 zone is a multi-dwelling zone. Housing is characterized by 1-4 story buildings and a high building coverage. The types of new development will be multi-dwelling structures (condominiums and apartments), duplexes, townhouses and rowhouses.¹</p>  	0.5%	45'	43 units per acre
R2	<p>The R2 zone is a multi-dwelling zone. Housing is characterized by 1-3 story buildings, but at a higher building coverage than R3 zones. The types of new development will be duplexes, townhouses, rowhouses and garden apartments.¹</p>  	7.3%	40'	21.8 units per acre
R2.5	<p>The R2.5 zone is a single-dwelling zone which allows 1 dwelling unit per 2,500 sq. ft. The major types of new housing development will be limited to single family dwellings, rowhouses, duplexes and accessory dwelling units (ADU).²</p>  	0.3%	35'	1 unit per 2,500 sq. ft.

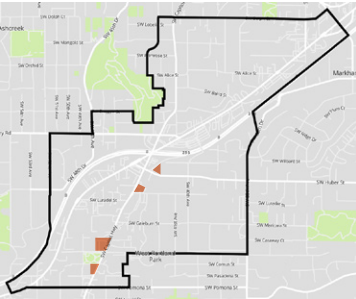

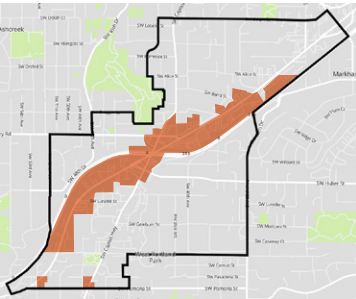
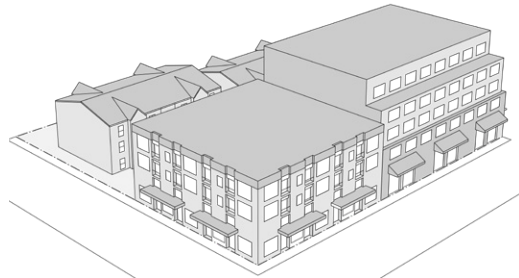
¹ The standards of this zone may change if recommendations of the Better Housing by Design project are adopted.

² The standards of this zone may change if recommendations of the Residential Infill Project are adopted.

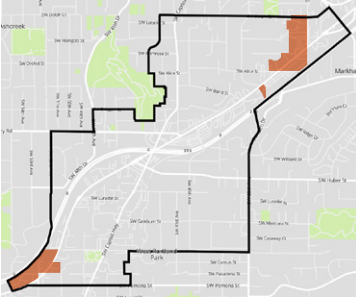
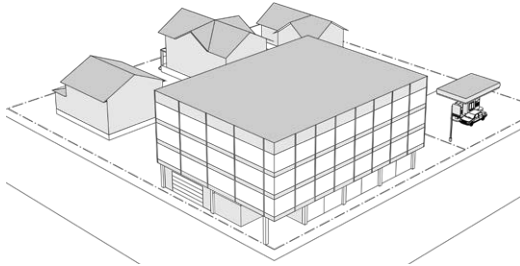
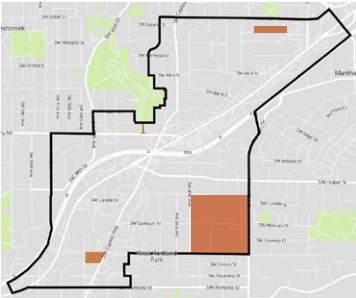



Zone	Description and Map	Share of Study Area	Max Height	Max Density or FAR
R5	<p>The R5 zone is a single-dwelling zone which allows 1 dwelling unit per 5,000 sq. ft. The major types of new housing development will be limited to single family houses, accessory dwelling units (ADU) and duplexes on corners.²</p>  	4.6%	30'	1 unit per 5,000 sq. ft.
R7	<p>The R7 zone is a single-dwelling zone which allows 1 dwelling unit per 7,000 sq. ft. The major types of new housing development will be limited to single family houses, accessory dwelling units (ADU) and duplexes on corners.²</p>  	29.0%	30'	1 unit per 7,000 sq. ft.
R10	<p>The R10 zone is a single-dwelling zone which allows 1 dwelling unit per 10,000 sq. ft. The major types of new housing development will be limited to single family houses, accessory dwelling units (ADU) and duplexes on corners.²</p>  	0.6%	30'	1 unit per 10,000 sq. ft.



