

TECHNICAL MEMORANDUM

March 11, 2024

Project# 25837.010

To: Hope Pollard, Associate Planner; City of Tigard
From: Erika Adams, Nick Gross, Susie Wright, PE
RE: City of Tigard Maintain, Advance, Diversity, Employment (MADE)
TPR Analysis & Multimodal Transportation Gap Summary & Highway Impact Summary DRAFT

Maintain, Advance, & Diversity Employment (MADE)

The City of Tigard is proposing zoning map and zoning code changes to their Comprehensive Plan (Reference 1) as part of the Maintain, Advance, Diversity, and Employment (MADE) Project. The overall intent of the zoning map and code changes are to modernize the zoning code and the design standards to increase mixed-use development. The goals of this include reducing vehicular trips and vehicular trip lengths, increasing multi-modal trips, supporting housing development, limiting the scale of commercial development, and preserving industrial land for industrial uses. The proposed changes are also intended to provide more flexibility to accommodate market demands and support the development and redevelopment of these areas and enabling them to accommodate the growth allocated to these areas through prior land use and transportation planning.

Following the requirements of Oregon Administrative Rule (OAR) Chapter 660 Division 12 Transportation Planning, two distinct amendment processes are required.

1. For proposed zone changes located outside designated Metro Region 2040 Centers and Climate Friendly Areas (CFAs), Transportation Planning Rule (TPR) requirements following OAR 660-012-0060 are required.
2. For proposed zone changes located inside Metro Region 2040 Centers and designated (CFAs), TPR requirements following OAR 660-012-0325 are required.

TPR ANALYSIS OUTSIDE OF THE 2040 CENTER

Oregon's Transportation Planning Rule (TPR) OAR 660-012-0060 applies to land use amendments to acknowledged comprehensive plans and zoning designations. Per OAR 660-012-0060(1) and (2), the first step in assessing an amendment's potential transportation impact is to compare the trip generation potential of the study area assuming a "reasonable worst-case" development scenario under the existing zoning to the proposed zoning. If the trip generation potential increases under the proposed zoning, additional analysis is required to assess whether the additional trips will "significantly effect" the transportation system. Conversely, if the trip generation potential under the proposed zoning code amendment is equal to or less than that under the existing zoning, no additional analysis is necessary to determine "significant effect".

Study Area

Proposed zone changes are located throughout the City including along the OR 99W corridor, OR 217 corridor, and Portland and Western Railroad corridor. The existing zoning for parcels outside of the Metro Region 2040 Centers with proposed zone changes requiring TPR analysis associated with OAR 660-012-0060 are shown in Figure 1. The following sections and tables summarize the existing development standards for commercial, mixed-use and industrial zones that are being replaced with updated design standards. *Note: Comparison purposes between existing and proposed, the existing "Commercial" zoning illustrated in Figure 1 includes zoning types C-G, C-C, C-P and C-N.*

EXISTING ZONING

Existing zoning designations and definitions are based on the City of Tigard Comprehensive Plan.

Commercial

- General Commercial (C-G)
 - These areas are intended to provide for major retail goods and services, generally for the traveling public, and be located along major traffic ways.
- Community Commercial (C-C)
 - These areas are intended to provide locations for retail and service uses, which primarily have a neighborhood orientation. Medium-density residential uses will also be accommodated on or above the second story.
- Professional Commercial (C-P)
 - These areas are deemed appropriate for business and professional offices and related uses.
- Neighborhood Commercial (C-N)
 - These areas are intended for the concentration of small commercial and personal service activities and related uses necessary to satisfy the daily shopping and related needs of nearby residents.

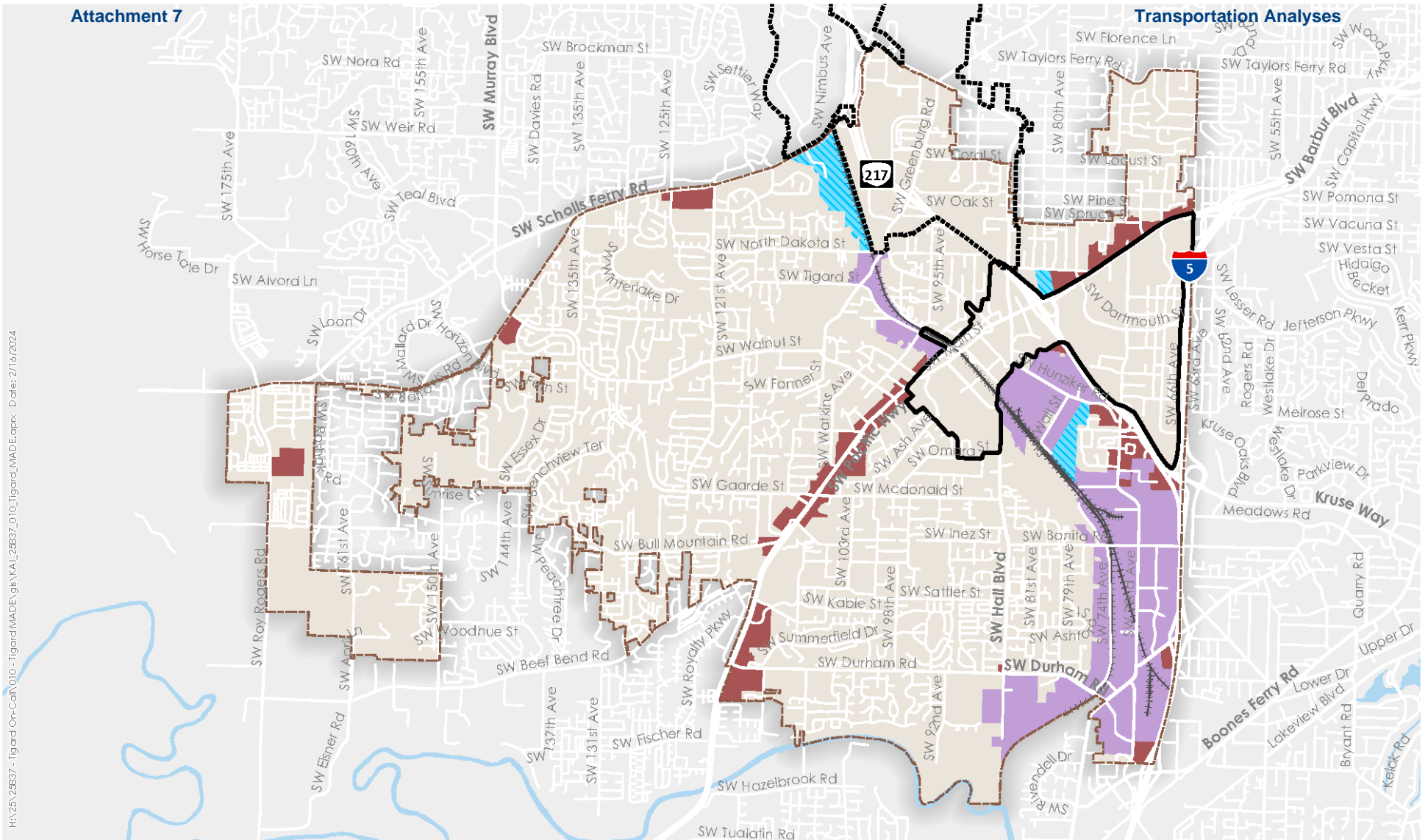
Mixed-Use

- Mixed-Use Employment
 - These areas are intended to accommodate development concepts characterized by retail, office, and commercial services use, with business park and research facilities. High-density residential development will be encouraged.

Industrial

- Light Industrial (I-L / I-P)
 - These areas are deemed appropriate for industrial activities which include manufacturing, processing, assembling, packaging, or treatment of products from previously prepared materials, and which are devoid of nuisance factors that would adversely effect other properties.

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- Commercial
- Industrial
- Mixed-Use Employment
- Town Center Analysis Center
- Washington Square Analysis Center
- Tigard City Limits



Figure 1

PROPOSED ZONING

The MADE project is proposing extensive changes to all City employment zones (commercial, industrial, and mixed use). Parcels outside of the Metro Region 2040 Centers with proposed zone changes are shown in Figure 2¹. The number of current employment based zones is being reduced and the proposed zones will be simplified. The following are the proposed new base zones:

Commercial

- Commercial (COM)
 - All four current commercial zones are being consolidated down to a single commercial zone. The COM zone allows a wide range of auto-centric commercial activity and building sizes, while encouraging more pedestrian friendliness.

Mixed-Use

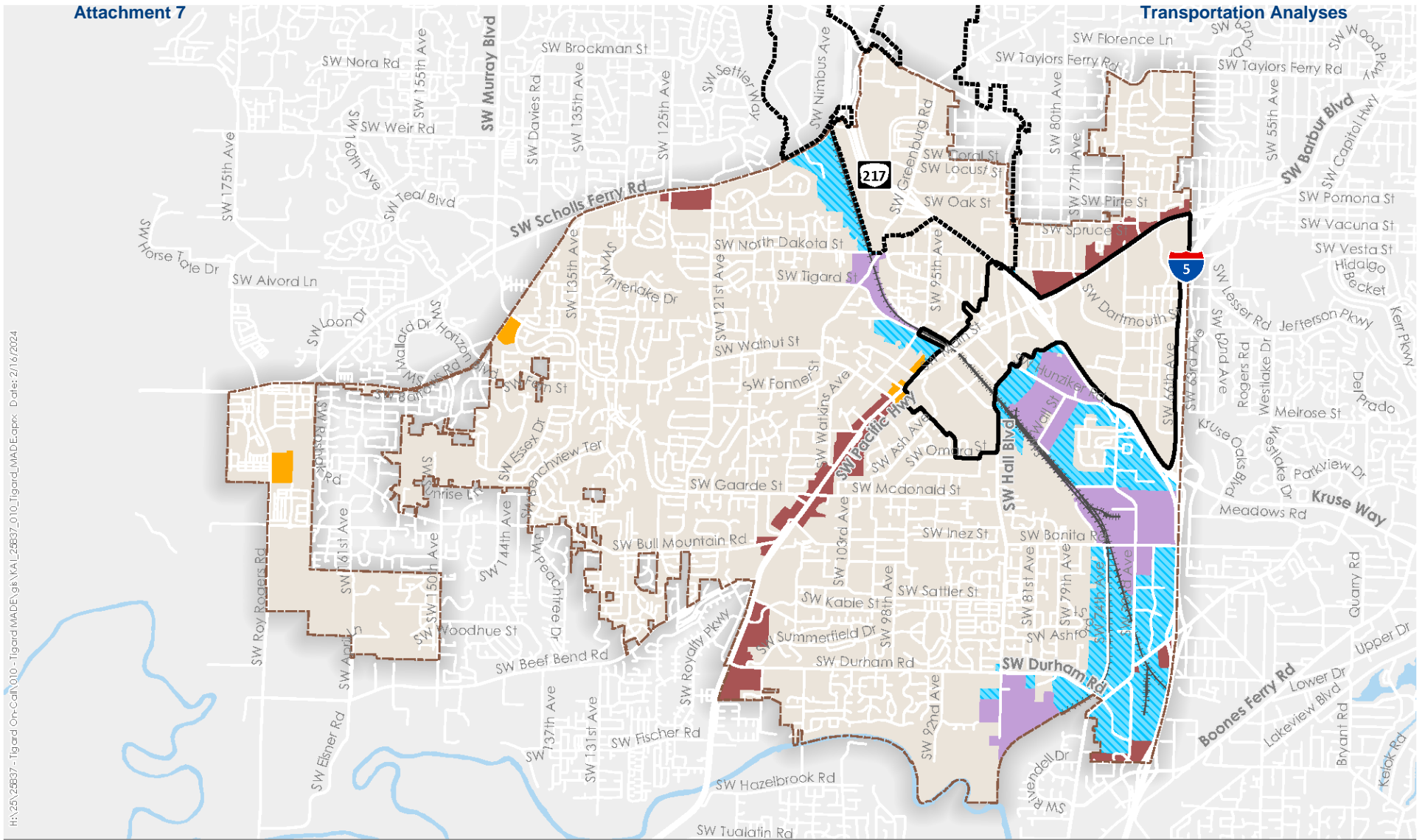
- Mixed-Use Commercial (MUC)
 - The MUC zone is a consolidation and overhaul of the two current MUC zones intended to allow a wide range of commercial and residential activity as standalone or mixed-use development.
- Mixed-Use Employment (MUE)
 - The MUE zone is a consolidation of all three current MUE zones into a single zone intended to allow the broadest range of low impact uses to locate near each other including residential, commercial, and some industrial and manufacturing uses.
- Mixed-Use Residential (MUR)
 - The MUR zone is a consolidation and overhaul of the two current MUR zones where predominantly residential uses are allowed along with mixed-uses that are directly supportive of the residential use.

Industrial

- Industrial (IND)
 - The three current industrial zones are consolidated into a new single industrial zone that prioritizes employment and manufacturing businesses with a higher density of on-site industrial-sector jobs.

¹ Note: Proposed zone changes located inside the Tigard Triangle Town Center Metro Region 2040 Center are addressed in the latter part of this memorandum following OAR 660-012-0325 requirements. The Washington Square Regional Center is addressed in a separate memorandum.

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- Commercial
- Industrial
- Mixed-Use Employment
- Mixed-Use Commercial
- Town Center Analysis Center
- Washington Square Analysis Center
- Tigard City Limits



Figure 2

SITE DESIGN STANDARDS UPDATE

The following sections and tables summarize the existing development standards for commercial, mixed-use and industrial zones that are being replaced with updated design standards.

Commercial Zone Site Design Standards Update

Existing Commercial Zone Development Standards for Nonresidential Development (Table 1) are being amended to the Commercial Zone Site Design Standards for Nonresidential Development (Table 2) and Building Height (Table 3). These amendments are documented in [MADE Public Review Draft \(tigard-or.gov\)](#).

Table 1: Existing Commercial Zone Development Standards for Nonresidential Development

Table 18.320.1							
Commercial Zone Development Standards for Nonresidential Development							
Standard	C-N and C-C	C-G	C-P	MUE	MUE- 2 and MUR- 2 [4]	MUR- 1 [4]	MUC and MUE-1 [4]
Minimum Setback (ft)							
<i>—Front</i>	None	None	None	None	10	None	None
<i>—Street side</i>	None	None	None	None	10	5	None
<i>—Side</i>	0 or 20 [2]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]
<i>—Rear</i>	0 or 20 [2]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]
Maximum Setback (ft)							
<i>—Front</i>	20	None or 10 [4]	None	None	20	20	20
<i>—Street side</i>	20	None or 10 [4]	None	None	20	20	20
Minimum Height (ft)	None	None	None	None	None	2 stories	2 stories
Maximum Height (ft)	35	45	45	45	60	75	200
Maximum Lot Coverage	85%	85%	85%	80%	80%	80%	85%
Minimum Landscape Area	15%	15%	15%	20%	20%	20%	15%
Minimum FAR [5]	None	None	None	None	0.3	0.6	1.25
Maximum FAR [5]	None	None	None	0.4 [6]	None	None	None

Table 2: Proposed Commercial and Mixed-Use Zone Site Design Standards for Nonresidential Development

Table 18.320.1				
Commercial Zone Site Design Standards for Nonresidential Development				
Standard	COM	MUC	MUE	MUR
Minimum Setback (ft)				
- Front or street-facing	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
- Side or rear adjacent to nonresidential or RES-E zone	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
- Side or rear adjacent to a RES-A—RES-D zone	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>
Maximum front or street-facing Setback (ft)	<u>None</u>	<u>20</u>	<u>10</u>	<u>12</u>
Maximum Lot Coverage	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
Minimum Landscape Area	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>

Table 3: Proposed Commercial & Mixed-Use Zone Site Building Height

Table 18.320.4				
Height by Zone				
Zone	Development or Use	Minimum Height (in feet)	Minimum Stories Required	Maximum Height (in feet)
COM	Nonresidential	<u>12</u>	<u>1</u>	<u>45</u>
	Mixed-use	<u>25</u>	<u>2</u>	<u>100</u>
MUE	Nonresidential	<u>12</u>	<u>1</u>	<u>75</u>
	Mixed-use	<u>25</u>	<u>2</u>	<u>100</u>
MUC	Any	<u>12</u>	<u>1</u>	<u>185</u>
MUR	Residential	<u>12</u>	<u>1</u>	<u>60</u>
	Mixed-use	<u>25</u>	<u>2</u>	<u>60</u>

The primary zoning code amendments when comparing Table 1, Table 2, and Table 3 include:

- Consolidation of Neighborhood Commercial (C-N), Community Commercial (C-C), General Commercial (C-G), and Professional Commercial (C-P) to Commercial (COM)
- Removal of minimum and maximum FARs for Commercial and Mixed-Use zones
- Increased maximum Commercial building height to 45 feet (Nonresidential) and 100 feet (Mixed-use) from previous range of 35 to 45-feet maximum which allows the addition of residential without significantly increasing the amount of allowed commercial.

- Increase Mixed-Use Employment building height to 75 feet (Nonresidential) and 100 feet (Mixed-use) maximums from 45 feet maximum.
- Reduce Mixed-Use Commercial building height from 200 feet to 185 feet maximums.
- Increase Commercial building lot coverage from 85% to 100%.
- Increase Mixed-Use building lot coverage from 80% to 100%.
- Reduction of Commercial minimum landscape coverage from 15% to 0%.
- Reduction of Mixed-Use minimum landscape coverage from 20% to 0%.

Industrial Zone Site Design Standards Updates

Existing Industrial Zone Development Standards (Table 4) are being amended to the Industrial Zone Site Design Standards for Nonresidential Development (Table 5).

Table 4: Existing Industrial Zone Development Standards for Nonresidential Development

Table 18.330.1			
Industrial Zone Development Standards for Nonresidential Development			
Standard	I-P	I-L	I-H
Minimum Setbacks (ft)			
- <i>Front</i>	35	30	30
- <i>Street side</i>	20	20	20
- <i>Side [1]</i>	None	None	None
- <i>Rear [1]</i>	None	None	None
Maximum Height (ft)	45	45	45
Maximum Lot Coverage	75% [2]	85%	85%
Minimum Landscape Area	25% [2]	15%	15%

Table 5: Proposed Industrial Zone Site Design Standards for Nonresidential Development

Table 18.330.1	
Industrial Zone Site Design Standards for Nonresidential Development	
Standard	IND
Minimum Setbacks	
- <i>Front and street-facing</i>	1 ft
- <i>Side or rear adjacent to residential zone</i>	50 ft
- <i>Side or rear adjacent to nonresidential zone</i>	1 ft
Maximum Lot Coverage	85%
Minimum Landscape Area	15%

The primary zoning code amendments when comparing Table 4 and Table 5 include:

- Consolidation of Light Industrial, Park Industrial, and Heavy Industrial, and Industrial
- Removal of maximum building heights.

Proposed Zone Change Comparison

Table 6 summarizes a comparison between existing and proposed zoning by acreage. The acreage comparison is for zone changes proposed outside of the Metro Region 2040 Center areas only.

Table 6: Proposed Zone Change Comparison

Zoning	Existing Zoning (Total Acres)	Proposed Zoning (Total Acres)	Net Difference (Total Acres)
Commercial (COM)	338.96	252.88	-86.08
Industrial (IND)	781.69	359.66	-422.03
Mixed-Use Employment (MUE)	97.57	574.25	476.68
Mixed-Use Commercial (MUC)	0	34.24	34.24
Total	879.26	1,221.03	2.81²

As shown in Table 6, notable decreases in Commercial (-86.08) and Industrial (-442.03) acreage is proposed along with a corresponding increase of Mixed Use Employment (+476.03) and Mixed Use Commercial (+34.24) acreage. This is visually illustrated by comparing Figure 1 and Figure 2.

The conversion of Industrial to Mixed-Use Employment has the greatest potential for an increase in trip generation for the area when comparing the reasonable worst-case scenario under existing and proposed zoning.

TRIP GENERATION

Using the information presented in *Trip Generation, 11th Edition* (as published by the Institute of Transportation Engineers), a vehicular trip generation comparison was conducted between existing Industrial and proposed Mixed-Use Employment for a sample one acre.

Table 7 presents a comparison between weekday, AM peak hour and PM peak hour trips that could be generated under the reasonable worst case for one acre under existing Industrial zoning and proposed Mixed-Use Employment zoning. When converting to from Industrial to Mixed Use Employment, the analysis assumes one floor of ground floor commercial, two floors of office space (minimum of 30% employment required), and two floors of residential. It's assumed that there would also be some amount of parking that although not required would likely be demanded by the market. As shown in Table 7, this reasonable worst-case scenario example results in the potential increase in trip generation of approximately 125 weekday PM peak hour trips. While this may be an example of what could happen on one large parcel, it does not reflect what's likely to happen across the entire acreage being converted to

² Note: the net difference in total acres between existing and proposed is a product of minor geometric changes to proposed zoning parcels based on the geometric data provided by the City in ArcGIS.

MUE over the 20-year horizon, or beyond, based on the City's Economic Opportunity Analysis (EOA), buildable lands inventory, and the growth allocated in the regional travel demand model.

Table 7: Trip Generation of Proposed MUE Zoning

Land Use	ITE Code	Size	Total Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Existing Zoning: Industrial									
Industrial	110	32,670 sf ¹	159	24	21	3	21	3	18
Proposed Zoning: Mixed Use Employment									
Low-rise residential	220	75 units	556	46	11	35	53	33	20
<i>Internal Trips (21.84% Total, 2.17% AM, 41.51% PM)</i>			-121	0	0	0	-22	-11	-11
Office	710	32,670 sf ¹	438	64	56	8	66	11	55
<i>Internal Trips (9.21% Total, 7.81% AM, 10.61% PM)</i>			-40	-5	-3	-2	-7	-3	-4
Commercial	820	32,670 sf ¹	1209	27	17	10	111	53	58
<i>Internal Trips (18.67% Total, 14.8% AM, 22.52% PM)</i>			-226	-4	-2	-2	-25	-12	-13
Proposed Zoning Total									
Total Trips			2203	137	84	53	230	97	133
Internal Trips			-387	-9	-5	-3	-54	-26	-28
Net New			1816	128	79	50	176	71	105
Difference									
Net Total			1657	104	58	47	155	68	87

¹ Square footage (SF) assumes 0.75 lot area coverage.

LIKELY DEVELOPMENT ACRES

As noted above, despite approximately 422 acres converting from Industrial to Mixed-use Employment, the city's Buildable Land Inventory (BLI) identifies only approximately 21 of those acres to be likely to develop or redevelop and it is unlikely that more than a few of those 20 acres would redevelop to the reasonable worst-case scenario shown in Table 7.

