



Transportation Report on Annual Mobility

Published annually in support of Bellingham's:

- Comprehensive Plan Multimodal Transportation Chapter;
- Multimodal Transportation Concurrency Program;
- Pedestrian Master Plan;
- Bicycle Master Plan;
- Transportation Benefit District No. 1;
- Whatcom Transportation Authority Strategic Plan;
- Multimodal Transportation Impact Fee Program;
- Urban Village TIF Reduction Program; and
- Waterfront Biennial Monitoring Program.

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Executive Summary

Since 2006, the Transportation Report on Annual Mobility (TRAM) has provided an annual assessment of Bellingham's multimodal transportation system in terms of its ability to accommodate the amount of growth and development planned for in the Land Use Element of the Bellingham Comprehensive Plan. This is done by measuring the multimodal transportation needs of new growth and development against the adopted "Level of Service (LOS) Standard" in the Multimodal Transportation Chapter of the Bellingham Comprehensive Plan, as required by the Washington State Growth Management Act (GMA). As detailed in the Multimodal Transportation Chapter, Bellingham's adopted LOS citywide is **Person Trips Available (PTA) by Concurrency Service Area (CSA)**, which includes metrics for people walking, biking, riding transit, driving vehicles, and using regional trails.

The TRAM provides an opportunity to identify 'over the horizon' concurrency issues proactively and offer recommendations for changes to the program, when and where necessary. In addition to tracking transportation impacts from new development, the TRAM provides an assessment of the existing multimodal transportation system to help Public Works, the Transportation Commission, and City Council plan future transportation infrastructure investments for the City's annual 6-Year Transportation Improvement Program (TIP). RCW 35.77.010 requires that the City adopt the 6-Year TIP by July 1 each year and the TIP must be consistent with the Transportation Element of the Bellingham Comprehensive Plan. The TRAM documents annual improvements to, and completeness of, Bellingham's pedestrian, bicycle, transit, and vehicle networks as well as recognizing that the multiuse Greenways trails provide a secondary transportation function in some parts of Bellingham. The TRAM serves as an annual progress report on how Bellingham provides mobility for people, goods, and services.

The 2020 TRAM is consistent with the [2016 Bellingham Comprehensive Plan](#) and reflects Bellingham's "Complete Networks" transportation planning policies, hierarchy of transportation modal priorities, as well as transportation mode share trends and mode shift goals. The TRAM includes chapters on Bellingham's pedestrian, bicycle, transit, automobile, and freight truck networks, as well as a chapter on Bellingham Transportation Benefit District No. 1 (TBD), which serves as the annual TBD Report to the City Council. The last chapter in the 2020 TRAM is the 2019 Waterfront District Biennial Transportation Monitoring Report, completed in accordance with the Planned Action Ordinance (PAO) for the Waterfront District Master Plan. The Port of Bellingham is required to produce a full Biennial Monitoring Report every two years to monitor transportation impacts and mode shares entering and exiting the Waterfront District as redevelopment occurs, which will lead to various transportation infrastructure mitigation measures agreed to by the Port and the City. Explanation of Bellingham's multimodal transportation planning programs and resources are available on the City of Bellingham [Transportation Planning](#) web page.

The City of Bellingham is now dealing with the unprecedented circumstances surrounding the COVID-19 global virus pandemic and its effect on public health. The long-term effects on the multimodal transportation system are unknown. [See Chapter 2 discussion of issues emerging in March 2020 from COVID-19 global pandemic.](#)

Questions about the TRAM and Bellingham's multimodal transportation planning should be directed to:

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Chapter 1: Observations and Implications of the 2020 TRAM *[Prior to March 2020]*

Urban Villages (Green): As **Table 3.1** shows, there are more Person Trips Available (PTA) [10,220] in the central urban core **CSA #7**, which includes the Downtown, Old Town, Samish, and Fountain Urban Villages, than in any other part of the City. This is due to the high degree of completeness of the primary pedestrian network (**95%**), availability of bicycle facilities planned in the Bicycle Master Plan (**34%**), the presence of multiuse recreational trail connections relative to the planned bicycle facilities (**12%**), and the prevalence of high-frequency transit routes running through the core urban villages to the downtown WTA transit station on Railroad Avenue.

Institutional Master Planned Areas (Blue): There are 3 Institutional Master Plan areas in Bellingham, which have distinct mixed-use characteristics and special populations that they are serving: Western Washington University; St. Joseph's Hospital; and Whatcom Community College.

Transition Areas (Yellow): Prior to 2020, the Bellingham Waterfront District **CSA #6** had the lowest number of PTA for any of the Type 2 transition areas in Bellingham, but in July 2019, the City opened the Granary-Laurel arterial street, sidewalk, and off-street cycle track from Roeder Avenue to Cornwall Avenue. While this has added significant multimodal capacity, CSA #6 cannot evolve to a Type 1 CSA merging with the 4 core urban villages in CSA #7 until WTA high-frequency transit service is available. A transit ridership base will not develop in the Waterfront District until there is significant new development, which is not expected for many years to come.

Suburban Areas (Red): In 2018, the City annexed CSA #19 "Airport Industrial," which has the fewest PTA as it is heavily auto-oriented. WTA did initiate transit service to the Airport, however. It should also be noted that the 2012 Pedestrian Master Plan (PMP) did not include the Bellingham UGA and annexations completed after 2012 are not part of the primary pedestrian network. This will need to be addressed if the PMP is updated in 2021, pending voter approval of the Bellingham Transportation Benefit District (TBD).

Citywide: Over time, private development will continue to contribute toward the completion of sidewalks on public streets and bicycle facilities along arterial streets. This occurs through private funding and construction of street frontage improvements and through the payment of multimodal transportation impact fees. All these future improvements will add PTA to CSA's, but if there are not enough PTA to serve new development at the time of concurrency evaluation, then developers may need to earn PTA through **concurrency mitigation** in order for the City to issue a Certificate of Concurrency. Concurrency mitigation can include off-site construction of sidewalk or bicycle facilities identified in the Primary Pedestrian and Bicycle Networks in the Pedestrian and Bicycle Master Plans.

Over time, the City will continue to construct capital street improvements, adding sidewalks, bicycle facilities, streets, and transit connections, but much of this depends on grant funding available from state and federal agencies. Voter approval of Initiative 976 (\$30 car tabs) in November 2019 is likely to severely reduce state transportation grants from WSDOT and the Transportation Improvement Board (TIB). The most important ingredient of the significant progress that Bellingham has made in completing pedestrian and bicycle infrastructure has been the [Bellingham Transportation Benefit District \(TBD\)](#) *[See TRAM Chapter 6]*, which was approved by voters in November 2010, but expires on December 31, 2020. The City Council may choose to include the TBD on an election ballot in 2020 and, if a simple majority of voters approve it, then it would continue to provide local sales tax funding through December 2030. *See Chapter 2 discussion of issues emerging in March 2020 as a result COVID-19 global pandemic.*

General Conclusion: The 2020 TRAM demonstrates that Bellingham's Multimodal Transportation Concurrency methodology is integrating multimodal transportation system capacity within various land use contexts. This helps to promote the Bellingham Comprehensive Plan and GMA goals to direct new development toward compact, mixed use urban areas where adequate multimodal transportation services and facilities are most available.

TRAM Recommendations Completed and Moving Forward

Each year, the TRAM reports on what was accomplished over the past year and what type of transportation planning is recommended for staff to focus on in the year ahead.

A. Actions Taken, Considered, or Recommended from 2019 TRAM

1) Explore Further Refinements/Additions of Concurrency Service Areas

- Consider splitting the King Mountain CSA #15 into north and south halves and reclassify the south half from a Type 3 to Type 2 CSA. WTA high frequency transit service and significant high-density residential development is changing the land use context in the southern half of CSA #15.
 - ✓ Decision to hold off on this proposal until 2021-2022 when Public Works reconstructs Telegraph Road into a multimodal 3-lane urban arterial street.
- Consider reclassifying the South Cordata CSA #14 from Type 3 to Type 2 CSA. WTA high frequency transit service and significant commercial and high-density residential development is changing the land use context in CSA #14.
 - ✓ CSA 14 expanded northwest to absorb CSA 18, but kept as a Type 3 CSA for now. Propose to reclassify to Type 2 as homes are constructed along the north side of the newly completed Mahogany Avenue, which has complete sidewalks and bike lanes and may become a WTA transit route in the future.
- A new Institutional CSA (coded blue on CSA map; Ex. WWU & WCC) should be created if PeaceHealth amends the 2006 St. Joseph Hospital IMP with new transportation system. PeaceHealth has submitted pre-application materials to update/amend the St. Joseph's Hospital IMP. Depending on progress in 2018, SJ Hospital should be made an Institutional CSA in the 2019 TRAM
 - ✓ New CSA 11 created to reflect the St. Joseph Hospital IMP campus and surrounding medical offices.
- Identify additional potential candidates for Urban Villages as future Type 1 "Urban Village" CSAs. Four potential future Urban Villages identified in the 2016 Land Use Element - (Lakeway Center, Sunnyland Square, Birchwood Center, and Cordata Center). Cordata Center should be considered for a Type 1 "Urban Village" CSA in the 2019 TRAM
 - ✓ Decision to hold off on reclassifying Cordata Center to Urban Village until completion of both Phase 1 and Phase 2 of Cordata Community Park and the construction of homes surrounding the new park, as well as Public Works road diet of Cordata Parkway to install buffered bike lanes and rechannelization of West Horton Road and Stuart Road into a multimodal 3-lane urban arterial streets.

2) Maintain and Update the Concurrency Evaluation Tracking Tool with new data

- ✓ 2018 traffic counts throughout the city incorporated into concurrency tracking system.

3) Monitor Multimodal Transportation Concurrency Methodology for Effectiveness

- Continue to publish TRAM and annually report observations of system effectiveness
- *This is an on-going and annual procedure. All TRAC/TRAM documents 2006 - 2019 are available at <http://www.cob.org/services/planning/transportation/Pages/multi-modal-trac.aspx>*

B. 2020 TRAM Recommendations – Moving Forward

1) Explore the Possibility of Integrating Connectivity Metrics (*Used in Bicycle Master Plan project prioritization*) into Multimodal Transportation Concurrency Evaluation and/or Transportation Impact Analysis (TIA) for Development Review

- *Bellingham's TIA guidelines are in need of revision and will be updated in 2020.*
- *Bellingham Transportation Planner is serving on national Institute of Transportation Engineers (ITE) update to Recommended Practice for Multimodal TIA methodology.*
- *Significant staff time would be required to incorporate ViaCity, but still a priority for transportation planners. Policy direction included in adopted Transportation Chapter of the 2016 Bellingham Comprehensive Plan:*

Policy T-25

Develop innovative new methodology to measure, forecast, and mitigate negative impacts that new vehicle traffic may have on pedestrians, bicyclists, and public transit bus service when Transportation Impact Analyses are completed for new development.

2) Explore Simplification of Concurrency Tracking and Monitoring System and Consolidation of CSA's

- Consider simplifying the automobile and transit inputs to the Concurrency Evaluation Tracking Tool to reduce the amount of time required to collect, analyze, and prepare the TRAM document each year.
- Consider reducing the overall number of CSAs by combining some of the CSA's that are of similar typology and are unlikely to experience noticeable changes from year-to-year. Example recommendations include:
- Combine Type 3 CSA 1 (Edgemoor-South) and Type 3 CSA 2 (Samish Hill)
- Combine Type 2 CSA 9 (Birchwood-Columbia) and Type 2 CSA 10 (Cornwall-Sunnyland-York)
- When the Orchard-Birchwood multimodal arterial beneath Interstate 5 is completed in 2021, then split CSA 15 (King Mountain) in half with the southern half merged with CSA's 9 and 10 (see above) and changed to Type 2 typology.
- As residential and mixed-use development continues along the West Bakerview corridor and when WTA high frequency transit service is provided on Meridian Street to Bellis Fair Mall, then reclassify the South Cordata CSA #14 from Type 3 to Type 2 CSA.

3) 2020 recommendations

If the Bellingham TBD is reapproved by voters in 2020, then Public Works should commit to the following:

- Update the 2012 Pedestrian Master Plan in 2021 to incorporate Bellingham's 2020 ADA Transition Plan and the entire Bellingham Urban Growth Area (UGA).
- Update the 2014 Bellingham Master Plan in 2021.

If the Bellingham TBD is not approved in 2020, then there will not be dedicated local funding for the construction of pedestrian and bicycle facilities and, as a result of voter approval of Initiative 976 (\$30 car tabs), there is likely to be less state grant funding available after 2021. [See Chapter 2 discussion of issues emerging in March 2020 as a result COVID-19 global pandemic.](#)

Chapter 2: Bellingham's Multimodal Transportation Planning Approach

Complete Networks Policies

In 2004-2005, just as the national "Complete Streets" movement rose to popularity, Bellingham created its local prototype of a complete-streets approach to transportation planning by expanding the focus of citywide transportation planning to include multiple modes of transportation (multimodal) with goals, policies, and project recommendations to accommodate pedestrians, bicyclists, and transit riders, as well as vehicle drivers on public streets. Bellingham worked directly with Whatcom Transportation Authority (WTA) in the development of the 2004 WTA Strategic Plan and adopted the WTA Primary Transit Network into the 2006 Bellingham Transportation Element. In addition to the citywide arterial street network, Bellingham created a citywide Freight Truck Route Network in 2007, a Primary Pedestrian Network in 2012, and a Primary Bicycle Network in 2014. From 2004-2016, Bellingham's prototypical complete-streets approach has evolved into "Complete Networks" policies for citywide multimodal transportation planning. The ultimate goal of Bellingham's Complete Networks Program is to complete, maintain, and enhance each modal network over time.