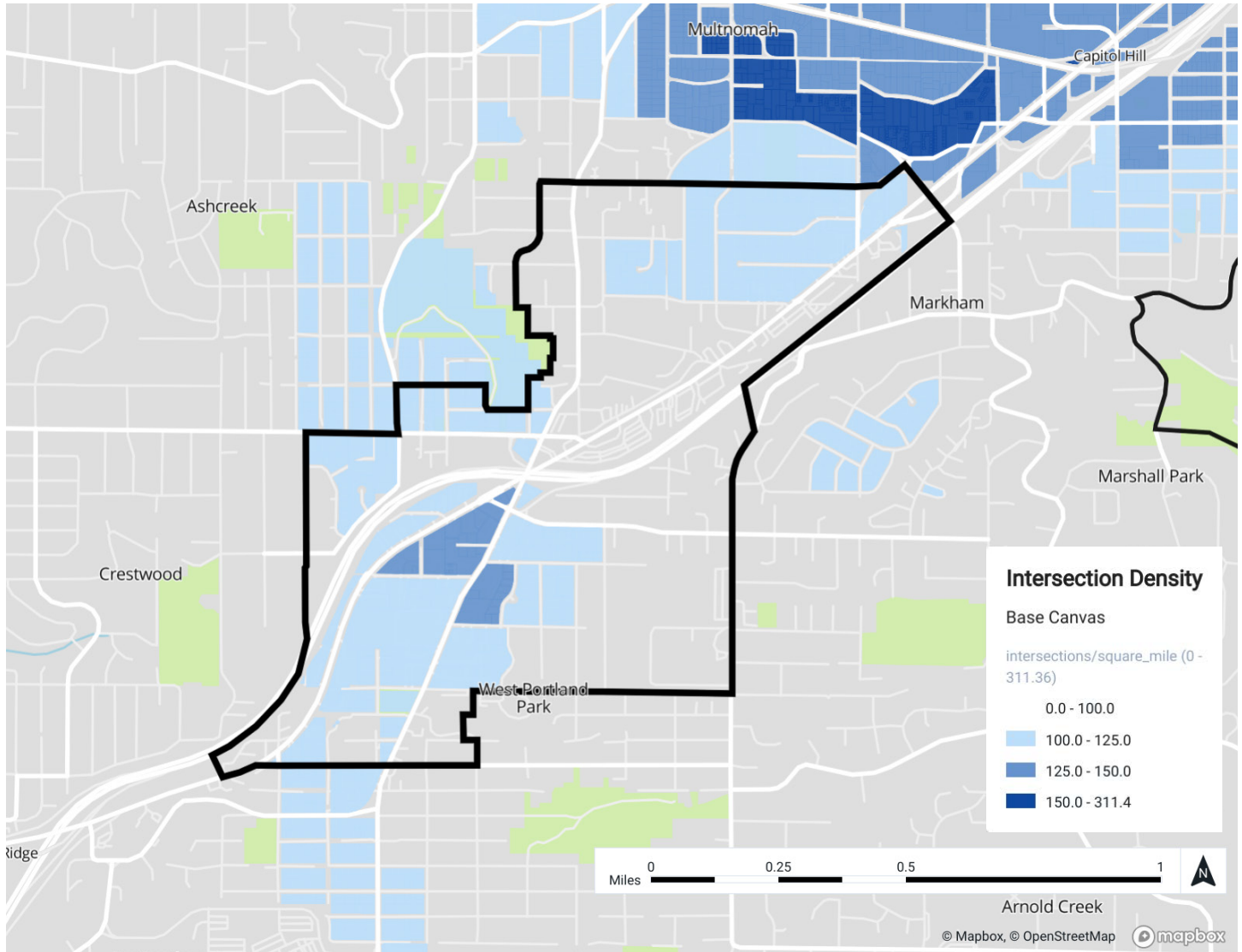
Zone	Description and Map	Share of Study Area	Max Height	Max Density or FAR
CM1	<p>The CM1 zone is a small-scale, commercial mixed use zone intended for sites in smaller mixed use nodes within lower density residential areas, on neighborhood corridors, and at the edges of neighborhood centers, town centers and regional centers. Buildings in this zone are generally expected to be up to three stories.</p>  	6.8%	35'	1.5:1 FAR
CM2	<p>The CM2 zone is a medium-scale, commercial mixed use zone intended for sites in a variety of centers and corridors, in other mixed use areas that are well served by frequent transit, or within larger areas zoned for multi-dwelling development. Buildings in this zone are generally expected to be up to four stories, except in locations where bonuses allow up to five stories.</p>  	18.4%	45'	2.5:1 FAR