TRANSPORTATION ANALYSIS ZONES (TAZ) OUTSIDE THE 2040 CENTERS

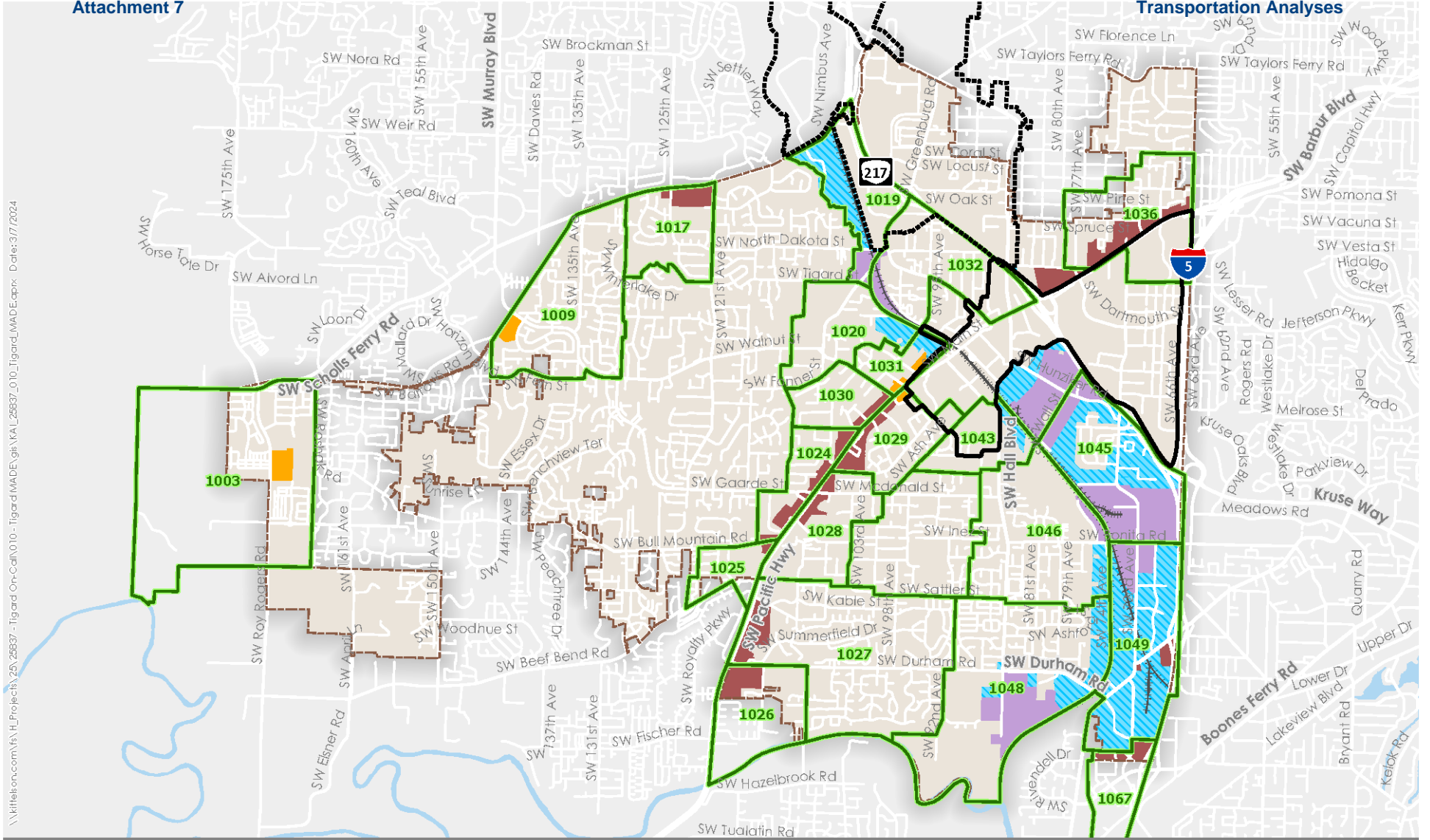
Metro maintains the travel demand model that includes the growth allocations for housing and employment in the region. The estimates are based on the coordinated population forecast, economic forecasts, land use plans, assumptions, and desires about how areas will develop or redevelop. Model development and refinement is completed in coordination with local jurisdictions.

The proposed zoning map and zoning code changes located outside of the Tigard Town Center and Washington Square Regional Center are covered by 21 different transportation analysis zones (TAZ) in the model.

Figure 3 illustrates the TAZs where proposed changes are identified and the difference of population and employment growth for each TAZ between the 2015 Baseline and the 2040 Future Year.

Table 8 summarizes TAZs with proposed zone changes and summarizes the Baseline 2015 and Future Year 2040 population and employment growth for each TAZ. TAZ's with proposed zone changes located in the Tigard Town Center are addressed as part of the Transportation Multimodal Gap Summary and Highway Impact Summary in the latter part of this memorandum; TAZ's with proposed zone changes located in the Washington Square Regional Center are addressed as part of the Transportation Multimodal Gap Summary and Highway Impact Summary under a separate cover.

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- Commercial
- Industrial
- Mixed-Use Employment
- Mixed-Use Commercial
- TAZs Labeled
- Town Center Analysis Center
- Washington Square Analysis Center
- Tigard City Limits



Figure 3

Table 8: TAZs Growth Assumptions (Outside of the 2040 Centers)

TAZ	Population 2015	Population 2040	Population Change	Employment 2015	Employment 2040	Employment Change
1003	126	3766	3640	55	150	95
1009	5004	5816	812	317	449	132
1017	1794	1825	31	558	743	185
1019	0	1076	1076	1939	3502	1563
1020	529	571	42	290	332	42
1024	1150	1170	20	505	696	191
1025	992	1212	220	448	552	104
1026	1965	2171	206	432	531	99
1027	5631	5870	239	572	730	158
1028	2227	2399	172	310	395	85
1029	1348	1492	144	489	647	158
1030	724	754	30	245	334	89
1031	468	481	13	355	391	36
1032 ¹	2342	3019	677	676	1321	645
1036 ¹	1461	1904	443	1445	2712	1267
1043 ¹	298	688	390	522	735	213
1045	468	986	518	4109	5189	1080
1046	2997	3276	279	590	829	239
1048	2408	2830	422	1219	1569	350
1049	0	0	0	7555	9069	1514
1067	1343	1343	0	2870	3695	825
TOTAL GROWTH	33,275	42,649	9,374	25,501	34,571	9,070

¹ TAZ overlaps with proposed zone changes inside and outside of CFA.

Population Growth

As shown in Table 8, significant population increase is assumed in TAZ 1003 (River Terrace) followed by 1019 (the area west of the Washington Square Regional Center). In total, the TAZs outside of the 2040 Centers with proposed zone changes are forecast to grow by approximately 9,400 people by 2040. Excluding River Terrace, the allocated population growth to the TAZs is approximately 5,734 people in areas that will primarily be infill and redevelopment in the proposed mixed-use zones which will rely on the proposed zoning map and zoning code changes for this growth to be realized.

Employment Growth

As shown in Table 8, the regional travel demand model assumes approximately 9,070 new jobs in the TAZs with proposed zone changes outside of the 2040 Regional Centers. Notable employment growth is

shown in TAZ 1019, 1049, 1036, 1045, and followed by 1067, and 1032. Of these TAZs, 1045 and 1049 have the majority of the Industrial to Mixed-Use Employment proposed zone changes.

TAZ 1045 and 1049 are located on the eastern edge of City Limits and include proposed zone changes from Industrial to Mixed-Use Employment. Within these two TAZs, an employment growth of 2,594 is forecasted. The majority of Mixed-Use Employment zone changes are occurring in these TAZs. The proposed zone changes are not anticipated to increase the assumed level of 20-year growth in these areas based on the buildable land inventory. The proposed changes are anticipated to help facilitate the city's ability to accommodate forecast growth in these areas as currently envisioned in the comprehensive plan and transportation system plan.

TPR EVALUATION

OAR Section 660-012-0060 of the TPR sets forth the relative criteria for evaluating plan and land use regulation amendments. OAR 660-012-0060 describes what constitutes a significant effect from a land use plan or regulation amendment such as those proposed as part of the MADE project.

OAR 660-12-0060(1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly effect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly effects a transportation facility if it would:

- (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);*
- (b) Change standards implementing a functional classification system; or*
- (c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted transportation system plan (TSP). As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.*
 - (A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*
 - (B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or*
 - (C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.*

The proposed amendments include consolidations of Commercial (COM), Mixed-Use Commercial (MUC), Mixed-Use Employment (MUE), Mixed-Use Residential (MUR), and Industrial (IND) to single zones,

changes of industrial zoning to mixed-use employment, and increases in maximum densities via higher maximum building heights for the addition of residential. These amendments are not anticipated to have a significant effect on the transportation system as they will not result in more growth than already assumed in the regional travel demand model and the city's transportation system plan. The proposed changes will help support mixed-use development and redevelopment in these areas that will result in reduced vehicular trips, shorter vehicular trip lengths, support multi-modal trips, and will provide needed flexibility to accommodate market demands and enable the growth allocated to these areas through prior land use and transportation planning. The proposed amendments will not result in needed changes to the City's functional street classification designations or standards, will not result in types or level of travel not already anticipated by the TSP, and will not result in degradation of performance beyond what's acceptable or anticipated in the TSP. **Therefore, the proposed zoning map and zoning code changes do not result in a significant effect on the transportation system, and mitigation is not necessary.**

Additional findings for each zoning designation is included in the following sections.

Commercial

The primary changes associated with zoning code amendments for the proposed Commercial zoning are:

- Consolidation of existing Neighborhood Commercial (C-N), Community Commercial (C-C), General Commercial (C-G), and Professional Commercial zones (C-P) to Commercial (COM) zone.
- Removal of minimum and maximum FAR
- Increase Commercial building height to 45 feet (Nonresidential) and 100 feet (Mixed-use) maximums from previous range of 35 to 45-foot maximum.
- Increase Commercial building lot coverage from 85% to 100%.
- Reduction of Commercial minimum landscape coverage from 15% to 0%.

An overall decrease of approximately 86.08 acres of Commercial zoning is proposed as part of the zone changes; however, an increase in approximately 34.24 acres of Mixed-use Commercial is proposed resulting in a -51.84 difference in total commercial acreage between existing and proposed. While the Mixed-Use Commercial will allow residential to be added, it will not allow for increased commercial heights and will result in reduced vehicular trips and lengths and support more multi-modal travel.

Therefore, the proposed Commercial zoning map and zoning code changes are not anticipated to result in a significant effect on the transportation system, as defined by the TPR, and may result in an overall reduction in the total number of vehicular trips.

Mixed-Use Employment

The primary changes associated with zoning code amendments for the proposed Mixed-Use zoning are:

- Removal of FAR; increased reliance on building heights
- Increase in maximum lot coverage

A total increase of 476.68 acres of Mixed-Use Employment is proposed with approximately 422 acres of Industrial zoning and approximately 54 acres of Commercial being converted to Mixed-Use Employment. Although this significant change of Industrial land to Mixed-Use Employment could result in significant increases in the reasonable worst-case development scenario for any given property, the buildable lands inventory indicates only 20 acres are likely to develop or redevelop in the subject property outside of the

2040 Centers. While some may develop at the maximum allowed intensity, many will not and the planned growth already allocated to these areas in the regional travel demand model exceeds the likely growth in these areas. The forecast growth will largely occur as infill and redevelopment which will rely on the proposed zoning map and zoning code changes for the already planned growth to be realized. Therefore, the Mixed-Use proposed zoning map and zoning code changes are not anticipated to result in a significant effect on the transportation system, as defined by the TPR.

Industrial

The primary changes associated with zoning code amendments for the proposed Industrial zoning are:

- Consolidation of Industrial zones I-P, I-L, and I-H to IND
- Removal of building height maximums

An overall decrease of approximately -422.03 acres of Industrial zoning is proposed as part of the zone changes. Therefore, the Industrial proposed zoning map and zoning code changes are not anticipated to result in a significant effect on the transportation system, as defined by the TPR.

TRANSPORTATION PLANNING RULE ANALYSIS INSIDE THE 2040 CENTER

For proposed zone changes located inside Metro Region 2040 Centers and designated Climate-Friendly Areas (CFAs), TPR requirements following OAR 660-012-0325 are required.

According to the latest round of draft amendments to Chapter 660 – Division 12 Transportation Planning documented as part of the Climate-Friendly and Equitable Communities Corrections & Clarifications Rulemaking, Rulemaking Advisory Committee Meeting 4, Cities and counties considering amendments to comprehensive plans or land use regulations to adopt or expand a 50 climate-friendly area as provided in OAR 660-012-0310 through OAR 660-012-0320, or a Metro Region 2040 51 center, must make findings, including:

- (a) A multimodal transportation gap study as provided in section (4); and
- (b) The multimodal transportation gap study must include a highway impacts summary as provided in section (5) if the designated climate-friendly area as provided in OAR 660-012-0315 or Region 2040 center contains a ramp terminal intersection, state highway, interstate highway, or adopted ODOT Facility Plan.

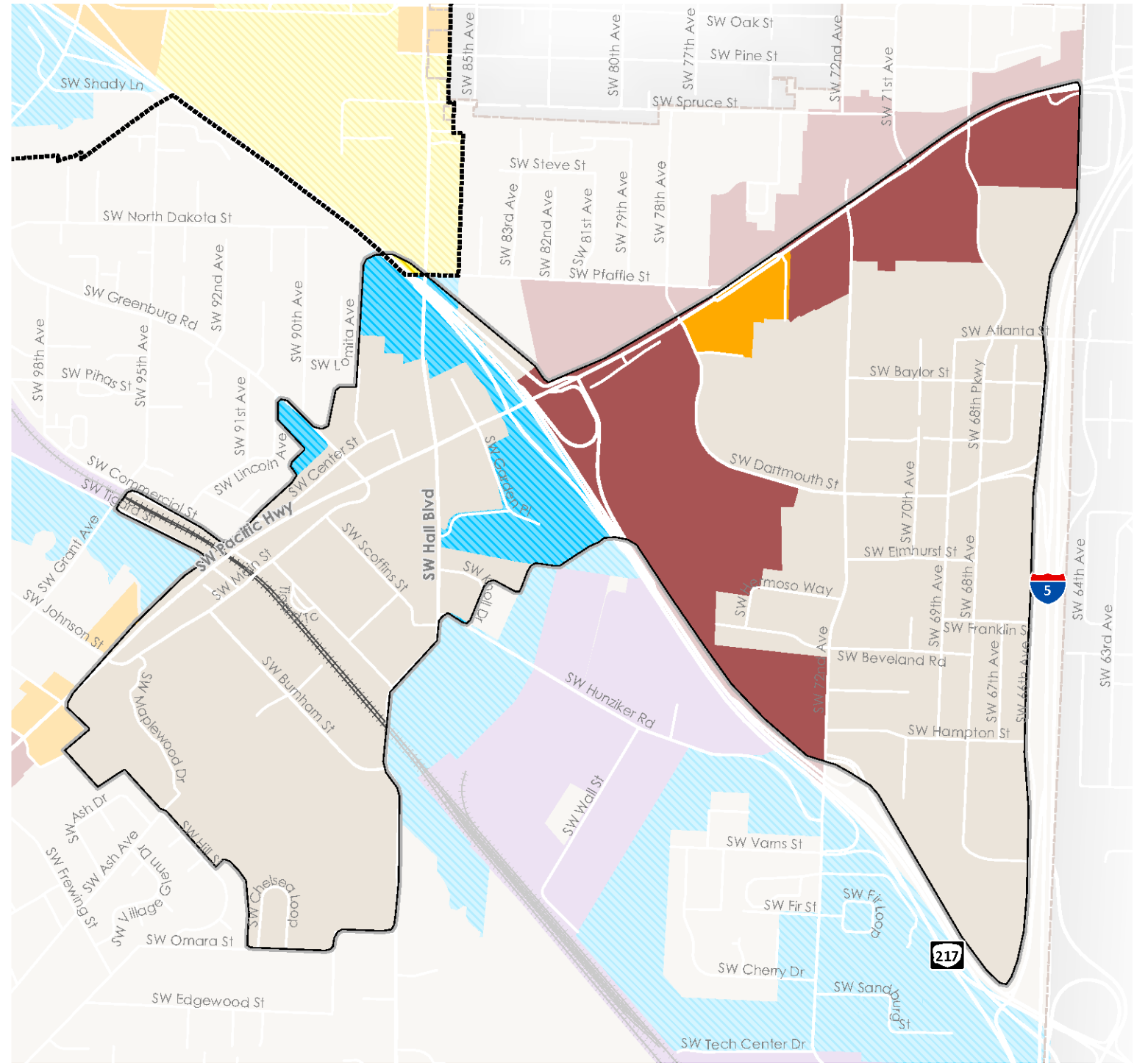
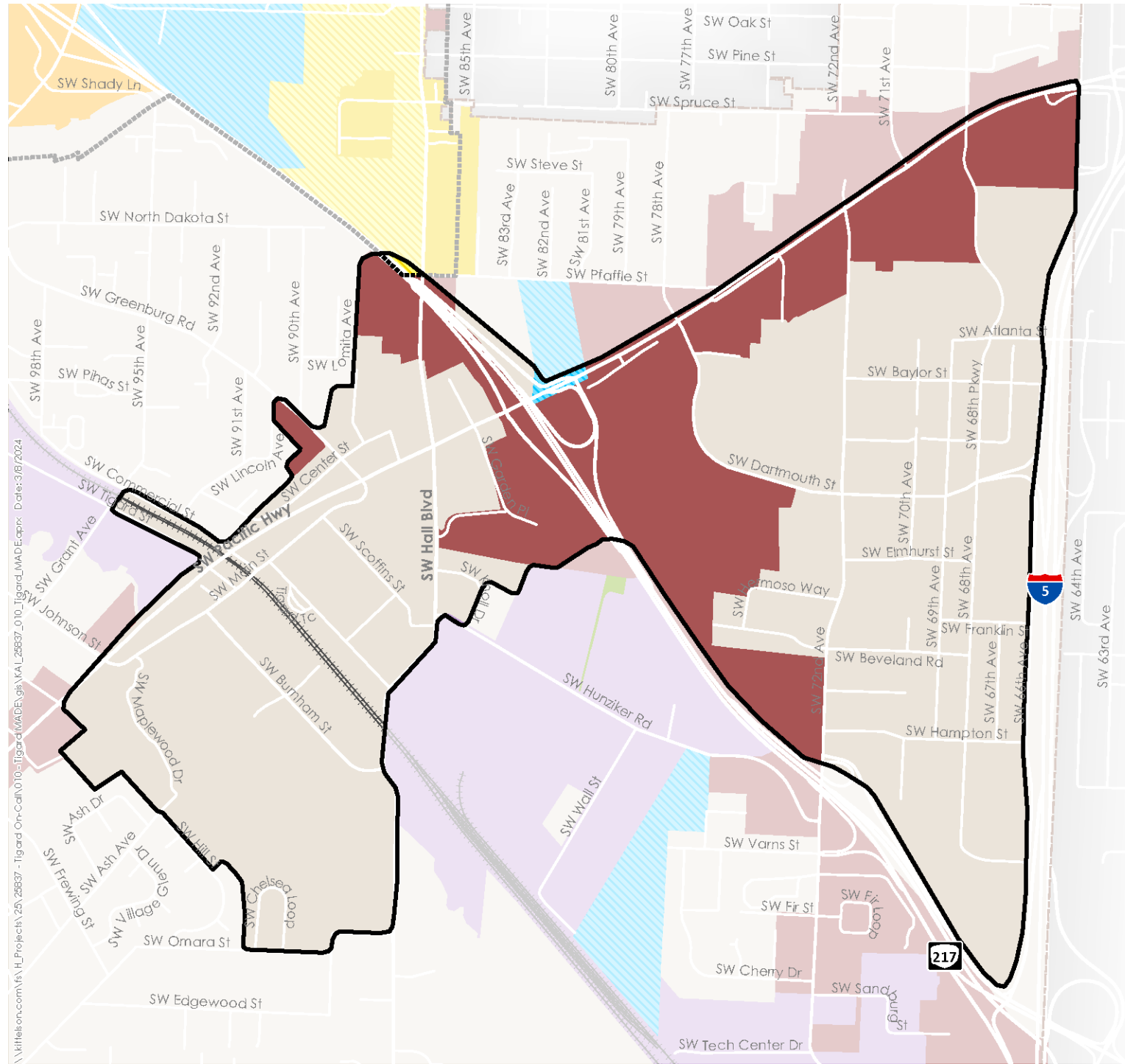
The Multimodal Transportation Gap Study summarizes the existing facility gaps for the automobile, truck/freight, pedestrian, bicycle, Americans with Disability (ADA), and transit networks.

The Highway Impact Summary is intended to address the potential effects on ODOT facilities within the Metro Regional Center or nearby that may occur from proposed changes to the current Comprehensive Plan policies and zoning for the project area.

Study Area

The study area for the proposed zone changes requiring a Multimodal Transportation Gap Summary and Highway Impact Summary associated with OAR 660-012-0325 are shown in Figure 4. These proposed zone changes are located inside the designated Tigard Town Center (a Metro Region 2040 Center). The descriptions of the existing and proposed zones and their design standards are the same as included on pages 3 – 10 for the areas outside of the Town Center.

Because proposed zone changes are located within a quarter-mile radius of the OR 217/OR 210 and OR 217/OR 141 interchanges, a Highway Impact Summary is required per OAR 660-012-0325.



Existing Zoning

Planned Zoning

- Commercial
- Industrial
- Mixed-Use Commercial
- Mixed-Use Employment
- Mixed-Use Residential
- Parks-Recreation
- Residential
- Tigard City Limits
- Washington Square Analysis Center
- Town Center Analysis Center

- Commercial
- Industrial
- Mixed-Use Commercial
- Mixed-Use Employment
- Mixed-Use Residential



Figure 4

Table 9 summarizes a comparison between existing and proposed zoning by acreage. The acreage comparison is for zone changes proposed inside of the Metro Region 2040 Center areas only.

Table 9: Proposed Zone Change Comparison (Inside Tigard Town Center)

Zoning	Existing Zoning (Total Acres)	Proposed Zoning (Total Acres)	Net Difference (Total Acres)
Commercial (COM)	183	131	-52
Mixed-Use Employment (MUE)	2	44	+42
Mixed-Use Commercial (MUC)	0	10	+10
Total	185	185	0

Multimodal Transportation Gap Summary

The required elements of a Multimodal Transportation Gap Summary per OAR 660-012-0325 include:

- A summary of the existing multimodal transportation network within the study area;
- A summary of the gaps in the pedestrian and bicycle network, including gaps that need to be filled for people with disabilities; and,
- A list of planned projects to fill multimodal network gaps identified above.

These summaries are included in the following sections.

EXISTING TRANSPORTATION NETWORK

The following sections describe specific modal infrastructure for the automobile, pedestrian, bicycle, and transit networks, and identifies gaps in those networks. These summaries rely on the information published in the City of Tigard 2020 Transportation System Plan (TSP), [ODOT's TransGIS website](#), and [Metro Regional Land Information System \(RLIS\) Discovery website](#).