Figure 2.1. - Bellingham's "Complete Networks" Policies for Transportation Planning

Transportation Modal Hierarchy

A fundamental component of Bellingham's Complete Networks approach to transportation planning is a transportation modal hierarchy, which prioritizes the needs of the most vulnerable users (pedestrians and bicyclists) above the needs of less vulnerable (motorized) users. Bellingham has adopted a transportation policy for modal priority in the Transportation Chapter of the 2016 Bellingham Comprehensive Plan to:

Policy T-6: Design multimodal transportation improvements on existing and new streets with the safety and mobility needs of all user groups considered and with priority emphasis placed on the most vulnerable user groups", as illustrated in Figure 2., below.

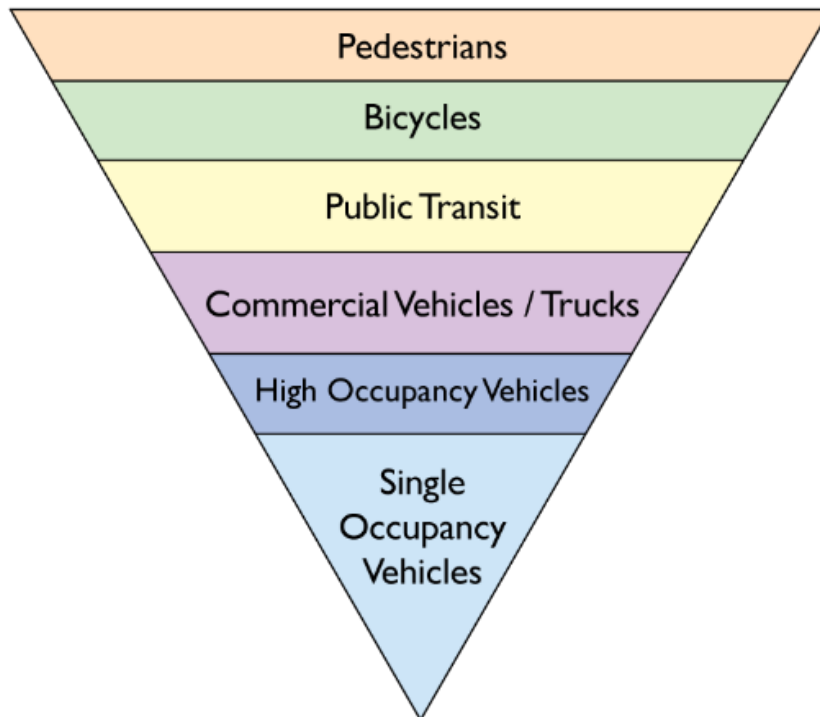
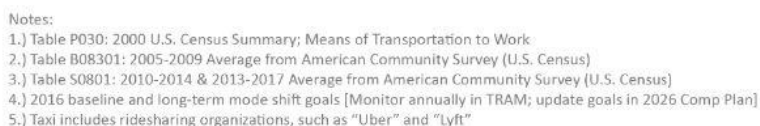


Figure 2.2. - Bellingham's Transportation Modal Priorities

Bellingham's 2012 Pedestrian Master Plan and 2014 Bicycle Master Plan each include extensive sidewalk, pedestrian crossing, bikeway, and bicycle crossing project lists, which are prioritized to maximize connectivity benefit for these most vulnerable user groups. In addition, Bellingham requires private developers to fund and construct sidewalks and bike lanes on all new or reconstructed arterial streets. When Bellingham Public Works engages in maintenance or repair of arterial streets, opportunities to include improvements identified in the Pedestrian and Bicycle Master Plans are always considered. Bellingham transportation planners also prioritize improvements identified in the Pedestrian and Bicycle Master Plans when seeking state or federal grants for transportation improvements. Lists of sidewalk, crossing improvements, and bikeway projects completed with local street and TBD funds, state and federal grant funds, as well as private and partnership funds, are included in Chapters 4, 5, and 6.

In 2006, Bellingham adopted long-term transportation mode shift goals, which were updated and readopted in the 2016 Bellingham Comprehensive Plan. The long-term aspirational goals for transportation mode shift are consistent with City Council Legacies and Strategic Commitments and are designed to increase the mode shares for people walking, biking, riding transit, and sharing rides to work, while decreasing the number of people driving single occupant vehicles to work. Advancements in technology may allow an increase in the number of people working from home, which may reduce single occupant vehicle trips to work. Bellingham expects walking and bicycling for short, local, and non-work trips to increase in tandem with sidewalk and bicycle network completeness as well as increases in density of land use throughout the city.

Historic (2000-2017) Transportation Mode Shares and Long-Term (2026-2036) Transportation Mode Shift Goals



8

Observations of Transportation Mode Share and Local Economic Trends in 2020 *(Prior to mid-March 2020)*

Public Works tracks and monitors annual progress toward achieving the long term aspirational goals, which allows Bellingham to make strategic transportation planning adjustments if trends indicate that the City is not making progress toward its long-term transportation mode shift goals. Any transportation policy or funding adjustments need to be weighed carefully against some very important realities about Bellingham's role in the regional transportation system, including but not limited to:

- **Bellingham's economy and transportation funding is heavily reliant on sales tax revenue, including:**
 - City of Bellingham General Fund, Street Fund, and Transportation Benefit District (2/10th of 1%);
 - Whatcom Transportation Authority Public Transit Benefit Area Levy (6/10th of 1%)
- **Bellingham is the regional center** for employment, shopping, medical, education, and entertainment services. Regional trips made for all of these purposes are primarily vehicle trips due to the distances traveled and the convenience of the private automobile compared to fixed route transit.
- **Lower consumer costs and lower taxes attract automobile trips by Canadian shoppers to Bellingham.** The primary example is gasoline, which in lower mainland B.C. after adjusting for taxes, metric conversion, and currency exchange currently costs \$5.00 U.S. dollars per gallon. This is more than twice as expensive than gas purchased at Costco or Fred Meyer in Bellingham for less than \$2.50 per gallon. Other major cost differentials include dairy and meat (due to U.S. subsidies for agricultural products).

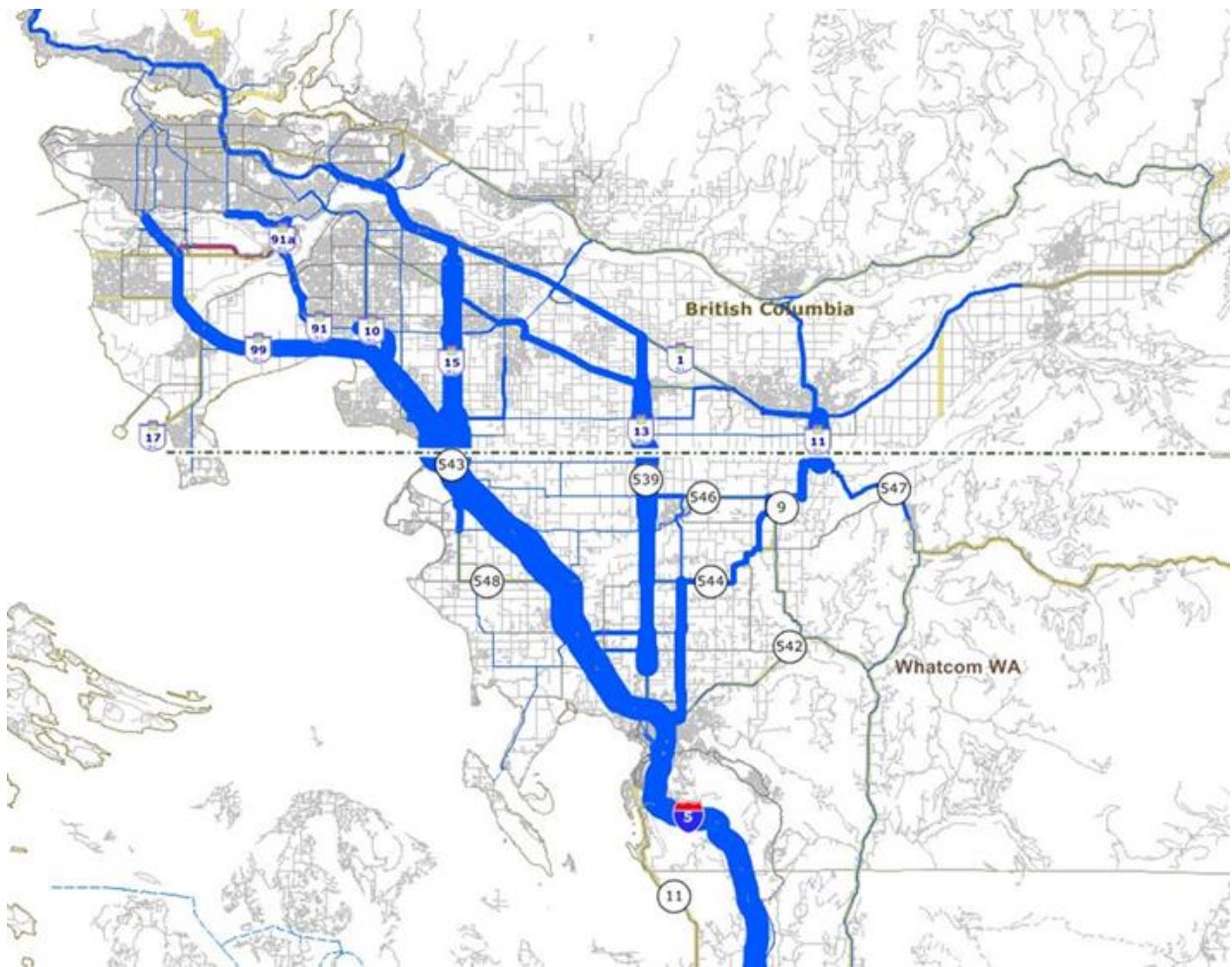


Figure 2.4. Vehicle Traffic Flow from lower mainland B.C., Canada into Whatcom County and Bellingham

- **Bellingham's population (City limits + unincorporated UGA) has grown by over 30% in the past 20 years** from 77,000 in 2000 to 100,500 in 2019 (Source: OFM, April 1, 2019). Demographic data also indicates that the local population is aging as the Baby Boomers choose places like Bellingham for their retirement.
- **Bellingham housing has become much less affordable** for wage workers, which has resulted in home sales in Ferndale, Birch Bay, Blaine, Lynden, and Everson as well as rural Whatcom County. For those whose employment is in Bellingham, this translates to increased regional vehicle-based trip making.

Transportation Mode Shares 2014-2018

Up until mid-March 2020, the national and regional economies were very strong and had been for many years. Historically, individuals with more disposable income purchase more automobiles, which translates to higher vehicle miles traveled. This has been the trend for many years now and, coupled with historically low gasoline prices, has translated into more reliance on automobiles. Figures 2.5 and 2.6 below provide a closer look at all rolling 5-year averages and illustrate that compared to 2013-2017, the 2014-2018 5-year averages show that:

- Single Occupant Vehicle (SOV) mode share increased (+2.1%) to 70.1%
- Multi-Occupant Vehicle (MOV) mode share decreased (-1.2%) to 8.9%
- WTA Public Transit mode share held steady at 4.8%
- Bicycle mode share increased (+0.3%) to 3.6%
- Pedestrian mode share decreased significantly (-0.9%) to 7.1%, and
- Work at home mode shares decreased (-0.2%) to 5.5%.

Decreases in mode shares for walking and carpooling are consistent with the national trend of increased vehicle miles traveled and are the result of factors that are out of Bellingham's local control, including, but not limited to:

- The increased availability of rideshare services, such as Uber and Lyft;
- A strong market economy allowing more disposable income;
- Low interest rates for automobile loans; and
- Historically cheap fuel prices (locally \$2.50/gallon).

The U.S. Census American Community Survey (ACS) data is reported as a rolling 5-year average, which allows consideration of data trends from a standardized source, rather than isolated point-in-time data collected in a variety of methods and contexts, but the down-side of the ACS 5-year averages are the lag time of the data. For example, the 2014-2018 ACS mode share data is reported in 2020, but does not yet reflect the known current decreases in WTA transit ridership in 2019 and 2020 (Shown and discussed in TRAM chapter 8), or the anticipated increase in bicycle ridership due to the significant expansion of the citywide bicycle network in 2019-2020.