Zone	Description and Map	Share of Study Area	Max Height	Max Density or FAR
CE	<p>The CE zone is a medium-scale zone intended for sites along corridors in areas between designated centers, especially along Civic Corridors that are also major truck streets. The emphasis of this zone is on commercial and employment uses. Buildings are generally expected to be up to four stories.</p>  	17.8%	45'	2.5:1 FAR
OS	<p>The OS zone is intended to preserve and enhance public and private open, natural and improved park and recreational areas.</p>  	14.7%	N/A	N/A



Street Grid Assessment: Intersections per Square Mile

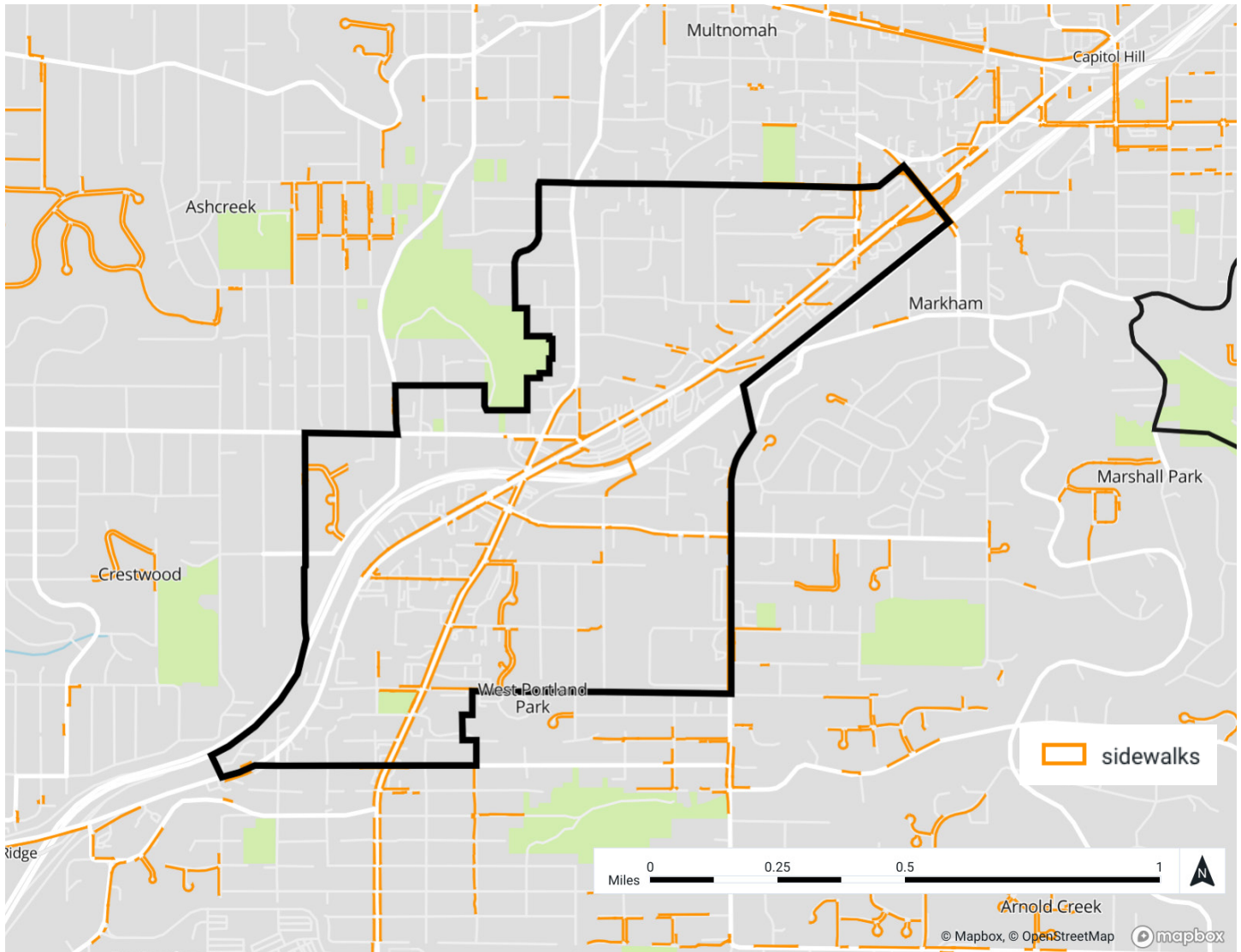


Equity and Community Implications

- In general, areas with fewer than 150 walkable intersections per square mile are less walkable and more automobile oriented.
- Areas with less than 100 walkable intersections per square mile are decidedly automobile oriented.
- WPTC largely has an automobile-oriented street system by this measure, especially further away from the center of the crossroads. Large blocks, with an incomplete grid, many dead-end streets, and frequent private streets, lead to a low count of walkable street intersections per square mile within the study area.
- This lack of a pedestrian-friendly walkable street grid may result in racial disparities related to lower-income households needing to bear housing plus transportation costs as a higher portion of household budgets. Related potential health impacts, such as higher rates of obesity and related negative health outcomes, are also associated with less-walkable built environments such as the WPTC area.