Automobile Network

State Facilities

OR99W (Pacific Highway West)

OR99W (Pacific Highway West) is an Urban Other Principal Arterial with a posted speed of 35mph within the Tigard Town Center (SW Makenzie Street [MP 9.56] to OR 217 southbound ramps [MP 8.69]).

West of SW Greenburg Road/Main Street (MP 8.93), OR 99W is a 4-lane section (two eastbound and two westbound travel lanes). East of SW Greenburg Road/Main Street, OR 99W widens to a 6 to 7-lane section (two eastbound, two westbound, and turn lanes) approaching the OR 217 interchange. Shoulders are provided along OR 99W within the Tigard Town Center with the exception of the segment on and approaching the OR 99W viaduct over the Portland & Western Railroad/Westside Express Service Light Rail (MP 9.18 to MP 9.38). OR 99W is classified as a Statewide Highway.

According to [ODOT's TransGIS](#), the Average Annual Daily Traffic (AADT) within the Tigard Town Center Analysis Center on OR99W is approximately 35,500 with a range of 30,001 to 50,000.

OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)

OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway) is a 2-lane Urban Minor Arterial with paved shoulders and a posted speed of 30mph between OR217 (MP 4.72) and SW Omara Street (MP 5.8). Two-way left turn (TWLT) lanes and dedicated left-turn lanes are located intermittently. South of Tigard City Hall, the posted speed increases to 35mph.

According to ODOT's TransGIS, the AADT on OR141 within the Tigard Town Center Analysis Center is approximately 11,700 with a range of 10,001 to 15,000 north of OR99W, approximately 9,400 with a range of 5,001-10,000 between OR99W and SW Burnham Street and approximately 11,200 with a range of 10,001 – 15,000 south of SW Burnham Street.

Interchange

The OR99W/OR217 northbound and southbound ramp terminals are located within the Tigard Town Center Analysis Center. The OR99W/I-5 interchange is located approximately 500 feet east of the Tigard Town Center Analysis Center.

Primary Local Jurisdiction Streets

The primary local jurisdiction streets within the Tigard Town Center Analysis Center are SW 72nd Avenue, SW Main Street, SW Burnham Street, SW Scoffins Road, SW 68th Parkway/Avenue, and SW Dartmouth Street. A summary of the roadway characteristics including functional classification, number of lanes, posted speed, and on-street parking is summarized in Table 10.

Table 10: Primary Local Jurisdiction Street Characteristics

Roadway	Functional Classification	Number of Travel Lanes	Poste Speed (MPH)	On-Street Parking
SW 72 nd Ave	Arterial	2-4	30 - 35	No
SW Main St	Collector	2	20	Yes
SW Burnham St	Collector	2-3	30	Yes
SW Scoffins Rd	Collector	2-3	25	No
SW 68 th Pkwy/Ave	Collector	3	30 - 35	No
SW Dartmouth St	Collector	4-5	35	No

Stronger Streets Network

Within the Tigard Town Center Analysis Center, the City TSP identifies OR99W, SW Hal Boulevard, SW 72nd Avenue as part of the Stronger Streets Network: Roadway capacity and intersection enhancements to improve the function of the City's arterial system.

Intersections

The Tigard Town Center Analysis Center includes 15 intersections located on the state highway system. Table 11 summarizes the intersection location and intersection control.

Table 11: Tigard Town Center Intersections

#	Intersection	Control
1	OR 99W/SW 69 th Avenue/SW 68 th Parkway	Signalized
2	OR 99W/SW 71 st Avenue	Stopped Control
3	OR 99W/SW 72 nd Avenue	Signalized
4	OR 99W/SW 74 th Avenue	Signalized
5	OR 99W/SW Dartmouth Street	Signalized
6	OR 99W/SW Hall Boulevard	Signalized
7	OR 99W/OR 217 (southbound ramps)	Signalized
8	OR 99W/OR 217 (northbound ramps)	Signalized
9	OR 99W/SW Main Street/SW Greenburg Road	Signalized
10	OR 99W/SW Main Street/SW Johnson Street	Signalized
11	OR 99W/SW McKenzie Street	Two-Way Stop Control
12	SW Hall Boulevard/SW Hunziker Street/SW Scoffins Street	Signalized
13	SW Hall Boulevard/SW Commercial Street	Two-Way Stop Control
14	SW Hall Boulevard/SW Burnham Street	Signalized
15	SW Hall Boulevard/SW Omara Street	Two-Way Stop Control

Pedestrian Network and Network Gaps

The City of Tigard's TSP documents the pedestrian network and network gaps within the Tigard Town Center. Figure 5 illustrates the existing pedestrian and planned pedestrian network for the Tigard Town Center Analysis Center.

Pedestrian Network Summary

Within the Tigard Town Center Analysis Center area, there are streets with sidewalks on both sides, sidewalk on one side, and no sidewalks. There is also the Tigard Heritage Trail and the Fanno Creek Trail, providing off system connectivity and pedestrian access. Sidewalks vary with a mixture of curb tight as well as sidewalks set back from the curb with street trees or stormwater retention facilities.

Critical Gaps

Streets with complete sidewalks on at least one side are common within the Tigard Town Center Analysis Center area. The primary sidewalk gaps missing sidewalks on both sides are described below:

- OR99W between Main Street/SW Greenburg and Main Street/SW Johnson Street
- SW 72nd Avenue approximately 300 feet south of OR99W to SW Baylor Street
- SW Scoffins Street between SW Ash Avenue and SW Hall Boulevard.

The City's TSP identifies planned projects to address the critical pedestrian network gaps identified above.

Bicycle Network and Network Gaps

The City of Tigard's TSP documents the bicycle network and network gaps within the Tigard Town Center Analysis Center. Figure 6 illustrates the existing bicycle and planned bicycle network for the Tigard Town Center Analysis Center.

Bicycle Network Summary

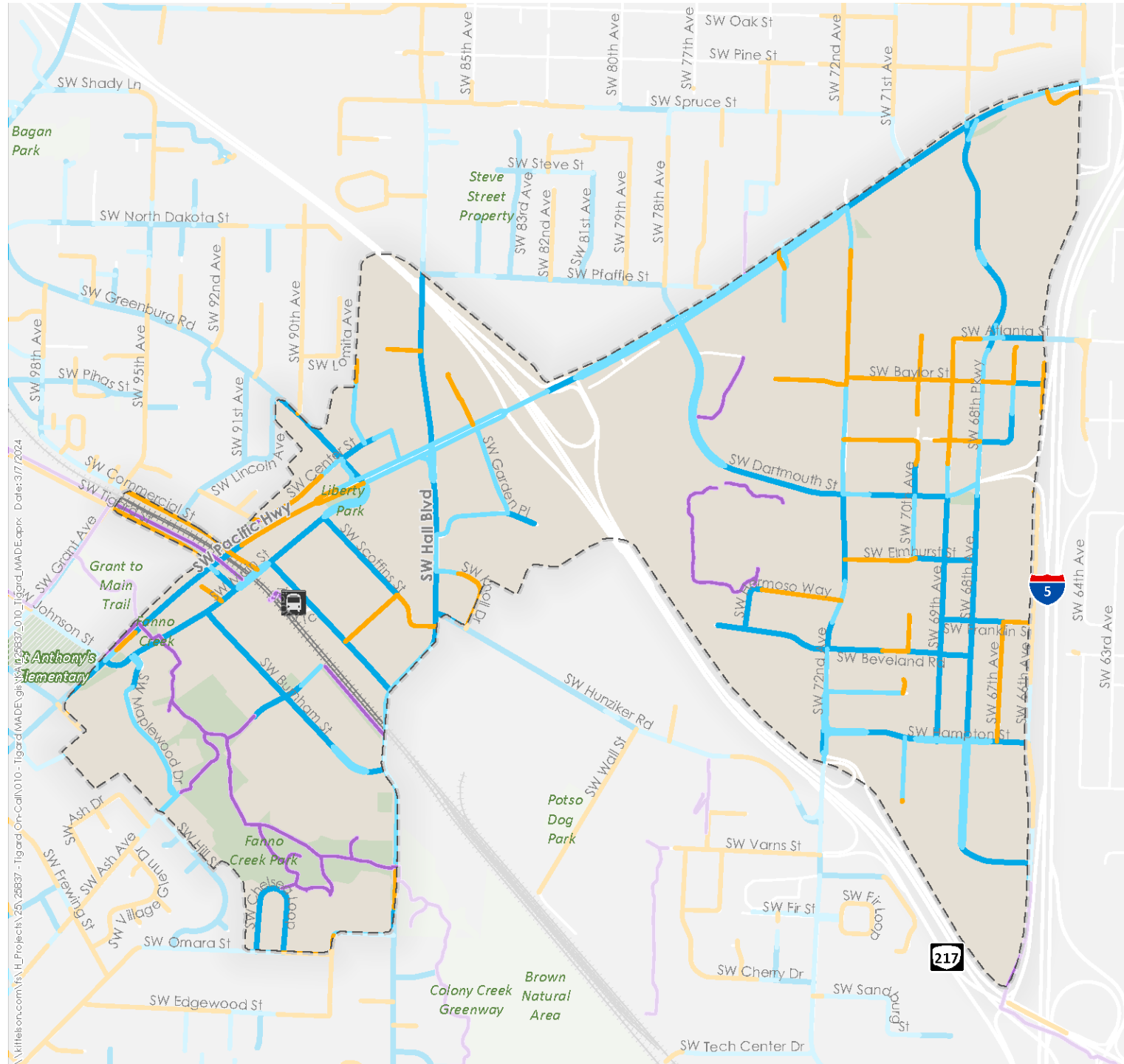
Within the Tigard Town Center Analysis Center area, there are streets with buffered bike lanes, bike lanes, and shared-lane markings as well as off system facilities including multi-use path connections.

Critical Gaps

In addition to facility gaps, the City's TSP also identifies "Existing Difficult Connection" and "Existing Share Lane on High/Moderate Traffic Through Street." Based on this information, the primary bicycle facility gaps are described below:

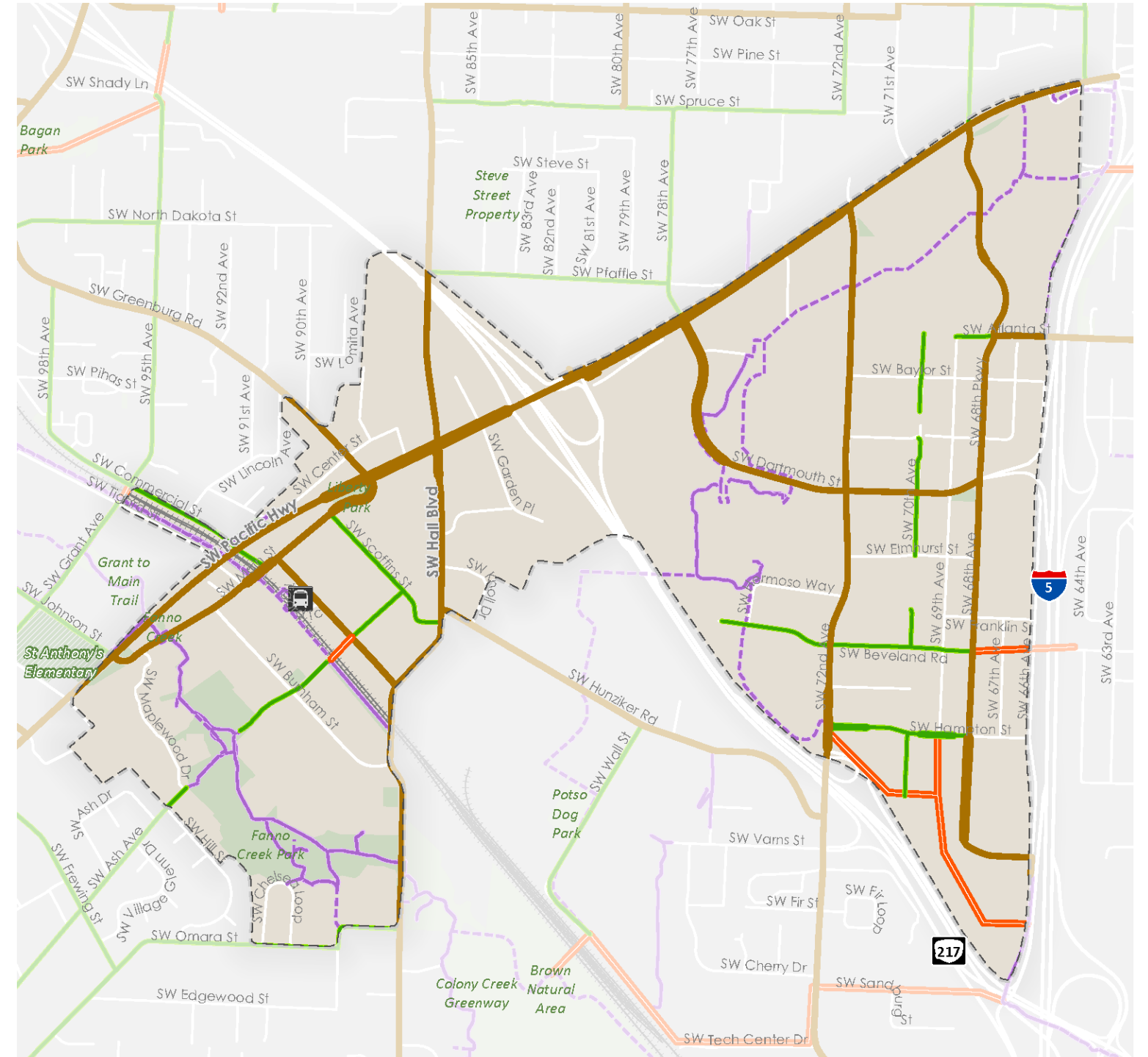
- OR99W between Fanno Creek Trail and SW Commercial Street, SW 87th Street to SW Dartmouth, and SW 74th Avenue to OR217.
- SW 72nd Avenue between OR99W to SW Beveland Road and south of SW Hampton Street
- SW Main Street, SW Burnham Street, and SW Scoffins Street
- SW 68th Avenue between SW Dartmouth St and SW Hampton Street

The City's TSP identifies planned projects to address the critical bicycle facility gaps identified above. Today, the only grade separated railroad crossing within the Tigard Town Center Analysis Center is OR99W which as described previously, does not include sidewalks or bike lanes.



Existing Pedestrian Network

- Existing Sidewalk on Both Sides
- Existing Sidewalk on One Side
- No Existing Sidewalks
- Existing Trails
- Transit Center
- School Grounds
- Parks
- Town Center Analysis Center

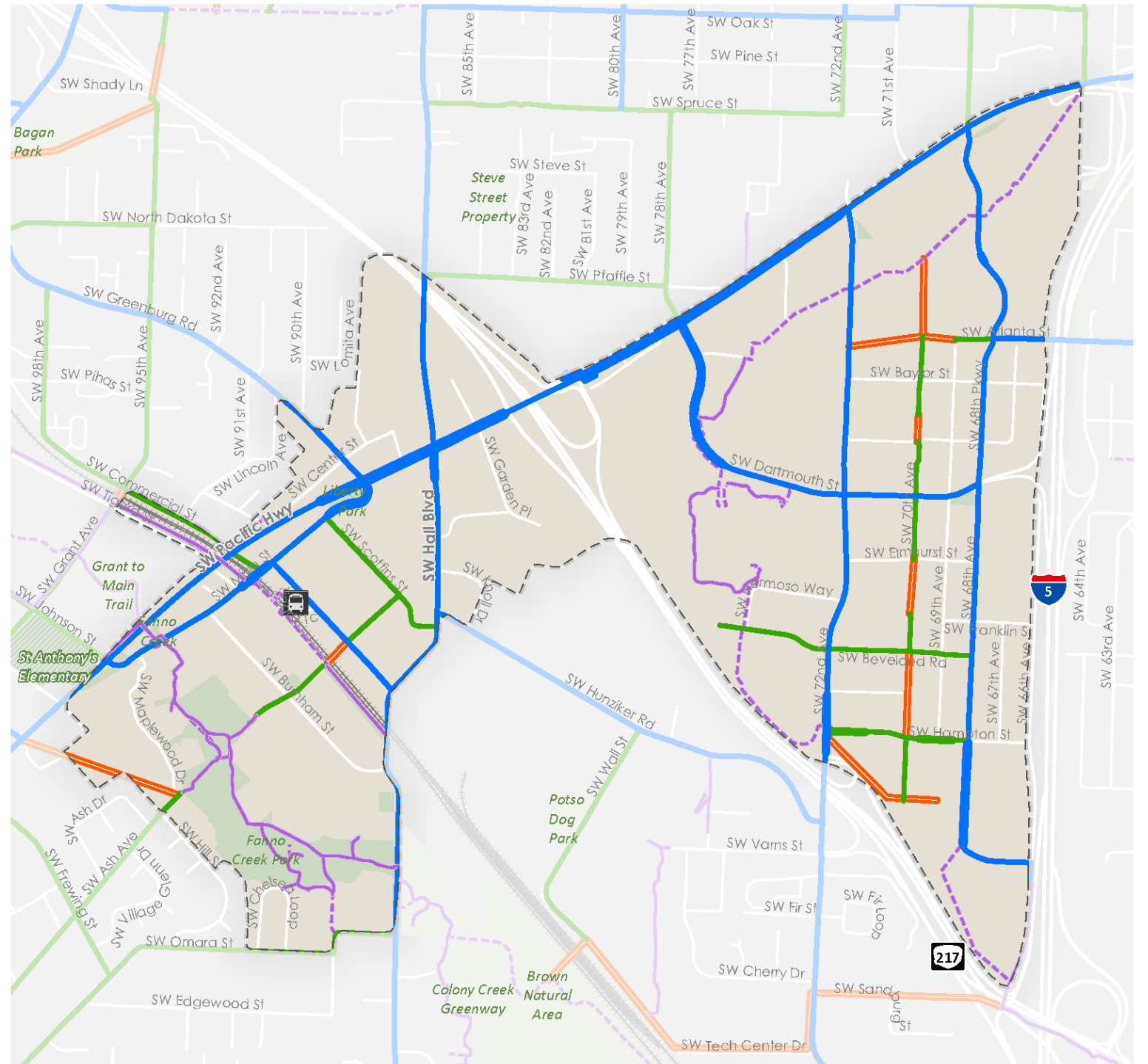
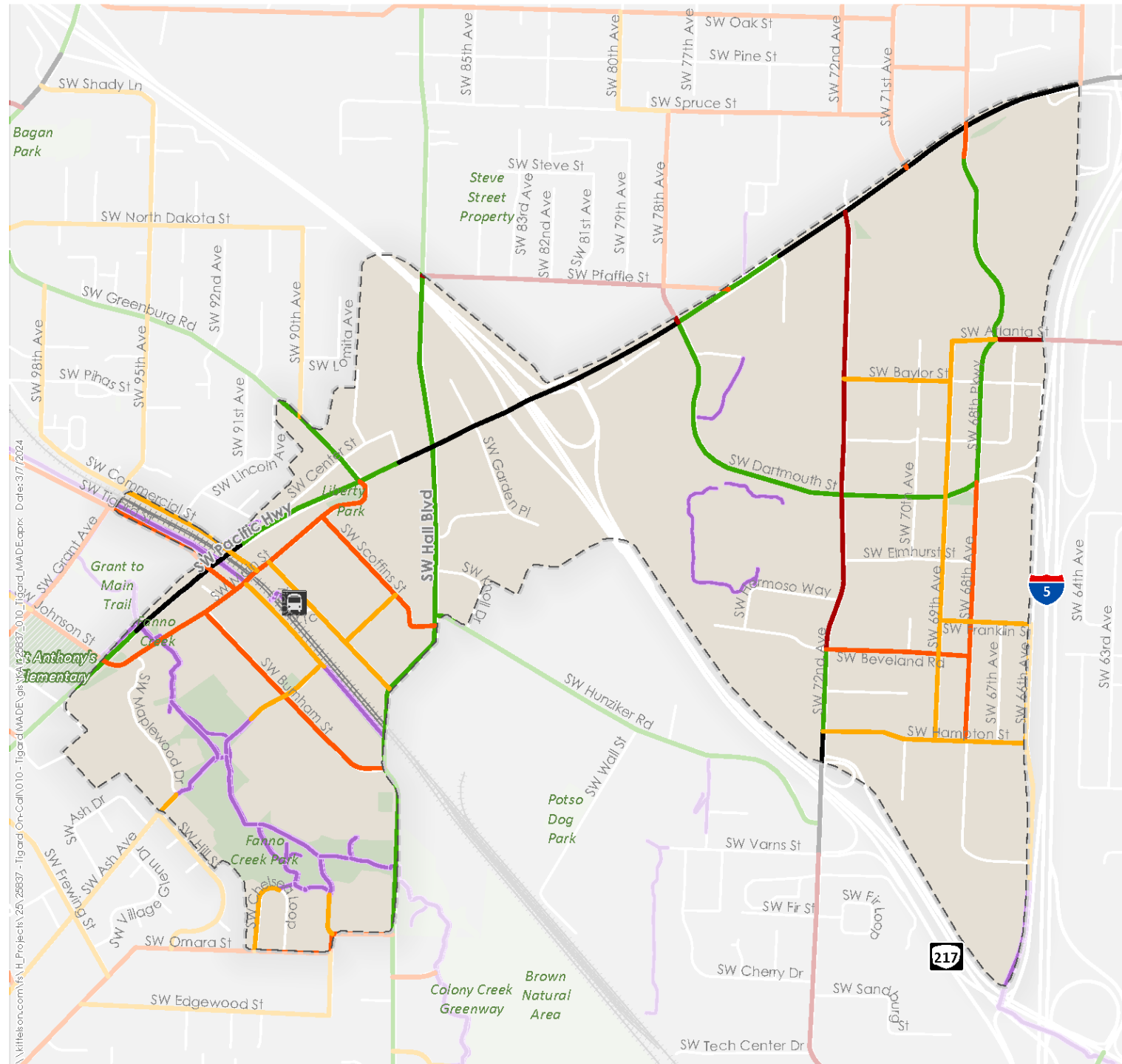


Planned Pedestrian Network

- Planned Pedestrian Corridor
- Planned Neighborhood Greenway
- Planned Trail
- Proposed Active Transportation Connection



Figure 5



Existing Bicycle Network

Planned Bicycle Network

- Existing Multi-Use Path
- Buffered Bike Lane
- Existing Bike Lane
- Existing Difficult Connection
- Existing Shared Lane on High Traffic Through Street
- Existing Shared Lane on Moderate Traffic Through Street
- Existing Shared Lane on Low Traffic Through Street
- Transit Center
- Parks
- School Grounds
- Town Center Analysis
- Planned Major Street Bikeway
- Planned Neighborhood Greenway
- Planned Trail
- Proposed Active Transportation Connection



Figure 6

American with Disability Act (ADA) Gaps

The following section summarizes the presence and compliance of Americans with Disability Act (ADA) facilities located along the state highways within the Tigard Town Center Analysis Center. Most intersections are equipped with ADA infrastructure (ramps, push buttons, detectable warning systems), but based on further review, do not meet ADA compliance.