See discussion below of issues emerging in March 2020 as a result COVID-19 global pandemic

Since the Bicycle Master Plan (BMP) was adopted in October 2014, Bellingham has completed over half (52%) of the 215 recommended bicycle link and crossing improvements in the BMP. **This is a direct result of having dedicated local funding for both street resurfacing and non-motorized transportation improvements from the Bellingham Transportation Benefit District (TBD).** See TRAM Chapter 6 for more information on TBD. Citywide bicycle network improvements constructed from 2015-2020 are illustrated in Bikeway Connectivity Graphics available on the [Bellingham Complete Networks](#) web page.

Bellingham's rapid implementation of the Bicycle Master Plan from 2015 – 2020 garnered positive attention and recognition both statewide and nationally with the following:

- [2019 Washington Governor's Smart Communities Award](#);
- [2019 American Planning Association Washington Award for Transportation Plan Implementation](#);
- [2020 Association of Pedestrian & Bicycle Professionals national webinar \(March 18, 2020\)](#);
- [2020 APA national Transportation Planning Division featured article in "State of Transportation Planning."](#)

Table 2.1. Transport Mode Share Trends 2000 - 2018 and Long-Term Mode Shift Goals (2026 & 2036)													
Transport Mode to Work	2000	2005 to 2009	2006 to 2010	2007 to 2011	2008 to 2012	2009 to 2013	2010 to 2014	2011 to 2015	2012 to 2016	2013 to 2017	2014 to 2018	2026 Goal	2036 Goal
Pedestrian	6.8%	7.3%	7.4%	8.2%	8.2%	8.3%	8.2%	8.3%	8.3%	8.0%	7.1%	9.5%	12.0%
Bicycle	2.6%	4.1%	4.2%	4.3%	4.0%	3.4%	3.5%	3.7%	3.3%	3.3%	3.6%	7.0%	12.0%
WTA Public Transit	3.6%	5.9%	5.6%	5.8%	5.8%	5.8%	5.0%	5.2%	5.5%	4.8%	4.8%	7.0%	9.0%
Automobile/Vehicle	81.9%	76.9%	76.8%	75.6%	75.9%	75.7%	74.7%	74.9%	75.3%	75.9%	79.0%	70.0%	60.0%
<i>Single Occupant</i>	70.2%	67.6%	69.1%	67.6%	68.6%	68.7%	69.8%	67.1%	66.9%	68.0%	70.1%	61.0%	50.0%
<i>Multi-Occupant + Taxi</i>	11.7%	10.0%	9.1%	9.2%	8.3%	8.5%	8.1%	9.0%	9.8%	10.1%	8.9%	9.0%	10.0%
Work Home or Remote	5.2%	5.0%	4.6%	4.9%	5.0%	5.3%	5.4%	6.7%	6.1%	5.7%	5.5%	6.5%	7.0%
Bellingham + UGA Total Population	76,937	90,741	91,251	91,403	91,715	92,661	93,092	95,015	96,952	98,816	100,500	109,726	124,107
Workers 16 Years +	~	39,326	39,090	40,585	39,549	39,726	40,660	41,568	41,865	43,049	44,493	~	~
NOTES:													
1.) Year 2000 = Table P030 2000 U.S. Census Summary: Means of Transportation to Work													
2.) Years 2005-2017 = Table S0801 U.S. Census American Community Survey 5-Year Averages Means of Transportation to Work													
3.) Years 2026 and 2036 = Adopted Long-Term Mode Shift Goals [Monitor annually in TRAM; Update goals in 2026 Comp Plan]													
4.) "Multi-Occupant + Taxi includes ridesharing companies, such as "Uber" and "Lyft"													
5.) "Bellingham + UGA Total Population = Washington Office of Financial Management "Small Area Estimates, 2014-2017"													

Figure 2.5. Transport Mode Share Trends 2000-2018 & Long-Term Mode Shift Goals

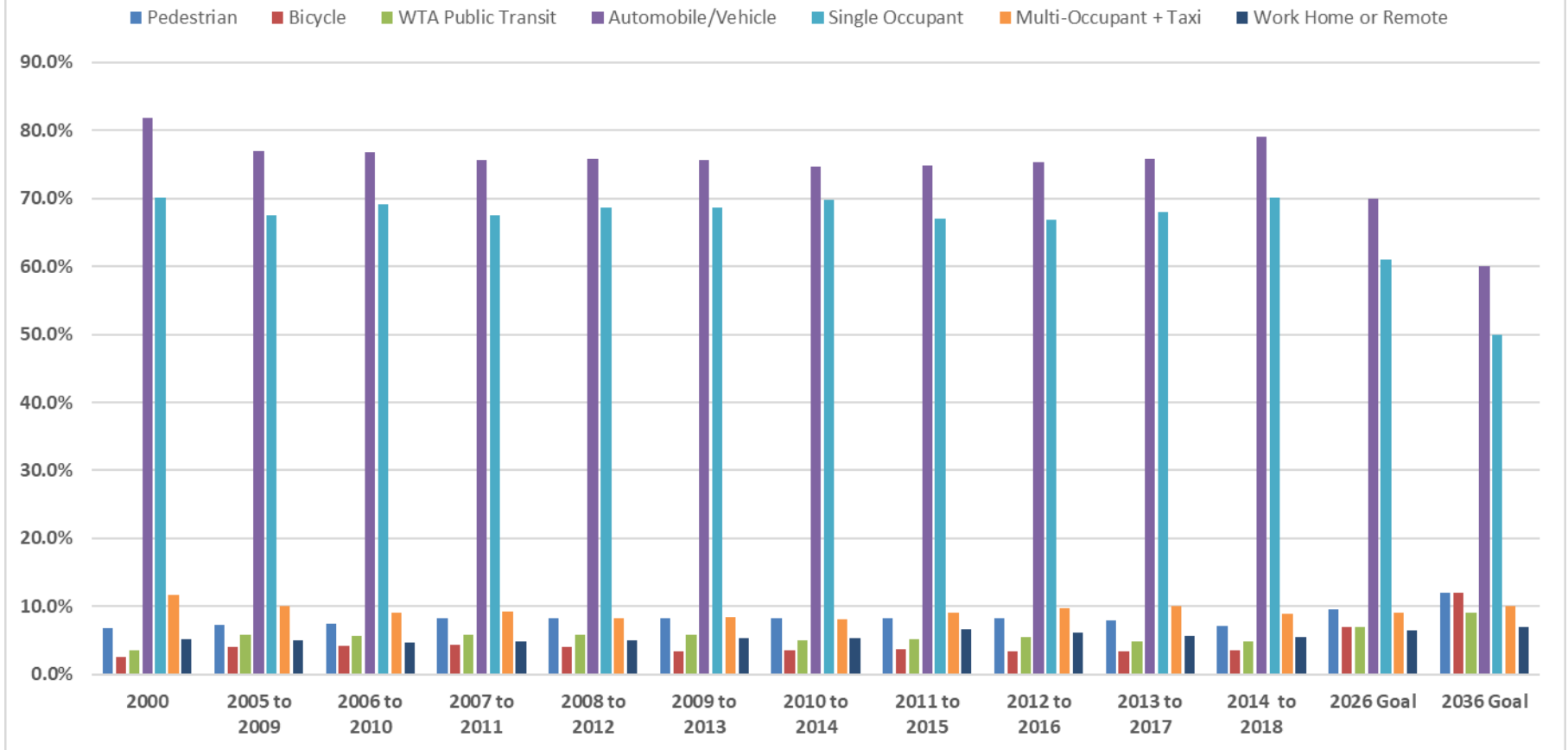


Figure 2.6. Non-Automotive Mode Share Trends, 2000-2018



Strategic Policy Measures to Encourage Transportation Mode Shift

While there are many factors affecting transportation mode-choice that are out of the City of Bellingham's local control, there are several local policy measures that could be enacted by the City Council, which would be likely to help support Bellingham's transportation mode shift goals and the Climate Action Plan.

- City Council can ask local voters to re-approve the Bellingham TBD by placing it on the November 2020 general election ballot. This would provide the dedicated funding needed to allow the City to continue progress building pedestrian, bicycle, and transit-supportive infrastructure, promote walking and bicycling for transportation, and work with bike share organizations to begin service. Without this dedicated local funding, Public Works will not be able to continue the rapid implementation of the Pedestrian and Bicycle Master Plans, nor the soon to be completed ADA Transition Plan.
- City Council can raise metered parking rates. Bellingham has always had very low parking meter rates and has not raised rates in over 10 years. The average metered parking space costs a driver \$0.75 per hour. Abundant research clearly shows that underpriced parking meter rates:
 - Influence people to drive rather than consider other choices, such as walking, biking, or transit;
 - Influence employees to use on-street parking spaces meant for customers, clients, and visitors;
 - Do not generate parking turn-over, which is desirable to attract customers to businesses;
 - Do not cover the cost of parking enforcement, administration, court hearings, parking facility maintenance and repair over time, or the possible funding of additional future parking structures.
- City Council can expand parking management areas beyond Downtown and Fairhaven to more Urban Villages (Old Town, Waterfront, Fountain District, N. Samish, Barkley)
- City Council can direct Public Works to implement variable, market-based parking prices to maintain parking turn-over in high-demand, higher-priced parking locations and to attract drivers to park in low-demand, lower-priced parking locations.
- City Council can direct the Planning Department to change parking requirements for new development. Bellingham land use regulations require new development to provide a minimum number of on-site parking spaces, which may be creating an over-supply of on-site parking spaces. While the cost of providing on-site parking is born by the developer and then passed along to the occupants of the development via the built-in cost of rent or lease, the general perception is that on-site parking is free. The more convenient it is to park a vehicle, the more likely people will be to drive rather than consider other mobility choices, such as walking, biking, or transit.
- City Council can work with Whatcom Transportation Authority (WTA) Board of Directors to study the feasibility of increasing public transit ridership by permanently eliminating the fare box in Bellingham and/or Whatcom County. For well over a century, citizens have been willing to tax themselves to help provide the social benefit of public education and, in similar fashion, the City and WTA could ask taxpayers to further subsidize transit fares, which currently only contribute 13% of overall WTA revenue, to make public transit a free social benefit. Other transit agencies in the U.S. have begun to implement free transit by eliminating the fare box, including Capitol Transit serving Olympia-Lacey-Tumwater, WA.

See discussion below of issues emerging in March 2020 as a result COVID-19 global pandemic

Notes About the COVID-19 Global Pandemic Effects on Transportation

It is far too early to know the outcome, but at this writing in late March 2020, there are rapid and unprecedented changes occurring on the local, state, and national transportation system as a result of the COVID-19 global virus pandemic. Governmental closures of activities that attract large and small groups of people together, such as employment centers, shopping centers, sports and entertainment venues, restaurants and bars, etc. have significantly altered human social activity and mobility patterns.

There have been rapid and severe disruptions to local transportation systems, including but not limited to:

- Shipment of freight and goods has been affected with consumer demand out-stripping supply leading to unavailability or delays in delivery time, but less traffic congestion has been a positive for freight;
- WSDOT has documented significant reductions in commuter vehicle traffic on Interstate 5 in/out of Seattle as many employees work from home with the same effects experienced on I-5, SR 539, SR 542, and SR 11 in/out of Bellingham, Whatcom's regional employment, shopping, & entertainment center;
- Federal closure of the U.S-Canada border except for "essential" trips has significantly decreased Canadian travel and consumer spending activity in Whatcom County and Bellingham; and
- WTA has seen an 85% decrease in local transit ridership compared to the same time period from last year and is now working to decrease group-oriented transit service to only essential routes for vulnerable populations in Bellingham and Whatcom County.

COVID-19 outcomes on human behavior and vehicle traffic volumes are uncertain, but it is possible that there could be significant long-term changes to individual transportation mode choices as a result of the pandemic as discussed in a Forbes magazine article titled [*Is the Coronavirus the Transportation Industry's Opportunity?*](#)

Outcomes that could lead to decreased reliance on single occupant vehicles for local trips may include:

- A possible increase in people telecommuting and working from home as employers embrace technological improvements in group communication methods;
- A possible increase in people biking as a good social distancing form of transportation and as electric bike battery technology improves and leads to reduced prices for e-bikes;
- Assuming that economic development resumes and that people are willing to live in higher density communities after the COVID-19 pandemic subsides, a possible increase in walking as a result of infill development close to work, shopping, and entertainment.

Outcomes that could lead to increased reliance on single occupant vehicles for local trips may include:

- Low global oil prices have reduced gasoline costs below the already cheap \$2.50 per gallon;
- Low interest rates allow people to borrow money for purchases, such as new vehicles; and
- Societal wariness of large groups may result in less ridership on fixed route group transit bus service.

In addition to the negative funding implications of Initiative 976, COVID-19 outcomes that could lead to decreased transportation funding may include:

- Closure of normal activities has reduced vehicle traffic and vehicle miles traveled, which will reduce State gas tax revenue and subsequent State transportation grant funding programs;
- Reduced consumer spending activity by local and Canadian shoppers will generate less sales tax revenue, which funds Bellingham's General Fund, Street Fund, Transportation Benefit District, and county-wide WTA transit service;
- Depending on recovery time and local economic circumstances, voters may not be willing to support a renewal of the sales tax-based Bellingham Transportation Benefit District (TBD).

The City of Bellingham will continue to monitor all of the above, work with partner transportation agencies, and adjust accordingly to maintain public safety and mobility on the local multimodal transportation system.