Walkability: Sidewalk Completeness

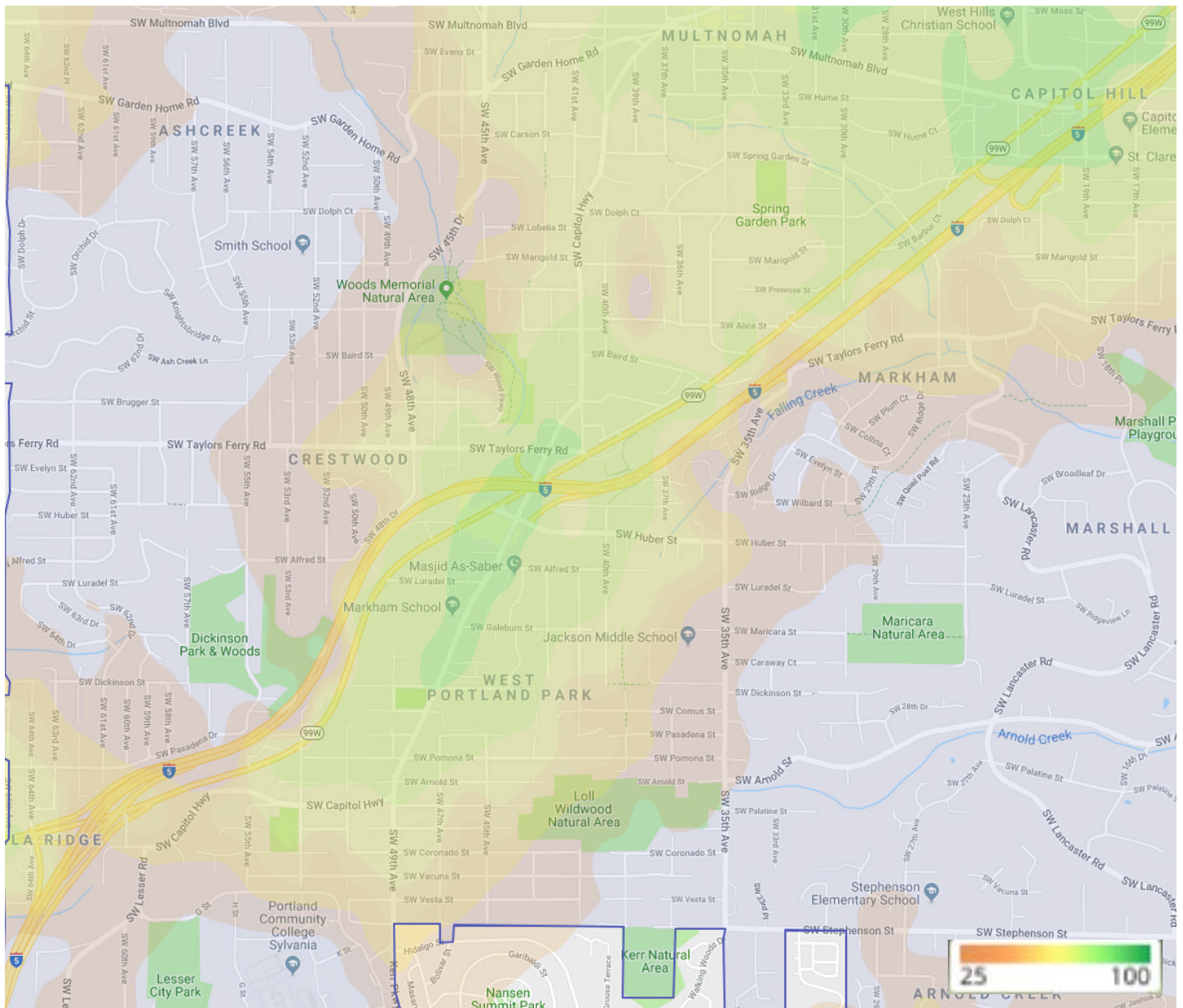


Equity and Community Implications

- WPTC lacks a complete sidewalk network. Though some sidewalks do exist, significant gaps in sidewalk coverage and a low-quality pedestrian environment can lead to disparate impacts on low-income households and vulnerable populations.
- The lack of a complete sidewalk network contributes to the overall pedestrian-unfriendliness of the study area, which reduces the amount of opportunities for new small businesses to be supported by walk-in customers.
- An urban form that includes a complete sidewalk network will literally lead more customers to be able to walk in to support more new, small businesses in the area, leading to increased business opportunities and lowering the barriers to entry for local entrepreneurs.



Walkability: Walkscore



Equity and Community Implications

Marginal walkability, as measured by the Walkscore algorithm, is centered on the Crossroads area and south along Capitol Highway. The walkscore algorithm is more focused on the existing ambient levels of nearby walkable destinations, than on the urban form of the pedestrian environment (which is the focus of the preceding

pages). Walkscore measures the number of amenities by category that are within walking distance, and ranks them using a decay function that reduces the points given for more distant amenities, with no points given after a 30-minute walk.