Pedestrian Ramps

The following intersections do not meet ADA ramp compliance for all corners of the intersection.

- OR99W/SW McKenzie Street
- OR99W/SW Johnson Street/Main Street
- OR99W/SW Greenburg Road/Main Street
- OR99W/Main Street/SW Johnson Street
- OR99W/OR141 (Hall Boulevard/Beaverton-Tualatin Highway)
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Commercial Street
- OR99W/OR217 southbound ramps
- OR99W/OR217 northbound on-ramp
- OR99W/SW 74th Avenue
- OR99W/SW 72nd Avenue
- OR99W/SW 71st Avenue
- OR99W/SW 68th Parkway
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Garden Place
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Knoll Drive
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Commercial Street
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Omara Street

The following intersections do not meet ADA ramp compliance for most corners of the intersection.

- OR99W/SW Greenburg Road/Main Street – northwest corner ramp meets ADA compliance; all other corners do not.
- OR99W/SW 87th Avenue – northeast and northwest corner ramps meet ADA compliance; southeast and southwest do not.
- OR99W/SW Warner Avenue – northeast and northwest corner ramps meet ADA compliance; southeast and southwest do not.
- OR99W/OR217 northbound off-ramp – northwest corner meets ADA compliance, all other corners do not.
- OR99W/SW 79th Avenue – northeast and northwest corner ramps meet ADA compliance; southeast and southwest do not.
- OR99W/SW Dartmouth Street – northwest corner meets ADA compliance, all other corners do not.
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Hunziker Road – the northeast corner ramp meets ADA compliance; all other corners do not.
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Scoffins Street – the southwest corner ramp meets ADA compliance; all other corners do not.
- OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/SW Burnham Street – the northeast corner of ramp meets ADA compliance; all other corners do not.

Push Buttons

Push buttons are located at the following state highway intersections within the Tigard Town Center Analysis Center; however, all push buttons are flagged as “poor” for functional condition and lack audible signal, making them not compliance to ADA standards.

- OR99W/SW Johnson Street/Main Street
- OR99W/SW Greenburg/Main Street
- OR99W/OR141 (Hall Boulevard/Beaverton-Tualatin Highway)/
- OR99W/OR217 southbound ramps
- OR99W/OR217 northbound off ramp
- OR99W/SW Dartmouth Street
- OR99W/74th Street
- OR99W/72nd Street
- OR99W/68th Parkway

All other state highway intersections do not include push buttons.

ADA information including ramp compliance, push button information is provided on ODOT’s TransGIS website: [ODOT TransGIS \(state.or.us\)](https://state.or.us).

Sidewalks

Sidewalk conditions on OR99W and OR141 were evaluated as part of the Multimodal Transportation Summary. As previously shown in Figure 5, sidewalk gaps are present along OR99W. Where sidewalks exist, they often do not meet ADA compliance for facility widths due to clearance requirements or pinch points (mailboxes, utility poles, signage, railings, etc.).

There remains a need to close sidewalk and ADA infrastructure gaps, consistent with the projects and priorities expressed in the City’s TSP.

Transit Network and Network Gaps

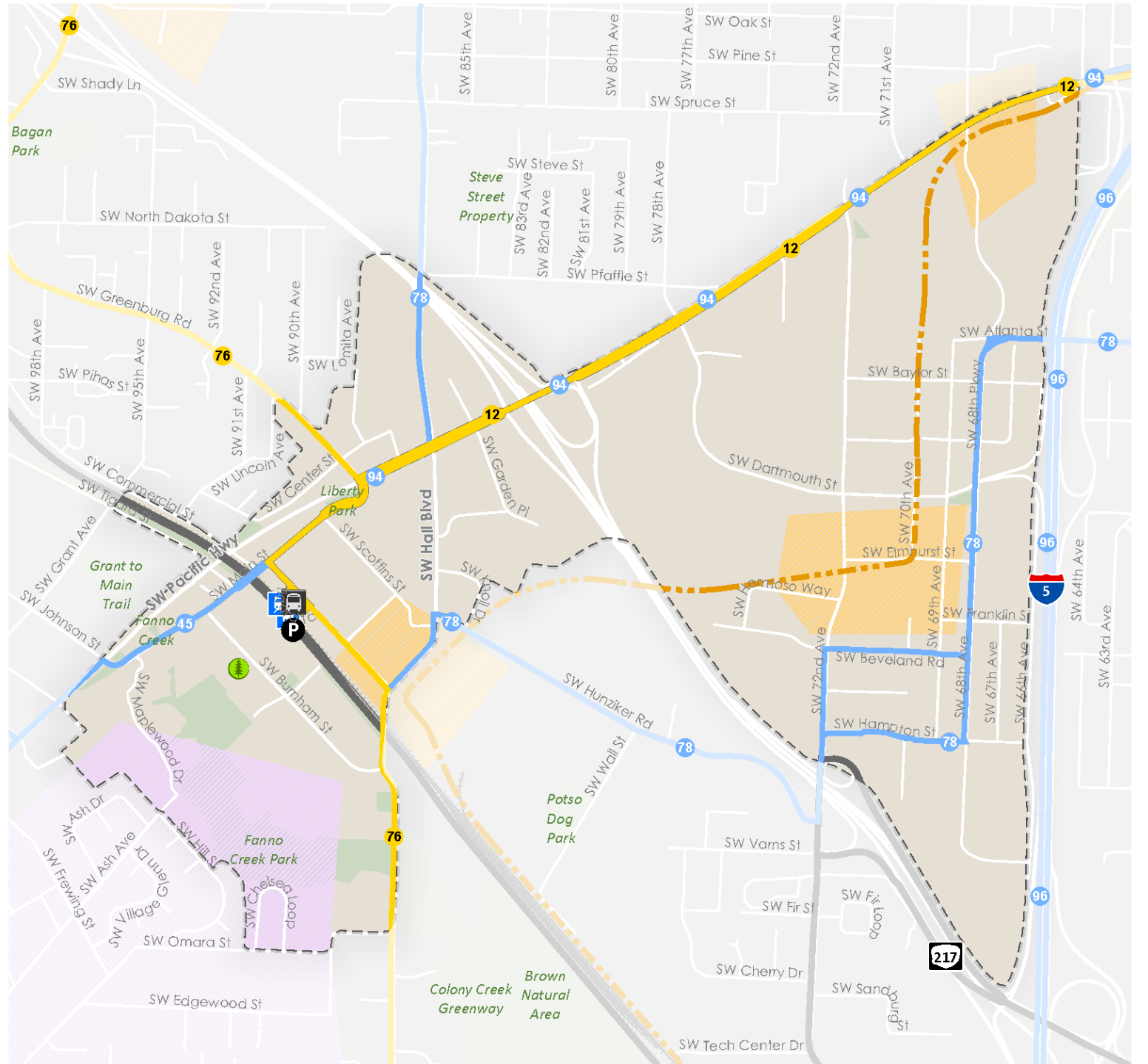
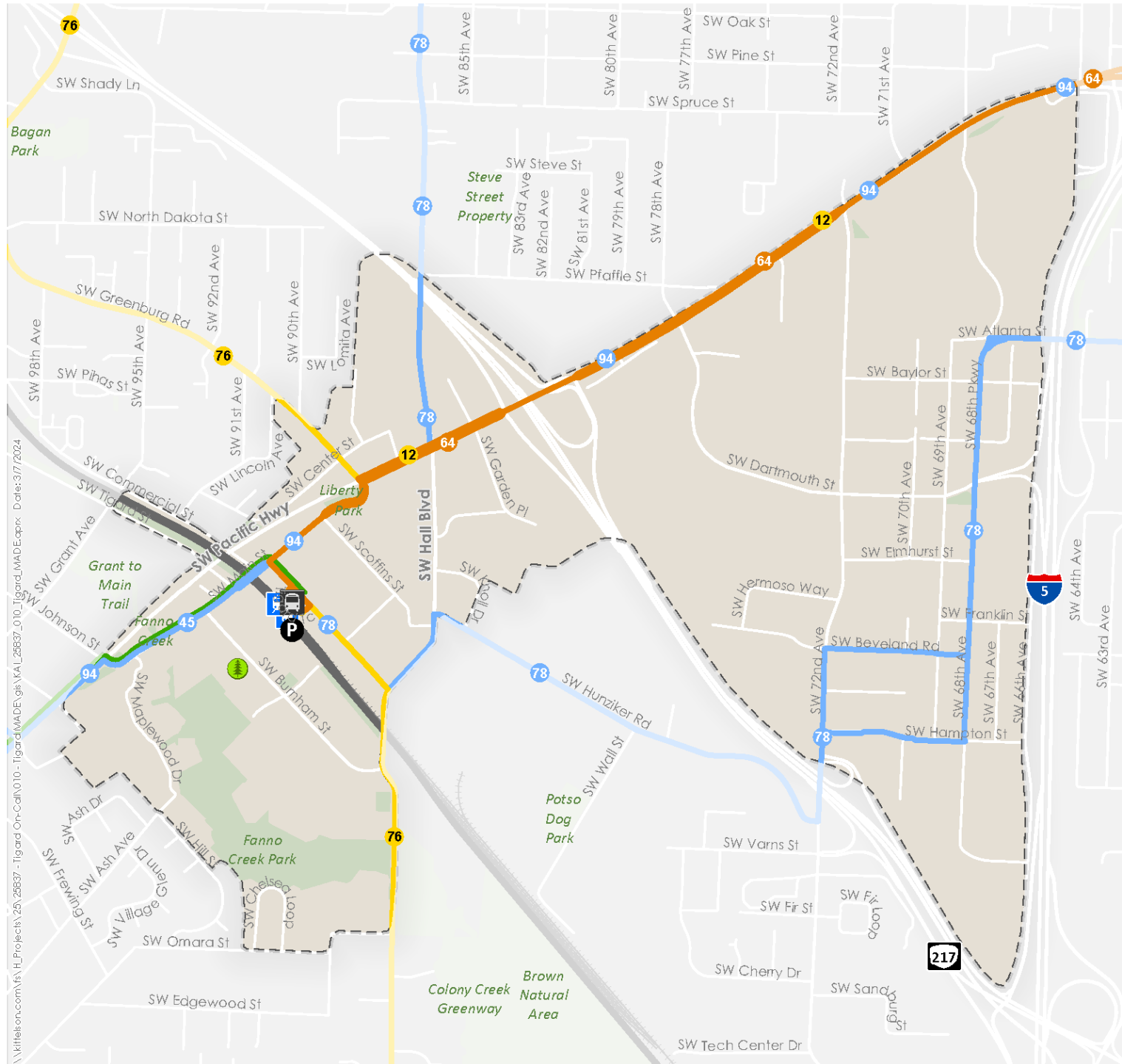
Transit service in Tigard Town Center Analysis Center is provided by TriMet and Yamhill County Transit. Figure 7 illustrates the existing and planned transit network.

There are seven bus lines and one commuter rail line across two transit agencies that serve the Project area. These include two frequent service TriMet bus routes (Line 12 and Line 76), as well as one-seat service to downtown Portland, Beaverton, Tualatin, Lake Oswego, Wilsonville, and McMinnville. Table 12 includes service details for each transit route within the downtown Tigard study area.

Each of these transit routes serves the Tigard Transit Center, which is located on SW Commercial Street to the south of SW Main Street. Tigard Transit Center includes a park and ride, and bike lockers/bike racks.

Table 12: Transit Routes Serving Tigard Town Center Analysis Center

Route	Operator	Service Days	Hours	Frequency
WES Commuter Rail	TriMet	Weekdays	5:15 AM – 9:30 AM 3:30 PM – 7:45 PM	45 minutes
12	TriMet	All Days	5:00 AM – 2:00 AM	15 minutes
45	TriMet	All Days	5:45 AM – 8:30 PM (weekdays) 10:30 AM – 7:45 PM (weekends)	60 minutes (weekdays) 75 minutes (weekends)
64	TriMet	Weekdays	2:45 PM – 7:30 PM	30 minutes
76	TriMet	All Days	6:00 AM – 11:50 PM	15 minutes
78	TriMet	All Days	6:00 AM – 11:30 PM (weekdays) 6:00 AM – 8:20 PM (weekends)	30 minutes
94	TriMet	All Days	4:30 AM – 1:10 AM	15 minutes (PM peak) 30 minutes (all other times)
44/44X	Yamhill County Transit	Monday – Saturday	5:10 AM – 8:50 PM (weekdays) 7:45 AM – 7:45 PM (Saturday)	45 minutes (weekday peak) 90 minutes (weekday off-peak) 3 hours (Saturday)



Existing Transit Network

Planned Transit Network

- Existing Peak Hour Transit
- Existing Frequent Transit
- Existing Regular Transit
- Existing Yamhill County Transit
- Existing TriMet WES Commuter Rail
- WES Station
- Park-and-Ride
- Transit Center
- Future Universal Plaza
- Town Center Analysis Center

- Planned Frequent Transit Route
- Planned Regular Transit Route
- - - Planned Southwest Corridor
- TriMet WES Commuter Rail
- TOD Priority Area
- On Demand Service Need



Figure 7

Southwest Corridor Light Rail Project

Metro, TriMet, and the Federal Transit Administration completed the Final Environmental Impact Statement (FEIS) for the Southwest Corridor Light Rail Project in January 2022. The FEIS identified a preferred route through downtown Tigard, beginning with an at-grade crossing of SW Hunziker Street at SW Knoll Drive, then running adjacent to SW Hall Boulevard to SW Commercial Street, where the alignment turns to the south and runs along the eastside of the existing railroad tracks. Figure 7 includes the routing for the proposed Southwest Corridor project.

The Southwest Corridor Light Rail Project was part of a larger transportation funding measure on the November 2020 ballot across the entire Metro region. That measure failed to pass, so design work on the Southwest Corridor Light Rail Project has been paused.

PLANNED TRANSPORTATION IMPROVEMENTS

As described in the previous sections, there are several planned transportation facilities and investments within the Tigard Town Center Analysis Center that support vehicular capacity improvements, mode shift from single occupancy vehicles (SOV) to active transportation modes, and safety improvements. These improvement projects are documented in the plans and projects summarized below with additional detail described in Appendix A.

- Southwest Corridor Light Rail Project
- City of Tigard Transportation Safety Action Plan 2019
- City of Tigard Transportation System Plan 2022
- Washington County Transportation System Plan 2019
- Statewide Transportation Improvement Program 2021-2024
- Metro Regional Transportation Plan 2018
- Metro Regional Transportation Plan 2023
- TriMet Pedestrian Plan, 2020

Highway Impact Summary

The required elements of a Multimodal Transportation Gap Summary per OAR 660-012-0325 include:

- A summary of the changes between existing and proposed development capacity of the CFA/Metro Region 2040 center based on the proposed changes to the Comprehensive Plan and land use regulations;
- A summary of the additional motor vehicle traffic generation that may be expected within the planning period; and,
- A summary of traffic-related deaths and serious injuries within the climate friendly study area in the most recent past five years that data is available.

These summarizes are included in the following sections.

CHANGES IN DEVELOPMENT CAPACITY

As described previously in the Transportation Planning Rule Consideration section of this memorandum, the proposed zone changes primarily focus on the consolidation and simplification of existing zone

designations. As shown in Figure 4, the primary changes proposed as part of the Tigard MADE Project located inside the Tigard Town Center Analysis Center are:

- Converting Commercial to Mixed-Use Employment west of OR217
- Converting a single parcel of Commercial to Mixed-Use Commercial along OR99 (east of OR217)

As described in Table 9, approximately 52 acres of existing Commercial zoning are proposed to change to Mixed-use Commercial and Mixed-use Employment. The changes in the design standards associated with these zones are described on pages 6-8. The primary changes include:

- Removal of minimum and maximum FARs for Commercial and Mixed-Use zones
- Increased maximum Commercial building height to 45 feet (Nonresidential) and 100 feet (Mixed-use) from previous range of 35 to 45-feet maximum which allows the addition of residential without significantly increasing the amount of allowed commercial.
- Increase Mixed-Use Employment building height to 75 feet (Nonresidential) and 100 feet (Mixed-use) maximums from previous 45 feet maximum.
- Reduce Mixed-Use Commercial building height from 200 feet to previous 185 feet maximums.
- Increase Commercial building lot coverage from 85% to 100%.
- Increase Mixed-Use building lot coverage from 80% to 100%.
- Reduction of Commercial minimum landscape coverage from 15% to 0%.
- Reduction of Mixed-Use minimum landscape coverage from 20% to 0%.

These amendments are not intended to create greater development intensity than already planned for the Tigard Town Center. Instead, these changes are proposed to more closely align with the intentions of the designated 2040 Center, enabling the already forecasted growth shown in the Metro Travel Demand model to be achieved and removing barriers to allow the market to be more flexible in achieving what it wants to provide.

The intent of the changes and the MADE project in general is to encourage job growth, economic equity, and environmental sustainability by:

- Expanding and modernizing allowed uses:
 - Allowing for more area-wide mixed-use development could encourage greater job density and better accommodate alternative forms of transportation, like biking and public transit.
- Building flexibility into development standards:
 - Modifying land use regulations that act as barriers to entry for small business owners, communities of color, and other marginalized communities seeking to open and operate businesses in Tigard. Build flexibility into development standards to overcome or remove these barriers, and to incentivize eco-friendly development.
- Consolidating zones:
 - Refining definitions, boundaries, and allowed uses in each zone in order to maximize clarity and encourage development that is the best fit for each part of the city.

ADDITIONAL MOTOR VEHICLE TRAFFIC GENERATION

While the changes will allow great development density on individual parcel through increased lot coverage and by increasing allowable building heights when providing residential into mixed-use areas, the proposed changes are not anticipated to result in an overall greater amount of growth or vehicle traffic generation than already anticipated in the City's TSP. The following describes the amount of growth already anticipated and planned for in this area.

Figure 8 illustrates the TAZs inside the Tigard Town Center where proposed changes are identified and the difference of population and employment growth for each TAZ.

Table 13 summarizes TAZs within the Tigard Town Center with proposed zone changes and summarizes the Baseline 2015 and Future Year 2040 population and employment growth for each TAZ.

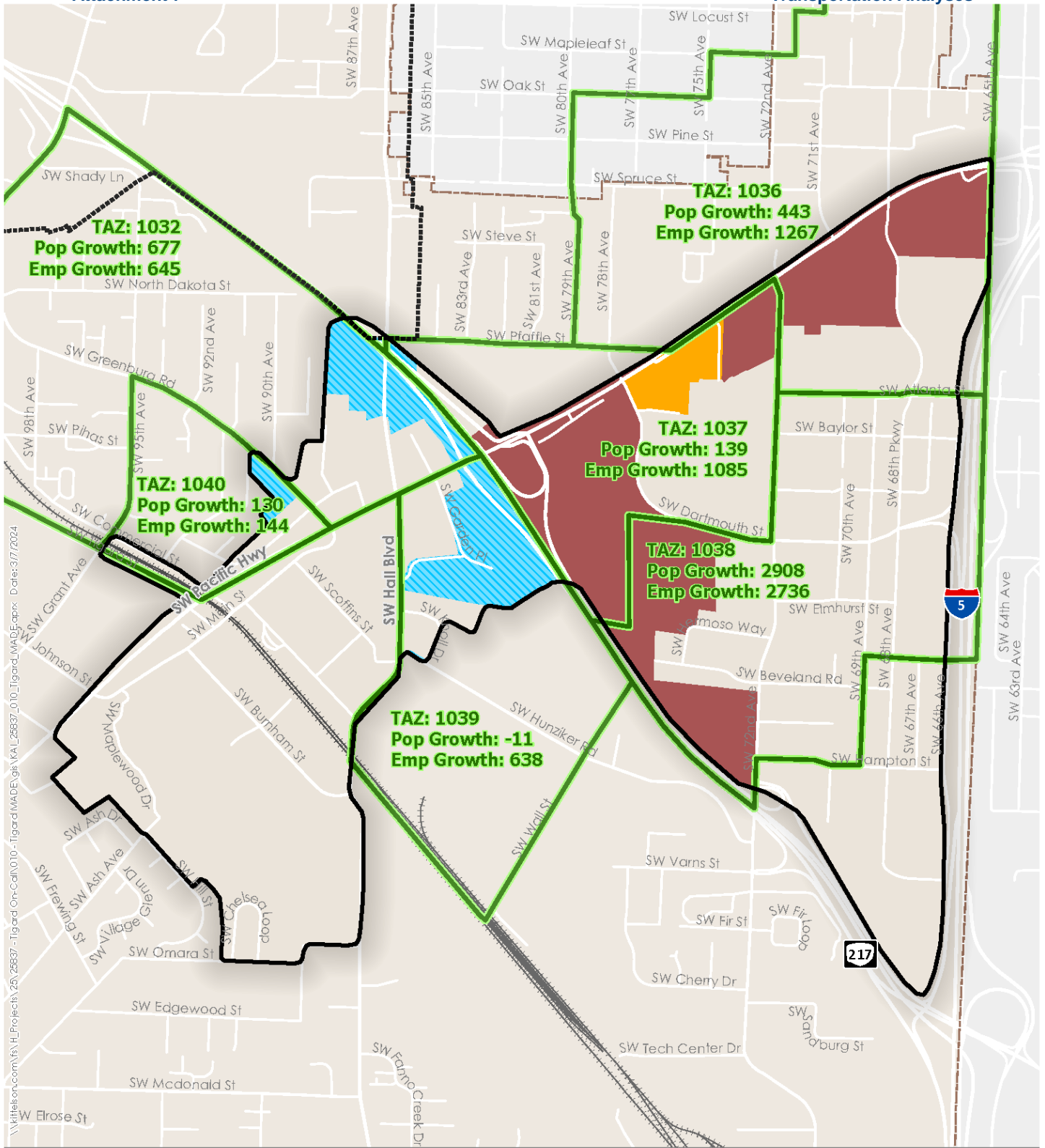
Table 13: TAZ Growth Assumptions Inside of the Tigard Town Center

TAZ	Population 2015	Population 2040	Population Change	Employment 2015	Employment 2040	Employment Change
1032 ¹	2342	3019	677	676	1321	645
1037	197	336	139	1010	2095	1085
1038	230	3138	2908	3238	5974	2736
1039	193	182	-11	182	3890	638
1040	701	831	130	139	283	144
TOTAL GROWTH	5,124	9,410	4,286	9,760	16,275	6,515

¹ TAZ overlaps with proposed zone changes inside and outside of CFA.