Chapter 3: Multimodal Transportation Concurrency Program in 2020

Evolution From Auto-based to Multimodal Transportation Metrics

In 2005, Bellingham transportation planners recognized that traditional auto-oriented level of service (LOS) methodology from the national Highway Capacity Manual (HCM) would not help Bellingham achieve its land use goals for infill development, but it wasn't until 2008 that Bellingham staff and consultants devised a better method to meet the Washington State's GMA transportation concurrency requirements:

Transportation element that implements, and is consistent with, the land use element (RCW 36.70A.70 (6)) and After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW 36.70A.040, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies. For the purposes of this subsection (6) "concurrent with the development" shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years. (RCW 36.70A.70 (6) (b)). [*Bellingham requires financial commitment within 3 years consistent with project funding on 6-Year TIP]*

In 2009, Bellingham implemented its innovative [Multimodal Transportation Concurrency Program](#), which received the **2009 APA/PAW Award for Transportation Planning in Washington State**. A full account of Bellingham's evolution from traditional auto-based metrics to innovative multimodal transportation metrics is available in an article titled [Moving Beyond the Automobile](#) on the City web site.

Since 2006, the City has evaluated **346** development proposals for transportation concurrency in citywide CSAs.

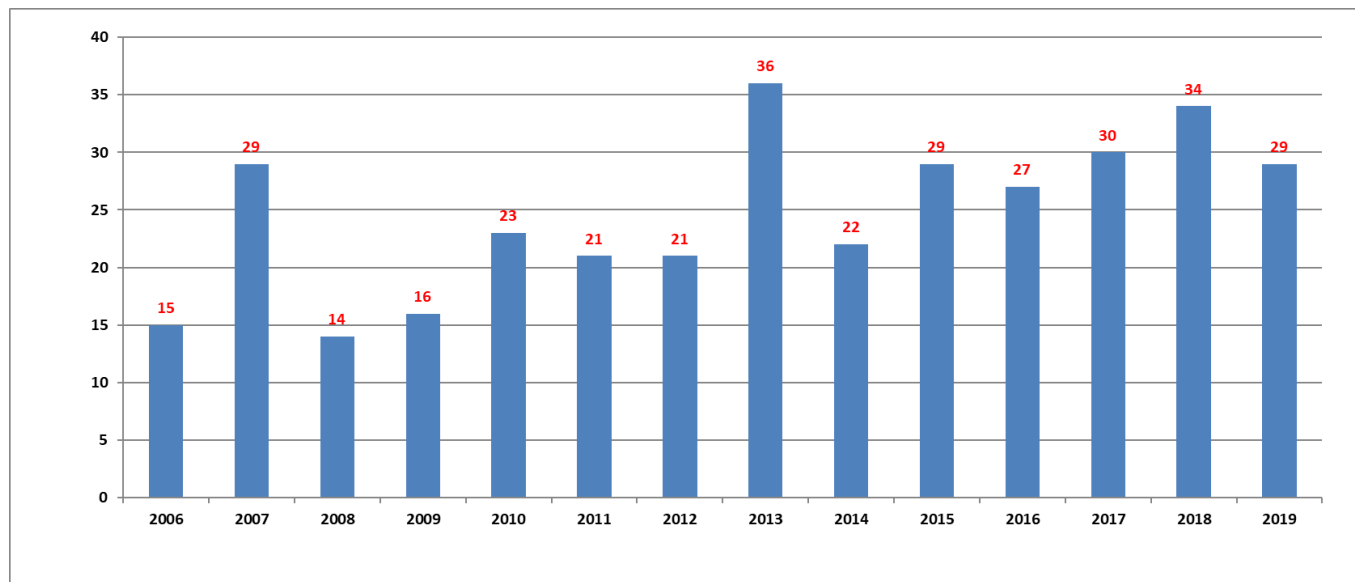


Figure 3.1. 317 Concurrency Certificates Issued from June 15, 2006* - December 31, 2019

*NOTE: BMC 13.70 effective date = June 15, 2006 with adoption of 2006 Bellingham Comprehensive Plan.

Bellingham's Multimodal Transportation Concurrency Program annually measures sidewalks, bicycle facilities, multiuse trails, WTA transit service, and arterial streets in the context of various land use environments found within 20 Concurrency Service Areas (CSA) across the city (**Figure 3.2.**).

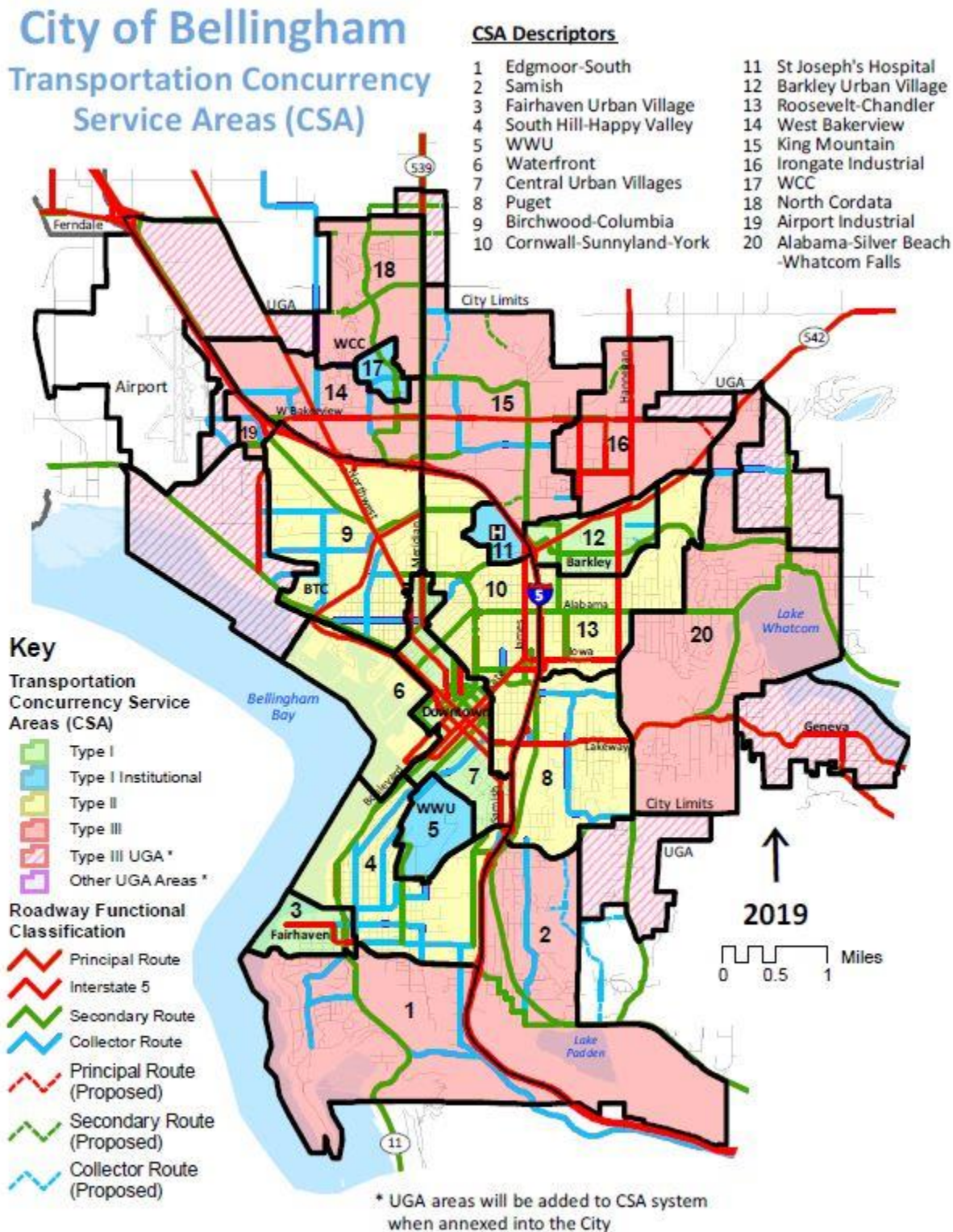


Figure 3.2. Bellingham's 20 Concurrency Service Areas (CSA) in 2020

Table 3.1 Person Trips Available (PTA) by Concurrency Service Area (CSA) in 2020

Concurrency Service Area (CSA)	Sidewalks ¹		Multiuse Trails		Bikeways ²		WTA ^{3,4}	Auto ⁴	2020
	%	Credit	%	Credit	%	Credit	Transit	Arterial	Net
	Complete	PTA	Complete	PTA	Complete	PTA	PTA	PTA	PTA ⁵
1. Edgemoor/South	32%	0	42%	420	34%	0	50	990	1,460
2. Samish	22%	0	31%	310	3%	0	20	2,385	2,715
3. Fairhaven Urban Village	85%	700	13%	130	32%	0	250	1,400	2,480
4. South Hill-Happy Valley	60%	200	16%	160	45%	0	170	1,680	2,210
5. WWU IMP	85%	700	50%	500	69%	380	650	2,100	4,330
6. Waterfront District	43%	0	60%	100	48%	0	0	3,676	3,776
7. Urban Core (4 Villages)	95%	900	12%	120	34%	0	1,500	7,700	10,220
8. Puget	63%	260	38%	380	41%	0	220	2,700	3,560
9. Birchwood-Columbia	61%	220	14%	140	58%	160	400	1,920	2,840
10. Cornwall-Sunnyland-York	86%	720	24%	240	39%	0	700	2,800	4,460
11. St. Joseph's Hospital IMP	39%	0	0%	0	25%	0	150	2,450	2,600
12. Barkley Urban Village	88%	760	16%	160	63%	260	500	5,600	7,280
13. Roosevelt-Sussex-Chandler	74%	480	55%	550	62%	240	250	2,430	3,950
14. W. Bakerview-S. Cordata	77%	540	12%	120	64%	280	800	2,700	4,440
15. King Mountain	44%	0	20%	200	28%	0	400	1,800	2,400
16. Irongate Industrial Area	5%	0	0%	0	28%	0	0	2,250	2,250
17. WCC IMP	95%	900	0%	0	39%	0	550	2,250	3,700
18. North Cordata	60%	200	0%	0	45%	0	650	1,678	2,528
19. Airport Industrial (Annex)	100%	1,000	0%	0	0%	0	100	900	2,000
20. Whatcom-Alabama-Silver	59%	180	61%	610	63%	260	350	1,800	3,200
Totals	66%	7,760	55%	4,140	44%	1,280	7,710	51,209	72,099

Notes:

- 1.) "Percent complete" sidewalks reflects degree of completeness by CSA of "Primary Pedestrian Network" in 2012 Pedestrian Master Plan from the list of 343 sidewalk infill and crosswalk projects.
- 2.) "Percent complete" bikeways reflects degree of completeness by CSA of "Primary Bicycle Network" in 2014 Bicycle Master Plan from the list of 186 Bikeway improvement projects.
- 3.) In June 2019, WTA adjusted transit service on several routes in Bellingham. In 2020-2021, WTA is working on a 20-year long-range transit plan.
- 4.) PTA for WTA transit and Auto/Vehicle are derived from select transit and vehicle data collection measurement points on arterial streets throughout the City. Transit data is collected by WTA and Auto data is collected by Public Works.
- 5.) Annual net PTA is derived from the compilation of all five variables (Sidewalk, Bike Lane, Multiuse Trails, WTA Transit, and arterial traffic counts); minus PTA used by development proposals; minus a 500 PTA reserve in each CSA to avoid violating Bellingham's adopted multimodal LOS standards.

Compliance with Washington State Planning Law

The Transportation Report on Annual Mobility (TRAM) is an annual monitoring and reporting system that Public Works has published since March 2006 (*previously titled Transportation Report on Annual Concurrency (TRAC)*). The TRAM informs the City Council, Planning Commission, Transportation Commission, the general public, and the development community which portions of the City are best suited for infill development based on adequate transportation infrastructure and services - reported as Person Trips Available (PTA) by each Concurrency Service Area (CSA) (**See Table 3.1.**). As such, the TRAM is Bellingham's annual documentation that the City is in full compliance with the Washington State Growth Management Act (GMA) requirements.

In November 2016, the City of Bellingham adopted an update to the [Bellingham Comprehensive Plan](#) and in the Multimodal Transportation Chapter, the City re-adopted its multimodal level of service (LOS) standards and BMC 13.70 as its Multimodal Transportation Concurrency Ordinance, as follows:

Policy T-21 Calculate “Person Trips Available by Concurrency Service Area” as Bellingham's adopted LOS standard to serve planned growth in different parts of the City. Per BMC 13.70 Multimodal Transportation Concurrency, Bellingham and the UGA are divided into Concurrency Service Areas (CSA) based on differing land use contexts and multimodal LOS is calculated for each CSA using the following performance measurements:

- Completeness of sidewalk network;
- Completeness of bicycle network;
- WTA transit capacity, transit route frequency, and transit ridership;
- Vehicle traffic volume to capacity; and
- Access to multiuse trails.