Transportation Infrastructure

Given the large number of transportation constraints in the West Portland Town Center, further analysis was performed of existing and proposed transportation infrastructure. The following maps graphically represent concepts addressed in the TSP as well as analysis of existing conditions from on-the-ground observation and a review of existing bicycle routes, GIS base maps of existing sidewalks, and proposed transportation improvement projects including those presented as part of the Southwest in Motion (SWIM) project.

The conclusion of this study was that gaps currently exist in the pedestrian and bicycle networks, and the vision to remedy these disparities is by relying on already taxed primary corridors. Several streets (including SW Barbur Boulevard, SW Capitol Highway, SW Taylors Road, SW Huber Road, and SW 35th Avenue) are designated as major collectors for traffic, transit priorities, primary emergency response routes, and major truck routes. There is an emphasis in these designations as auto-centric routes,

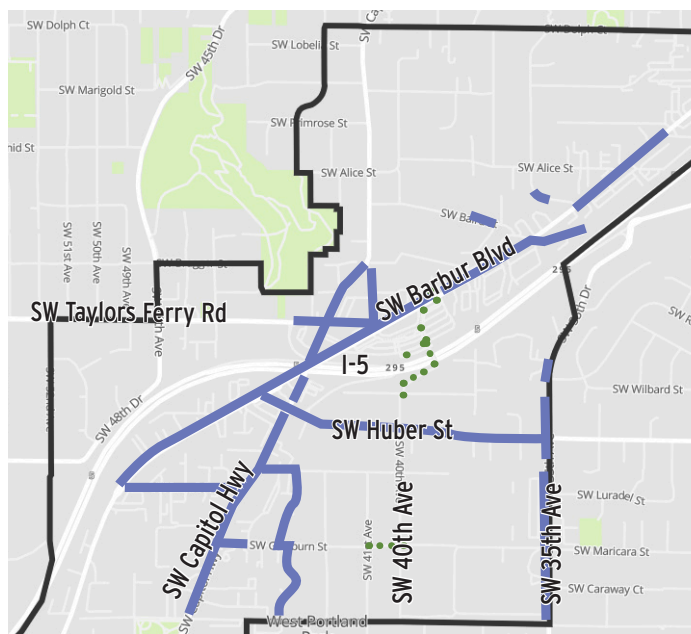
which in addition to the already lacking pedestrian and bicycle infrastructure, makes these routes less than ideally suited to improving the existing network.