As shown in Table 13, growth of approximately 4,286 households and 6,515 jobs are projected in the existing Metro Travel Demand Model for areas of proposed zoning map and zoning code changes in the Tigard Town Center. Most notable growth for population and employment is projected in TAZ 1038. TAZ 1038 is located east of OR 217, south of SW Atlanta Street, west of I-5, and north of SW Hampton Street.

The proposed zoning map and zoning code changes are not anticipated to increase traffic volumes or vehicle trips on the local and state system any more than what is already forecasted in the Metro Travel Demand Model. The proposed zoning map and zoning code changes are likely to result in less single occupancy vehicle trips (SOV) in the CFA.



- Commercial
- Industrial
- Mixed-Use Employment
- Mixed-Use Commercial
- TAZs Labeled
- Town Center Analysis Center
- Washington Square Analysis Center
- Tigard City Limits



Figure 8

REPORTED CRASHES

Figure 9 illustrates the five most recent years of reported crashes within the Tigard Town Center Analysis Center boundary.

A total of 713 crashes were reported within the Tigard Town Center Analysis Center boundary between January 1, 2017 and December 31, 2021. Only crashes that were reported to the police are included below; crashes that resulted in minimal to no vehicular damage with no injury or possible injury may not be reported. The 713 reported crashes are broken down by injury severity below.

- 1 Fatal Crash
- 16 Severe Injury Crashes
- 88 Moderate Injury Crashes
- 280 Minor Injury Crashes
- 328 Property Damage Only (PDO) Crashes

Of the 713 reported crashes, 559 were located on state facilities including 403 crashes reported along OR99W, 67 crashes reported along SW Hall Boulevard, and 89 reported along OR217.

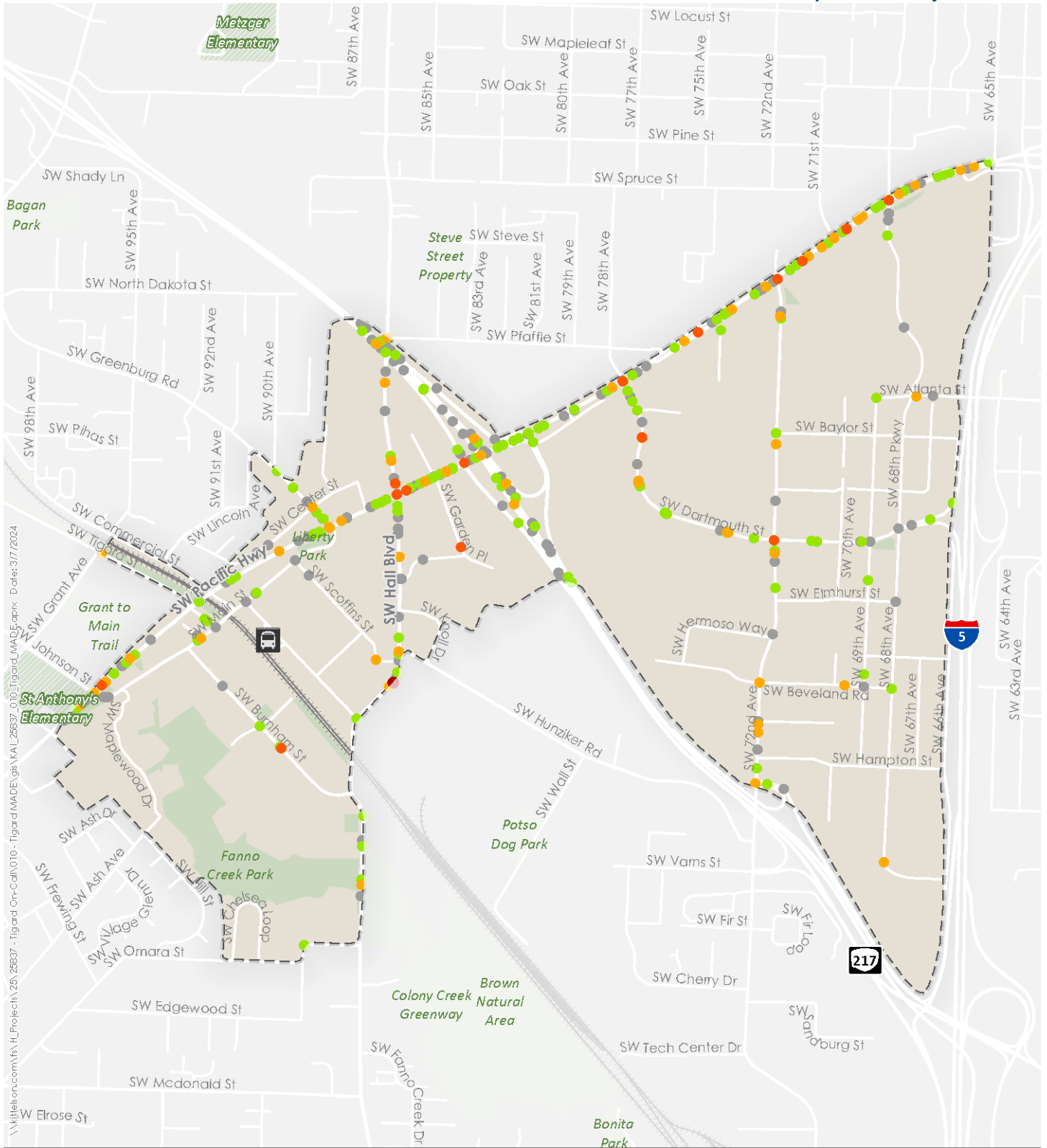
With 66 reported crashes at the SW Hall Boulevard/OR99W intersection, there were a total of 470 crashes on these two corridors alone, representing 66 percent of all crashes within the Tigard Town Center Analysis Center from 2017 to 2021.

Fatal and Severe Injury A Crashes

A summary of the five most recent years of reported fatal and serious injury (Injury A) crashes within the Tigard Town Center Analysis Center boundary is provided below.

One fatal crash was reported in the Tigard Town Center Analysis Center area during the most recent five-year analysis period. The fatal crash occurred on March 13th, 2018, at 5 PM under clear and dry conditions on SW Hall Boulevard south of SW Scoffins Street. The crash, which involved three vehicles, occurred when a southbound vehicle rear-ended another southbound vehicle. A horizontal curve in the road is present at this location, which the police report indicates to be a factor in the crash. In addition to the crash fatality, one driver suffered a possible injury, and another driver was not injured.

Table 14 summarizes the 17 reported fatal and severe injury crashes. Of 17 crashes, 13 occurred on state facilities.



- Fatal Crashes
- Severe Injury Crashes
- Moderate Injury Crashes
- Minor Injury Crashes
- Property Damage Only Crashes

- Parks
- School Grounds
- Town Center Analysis Center



Figure 9

Table 14: Reported Severe Injury Crashes in Tigard Town Center Analysis Center

ID	Date	Location	Crash Type	Cause
1	3/7/2017	OR 99W (east of SW 72 nd Avenue)	Pedestrian	Non-Motorist illegally in roadway
2	5/14/2014	OR 99W (east of SW Johnson Street)	Fixed object	Driver drowsy / fatigued / sleepy
3	5/25/2017	OR 99W (east of SW Hall Boulevard)	Non-collision	*Other improper driving
4	10/30/2017	OR99W/SW Hall Boulevard	Angle	Disregarded traffic signal
5	11/15/2017	SW Dartmouth Street/SW 72 nd Avenue)	Turning movement	Did not yield right-of-way
6	1/6/2018	SW Garden Place (south of OR 99W)	Non-collision	*Other improper driving
7	3/13/2018	OR 99W (south of SW Scoffins Street)	Rear-end	Failed to avoid vehicle ahead
8	3/16/2018	OR99W/SW 68 th Parkway	Turning movement	Disregarded traffic signal
9	6/10/2018	SW Dartmouth Street (south of SW Atlanta Street)	Turning Movement	Did not yield right-of-way
10	7/26/2018	SW Burnham Street (south of SW Ash Avenue)	Bicyclist	Did not yield right-of-way
11	9/12/2018	OR99W/SW Dartmouth Street	Turning Movement	Did not yield right-of-way
12	12/19/2018	SW Hall Boulevard (north of OR99W)	Pedestrian	Not visible: dark / non-reflective clothing
13	6/15/2019	OR99W/SW 72 nd Avenue	Angle	Disregarded traffic signal
14	8/20/2020	OR 99W (east of SW 71 st Avenue)	Turning Movement	Did not yield right-of-way
15	10/17/2020	OR 99W (west of SW 17 th Avenue)	Turning Movement	Did not yield right-of-way
16	2/5/2021	OR99W/OR217 SB Ramps	Turning Movement	Careless Driving (Per PAR or self-reported)
17	9/9/2021	OR 99W (east of SW 71 st Avenue)	Pedestrian	Non-Motorist illegally in roadway

ODOT Safety Priority Index System

The Safety Priority Index System (SPIS) is a method originally developed in 1986 by the Oregon Department of Transportation (ODOT) for identifying potential safety problems on state highways. The Federal Highway Administration (FHWA) accepted SPIS as fulfilling the requirements of the Highway Safety Improvement Program (HSIP).

ODOT's [TransGIS website](#) provides SPIS data from 2016 to 2020. Based on a review, the following locations within the Project study area are identified as SPIS sites:

- OR99W/Main Street/SW Johnson Street
- OR99W/Main Street/SW Greenburg Road
- OR99W/SW Hall Boulevard (Beaverton-Tualatin Highway)
- OR99W/SW Dartmouth Street
- OR99W/SW 72nd Avenue
- OR99W/SW 71st Avenue
- OR99W/SW 68th Parkway
- OR99W/SW Coronado Street

DRAFT

APPENDIX A:
PLANNED IMPROVEMENT PROJECTS

City of Tigard Transportation System Plan 2022

Tigard on the Move, the city's Transportation System Plan (TSP) was completed in January 2022 and creates a list of transportation projects and programs for the city to implement with available funding over the next 20 years. Projects are grouped into six categories: stronger streets network, urban upgrades and active transportation, connectivity, transit, transportation systems management and operations (TSMO), and special study areas.

TSP Chapter 6. Recommended Investments contains the list of projects.

City of Tigard Transportation Safety Action Plan 2019

The Tigard Transportation Safety Action Plan (TSAP), completed in September 2019, examined historic crash data across the city to identify future roadway investments to address safety concerns. Of the six locations with site-specific treatments, the segment of Highway 99W from SW Main Street/SW Greenburg Road to SW Hall Boulevard falls within the Project study area.

The TSAP recognizes that there are limited opportunities for safety-focused improvements along this segment because Highway 99W is a seven-lane facility and the Highway 99W/SW Hall Boulevard and Highway 99W/SW Main Street/SW Greenburg Road intersections each have more than 40,000 vehicles that enter each day. However, the TSAP identifies two opportunities for safety-focused improvements – an access management evaluation along Highway 99W in this corridor, and an improvement pedestrian crossing at the SW Greenburg Road/SW Center Street intersection, including curb extensions and a median refuge island.

TriMet Pedestrian Plan, 2020

TriMet's [Pedestrian Plan](#) focuses on three primary objectives: Removing barriers to riding transit, improving partnership between cities, counties, and the State, as well as equipping partnering agencies with an access-to-transit lens to help inform their decision-making and support future funding request.

TriMet's Pedestrian Plan identifies needs in and around WSRC including previously identified projects (sidewalk infill, new roadways and new trails identified in existing plans) and identified gaps (sidewalk gaps identified through the TriMet Pedestrian Plan). These projects are identified in Appendix E, Appendix F, and Appendix G.

Washington County Transportation System Plan 2019

The Washington County Transportation System Plan (TSP) Update provides direct guidance on how to build, operate, and maintain Washington County's major roadway network, while addressing complementary elements of the larger transportation system – including transit, multi-use trails, state highways and freight railroads – maintained by other entities.

No projects are identified within the Project study area based on a review of the Washington Count TSP Update.

Statewide Transportation Improvement Program 2021-2024

OR 217 Auxiliary Lanes Project | Project #: 18841

Construction for the OR 217 Auxiliary Lanes Project began in December 2021 and continues through 2025.

On OR217, add a southbound auxiliary lane from OR10 to OR99W and a northbound auxiliary lane from OR99W to SW Scholl's Ferry Rd (OR210) to improve safety and traffic reliability. Pave road, add protective screening, and bridge updates on Allen Boulevard and Denny Rd structures. Pave road, replace joints, and repair deteriorating concrete columns on OR210 over OR217 structure. Add sidewalks and bike lanes to the SW Hall Boulevard (OR141) over OR217 overcrossing to improve bicycle and pedestrian connectivity. Add bridge rail that meets the current standards to the Fanno Creek Bridge. Install signs and technology to capture traffic statistics and improve operations. Add a signal pole base and conduit to the design of the SW Hall Boulevard Bridge replacement.

OR 141 (SW Hall Boulevard): SW Spruce St - SW Hemlock St | Project #: 22647

Signalized pedestrian crossings on SW Hall Boulevard currently have significant distance between them. Project will provide 2 enhanced pedestrian crossings to increase the number of signals along SW Hall improving the visibility of pedestrians crossing the street and encouraging people to use these crossings to walk to parks and schools in the immediate area.

OR 210: SW Scholls Ferry Rd - SW Hall Boulevard ITS | Project #: 21121

Implement Adaptive Signal Control Technologies (ASCT) to adjust traffic signal to actual conditions. ASCT continuously distributes green light time equitably to all traffic movements and therefore helps to reduce congestion.

Metro Regional Transportation Plan 2023

As the metropolitan planning organization for the Portland metropolitan area, Metro is authorized by Congress and the State of Oregon to coordinate and plan investments in the transportation system for Clackamas, Multnomah and Washington counties. This is done through periodic updates to the Regional Transportation Plan – now every 5 years. The projects listed below are located within the Project study area.

Safety & Operations Projects | RTP # 12095

Description	Projects to improve safety and/or operational efficiencies such as pedestrian crossings, speed feedback signs, transit priority technology at signals on arterial roads, railroad crossing repairs, slide and rock fall protections, illumination, signals and signal operations systems, sidewalks, bicycle lanes, and other improvements that do not add motor vehicle capacity.
To	Multiple locations
From	Various
Agency	ODOT
Primary Purpose	Increase safety
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	349,000,000

Time Period 2023-2030

Washington Square Connectivity Improvements | RTP # 10746

Description	Increase local street connections at Washington Square Center based on recommendations in regional center plan.
To	Multiple locations
From	Various
Agency	Tigard
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	349,000,000
Time Period	2031-2045

Greenburg Road | RTP # 10612

Description	Upgrades roadway to up to 5-lane urban standard with 3400 feet of bike lanes and sidewalks in regional center.
To	OR 217
From	Hall Boulevard.
Agency	Washington County
Primary Purpose	Increase safety
RTP Category	Roads and Bridges

Estimated Cost (2023 \$) 32,500,000

Time Period 2031-2045

Washington Square Regional Center Greenbelt Shared Use Path | RTP # 10763

Description Complete WSRC shared-use path.

To OR 217

From Hall Boulevard.

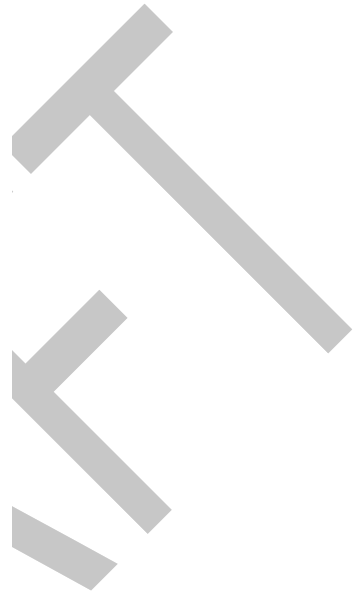
Agency Tigard

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Walking and Biking

Estimated Cost (2023 \$) 4,400,000

Time Period 2031-2045



Tigard Neighborhood Greenway Bicycle Improvements | RTP # 11221

Description Make spot improvements on key low-volume, low speed through-routes to facilitate bike & pedestrian travel; identify them as bike/pedestrian neighborhood greenway routes.

To City-wide

From City-wide

Agency Tigard

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Walking and Biking

Estimated Cost (2023 \$) 9,800,000

Time Period 2031-2045

Locust Avenue Bike Lanes and Sidewalks | RTP # 10611

Description Completes 1650 feet of bike lanes and missing sidewalks in regional center.

To 72nd Ave.

From Hall Boulevard.

Agency Tigard

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Walking and Biking

Estimated Cost (2023 \$) 8,100,000

Time Period 2031-2045

Scholls Ferry Rd. Improvements | RTP # 10596

Description Widen to seven lanes with bike lanes and sidewalks

To 121st Ave.

From Hwy. 217

Agency Washington County

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Roads and Bridges

Estimated Cost (2023 \$) 47,800,000

Time Period 2031-2045

OR 217 Ped-Bike Crossing at SW 95th Avenue | RTP # 12168



Description Construct a new Highway 217 overcrossing for active transportation users connecting Metzger Neighborhood and WSRC area with the Greenburg Neighborhood, Tigard Heritage Trail, Fanno Creek Trail, and Downtown Tigard.

To Shady Lane

From Oak Street

Agency Tigard

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Walking and Biking

Estimated Cost (2023 \$) 24,400,000

Time Period 2031-2045



Hall Boulevard. Improvements - Locust to Durham | RTP # 11220

Description Build protected bike facilities, complete sidewalks on both sides of the road, and provide new and improved pedestrian crossings throughout the corridor. Maximum roadway cross section of 3 lanes away from intersections. Combine and coordinate with ODOT State of Good Repair project and potential Washington County project north of SW Locust.

To Durham

From Locust

Agency ODOT

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Roads and Bridges

Estimated Cost (2023 \$) 32,500,000

Time Period 2031-2045

Hall Boulevard. Improvements | RTP # 11739

Description Improve to 2/3-lane cross section with bike lanes and sidewalks.

To Locust

From Oleson Rd.

Agency ODOT

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Roads and Bridges

Estimated Cost (2023 \$) 33,500,000

Time Period 2031-2045

Hall Boulevard. Improvements | RTP # 10595

Description Improve to 2/3-lane cross section with bike lanes and sidewalks.

To	Oleson Rd.
From	Scholls Ferry Rd.
Agency	ODOT
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	5,900,000
Time Period	2031-2045

DRAFT

TECHNICAL MEMORANDUM

March 8, 2024

Project# 25837.009

To: Hope Pollard, Associate Planner; City of Tigard
From: Nick Gross, Erika Adams, Susan Wright, PE, PMP
RE: Washington Square Regional Center
Multimodal Gap Summary & Highway Impact Summary DRAFT

Washington Square Regional Center

The City of Tigard is [proposing zone change](#) and [text amendments](#) to the City Comprehensive Plan (Reference 1) as part of the Maintain, Advance, Diversity, and Employment (MADE) Project. Several proposed zone changes are located within the Washington Square Regional Center (WSRC) – a Metro Region 2040 Center. Metro Region 2040 Centers. The City is also proposing a boundary amendment to the WSRC. These proposed changes are triggering the need to conduct a Multimodal Transportation Gap Summary and Highway Impact Summary according to Oregon Administrative Rule (OAR) 660-012-0325 which applies to Climate-Friendly Areas (CFAs) and Metro Region 2040 Centers.

MULTIMODAL TRANSPORTATION GAP SUMMARY

According to the latest round of draft amendments to Chapter 660 – Division 12 Transportation Planning documented as part of the Climate-Friendly and Equitable Communities Corrections & Clarifications Rulemaking, Rulemaking Advisory Committee Meeting 4, Cities and counties considering amendments to comprehensive plans or land use regulations to adopt or expand a climate-friendly area as provided in OAR 660-012-0310 through OAR 660-012-0320, or a Metro Region 2040 Center, must make findings as provided in OAR 660-012-0325, including:

- (a) A multimodal transportation gap study as provided in section (4); and
- (b) The multimodal transportation gap study must include a highway impacts summary as provided in section (5) if the designated climate-friendly area as provided in OAR 660-012-0315 or Region 2040 center contains a ramp terminal intersection, state highway, interstate highway, or adopted ODOT Facility Plan.”

The Multimodal Transportation Gap Summary summarizes the existing facility gaps for the automobile, truck/freight, pedestrian, bicycle, Americans with Disability (ADA), and transit networks.

This Highway Impact Summary is intended to address the potential effects on ODOT facilities within the Metro Regional Center or nearby that may occur from proposed changes to the current Project area.

Study Area

Proposed changes to an existing Metro Region 2040 Center are subject to transportation review per OAR 660-012-0325. The existing WSRC is partially located in the City of Beaverton, the City of Tigard and Unincorporated Washington County. The existing boundary follows Fanno Creek to the west, Beaverton Tigard Highway (OR 217) on the southwest, Redtail Golf Course to the northeast, and OR 141 to the east.

Proposed zone changes are located throughout the WSRC including along the Portland and Western Railroad corridor to the southwest, Ash Creek and Beaverton Tigard Highway (OR 217) to the south, and past SW Hall Boulevard to the southeast.