The City's LOS standards provide measurable criteria to judge the adequacy of the multimodal transportation system for new development by calculating person trips available for transportation concurrency evaluations, which are a pre-application requirement. As required by GMA, new development will be prohibited unless adequate person trips are available or multimodal transportation system improvements are made concurrent with the development. While adding vehicle capacity to an arterial street or intersection may be necessary in some circumstances, continual road widening is not a long-term solution to p.m. peak (rush-hour) traffic congestion. The City's transportation policies are focused on managing the multimodal transportation network safely, efficiently, and sustainably for all modes without unnecessarily widening arterial streets simply to add capacity for automobiles.

Policy T-22 Publish an annual report on adopted LOS standards and adequacy of the Citywide transportation system according to its Multimodal Transportation Concurrency Program (BMC 13.70) and the TRAM.

The **2020 TRAM** demonstrates that Bellingham's Multimodal Transportation Concurrency methodology is integrating multimodal transportation system capacity within various land use contexts in Bellingham and is further promoting both the Comprehensive Plan and GMA goal of directing new development toward compact, mixed-use urban areas where adequate transportation services and facilities are most available.

Chapter 4: Primary Pedestrian Network Completeness - 2020

Since 2006, pedestrian improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. Planning for [Bellingham's Pedestrian Master Plan](#) (PMP) began in March 2011, included significant public involvement from residents of every neighborhood, and was approved by City Council in August 2012. The 2013 Transportation Report on Annual Mobility (TRAM) first reported the completeness of the Primary Pedestrian Network (Figure 4.2) by Concurrency Service Area (CSA). Table 4.2., below, shows how complete the citywide Primary Pedestrian Network was at the end of 2019. The degree of completeness varies in different parts of the City, as shown in Figures 4.3, 4.4, 4.5 and Table 4.2. The 2012 PMP includes over 350 sidewalk and crossing improvement projects with planning level cost estimates* of \$225 million (2012 dollars), or more, over time. [**Does not include cost of stormwater, environmental-critical areas mitigation, or right-of-way acquisition*].

Since 2011, many sidewalk and crosswalk projects have been constructed with Transportation Benefit District (TBD) funding (Table 6.2.), but Bellingham street standards also require private developers to construct ADA-compliant sidewalks for any new development on public streets and state and federal grant funding agencies require sidewalks to be included on all arterial street improvement projects. Public Works staff has been very successful at leveraging local funding to receive outside state and federal grant funding whenever possible. Occasionally, pedestrian projects can be added to other City-funded work (maintenance, storm water, Parks, etc.) that is being conducted. In addition, pedestrian improvements are sometimes funded with a combination of the above as well as funding from other public agencies and/or private development interests.

Since 2011, a significant number of improvements to the Primary Pedestrian Network listed in Tables 4.1. and 4.2., below, have been or are expected to be constructed by Public Works and private development interests. Over half (51%) of the 57 pedestrian crossing improvements in the PMP have been completed or are programmed for funding in the 6-Year TIP by 2020, which is the last full year of funding for the current TBD. In contrast, only a small portion (12%) of the 350+ sidewalk projects have been constructed or are programmed for funding in the 6-Year TIP by 2020. This is because many of the crossing improvements also support bike boulevards and have been implemented with Bicycle Master Plan (BMP) projects as well. Sidewalks are always 100% new construction, must be built to ADA standards, include storm water conveyance and treatment requirements, often include moving large utility poles, can include environmental impacts, critical area permits, and mitigation, and, in some cases, right-of-way acquisition, which can be very expensive and take a very long time to complete. Construction costs for concrete sidewalks have increased significantly since 2011.

Pedestrian Crossing Improvements	Tier 1	Tier 2	Tier 3	Total
Percent Completed	71%	27%	52%	51%
Projects Completed	12	4	13	29
Projects Not Yet Completed	5	11	12	26
Total Crossing Projects	17	15	25	57
<i>*1 crossing at SR 539/Tremont eliminated as not feasible</i>				

Sidewalk Improvements	Tier 1	Tier 2	Tier 3	Total
Percent Completed	35%	20%	7%	12%
Projects Completed	15	7	21	43
Projects Not Yet Completed	28	28	260	314
Total Sidewalk Projects	43	35	279	357
<i>*Some sidewalk projects divided into pieces for funding and constructability</i>				

Improving Social Equity by Providing Sidewalks, Bikeways, and Crossings in Low-Income Neighborhoods

Public Works incorporates social equity and socio-economic needs into all multimodal transportation plans. Low-income housing, social services, and public transit needs were weighted heavily in the project prioritization process for the Pedestrian and Bicycle Master Plans and Whatcom Transportation Authority (WTA) specifically focused on under-served populations in the 2016 WTA Strategic Plan Update, which is also incorporated into Bellingham's multimodal transportation planning and the annual six-year Transportation Improvement Program.

Figure 4.1. shows Bellingham's "Low to Moderate Income Neighborhoods" from the [2013-2017 Bellingham Consolidated Plan](#) and Tables 4.1. and 4.1.a. highlight pedestrian projects that have been or will be completed in these neighborhoods using the same orange-color shading as Figure 4.1.

The 2016 Bellingham Comprehensive Plan Transportation Chapter includes the following goals and policies addressing environmental justice:

GOAL T-6 Ensure that social equity needs are addressed in all transportation projects.

Policy T-31 Provide accessible pedestrian and bicycle facilities for all through equity in public engagement, service delivery, and capital investment.

Policy T-32 Through a balanced prioritization process, invest in pedestrian and bicycle infrastructure in all Bellingham neighborhoods.

Policy T-33 Provide opportunities for Bellingham residents regardless of age, gender, ethnicity or income to engage in pedestrian and bicycle related activities.

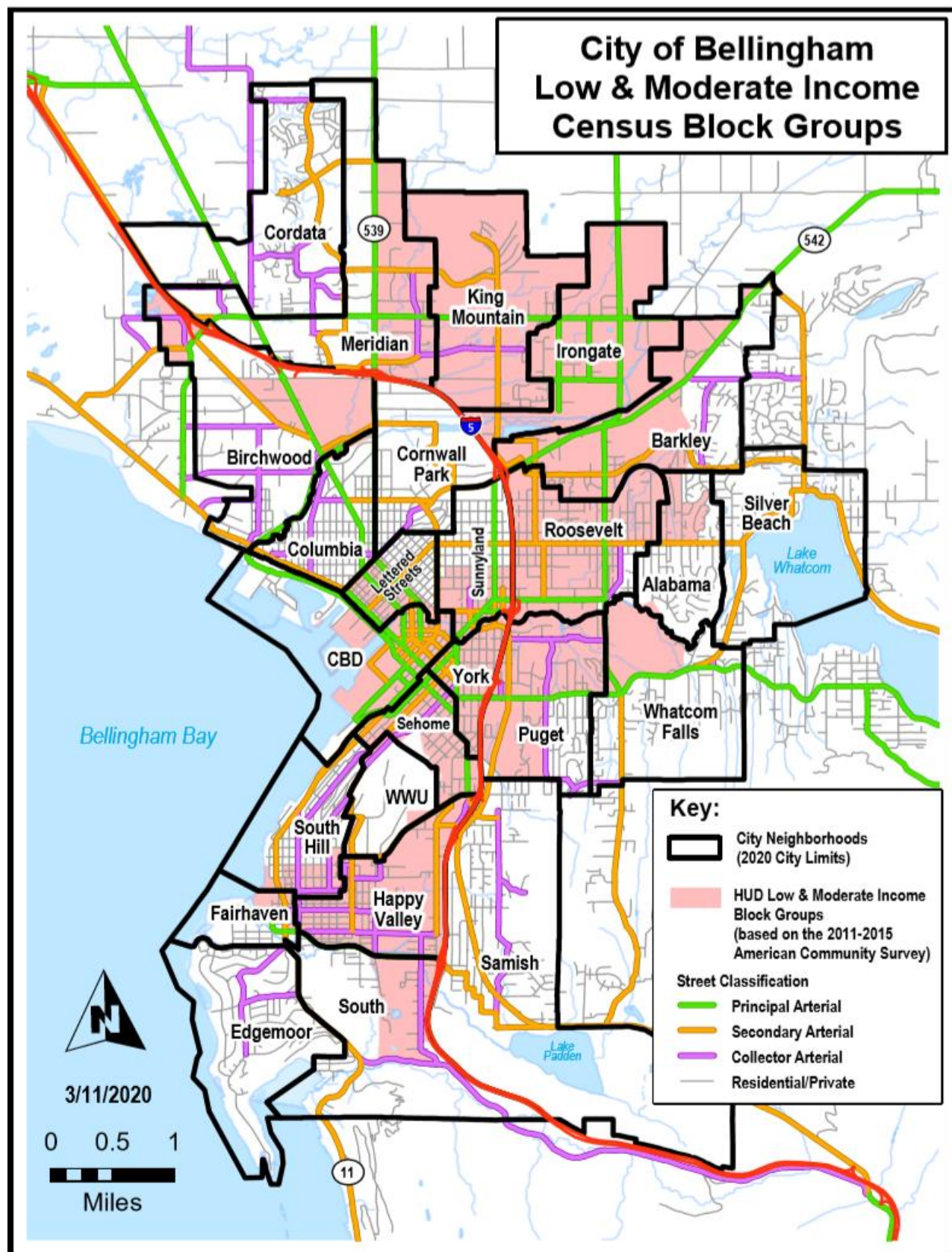


Figure 4.1. Low to Moderate Income Neighborhoods in Bellingham (See Tables 4.1., 5.1., 6.2., and 6.3.)

Table 4.1. Pedestrian Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2011 through 2018						
Orange = Low to Moderate Income Neighborhood						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2011	Sidewalk, Curb Extensions, Crosswalk	South	Ellis-Kansas-Meador	n/a		Sunnyland/York/Dwtm
2012	Multimodal Roundabout		Northwest/McLeod/I-5		Tier 1*	Birchwood
2012	Sidewalk Infill	North	McLeod Road: Northwest to E. Rusley	n/a	n/a	Birchwood
2012	Curb ramps, Ped refuge, Flashing Crosswalk		N. Samish/Abbott		Tier 1*	Sehome/Samish UV
2012	Curb ramps, Ped refuge, Flashing Crosswalk		N. Samish/Consolidation		Tier 1*	Sehome/Samish UV
2012	Curb Extensions, Crosswalks		Billy Frank/Maple; Billy Frank/Laurel; Billy Frank/Ivy		Tier 1*	Sehome
2013	Sidewalk, Crosswalk	West	Eliza Ave: Matanuska to Bellis Fair Pkwy		n/a	Guide-Meridian
2013	Multimodal Roundabout		State/Forest/Wharf/Blvd		Tier 3	Downtown UV
2013	Sidewalk, Crosswalks, Ped Refuges	North	West Bakerview: Arctic to Bennett	n/a	n/a	Cordata
2013	Curb ramps, Ped refuge, Crosswalk		West College Way/High Street (WWU)		n/a	WWU
2014	Sidewalk, Crosswalk	East	James Street: Orchard to Sunset Pond Park	Tier 3		King Mountain
2015	Sidewalk	East	Yew Street: Alabama to Texas	Tier 2		Roosevelt
2015	Sidewalk, Curb Extensions, Crosswalk	South	State/Laurel to Laurel/South Bay Trail	Tier 3	Tier 3	Downtown
2015	Curb Extensions, Crosswalks		Lincoln/Potter		n/a	Puget
2015	Sidewalk, Crosswalk	North	Gladstone Street: Puget to St. Paul	Tier 2		Puget
2015	Sidewalk, Crosswalk	East	Lincoln Street: Byron to Maple	Tier 2		Puget
2015	Crosswalks		Chestnut/Bay (Bridge Rehabilitation)		n/a	Downtown
2015	Ped Hybrid Beacon (Red)		Alabama/Ellis		Tier 1	Sunnyland
2015	Ped Hybrid Beacon (Red)		Alabama/Grant		PMP	Sunnyland
2015	Ped Hybrid Beacon (Red)		Alabama/Moore		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/St. Paul		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/Undine		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/Michigan		PMP	Roosevelt
2016	Sidewalks, Crosswalks (Private Development)	Both	Arctic Avenue: W. Bakerview to Mahogany	Tier 3		Cordata
2016	Sidewalk, Crosswalks (Private Development)	West	Lincoln Street: Maple to Fred Meyer	Tier 1		Puget
2017	Sidewalks, Crosswalks, Intersection	Both	James/Woodstock Intersection Realignment	Tier 1*		King Mountain
2017-18	Sidewalk (1/2 mile)	East	W. Maplewood Avenue: Northwest to Alderwood	Tier 1		Birchwood
2018	Sidewalks, Traffic Signals, Crosswalks	Both	Mahogany Avenue: Northwest to Pacific Highway	Tier 3		Meridian
2018	Sidewalk, Traffic Signals, Crosswalks	Both	Granary-Bloedel: Roeder to Cornwall	Tier 3		Waterfront
2018	Sidewalk	West	Orleans Street: Lakeway to Potter	Tier 2		Puget
2018	Sidewalk	East	Nevada Street: Whatcom to Thimbleberry	Tier 3		Puget
2018	Ped Hybrid Beacon (Red)		Lakeway/Grant		upgrade	York
2018	Ped Hybrid Beacon (Red)		Lakeway/Orleans		upgrade	Puget
2018	Ped Hybrid Beacon (Red)		Lakeway/Toledo		Tier 1	Puget
2018	Ped Hybrid Beacon (Red)		Lincoln/Fred Meyer		upgrade	Puget
2018	Curb ramps, Ped refuge, Flashing Crosswalk		Otis/Maple/Samish		BMP	Samish Urban Village
2018	Roundabout with ped refuge crosswalks		Cordata/Stuart Roundabout		Tier 3	WCC/Cordata
				*Project planned/funded prior to 2012 PMP		