Additional findings include:

- Currently there are large gaps in the pedestrian network, and surrounding neighborhoods on either side of the Town Center lack connections to the future center.
- The existing overpass pedestrian connection is an important connection across I-5.
- Other opportunities exist to create an off-street path network, taking advantage of open spaces and making interesting connections via stairs that could incorporate stormwater treatment features.

These findings are represented in the opportunities and constraints maps previously presented.

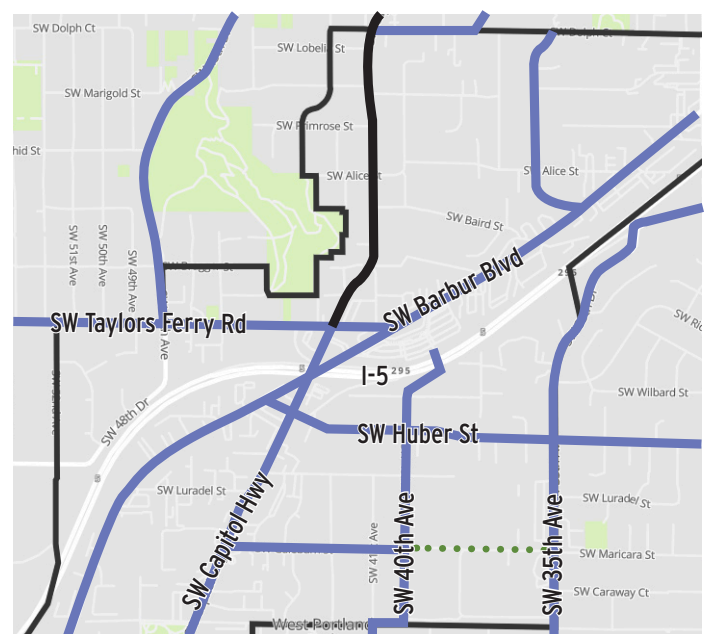
Pedestrian Existing



- Off-Street Path
- Existing sidewalks

Source: Portland Bureau of Transportation (PBOT) Transportation System Plan (TSP) Classifications