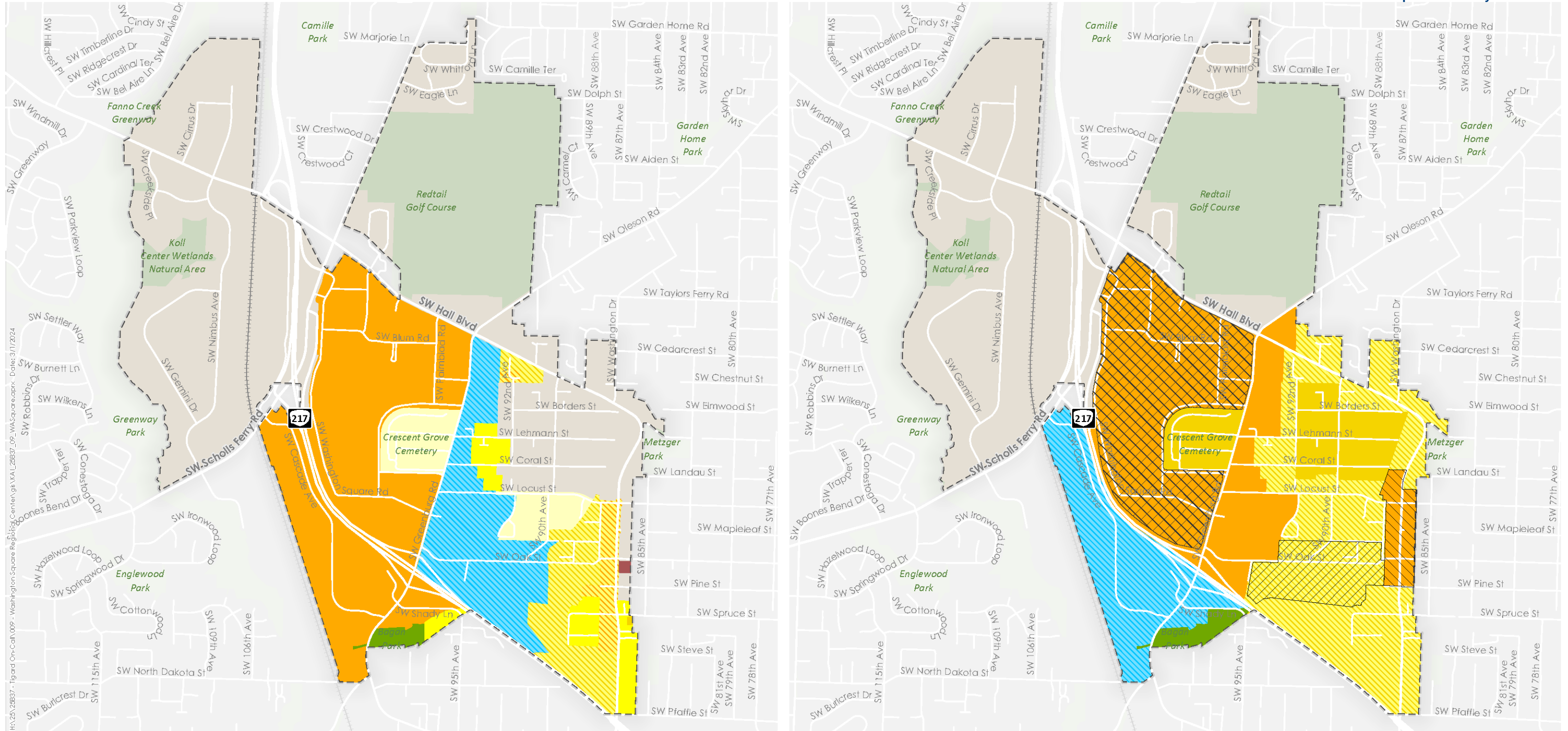
The primary boundary adjustments occur in the southwest and southeast areas of the WSRC. In these locations, the proposed boundary is expanded. Smaller boundary expansions are also proposed along SW Hall Boulevard. Figure 1 illustrates the study area including the existing and proposed WSRC boundary.

EXISTING ZONING¹

Existing designations for zoning located within the WSRC, and the following definitions are based on the City of Tigard Comprehensive Plan.

- Professional Commercial (C-P)
 - These areas are deemed appropriate for business and professional offices and related uses.
- Mixed Use Employment 1 (MUE-1) and Mixed Use Employment 2 (MUE-2)
 - These areas are intended to accommodate development concepts characterized by retail, office, and commercial services use, with business park and research facilities. High-density residential development will be encouraged.
- Mixed Use Commercial (MUC)
 - These areas are intended to accommodate high-density office buildings, retail, and service uses, as well as mixed use developments and medium high and high-density (25 to 50 units to the net acre) residential uses. Larger buildings with parking under, behind, or alongside the structures will be encouraged.
- Mixed Use Residential 1 (MUR-1) and Mixed Use Residential 2 (MUR-2)
 - The MUR-1 and MUR-2 zones are designed to apply to predominantly residential areas where mixed-uses are allowed when compatible with the residential use. These areas are intended to accommodate mixed uses with medium high and high-density residential development. Limited commercial and retail services that provide benefits and amenities to the residents are allowed. These areas should have a high degree of pedestrian amenities, recreation opportunities, and access to transit.

¹ Residential zoning is not included



Existing Zoning

Planned Zoning

- Professional Commercial
- Residential-B
- Residential-D
- Residential-E
- Mixed-Use Commercial

- Mixed-Use Employment 1
- Mixed-Use Residential 1
- Mixed-Use Residential 2
- Parks-Recreation

- Washington Square Analysis Center
- Parks
- Water

- Residential
- Mixed-Use Commercial; MU-CBD
- Mixed-Use Employment
- Mixed-Use Residential
- Parks-Recreation

- Subdistricts**
- Apartment
 - Design Review
 - Metzger Main Street



Figure 2

PROPOSED ZONING

Proposed zoning designations located within the WSRC, and the following definitions are based on the City of Tigard code amendments:

- Mixed Use Commercial (MUC)
 - The MUC zone is a consolidation and overhaul of the two current MUC zones intended to allow a wide range of commercial and residential activity as standalone or mixed-use development.
- Mixed-Use Residential (MUR)
 - The MUR zone is a consolidation and overhaul of the two current MUR zones where predominantly residential uses are allowed along with mixed-uses that are directly supportive of the residential use.
- Mixed Use Employment (MUE)
 - The MUE zone is a consolidation of all three current MUE zones into a single zone intended to allow the broadest range of low impact uses to locate near each other including residential, commercial, and some industrial and manufacturing uses.

In addition to the above base zones, parts of the plan district will also be contained within subdistricts, as follows:

- Design Review Subdistrict
 - Development in the Design Review Subdistrict is subject only to the use standards and height standards provided in this chapter. Development in this subdistrict is evaluated using the discretionary criteria provided in the new Chapter 18.725, Development Design Reviews, in the place of other standards.
- Apartment Subdistrict
 - Development in the Apartment Subdistrict is subject to the use and development standards of the MUR base zone, with the exceptions of housing types and building height. The only housing type allowed in the apartment subdistrict are apartments and development is required to be at least three stories tall.
- Metzger Business Subdistrict
 - Development in the Metzger Business Subdistrict is subject to the use and development standards of the MUC base zone, except for building height and residential uses. Development in this subdistrict is intended to be smaller in scale than development in the MUC zone outside the subdistrict and residential is only allowed as part of a mixed-use building.

Planned Transportation Improvements

There are several planned transportation improvements facilities and investments within the study area that support vehicular capacity improvements, mode shift from single occupancy vehicles (SOV) to active transportation modes, and safety improvements. These improvement projects are documented in the plans and projects summarized below with additional detail described in Appendix A.

- City of Tigard Transportation System Plan 2022
- City of Tigard Safety Action Plan 2019
- TriMet Pedestrian Plan 2020
- Washington County Transportation System Plan 2019
- Statewide Transportation Improvement Plan 2021-2024
- Metro Regional Transportation Plan 2023

Existing Transportation Network

The following sections describe specific modal infrastructure for automobile, pedestrian, bicycle, and transit networks, and identifies gaps in those networks. These summaries rely on information published in the City of Tigard 2020 Transportation System Plan, ODOT's TransGIS website, and Metro Regional Land Information System (RLIS) Discovery website.

AUTOMOBILE NETWORK

The Project area is generally bounded by OR 217 and Fanno Creek to the west, OR 217 to the south, OR 141 (SW Hall Boulevard/Beaverton-Tualatin Highway) to the east and SW Greenburg Road running through the center.

State Facilities

OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)

OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway) is a 2-lane Urban Minor Arterial with paved shoulders and a posted speed of 40 mph between OR 217 (MP 2.7) and Beaverton City limits (MP 3.4) and 30 mph from Tigard City limits (MP 3.4) to Oak Street (MP 4.25). Two-way left turn (TWLT) lanes and dedicated left-turn lanes are located intermittently.

According to ODOT's TransGIS, the AADT on OR141 within the Project area, near TriMet WES Commuter Rail At-Grade Crossing (MP 2.57) to SW Greenburg Road (MP 3.31), is approximately 24,861 with a range of 20,001 to 30,000. OR 141 AADT from SW Greenburg Road (MP 3.31) to SW Washington Drive (MP 3.33) is approximately 13,708 with a range of 10,001 to 15,000. OR 141 AADT from SW Washington Drive (MP 3.33) to SW Oak Street (MP 4.25) is approximately 10,489 with a range of 10,001 to 15,000. OR 141 AADT from SW Oak Street (MP 4.25) to OR 217 (MP 4.69) is approximately 12,296 with a range of 10,001 to 15,000.

OR217 (Beaverton Tigard Highway)

OR 217 (Beaverton Tigard Highway) is a 4-lane Urban Other Freeway with a posted speed of 55 mph within the WSRC. (OR 141 MP 3.81 to MP 5.64). Shoulders are provided along OR 217 within the WSRC.

According to ODOT’s TransGIS the Average Annual Daily Traffic (AADT) within the WSRC on OR 217, from the OR141/OR217 interchange (MP 3.82) to the OR217/OR210 interchange (MP 4.27) is approximately 90,690. OR 217 from the OR 217/OR 210 interchange (MP 4.27) to SW Greenburg Road (MP 4.95) has an AADT of 103,779. OR 217 from SW Greenburg Road (MP 4.95) to the OR 217/ 99W interchange (MP 5.9) has an AADT of 107,364.

OR 210 (Scholls Ferry Road)

OR 210 (Scholls Ferry Road) is a 4-lane Urban Minor Arterial with a posted speed of 35 mph within the Project area. SW Scholls Ferry Road is considered an ODOT facility before SW Cascade Avenue (MP 9.03) to OR 141 (MP 9.6). Sidewalks and bike lanes are available on both sides from MP 9.03 to 9.13. Sidewalk and bike lanes are provided on the east side of the road from MP 9.32 to OR 141 (MP 9.6).

Interchanges

All OR 141/OR 217 ramp terminals, OR 217/OR 210 northbound and southbound ramp terminals and OR217/ SW Greenburg Road northbound and southbound ramp terminals are located in the WSRC boundary. The OR 217/99W terminal is located within 100 feet east of the WSRC boundary.

Primary Local Jurisdiction Streets

The primary local jurisdiction streets within the WSRC are Greenburg Road, Olsen Road, Blume Road, Oak Street, Locust Street, Cascade Avenue, Lincoln Street, and Nimbus . A summary of the roadway characteristics including functional classification, number of lanes, posted speed and on-street parking for the primary local streets is summarized in Table 1.

Table 1: Primary Local Jurisdiction Street Characteristics

Roadway	Jurisdiction	Functional Classification	Number of Travel Lanes	Posted Speed (MPH)	On-Street Parking
SW Greenburg Road	Washington County	Arterial	2	35	No
SW Oleson Road	Washington County	Arterial	2	35	No
SW Blume Road	Tigard	Collector	2	15	No
SW Oak Street	Tigard	Collector	2	25	No
SW Locust Street	Tigard	Collector	2	30	Partial
SW Cascade Avenue	Tigard	Collector	2	30	No

SW Lincoln Street	Tigard	Collector	2	N/A	No
SW Nimbus Avenue	Beaverton	Collector	2	35	No

Truck/Freight Network

OR 217 is classified as a freight route in the Oregon Highway Plan (OHP) and is part of the National Freight network. OR 217 within the WSRC is identified as a Reduction Review (ORS 366.215) Route; however, it is not identified as a High Clearance Route. OR 217 is a Critical Urban Freight Corridor.

Trucks compose approximately 3.7 percent of traffic on OR 217 within the WSRC. None of the local streets within the WSRC are part of the National or OHP freight network.

PEDESTRIAN NETWORK AND NETWORK GAPS

The City of Tigard’s TSP documents the pedestrian network and network gaps within the WSRC. For areas within the WSRC but outside of the City of Tigard city limits, Metro’s RLIS data was used to populate the pedestrian network facilities and gaps.

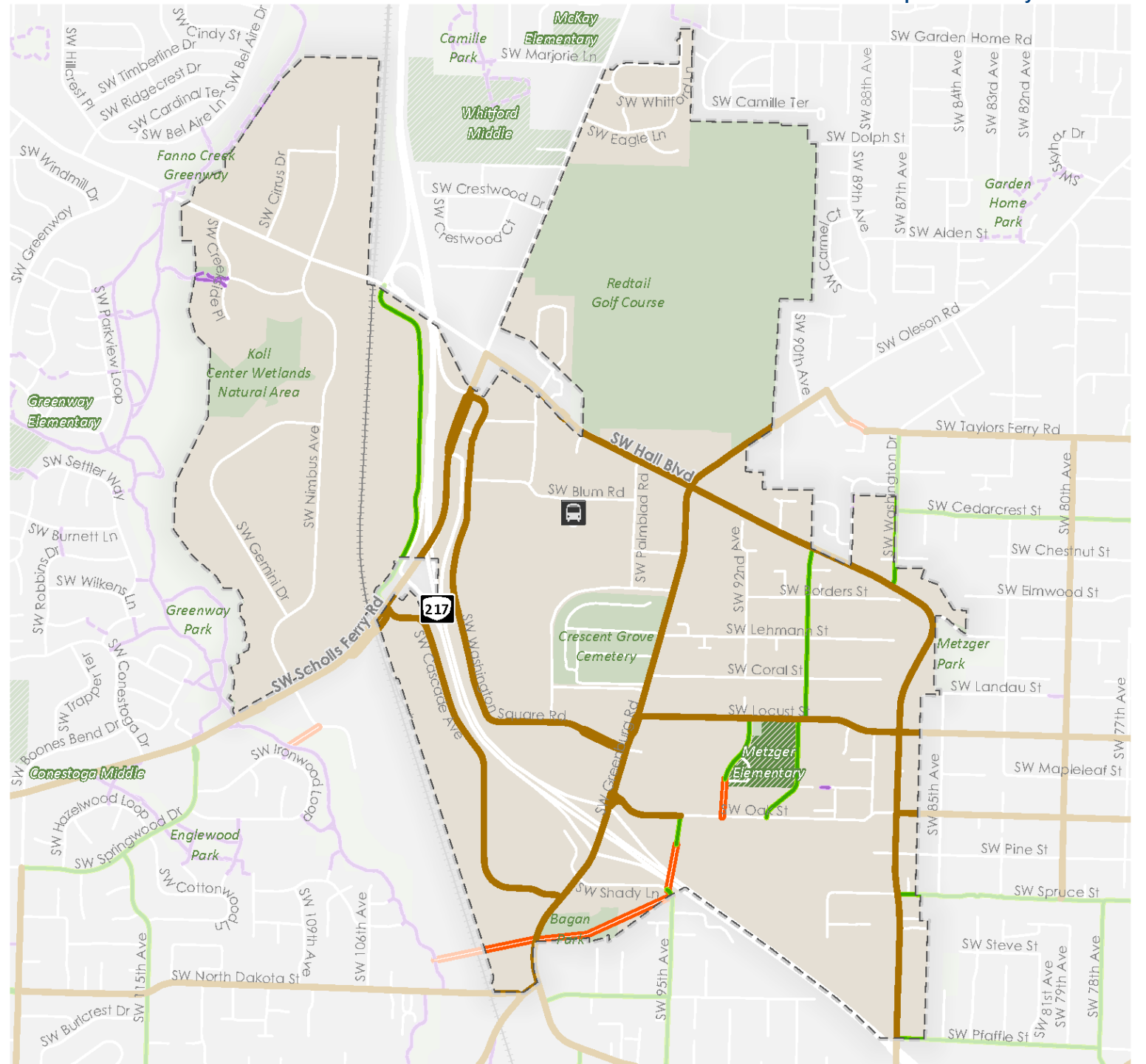
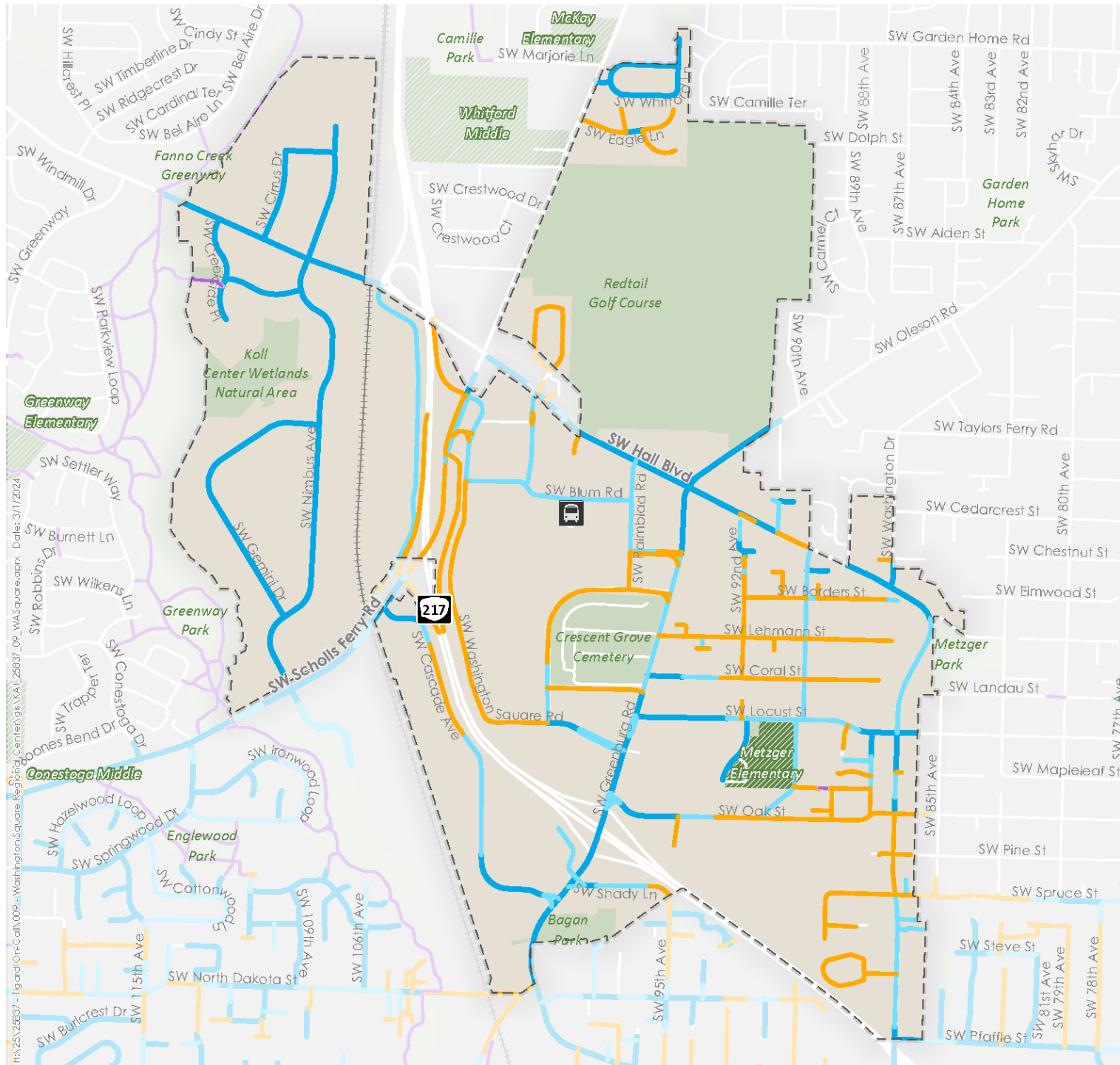
Figure 3 illustrates the existing pedestrian network for the WSRC.

Within the WSRC, there are streets with complete sidewalks on both sides, one side, and streets with no complete sidewalks. WSRC also contains a connection to Fanno Creek Trail from SW Creekside Place off of SW Nimbus Avenue within the City of Beaverton’s portion of the WSRC.

The presence of sidewalks along SW Hall Boulevard vary throughout the WSRC. Sidewalks are curb time and also set back from the curb with street trees or landscaping.

SW Hall Boulevard has sections with sidewalk on both sides and a majority of sections with a sidewalk on only one side, and there are sections that have no sidewalk on either side. A large section of no sidewalks exist on SW Hall Boulevard from SW Oak Street to SW Spruce Street. Other smaller gaps exist along SW Hall Boulevard.

Larger portions of SW Washington Square Road, SW Oak Street, and SW Cascade Avenue, and other neighborhood routes do not provide sidewalks. Most of these streets are located in residential areas to the southeast of the WSRC.



Existing Pedestrian Network

Planned Pedestrian Network

- Existing Sidewalk on Both Sides
- Existing Sidewalk on One Side
- No Existing Sidewalks
- Existing Trails
- Transit Center
- School Grounds
- Parks
- Washington Square Analysis Center

- Planned Pedestrian Corridor
- Planned Neighborhood Greenway
- Planned Trail
- Proposed Active Transportation Connection



Figure 3

BICYCLE NETWORK AND NETWORK GAPS

The City of Tigard's TSP documents the bicycle network and network gaps within the WSRC. For areas within the WSRC but outside of the City of Tigard city limits, Metro's RLIS data was used to populate the bicycle network facilities and gaps.