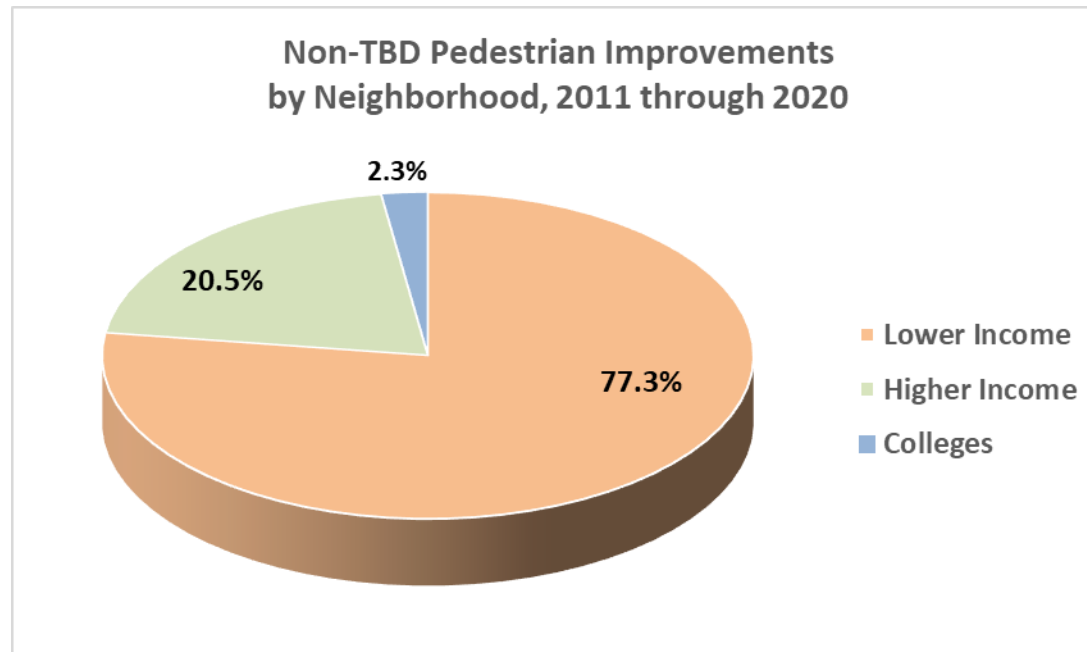


Figure 4.3. Since 2011, 77.3% of non-TBD funded pedestrian projects have been in lower income neighborhoods

Table 4.1.a. Pedestrian Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2019 through 2021						
Orange = Low to Moderate Income Neighborhood						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2019	Sidewalk	East	Aldrich Road: Mahogany to Cordata ES	Tier 1		Cordata
2019	Sidewalk, crosswalk	North	Sunset Drive (SR 542): Applebee's to NB on-ramp	Tier 3		Barkley
2020	Sidewalk	West	Otis Street: Maple to Abbott (BHA- Non-Profit)	Tier 3		Samish Urban Village
2020	Sidewalks, Crosswalks	Both	West Horton Road: Pacific Rim to Aldrich	Tier 1		Cordata
2020	Flashing Crosswalk, Curb ramps, Refuge		Bill McDonald/35th Street		Tier 1	Sehome/Happy Valley
2020-21	Sidewalk, Traffic Signal, Crosswalks	North	Orchard Extension: James to Birchwood Funded	Tier 1*	Tier 3*	King/Irongate/Cornwall
2021	Sidewalks, crosswalks, traffic signals	Both	Telegraph Road: Deemer to James - Partial Funding	Tier 3		King Mountain
				<i>*Project planned/funded prior to 2012 PMP</i>		

NOTE: All pedestrian improvement projects funded primarily by Bellingham TBD are listed in Chapter 6.

Figure 4.3. Bellingham's Citywide Primary Pedestrian Network

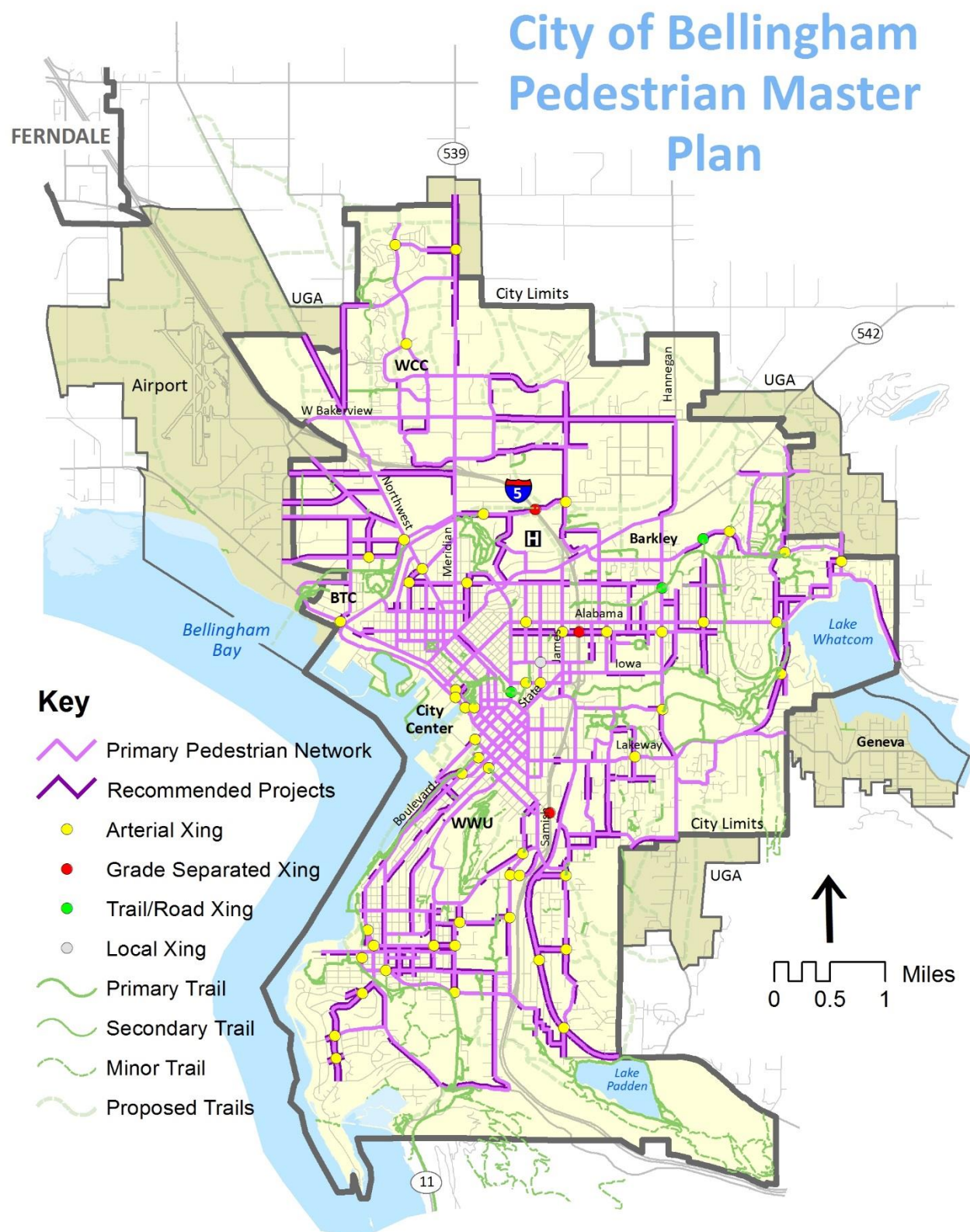


Figure 4.4

**Primary Pedestrian Network
2020 Sidewalk Extents**

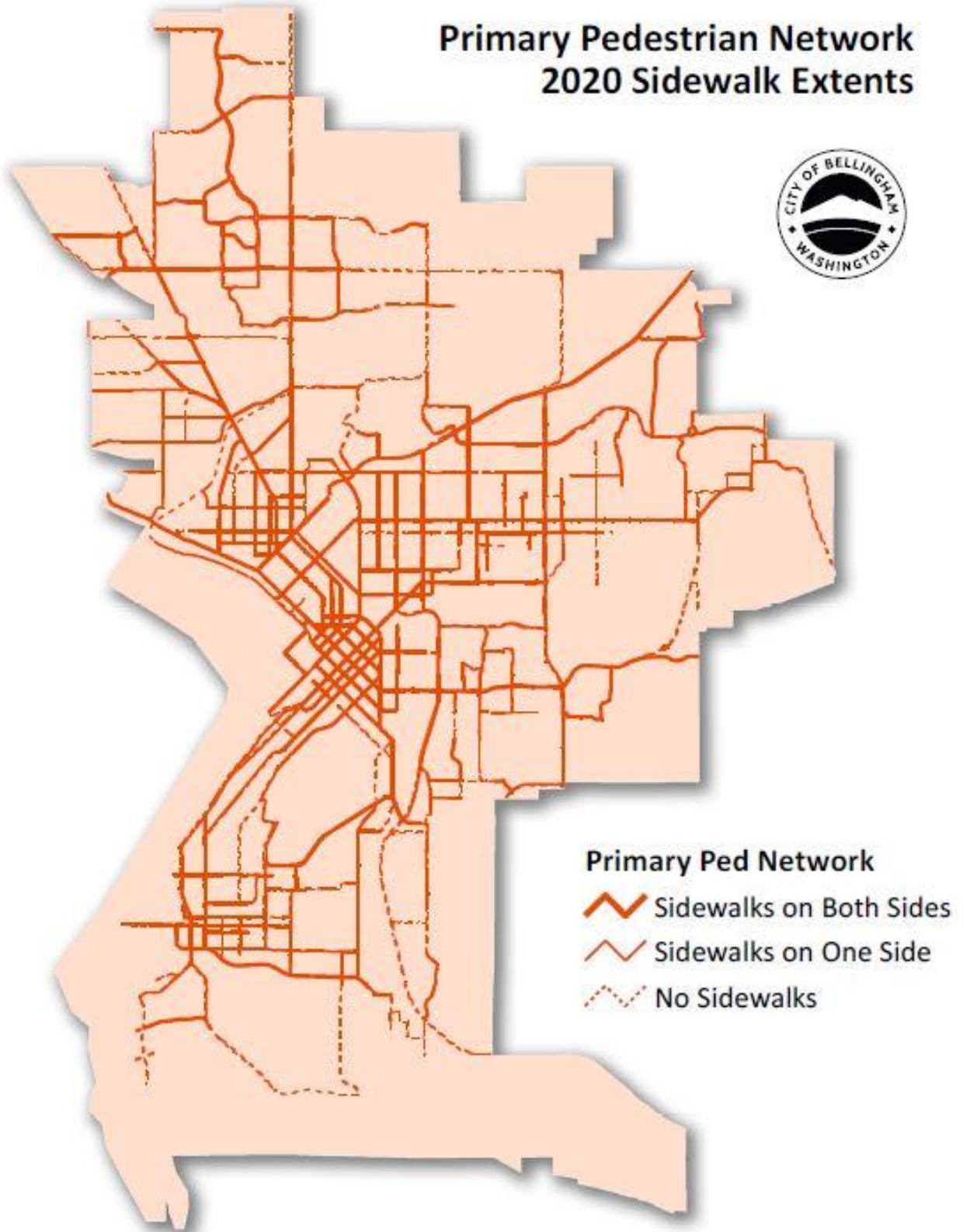


Figure 4.5.