Pedestrian Planned

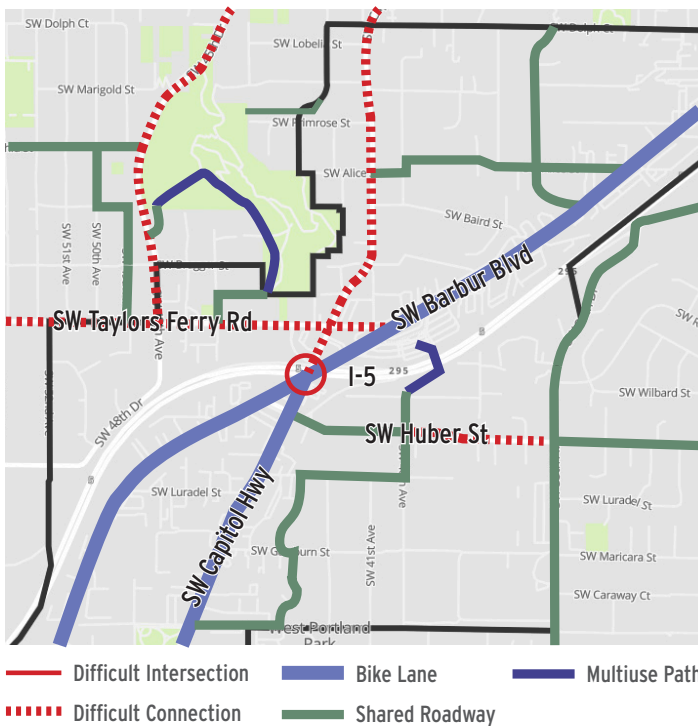


- Off-Street Path
- City Walkway
- Construction Project

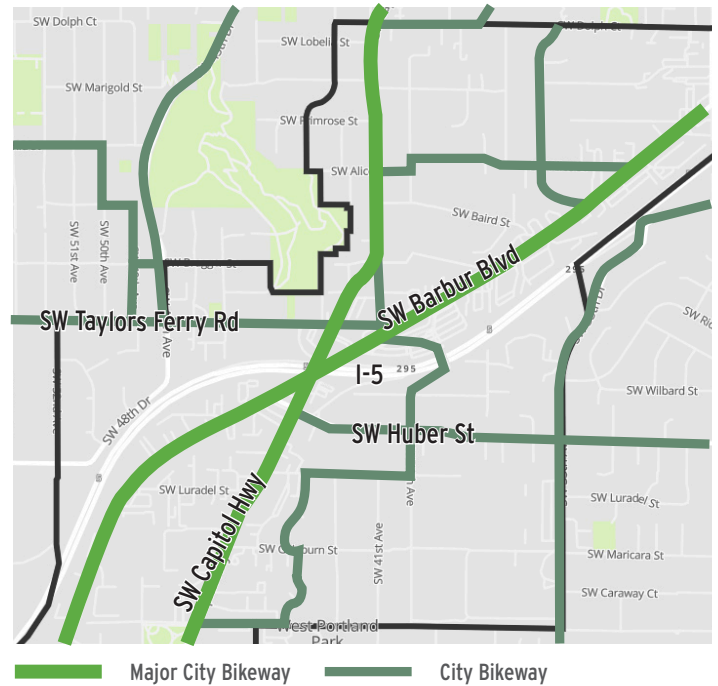
Source: Portland Bureau of Transportation (PBOT) Transportation System Plan (TSP) Classifications



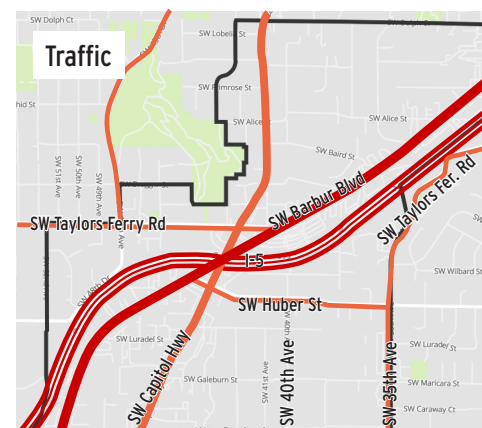
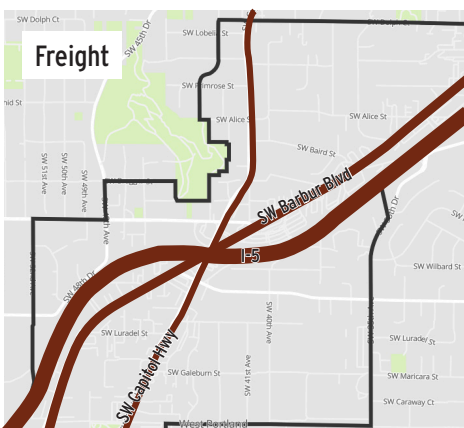
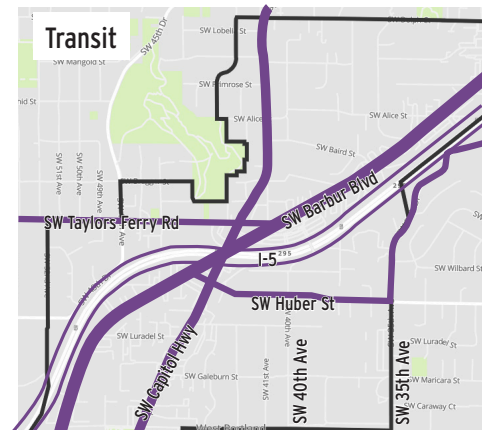
Bicycle Existing