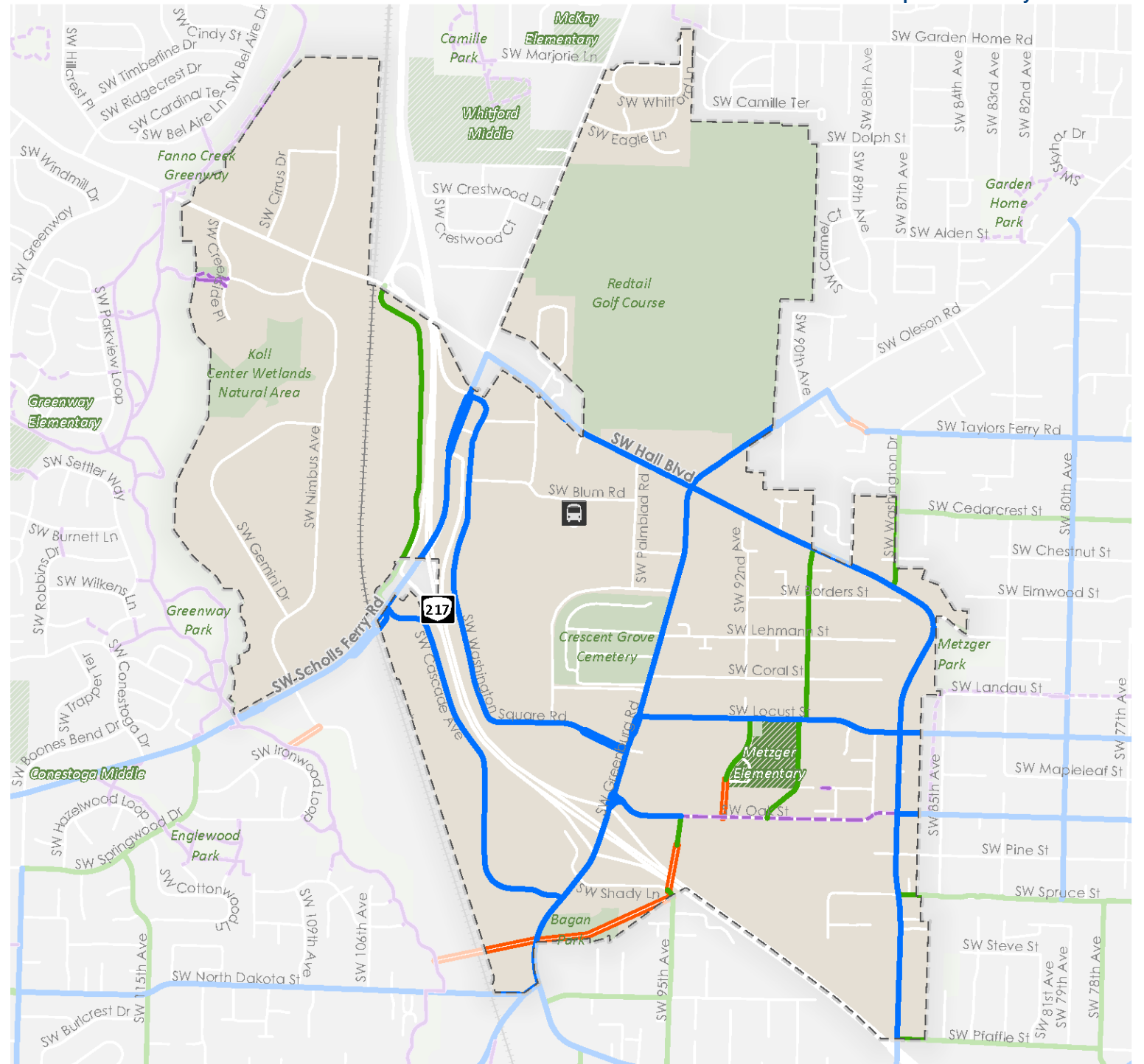
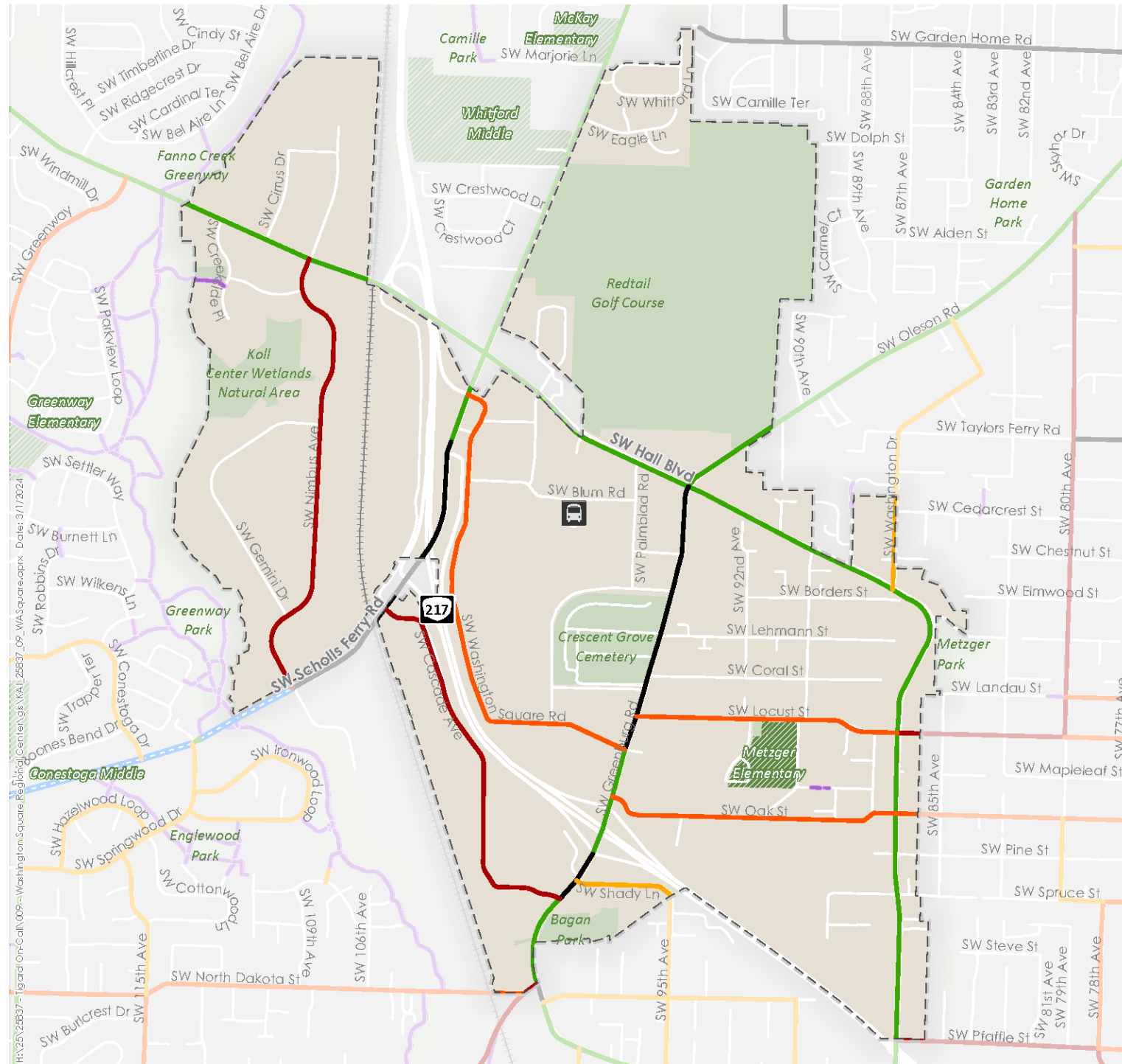
Figure 4 illustrates the existing bicycle and planned bicycle network for the WSRC.

On-street bicycle lanes are located on SW Hall Boulevard, a small portion of SW Scholls Ferry Road near SW Hall Boulevard and SW Greenburg Road near Bagan Park and from SW Washington Square Road and the bridge over OR 217.

For the remaining street network within the study area, bicyclists must share the roadway with vehicles. SW Nimbus Avenue and SW Cascade Avenue have shared lanes but are also considered high traffic streets. SW Oak Street, SW Locust Street and SW Washington Square Road have shared lanes but are considered moderate traffic streets. There are three spans of roadways that are considered difficult connections, two are along SW Greenburg Road and one is along SW Schools Ferry Road.

A majority of SW Scholls Ferry Road in the study area is considered a difficult bicycle connection, partial conventional bike lanes but there are gaps throughout. Conventional bike lanes are available on both sides of SW Hall Boulevard.

As shown in Figure 4, three active transportation connections are proposed to address the existing gap from the Fanno Creek Trail to Metzger Elementary; the planned connections create a connection that passes through Bagan Park and over OR 217. There is also a planned trail along SW Oak Street.



Existing Bicycle Network

Planned Bicycle Network

- Existing Multi-Use Path
- Buffered Bike Lane
- Existing Bike Lane
- Existing Difficult Connection
- Existing Shared Lane on High Traffic Through Street

- Existing Shared Lane on Moderate Traffic Through Street
- Existing Shared Lane on Low Traffic Through Street

- Transit Center
- Parks
- School Grounds
- Washington Square Analysis

- Planned Major Street Bikeway
- Planned Neighborhood Greenway
- Planned Trail
- Proposed Active Transportation Connection



Figure 4

AMERICANS WITH DISABILITIES ACT (ADA) GAPS

The following section summarizes the presence and compliance of ADA facilities located along the state highways within the WSRC.

Pedestrian Ramps

The following intersections do not meet ADA ramp compliance for all corners of the intersection.

- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Oak Street
- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Spruce Street
- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Pfaffle Street
- OR 210 (Scholls Ferry Road) / SW Washington Square Road
- OR 210 (Scholls Ferry Road) / OR 217 (Beaverton-Tigard Highway) southbound terminal
- OR 210 (Scholls Ferry Road) / SW Cascade Avenue
- OR 217 (Beaverton-Tigard Highway) southbound terminal /SW Greenburg Road
- OR 217 (Beaverton-Tigard Highway) northbound terminal /SW Greenburg Road

The following intersections do not meet ADA ramp compliance for some corners of the intersection.

- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Palmlad Road
- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Washington Drive-
- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Hemlock Street
- OR141(SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Locust Street
- OR 210 (Scholls Ferry Road) / OR 217 (Beaverton-Tigard Highway) northbound off ramp

Push Buttons

The following push buttons are in "good" functional condition and have audible signal, making them in compliance to ADA standards:

- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ OR210 (Scholls Ferry Road)
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Palmlad Road
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Greenburg Road
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Locust Road

The following push buttons are in "poor" conditions.

- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Eliander Lane
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ Washington Square Target Entrance
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Oak Street
- OR141 (SW Hall Boulevard/Beaverton-Tualatin Highway)/ SW Oak Street
- OR210 (Scholls Ferry Road)/SW Washington Square Road
- OR 210 (Scholls Ferry Road) / OR 217 (Beaverton-Tigard Highway) northbound off ramp
- OR 210 (Scholls Ferry Road) / OR 217 (Beaverton-Tigard Highway) southbound terminal
- OR 210 (Scholls Ferry Road) / SW Cascade Avenue

- OR 217 (Beaverton-Tigard Highway) southbound terminal /SW Greenburg Road
- OR 217 (Beaverton-Tigard Highway) northbound terminal /SW Greenburg Road

ADA information including ramp compliance, push button information is provided on ODOT's TransGIS website: [ODOT TransGIS \(state.or.us\)](https://state.or.us).

TRANSIT NETWORK AND NETWORK GAPS

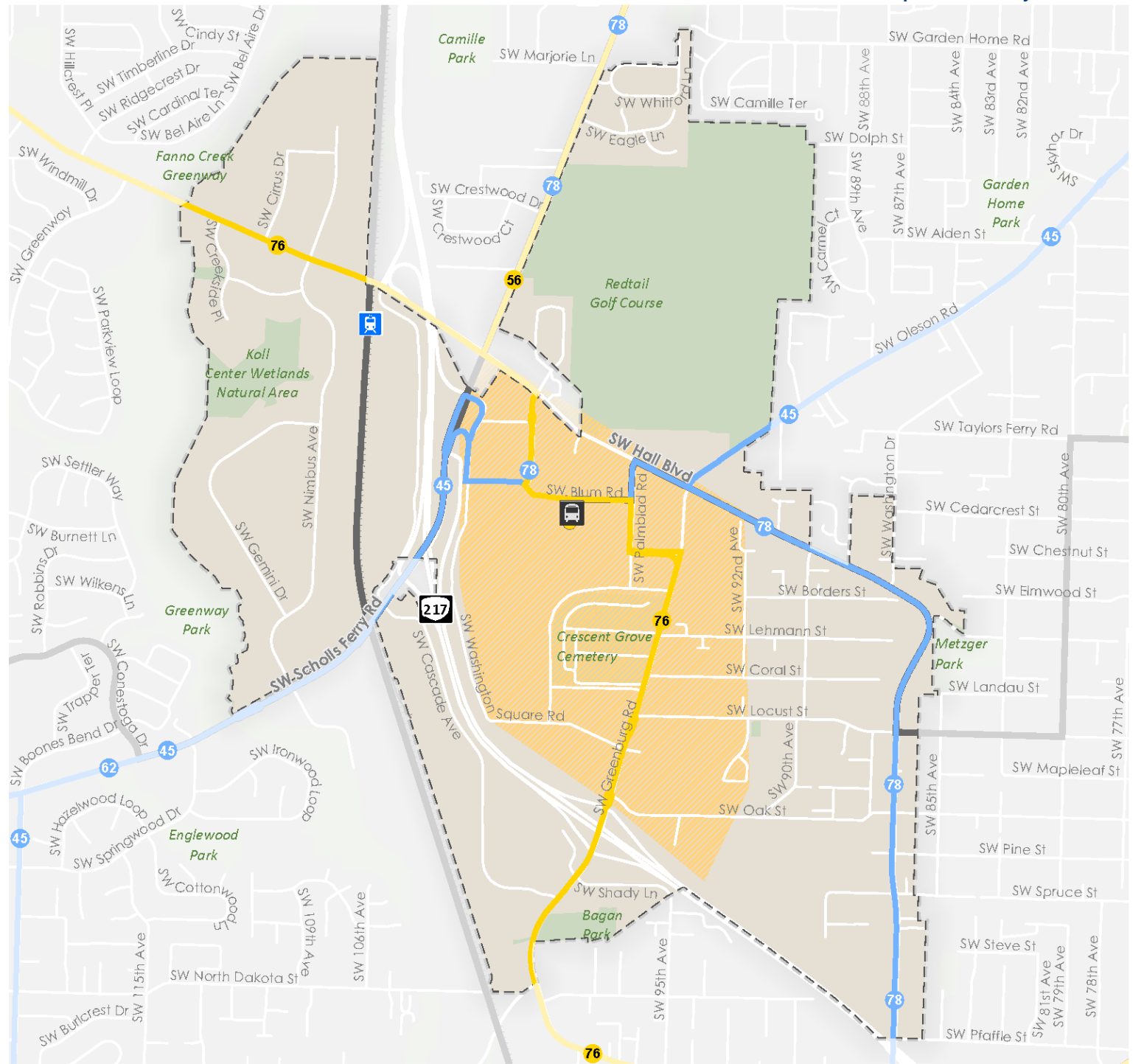
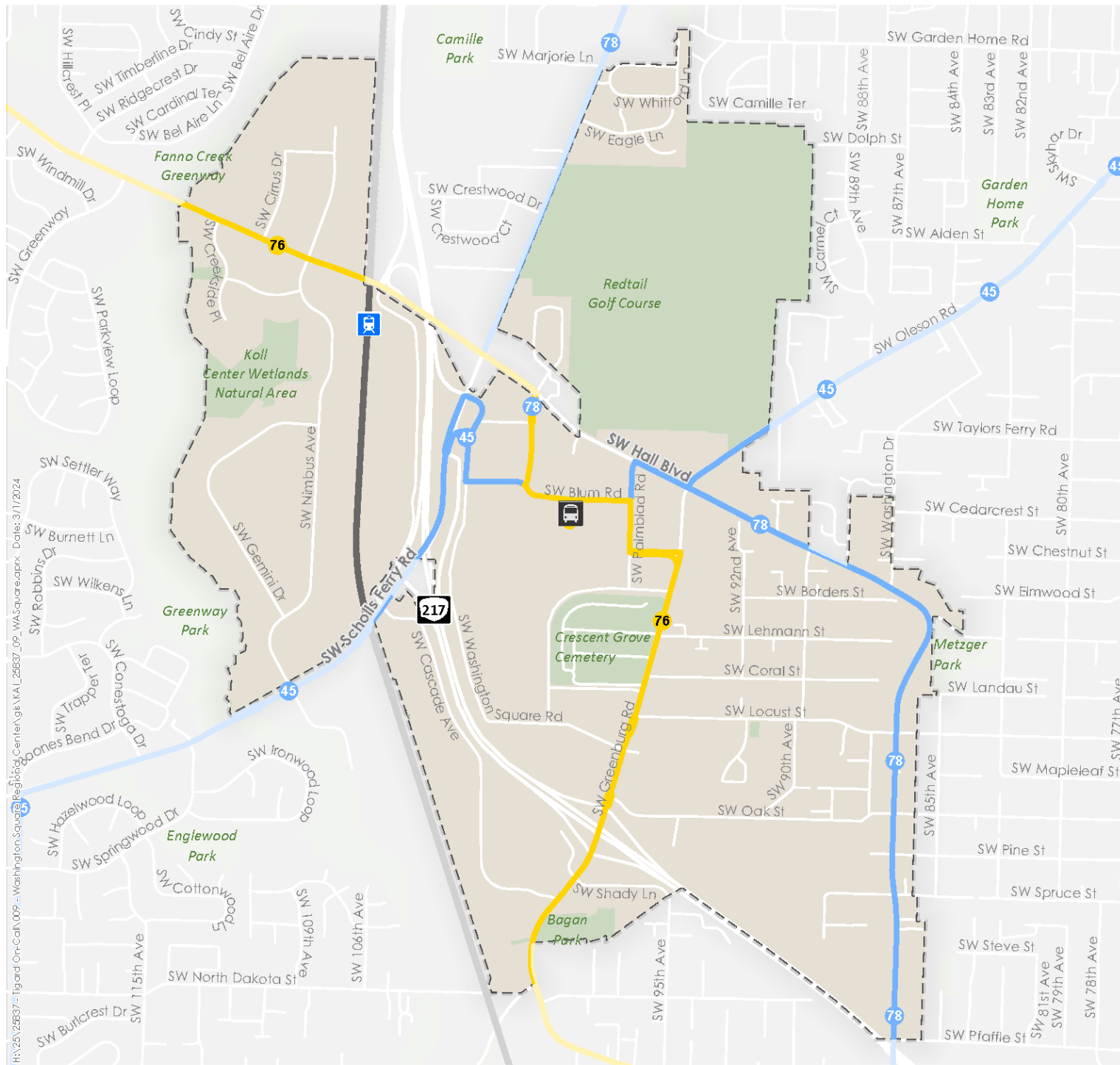
Transit service in the WSRC is provided by TriMet. There are three bus lines and one commuter rail line that serve the area. This includes one frequent service TriMet bus route (Line 76). The core area of the WSRC is also identified as a transit-oriented development (TOD) priority area.

Table 2 includes service details for each transit route within the WSRC.

Each of the bus routes serves the Washington Square Transit Center, which is located on SW Blum Road on the northeast corner of Washington Square Mall. The WES Commuter Rail serves WSRC by the SW Hall Boulevard and SW Nimbus Avenue WES Station includes a park and ride. Figure 5 illustrates the existing and planned transit network.

Table 2: Transit Routes Serving Washington Square Regional Center

Route	Operator	Service Days	Hours	Frequency
WES Commuter Rail	TriMet	Weekdays	5:15 AM – 9:30 AM 3:30 PM – 7:45 PM	45 minutes
45	TriMet	All Days	6:00 AM – 8:30 PM (weekdays) 10:30 AM – 7:45 PM (weekends)	60 minutes (weekdays) 75 minutes (weekends)
56	TriMet	All Days	5:15 AM to 1:10 AM	30 minutes
62	TriMet	All Days	5:15 AM to 11:15 AM (weekdays) 6:20 AM to 11:10 PM (weekends)	45 minutes
76	TriMet	All Days	6:00 AM – 11:50 PM	15 minutes
78	TriMet	All Days	4:30 AM – 1:10 AM	15 minutes (PM peak) 30 minutes (all other times)



Existing Transit Network

Planned Transit Network

- Existing Peak Hour Transit
- Existing Frequent Transit
- Existing Regular Transit
- Existing TriMet WES Commuter Rail
- WES Station
- Transit Center
- Washington Square Analysis Center

- Planned Frequent Transit Route
- Planned Regular Transit Route
- TriMet WES Commuter Rail
- TOD Priority Area



Figure 5

DEVELOPMENT CAPACITY OF CLIMATE FRIENDLY AREA

As described previously, the City of Tigard is proposing zone and text amendments to areas located within the WSRC. The City is also proposing to increase the size of the WSRC by modifying the existing WSRC boundary.

Existing Development Capacity

Section 18.320.1 of the City’s Development Code sets the existing standards for Commercial Zone Development Standards for Nonresidential Development including Mixed-Use Employment (MUE), Mixed-Use Residential (MUR) and Mixed-Use Commercial (MUC). The existing Commercial Zone Development Standards for Nonresidential Development that are proposed for amendment are shown in Table 3.

Table 3: Existing Commercial Zone Development Standards for Nonresidential Development

Table 18.320-1							
Commercial Zone Development Standards for Nonresidential Development							
Standard	C-N and C-C	C-G	C-P	MUE	MUE-2 and MUR-2 [4]	MUR-1 [4]	MUC and MUE-1 [4]
Minimum Setback (ft)							
— <i>Front</i>	None	None	None	None	10	None	None
— <i>Street side</i>	None	None	None	None	10	5	None
— <i>Side</i>	0 or 20 [2]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]
— <i>Rear</i>	0 or 20 [2]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]	0 or 20 [3]
Maximum Setback (ft)							
— <i>Front</i>	20	None or 10 [4]	None	None	20	20	20
— <i>Street side</i>	20	None or 10 [4]	None	None	20	20	20
Minimum Height (ft)	None	None	None	None	None	2 stories	2 stories
Maximum Height (ft)	35	45	45	45	60	75	200
Maximum Lot Coverage	85%	85%	85%	80%	80%	80%	85%
Minimum Landscape Area	15%	15%	15%	20%	20%	20%	15%
Minimum FAR [5]	None	None	None	None	0.3	0.6	1.25
Maximum FAR [5]	None	None	None	0.4 [6]	None	None	None

Note: No Commercial (COM) zoning is proposed as part of the WSRC amendments.

Proposed Development Capacity

Table 4 and Table 5 summarize the proposed Commercial Zone Site Design Standards for Nonresidential Development and Apartment Development Standards, respectively. These amendments are documented in [MADE Public Review Draft \(tigard-or.gov\)](#).

Table 4: Proposed Commercial Zone Site Design Standards for Nonresidential Development

Table 18.320.1				
Commercial Zone Site Design Standards for Nonresidential Development				
Standard	COM	MUC	MUE	MUR
Minimum Setback (ft)				
- Front or street-facing	1	1	1	1
- Side or rear adjacent to nonresidential or RES-E zone	0	0	0	0
- Side or rear adjacent to a RES-A—RES-D zone	15	15	15	15
Maximum front or street-facing Setback (ft)	None	20	10	12
Maximum Lot Coverage	100%	100%	100%	100%
Minimum Landscape Area	0%	0%	0%	0%

Table 5: Proposed Apartment Development Standards

Table 18.230.1				
Apartment Development Standards				
Standard	RES-D	RES-E	MUC	MUR
Minimum Setbacks (ft)				
- Front or street-facing	20	20	1	1
- Side or rear adjacent to nonresidential or RES-E zone	10	10	0	0
- Side or rear adjacent to a RES-A—RES-D zone	10	10[1]	15	15
Maximum Setbacks (ft)				
- Front or street-facing	None	None	12	12
Minimum Height (ft)	None	None	12	12
Maximum Height (ft)	35	45	185	60
Maximum Lot Coverage	80%	80%	None	None
Minimum Landscape Area	20%	20%	None	None
Minimum Density	11 units per acre	23 units per acre	None	None
Maximum Density	14 units per acre	30 units per acre	None	None

SUMMARY OF PROPOSED CHANGES

The focus of changes to WSRC is to encourage job growth, economic viability, and environmental sustainability through updates to the City of Tigard Development Code, which sets the regulations for where and how things can be built. The zoning and development code changes aim to promote job growth, economic equity, and environmental sustainability by:

- Expanding and modernizing allowed uses:
 - Allowing for more area-wide mixed-use development could encourage greater job density and better accommodate alternative forms of transportation, like biking and public transit.
- The proposed change's emphasis on better accommodating mixed-use development and alternative forms of transportation, additional motor vehicle traffic is not expected.
- The maximum building heights and limits on square footage of indoor retail sales result in equivalent or reduced levels of development potential with the proposed changes as compared to the existing zoning and development code.

Use Standards

The following use standards apply to development in the plan district, whether within a subdistrict or outside of a subdistrict.