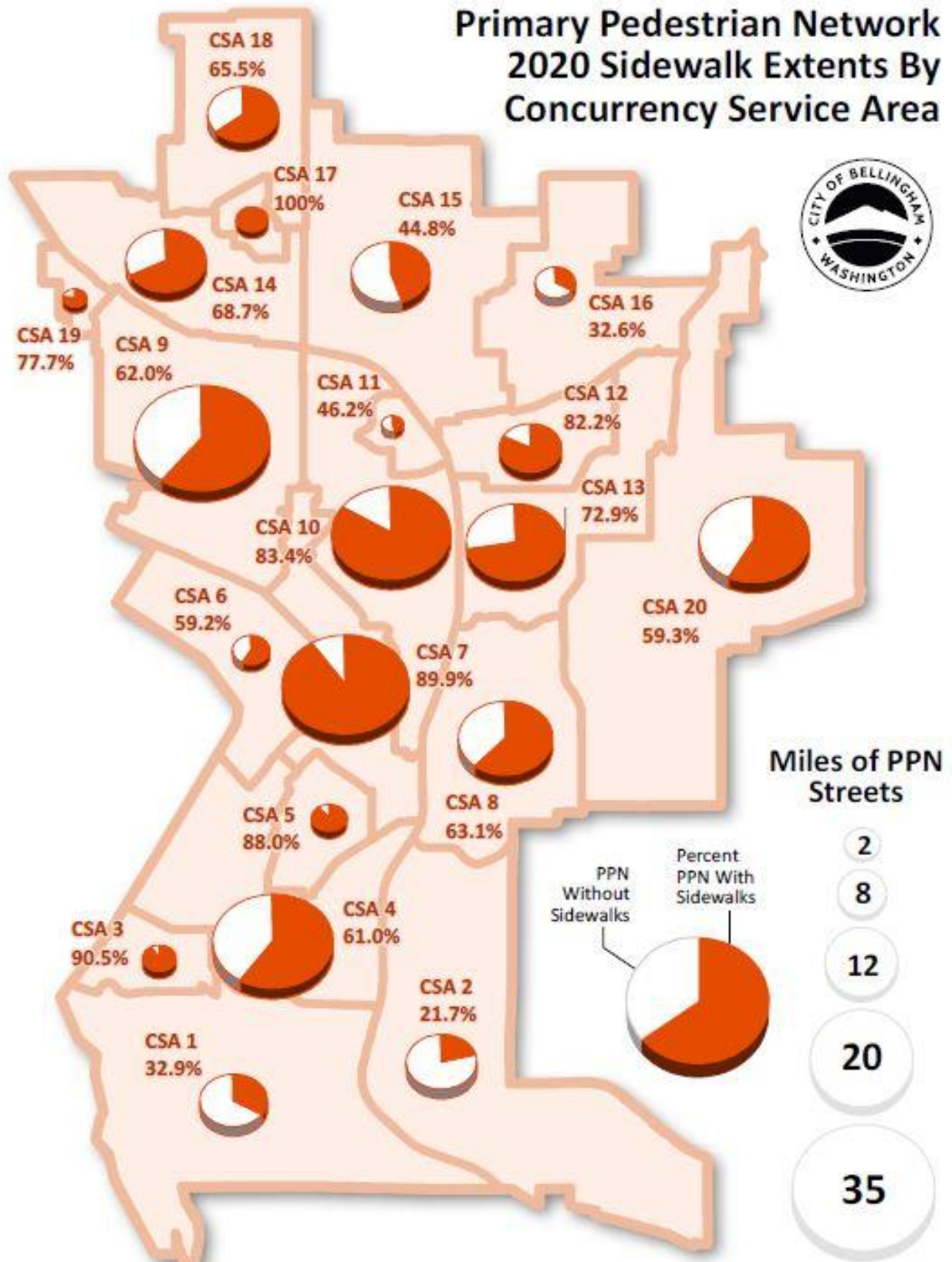


Table 4.2.



2020

Primary Pedestrian Network Sidewalk Extents by Concurrency Service Area

CSA	Current PPN* Street Length Both Sides (Miles)	Adopted PPN Sidewalk Length Completed (Miles)	New PPN Since Plan Adoption Length Completed (Miles)	Current PPN* Sidewalk Percent Complete
CSA 1	9.8	3.2	0.0	33.0%
CSA 2	10.6	2.3	0.0	21.7%
CSA 3	2.9	2.6	0.0	90.5%
CSA 4	26.8	16.3	0.0	61.0%
CSA 5	3.1	2.8	0.0	88.0%
CSA 6	3.4	2.0	0.0	59.2%
CSA 7	29.3	25.5	0.8	89.9%
CSA 8	17.5	11.0	0.0	63.1%
CSA 9	32.8	20.1	0.3	62.0%
CSA 10	26.2	21.8	0.0	83.4%
CSA 11	1.3	0.6	0.0	46.2%
CSA 12	8.4	6.1	0.8	82.2%
CSA 13	18.8	13.0	0.7	72.9%
CSA 14	13.2	7.0	2.1	68.7%
CSA 15	12.6	5.7	0.0	44.8%
CSA 16	3.9	0.1	1.1	32.6%
CSA 17	2.6	2.6	0.0	100.0%
CSA 18	10.6	5.7	1.2	65.5%
CSA 19	1.6	0.0	1.2	77.7%
CSA 20	23.0	13.4	0.2	59.3%
Grand Total	258.4	161.9		62.6%

** Current Primary Pedestrian Network includes the PPN adopted in the 2012 Master Plan as well as segments added since plan adoption through annexation, or new capital projects (i.e. Waterfront District)*

Chapter 5: Primary Bicycle Network Completeness - 2020

Since 2006, bicycle facility improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. Planning for [Bellingham's Bicycle Master Plan](#) (BMP) began in March 2013, involved bicyclists and residents from every neighborhood, and was approved by City Council in October 2014. The 2015 TRAM provided the first report on the completeness of the Primary Bicycle Network (Figure 5.2) by Concurrency Service Area (CSA). The degree of network completeness varies in different parts of the City, as shown in Figures 5.3, 5.4, 5.5, and Table 5.2. The BMP includes 189 bicycle network links and 26 crossing improvement projects (total 215 projects) that are estimated to cost between \$25 to \$50 million (2013) dollars over time.

Since 2011, Public Works has constructed significant improvements to the Primary Bicycle Network, as shown in the chart below, Tables 5.1, 5.4, and 6.3. Many of these bicycle improvements have been constructed with TBD funds, as listed in Table 6.3 in Chapter 6 Transportation Benefit District Annual Report. Public Works has also constructed several non-TBD funded bicycle improvements, listed in Table 5.4, below.

Bicycle Network Improvements	Tier 1	Tier 2	Tier 3	Crossings	Total
Percent Completed	64%	56%	38%	79%	52%
Projects Completed*	14	30	43	24	111
Projects Not Yet Completed	8	24	70	2	104
Total Bike Projects	22	54	113	26	215
<i>* Includes "Further Study Needed" Links</i>					

Why Have There Been More Bike Projects Than Pedestrian Projects?

There are several reasons why bikeway improvement projects have out-paced pedestrian improvement projects for completion and funding from 2011-2020, including:

- The adopted Primary Pedestrian Network is 260 miles vs. the 170-mile adopted Primary Bicycle Network;
- The Pedestrian Master Plan has 343 individual projects vs. 215 projects in the Bicycle Master Plan;
- On-street bikeway improvements are primarily between curbs on existing streets with little-to-no new environmental impacts and can be made in several ways, as listed below;
 - Resurfacing existing roadways sometimes allows bikeway facilities to be installed at little to no cost;
 - Rechannelizing existing roadways allows bikeway facilities to be installed at relatively low cost;
 - Road diets (removal of vehicle lanes) can allow bikeway facility installation at relatively low cost;
 - Removal of on-street arterial parking can allow bikeway facility installation at relatively low cost;
 - Some bikeway improvements are funded with a combination of water/sewer/storm water funds, as well as other public agencies and/or private development interests;
- New sidewalks always create new impervious surface, which must be treated for storm water quantity and quality, as well as an underground storm water drains and conveyance system;
- New sidewalks may require additional right-of-way (property) to be purchased, which is extremely time-intensive, expensive, or in some cases, not financially feasible;
- New sidewalks in sloped areas may require retaining walls on one or both sides, which is very expensive;
- While all new arterial streets are required to have both sidewalks and bike lanes, whether by local, state, federal, or private funding, there are environmental circumstances (see above) where having sidewalk on only one side of a street may be the only financially-feasible way to provide a pedestrian pathway.

Bellingham has removed over 11 miles of vehicle lanes in favor of installing over 12 miles of marked and buffered bike lanes (See below).

Road Diet Reduction of Vehicle Lane Capacity Resulting in Bicycle Facility Installation							
Year	Arterial Street	Project Extent	Before and After Road Diet Street Configuration	Vehicle Lane Miles Removed	Bicycle Facility	Buffer Width	Bike Lane Miles Installed
2002	N. State Street	York to Wharf	3 one-way vehicle lanes to 2 lanes + bike lane	0.79	Buffered bike lane ¹	2	0.79
2003	Magnolia Street	Commercial to Ellis	3 one-way vehicle lanes to 2 lanes + bike lane	0.45	Buffered bike lane ²	2	0.45
2004	Broadway Avenue	Holly to Sunset	4 vehicle lanes to 3 lanes + bike lanes	0.76	Marked bike lane	~	1.52
2010	Forest Street	Wharf to York	3 one-way vehicle lanes to 2 lanes + bike lane	0.79	Marked bike lane	~	0.79
2015	Alabama Street	Cornwall to James	4 vehicle lanes to 3 lanes + bike lanes	0.46	Marked bike lane	~	0.92
2018	Barkley Boulevard	Newmarket to Sussex	4 vehicle lanes to 2 lanes + buffered bike lanes	1.21	Buffered bike lane	4	1.21
2019	Chestnut Street	Bay to Ellis	3 one-way vehicle lanes to 2 lanes + buffered bike lane	0.68	Buffered bike lane	4	0.68
2019	Cordata Parkway	Kellogg to Kline	4 vehicle lanes to 2 lanes + buffered bike lanes	3.03	Buffered bike lane	4	3.03
2020	Samish-Maple-Ellis	Bill McDonald to Lakeway	5 lanes to 3 lanes + buffered bike lanes	1.65	Buffered bike lane	4	1.65
2020	Ellis-York	Lakeway to Cornwall	4 vehicle lanes to 3 lanes + buffered bike lanes	1.23	Buffered bike lane	4	1.23
				11.05			12.27

Bellingham has removed over 6 miles of parking lanes in favor of installing over 12 miles of marked and buffered bike lanes (See below).

Removal of Vehicle Lane Parking Capacity Resulting in Bicycle Facility Installation							
Year	Arterial Street	Project Extent	Before and After Parking Removal Street Configuration	Parking Lane Miles Removed	Bicycle Facility	Buffer Width	Bike Lane Miles Installed
2008	Cornwall Avenue	Ohio to W. Illinois	On-street parking both sides; west side removed	0.94	Marked bike lane	~	1.88
2011	Lakeway Drive	Birch to City Limit (Scenic)	On-street parking both sides; west side removed	0.26	Marked bike lane	~	0.52
2012	Northwest Avenue	Lottie to McLeod	On-street parking both sides; west side removed	2.16	Marked bike lane	~	4.33
2015	Ohio Street	Cornwall to Grant	On-street parking both sides; south side removed	0.27	Marked bike lane	~	0.53
2017	Orleans Street	Alabama to Indiana	On-street parking both sides; west side removed	0.43	Marked bike lane	~	0.85
2017	Woburn Street	Texas to Iowa	On-street parking both sides; west side removed	0.36	Marked bike lane	~	0.71
2018	Puget Street	Lakeway to Civic Field	On-street parking both sides; east side removed	0.09	Buffered bike lane	1.5	0.17
2019	Roeder Avenue	Coho to C Street	On-street parking west side; west side removed ³	0.90	Buffered bike lane ³	4	2.76
2020	James Street	Barkley to Woodstock	Rechannelization to 2 lanes + buffered bike lanes	0.76	Buffered bike lane ⁴		0.76
				6.15			12.51

Improving Social Equity by Providing Bikeways in Low-Income Neighborhoods

As in Chapter 4. Primary Pedestrian Network Completeness, Figure 4.1. shows Bellingham’s “Low to Moderate Income Neighborhoods” from the 2013-2017 Bellingham Consolidated Plan and Tables 5.1. and Figure 5.1. highlight bicycle projects that have been or will be completed in these neighborhoods using the same salmon-color shading as Figure 5.2. In 2020, the bicycle facility improvements listed below are expected to be constructed by Public Works and private development interests.