Bicycle Planned



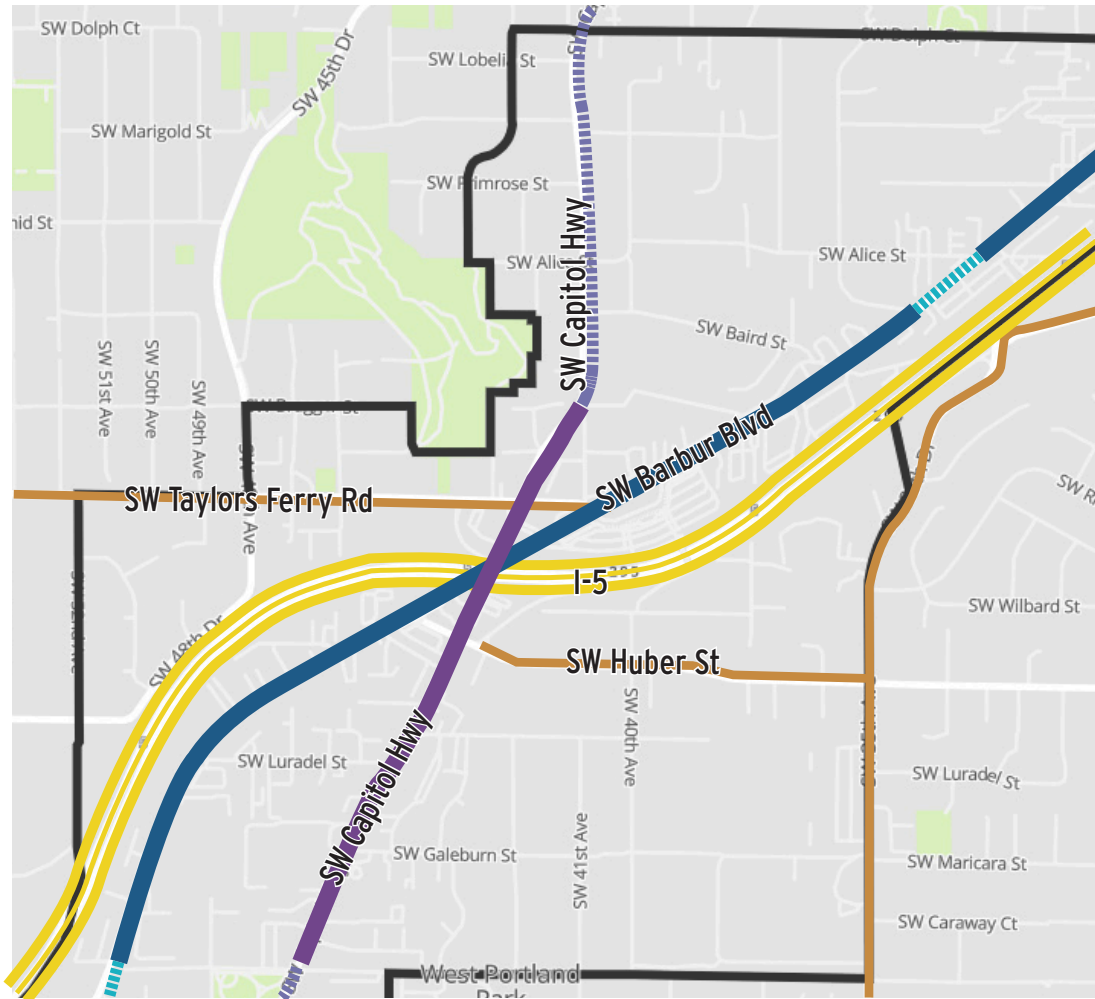
Existing Transportation System Plan Classifications









Street Design



The various street types found in the study area highlight the large size and auto-oriented nature of the primary corridors. Below is an overview of each street type.



Source: Portland Bureau of Transportation (PBOT) Transportation System Plan (TSP) Classifications

-  **Urban Throughway (I-5):** 4-6 lanes, emphasizes long-distance mobility for vehicles and freight throughout the region, 4-6 vehicle lanes, prioritizes mobility over local access
-  **Civic Main Street (Barbur Blvd):** segments of Civic Corridors located in Town Center, 2-4 vehicle lanes, wider than Neighborhood Main Streets, emphasizes pedestrian access to land use as well as users of other modes, supports multimodal use, curb zone has place-making function
-  **Civic Corridor:** 2-4 lanes, located along major transit corridors, connects Centers to Central City, able to provide width for each mode, curb zone emphasizes mobility functions, bike facilities are separated from motor traffic
-  **Neighborhood Main Street (Capitol Hwy):** segments of Neighborhood Corridors located in Town Center, 2 lanes, primarily serves surrounding neighborhoods and offers multi-

modal connections between activity centers, narrower than Civic Main Streets, curb zone emphasizes access and place-making functions, bike facilities are separated from motor traffic but may be shared if speeds are low

-  **Neighborhood Corridor:** 2 lanes, located along transit corridors, connects Neighborhood Main Streets to Centers and Central City, narrower than Civic Corridors, low to moderate speeds, curb zone emphasizes mobility functions, includes wide sidewalks, closely-spaced pedestrian crossings, separated bicycle facilities
-  **Community Corridor:** narrower than Regional Corridors, emphasizes mobility for all modes between neighborhoods, curb zone emphasizes mobility, bike facilities are separated from motor traffic but may be shared if speeds are low