In the MUC zone:

- Residential and nonresidential uses are allowed as single-use or mixed-use developments.
- Indoor sales and services are limited to 30,000 square feet per tenant except where in an existing building.
- Motor vehicle sales is an allowed use if all storage and activity is in a building. The existing exception for the development located at the northwest corner of Highway 217 and Greenburg Road will remain in place, as will allowances for accessory motor vehicle servicing.
- Many other commercial and civic uses are allowed or allowed conditionally.
- Apartments are allowed housing types anywhere zoned MUC, and rowhouses are allowed only within the Design Review Subdistrict.

In the MUE zone:

- Residential uses are allowed only as part of mixed-use buildings where at least 30 percent gross floor area is devoted to a nonresidential use.
- Indoor sales and services are allowed up to 30,000 square feet per tenant.
- Motor vehicle sales are allowed up to 25,000 square feet per tenant if all storage, including vehicle inventory, is in a building.
- Motor vehicle servicing is allowed if all activity and storage is contained in a building.
- Off-site services are allowed up to 20,000 square feet per tenant and fleet vehicles are subject to parking maximums as provided in Chapter 18.410.
- Wholesale and equipment rental is allowed up to 20,000 square feet per tenant.
- Drive-throughs are prohibited. • Gas stations are allowed.

In the MUR zone:

- Indoor sales and services and office are allowed in mixed-use buildings.
- Other nonresidential uses are not allowed.
- All housing types except mobile home parks are allowed.

Proposed Development Standards

There are no Floor Area Ratio (FAR), maximum lot coverage, or minimum landscaping requirements in the plan district. Development is subject to maximum setbacks, minimum window coverage, and other pedestrian-friendly standards, all of which are designed to be as clear and objective as possible.

Maximum building height is the primary method of regulating density, with different maximums provided for different zones, subdistricts, or development types. Some zones or subdistricts offer height incentives for mixed-use buildings. The proposed maximum heights are largely similar or reduced compared to the existing standards.

Proposed Subdistricts

As described previously, the proposed subdistricts set additional standards and guidance for the type of land use and development within these designated subdistricts.

- Design Review Subdistrict:
 - Development in the Design Review Subdistrict is subject only to the use standards and height standards provided in this chapter. Development in this subdistrict is evaluated using the discretionary criteria provided in the new Chapter 18.725, Development Design Reviews, in the place of other standards.
- Apartment Subdistrict:
 - Development in the Apartment Subdistrict is subject to the use and development standards of the MUR base zone, with the exceptions of housing types and building height. The only housing type allowed in the apartment subdistrict is apartments and development is required to be at least three stories tall.
- Metzger Business Subdistrict:
 - Development in the Metzger Business Subdistrict is subject to the use and development standards of the MUC base zone, except for building height and residential uses. Development in this subdistrict is intended to be smaller in scale than development in the MUC zone outside the subdistrict and residential is only allowed as part of a mixed-use building.

Table 6: Proposed Zone Change Comparison (Non Residential)

Zoning	Existing Zoning (Total Acres)	Proposed Zoning (Total Acres)	Net Difference (Total Acres)
Professional Commercial (C-P)	0.82	0	-0.82
Mixed-Use Commercial (MUC)	239.12	230.81	-8.31
Mixed-Use Employment 1 (MUE-1)	88.22	0	-88.22
Mixed-Use Employment 2 (MUE-2)	0.02	0	-0.02
Mixed Use Employment (MUE)	0	87.25	87.25
Mixed-Use Residential 1 (MUR-1)	48.88	0	-48.88
Mixed-Use Residential 2 (MUR-2)	15.97	0	-15.97
Mixed Use Residential (MUR)	0	184.02	184.02
Total	468.32	574.08	105.76

As shown in Table 6, C-P is removed as part of the proposed zone changes.

MUC includes a marginal reduction of approximately 8.3 acres. MUE-1 and MUE-2 are combined into a single MUE zone. As a result, a total of approximately 0.97 acres of MUE is reduced.

MUR-1 and MUR-2 are also combined into a single MUR zone. As a result, a total of approximately 119.17 acres of MUR is increased.

EXISTING TRANSPORTATION ANALYSIS ZONES ASSUMPTIONS

Metro maintains the travel demand model that includes the growth allocations for housing and employment in the region. The estimates are based on the coordinated population forecast, economic forecasts, land use plans, assumptions, and desires about how areas will develop or redevelop. Model development and refinement is completed in coordination with local jurisdictions.

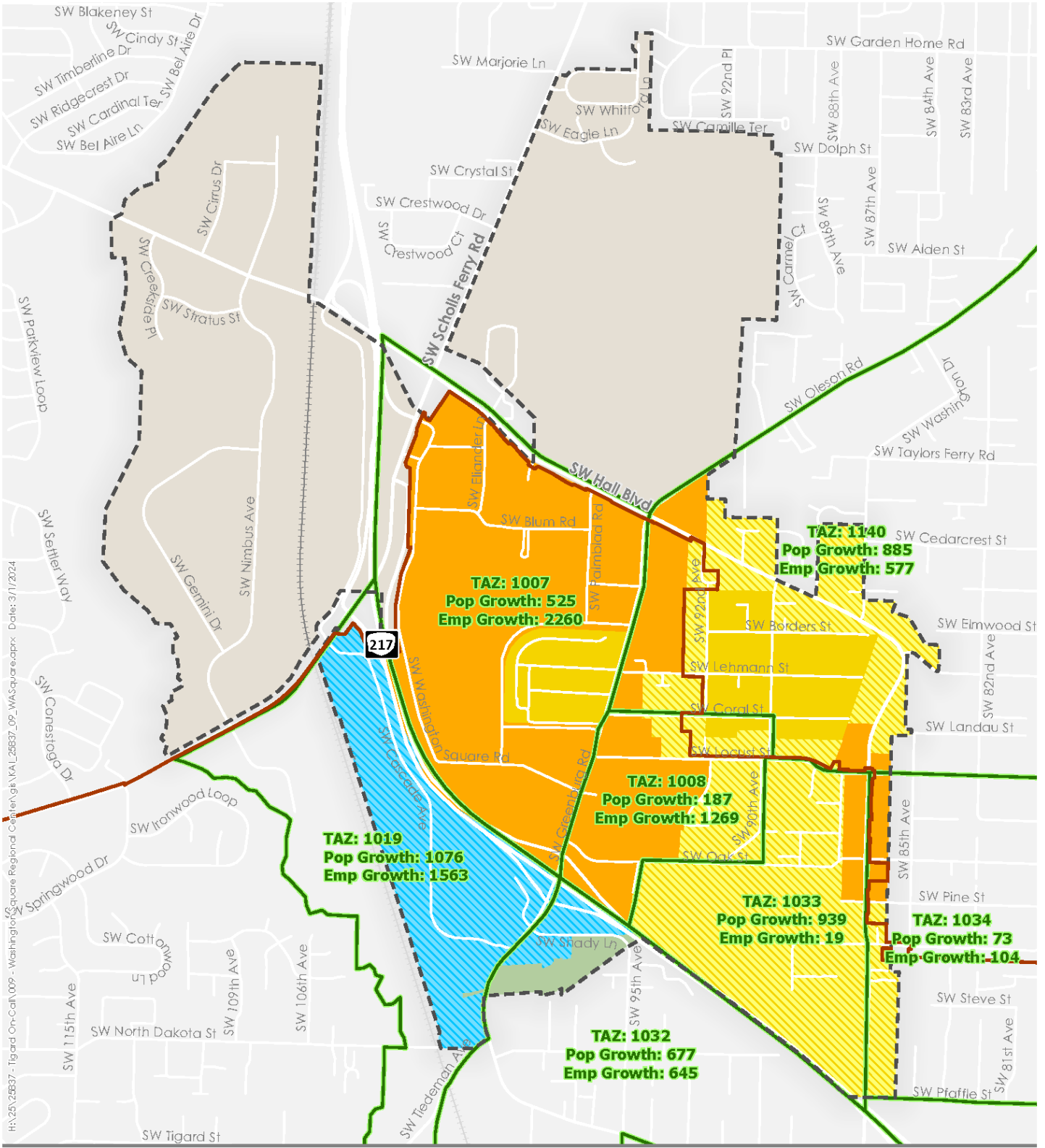
The proposed zone and text amendments are primarily covered by six (6) different transportation analysis zones (TAZ) in the model. Figure 6 illustrates the TAZs within WSRC where proposed changes are identified and the difference of population and employment growth for each TAZ.

Table 7 identifies the TAZs in the WSRC where changes are proposed and summarizes the difference in number of households and employment between 2015 and 2040.

Table 7: Transportation Analysis Zones – Washington Square Regional Center

TAZ	2015 Households	2040 Households	Household Increase	2015 Employment	2040 Employment	Employment Increase
1007	185	710	525	6,214	8,474	2260
1008	150	337	187	3,620	4,889	1269
1019	0	1,076	1076	1,939	3,502	1563
1032	2,342	3,019	677	676	1321	645
1033	672	1,611	939	73	92	19
1034	1,133	1,206	73	99	203	104
1140	3,064	3,949	885	645	1,222	577
Total	7,546	11,908	4,362	13,266	19,703	6,437

As shown in Table 7, growth of approximately 4,362 households and 6,437 jobs is projected in the existing Metro Travel Demand Model for areas of proposed zone and text amendment changes in the WSRC. The proposed zoning and text amendments are intended to help facilitate development and redevelopment in the Project area so that WSRC may accommodate the future growth allocated to this area. The proposed amendments are not anticipated to greatly increase the development potential of the WSRC or change the projected growth for the 20-year horizon.



- Residential
- Mixed-Use Commercial
- Mixed-Use Employment
- Mixed-Use Residential
- Parks-Recreation
- Washington Square Analysis Center
- TAZs
- Tigid City Limits

0 0.25 Miles

Figure 6

Proposed Zoning and TAZs
Tigid, Oregon

SUMMARY OF ADDITIONAL MOTOR VEHICLE TRAFFIC

As described earlier, the proposed zoning and text amendments are intended to help facilitate development and redevelopment in the Project area so that WSRC may accommodate the future growth allocated to this area. The proposed amendments are not anticipated to greatly increase the development potential of the WSRC or change the projected growth for the 20-year horizon.

Mixed-Use Employment (MUE) zoning is consolidated and relocated along SW Cascade Avenue. Mixed-Use Commercial (MUC) is moved from SW Cascade Avenue to the Washington Square mall area. A increase of Mixed-Use Residential (MUR) is proposed along SW Hall Boulevard and its surrounding area.

The zone and text amendments described in this memorandum are not intended to create greater intensity of the existing WSRC. Instead, these changes are proposed to more closely align with the intentions of the designated CFA, enabling the already forecasted growth shown in the Metro Travel Demand model to be achieved and removing barriers to allow the market to be more flexible in achieving what it wants to provide.

In conclusion, the proposed zone and text amendments are not anticipated to increase traffic volumes or vehicle trips on the local and state system anymore than what is already forecasted in the Metro Travel Demand Model. The proposed zone and text amendments are likely to result in less single occupancy vehicle trips (SOV) in the CFA.

Reported Crashes

A summary of the five most recent years of reported fatal and serious injury (Injury A) crashes within the WSRC is summarized below.

A total of 642 crashes were reported within the WSRC between January 1, 2017 and December 31, 2021. Only crashes that were reported to the police are included below; crashes that resulted in minimal to no vehicular damage with no injury or possible injury may not be reported. The 642 reported crashes are summarized by injury severity below.

- 1 fatal crash
- 11 serious injury crashes
- 252 minor injury crashes
- 96 moderate injury crashes
- 282 non-injury crashes

Of the 642 reported crashes, 237 crashes were reported along Hall Boulevard and SW Scholls Ferry Road (south of SW Hall Boulevard) and 209 were reported on OR 217. There were a total of 446 crashes on SW Hall Boulevard and OR 217 alone, representing 70 percent of all crashes within the WSRC boundary from 2017 to 2021.

FATAL AND SEVERE INJURY A CRASHES

Fatal Crashes

One fatal crash was reported in the WSRC during the most recent five-year analysis period. The fatal crash was reported on July 14th 2021 at 4:00 PM under clear and dry conditions. The crash was reported at the intersection of SW Hall Boulevard and SW Oleson Road. A motorist traveling northbound on SW Hall Boulevard made an improper turn onto SW Oleson Road where the vehicle departed from the road, on to the curb and struck a traffic pole.

Serious Injury Crashes

Eleven (11) reported serious injury crashes were reported within the WSRC are summarized in Table 8. Of the 11 severe injury crashes, seven (7) occurred on an ODOT facility. None of the 11 crashes involved pedestrians or bicyclists.

Table 8: Reported Severe Injury Crashes in WSRC (Jan. 1, 2017, to Dec. 31, 2021)

Date	Location	Crash Type	Cause
1/30/2017	OR 217 Southbound terminal and SW Greenburg Road	Turning movement	Disregarded traffic signal
8/25/2017	OR 210 bridge over OR217	Rear-End	Failed to avoid vehicle ahead
10/14/2017	SW Cascade and SW Scholls Ferry Road	Rear-End	Failed to avoid vehicle ahead
12/2/2018	SW Cascade Avenue at curve east of SW Scholls Ferry Road	Overtaken- non-collision	Speed too fast for conditions (Not exceeding limit), drove left of center on two-way road; straddling the center line
2/16/2019	OR 217 north bound terminal at SW Greenburg Road	Fixed-object collision-sign	Reckless Driving (Per PAR or self-reported)
10/24/2019	SW Cascade Avenue at Tesla Driveway	Rear-End	Failed to avoid vehicle ahead
12/16/2019	SW Hall Boulevard and SW Washington Square Regional Center	Turning Movement	Disregarded traffic signal
10/12/2020	SW Hall Boulevard near Hall Boulevard Learning Tree	Side Swipe	Physical Illness, drove left of center on two-way road; straddling the center line
4/17/2021	SW Cascade and SW Scholls Ferry Road	Rear-End, Overturn	Failed to avoid vehicle ahead
6/15/2021	SW Greenburg Road at 76 gas station	Turning movement	Did not yield right-of-way
7/3/2021	OR 217 near mile point 4.45	Overtaken- non-collision	Did not yield right-of-way, Improper change of traffic lanes, Other (Not improper driving)

ODOT SAFETY PRIORITY INDEX SYSTEM

The Safety Priority Index System (SPIS) is a method originally developed in 1986 by the Oregon Department of Transportation (ODOT) for identifying potential safety problems on state highways. The Federal Highway Administration (FHWA) accepted SPIS as fulfilling the requirements of the Highway Safety Improvement Program (HSIP).

ODOT's [TransGIS website](#) provides SPIS data from 2016 to 2020. Based on a review, the following locations within the Project study area are identified as SPIS sites:

- OR210/OR141
- OR210 from Cascade Avenue to bridge over OR 217
- OR 141 between SW Palmblad Road and SW Greenburg Road
- OR141 North of SW Pfaffle Street

Appendix A

City of Tigard Transportation System Plan 2022

Tigard on the Move, the city's Transportation System Plan (TSP) was completed in January 2022 and creates a list of transportation projects and programs for the city to implement with available funding over the next 20 years. Projects are grouped into six categories: stronger streets network, urban upgrades and active transportation, connectivity, transit, transportation systems management and operations (TSMO), and special study areas.

TSP Chapter 6. Recommended Investments contains the list of projects.

City of Tigard Transportation Safety Action Plan 2019

The Tigard Transportation Safety Action Plan (TSAP), completed in September 2019, examined historic crash data across the city to identify future roadway investments to address safety concerns. Of the six locations with site-specific treatments, the segment of Highway 99W from SW Main Street/SW Greenburg Road to SW Hall Boulevard falls within the Project study area.

The TSAP recognizes that there are limited opportunities for safety-focused improvements along this segment because Highway 99W is a seven-lane facility and the Highway 99W/SW Hall Boulevard and Highway 99W/SW Main Street/SW Greenburg Road intersections each have more than 40,000 vehicles that enter each day. However, the TSAP identifies two opportunities for safety-focused improvements – an access management evaluation along Highway 99W in this corridor, and an improvement pedestrian crossing at the SW Greenburg Road/SW Center Street intersection, including curb extensions and a median refuge island.

TriMet Pedestrian Plan, 2020

TriMet's [Pedestrian Plan](#) focuses on three primary objectives: Removing barriers to riding transit, improving partnership between cities, counties, and the State, as well as equipping partnering agencies with an access-to-transit lens to help inform their decision-making and support future funding request.

TriMet's Pedestrian Plan identifies needs in and around WSRC including previously identified projects (sidewalk infill, new roadways and new trails identified in existing plans) and identified gaps (sidewalk gaps identified through the TriMet Pedestrian Plan). These projects are identified in Appendix E, Appendix F, and Appendix G.

Washington County Transportation System Plan 2019

The Washington County Transportation System Plan (TSP) Update provides direct guidance on how to build, operate, and maintain Washington County's major roadway network, while addressing complementary elements of the larger transportation system – including transit, multi-use trails, state highways and freight railroads – maintained by other entities.

No projects are identified within the Project study area based on a review of the Washington Count TSP Update.

Statewide Transportation Improvement Program 2021-2024

OR 217 Auxiliary Lanes Project | Project #: 18841

Construction for the OR 217 Auxiliary Lanes Project began in December 2021 and continues through 2025.

On OR217, add a southbound auxiliary lane from OR10 to OR99W and a northbound auxiliary lane from OR99W to SW Scholl's Ferry Rd (OR210) to improve safety and traffic reliability. Pave road, add protective screening, and bridge updates on Allen Boulevard and Denny Rd structures. Pave road, replace joints, and repair deteriorating concrete columns on OR210 over OR217 structure. Add sidewalks and bike lanes to the SW Hall Boulevard (OR141) over OR217 overcrossing to improve bicycle and pedestrian connectivity. Add bridge rail that meets the current standards to the Fanno Creek Bridge. Install signs and technology to capture traffic statistics and improve operations. Add a signal pole base and conduit to the design of the SW Hall Boulevard Bridge replacement.

OR 141 (SW Hall Boulevard): SW Spruce St - SW Hemlock St | Project #: 22647

Signalized pedestrian crossings on SW Hall Boulevard currently have significant distance between them. Project will provide 2 enhanced pedestrian crossings to increase the number of signals along SW Hall improving the visibility of pedestrians crossing the street and encouraging people to use these crossings to walk to parks and schools in the immediate area.

OR 210: SW Scholls Ferry Rd - SW Hall Boulevard ITS | Project #: 21121

Implement Adaptive Signal Control Technologies (ASCT) to adjust traffic signal to actual conditions. ASCT continuously distributes green light time equitably to all traffic movements and therefore helps to reduce congestion.

Metro Regional Transportation Plan 2023

As the metropolitan planning organization for the Portland metropolitan area, Metro is authorized by Congress and the State of Oregon to coordinate and plan investments in the transportation system for Clackamas, Multnomah and Washington counties. This is done through periodic updates to the Regional Transportation Plan – now every 5 years. The projects listed below are located within the Project study area.

Safety & Operations Projects | RTP # 12095

Description	Projects to improve safety and/or operational efficiencies such as pedestrian crossings, speed feedback signs, transit priority technology at signals on arterial roads, railroad crossing repairs, slide and rock fall protections, illumination, signals and signal operations systems, sidewalks, bicycle lanes, and other improvements that do not add motor vehicle capacity.
To	Multiple locations
From	Various
Agency	ODOT

Primary Purpose Increase safety

RTP Category Roads and Bridges

Estimated Cost (2023 \$) 349,000,000

Time Period 2023-2030

Washington Square Connectivity Improvements | RTP # 10746

Description Increase local street connections at Washington Square Center based on recommendations in regional center plan.

To Multiple locations

From Various

Agency Tigard

Primary Purpose Increase travel options/alt. to driving alone

RTP Category Roads and Bridges

Estimated Cost (2023 \$) 349,000,000

Time Period 2031-2045

Greenburg Road | RTP # 10612

Description Upgrades roadway to up to 5-lane urban standard with 3400 feet of bike lanes and sidewalks in regional center.

To OR 217

From	Hall Boulevard.
Agency	Washington County
Primary Purpose	Increase safety
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	32,500,000
Time Period	2031-2045

Washington Square Regional Center Greenbelt Shared Use Path | RTP # 10763

Description	Complete WSRC shared-use path.
To	OR 217
From	Hall Boulevard.
Agency	Tigard
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Walking and Biking
Estimated Cost (2023 \$)	4,400,000
Time Period	2031-2045

Tigard Neighborhood Greenway Bicycle Improvements | RTP # 11221

Description	Make spot improvements on key low-volume, low speed through-routes to facilitate bike & pedestrian travel; identify them as bike/pedestrian neighborhood greenway routes.
To	City-wide

From	City-wide
Agency	Tigard
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Walking and Biking
Estimated Cost (2023 \$)	9,800,000
Time Period	2031-2045

Locust Avenue Bike Lanes and Sidewalks | RTP # 10611

Description	Completes 1650 feet of bike lanes and missing sidewalks in regional center.
To	72nd Ave.
From	Hall Boulevard.
Agency	Tigard
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Walking and Biking
Estimated Cost (2023 \$)	8,100,000
Time Period	2031-2045

Scholls Ferry Rd. Improvements | RTP # 10596

Description	Widen to seven lanes with bike lanes and sidewalks
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To	121st Ave.
From	Hwy. 217
Agency	Washington County
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	47,800,000
Time Period	2031-2045

OR 217 Ped-Bike Crossing at SW 95th Avenue | RTP # 12168

Description	Construct a new Highway 217 overcrossing for active transportation users connecting Metzger Neighborhood and WSRC area with the Greenburg Neighborhood, Tigard Heritage Trail, Fanno Creek Trail, and Downtown Tigard.
To	Shady Lane
From	Oak Street
Agency	Tigard
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Walking and Biking
Estimated Cost (2023 \$)	24,400,000
Time Period	2031-2045

Hall Boulevard. Improvements - Locust to Durham | RTP # 11220

Description	Build protected bike facilities, complete sidewalks on both sides of the road, and provide new and improved pedestrian crossings throughout the corridor. Maximum roadway cross section of 3 lanes away from intersections. Combine and coordinate with ODOT State of Good Repair project and potential Washington County project north of SW Locust.
To	Durham
From	Locust
Agency	ODOT
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	32,500,000
Time Period	2031-2045

Hall Boulevard. Improvements | RTP # 11739

Description	Improve to 2/3-lane cross section with bike lanes and sidewalks.
To	Locust
From	Oleson Rd.
Agency	ODOT
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	33,500,000
Time Period	2031-2045

Hall Boulevard. Improvements | RTP # 10595

Description	Improve to 2/3-lane cross section with bike lanes and sidewalks.
To	Oleson Rd.
From	Scholls Ferry Rd.
Agency	ODOT
Primary Purpose	Increase travel options/alt. to driving alone
RTP Category	Roads and Bridges
Estimated Cost (2023 \$)	5,900,000
Time Period	2031-2045

DRY