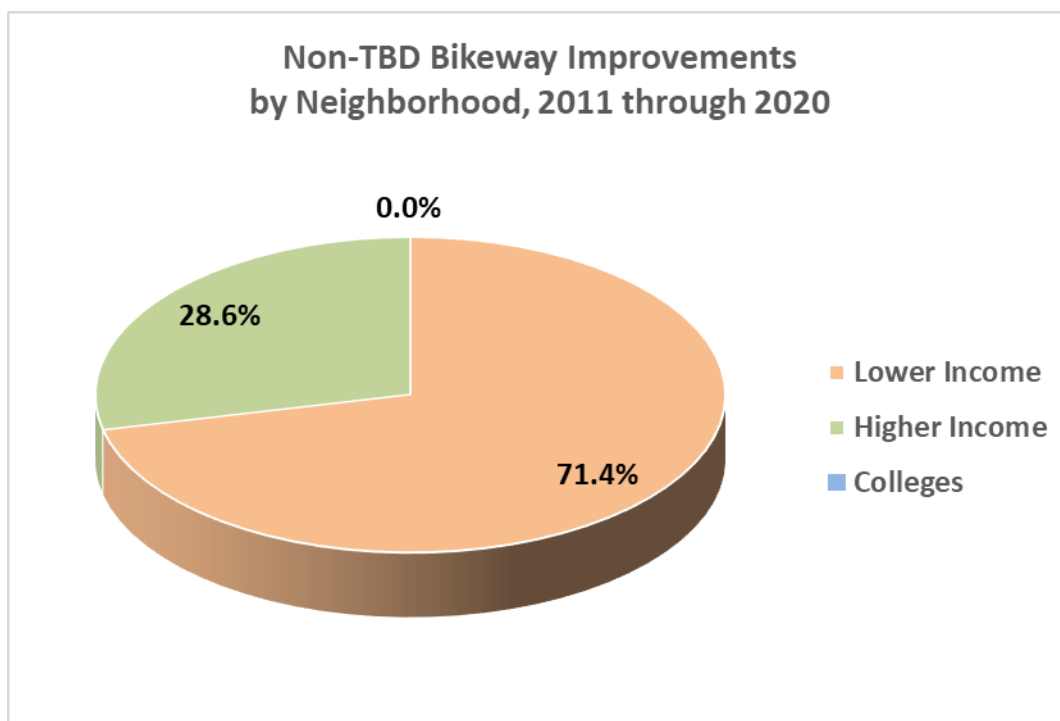


Figure 5.1. Since 2011, 71.4% of non-TBD fund bicycle projects have been in lower income neighborhoods

NOTE: All bikeway improvement projects funded primarily by Bellingham TBD are listed in Chapter 6

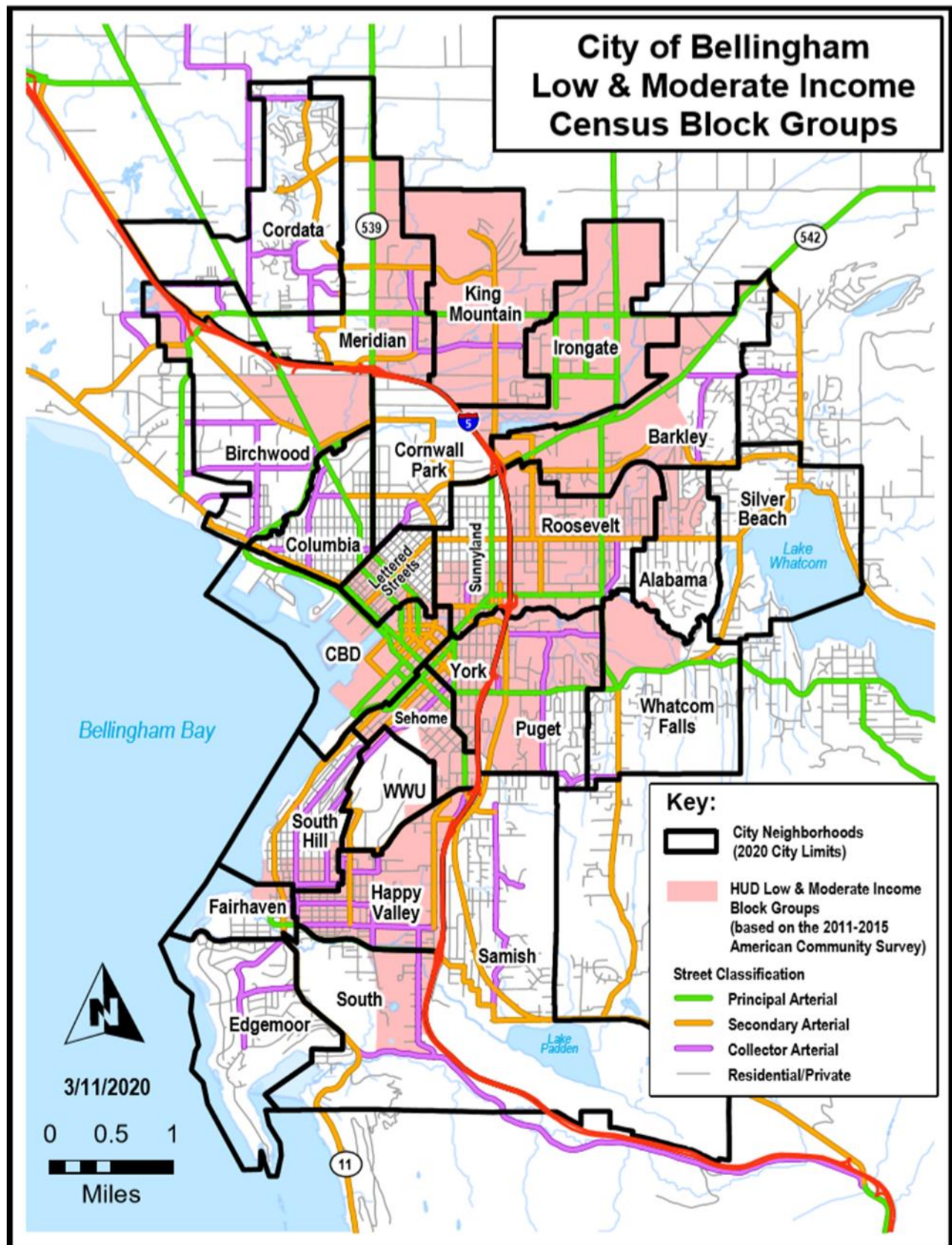


Figure 5.2. Low to Moderate Income Neighborhoods in Bellingham (See Tables 4.1., 5.1., 6.2., and 6.3.)

Table 5.1. Bicycle Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2010 through 2021							
Salmon = Low to Moderate Income Neighborhood							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2010	Road diet for bike lane	East-West	Forest Street: State St to York Street	n/a*	No		Downtown UV
2011	Bike Lanes	East-West	Meador Avenue: N. State to James	n/a*	No		Sunnyland/Downtown
2012	Climbing/Shared Lane	North-South	Indian Street: Chestnut to Oak (WWU)	n/a*	No		Dwtn/Sehome/WWU
2012	Multimodal Roundabout		Northwest/McLeod	n/a*	No		Birchwood
2013	Bike Lanes	North-South	Eliza Avenue: Bellis Fair to W. Bakerview	n/a*	No		Meridian/Cordata
2013	Multimodal Roundabout		State/Forest/Wharf/Boulevard	n/a*	No		Downtown UV
2014	Bike Lanes	North-South	James Street: Orchard to Sunset Pond Park	Tier 1*	No		King Mountain
2015	Bike Lanes	East-West	Alabama Street: Cornwall to Iron	Tier 2	No		Sunnyland
2015	Bicycle Boulevard	East-West	Laurel Street: State to Railroad	Tier 2	No		Downtown
2015	Climbing/Shared Lane	East-West	Chestnut Street: Bay to Roeder	Tier 2	No		Downtown
2015	Bike Lanes	North-South	James Street: Gooding Rd to terminus	Tier 3	No		King Mountain
2016	Bike Lanes	North-South	Arctic Avenue: W. Bakerview to Mahogany	Tier 3	No		Cordata
2017	Bike Lanes	East-West	Mahogany Avenue: Northwest to Pacific Highway	Tier 3	No		Cordata
2018	Bike Lanes	East-West	Granary-Bloedel: Roeder to Cornwall	Tier 3	No		Waterfront
2018	Roundabout bike marks	Crossing	Cordata/Stuart	Tier 2	No		Cordata
2019	Bike Lane (East side)	North-South	Aldrich Road: Mahogany to W. Horton	Tier 1	No		Cordata
2019	Off-Street Multiuse Path	South	Lakeway Drive: Undine St to Old Lakeway	Tier 1	No		Puget
2020	Bike Lanes	East-West	W. Horton Road: Pacific Rim to Aldrich	Tier 1	No		Cordata
2020	Bike lanes	East-West	Orchard Extension: James to Birchwood	Tier 1*	No		King Mtn-Cornwall Park
2020	Buffered Bike Lanes	North-South	Samish-Maple-Ellis: I-5 to Lakeway	Tier 2	No - Parking added		Sehome/Samish UV
2021	Bike Lanes, Traffic Signals	East-West	Telegraph Road: Deemer to James	Tier 3	n/a		King Mtn-Cornwall Park
*Project was planned or funded prior to 2014 BMP approval							

Future State Grant Funding is Uncertain: The long-term effects of Washington voter approval of Initiative 976 (\$30 car tabs) in November 2019, are unknown, but many transportation professionals expect that it will severely reduce transportation funding available in state-funded grant programs.

WSDOT: In March 2020, the State Legislature approved a “one-time fix” for the biennial WSDOT Safe Route to School and Pedestrian-Bicycle Safety Programs, both of which Bellingham has relied upon to fund non-TBD transportation projects. WSDOT will issue a 2020 call for projects in April for both of these increasingly competitive grant programs. If Bellingham is successful, WSDOT grant funding could be awarded in July 2021 for summer 2022 construction of transportation improvements. Without a legislative fix to the I-976 funding shortfall, a 2022 call for projects should not be expected.

Washington Transportation Improvement Board (TIB): State TIB funding is also expected to suffer from the long-term effects of Initiative 976. Bellingham has relied upon the annual Urban Arterial Program (UAP) for major arterial streets, the annual Sidewalk Program for sidewalks and flashing crosswalks, and the biennial Complete Streets Program for pedestrian and bicycle projects. In June 2020, TIB will issue a call for UAP and Sidewalk projects, with applications due in August, and awards announced in November, but TIB’ 2021 Complete Streets Program will not be funded.

Figure 5.3. Bellingham's Citywide Primary Bicycle Network

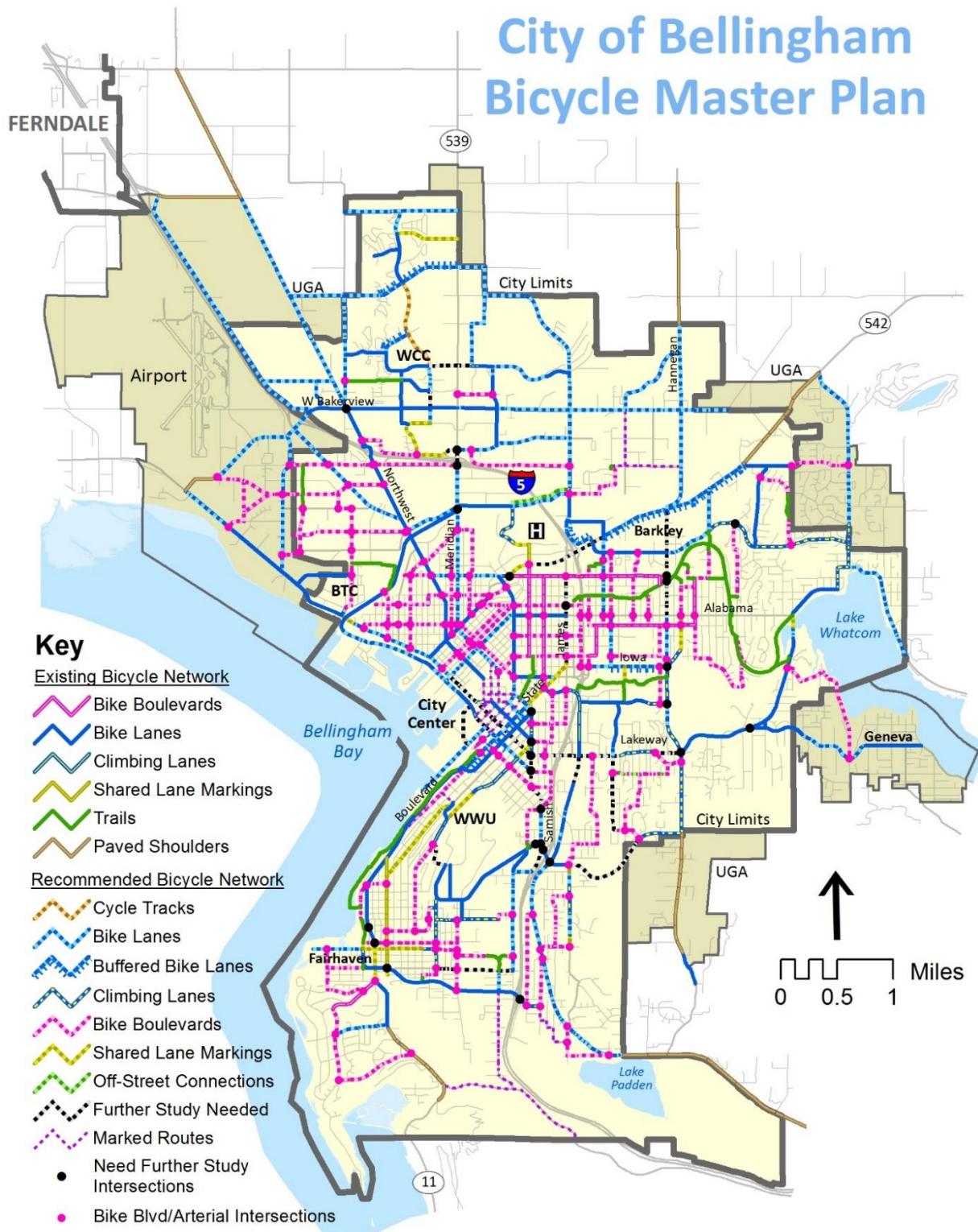


Figure 5.4.

Bicycle Infrastructure Network 2020 Bike Lane Extents

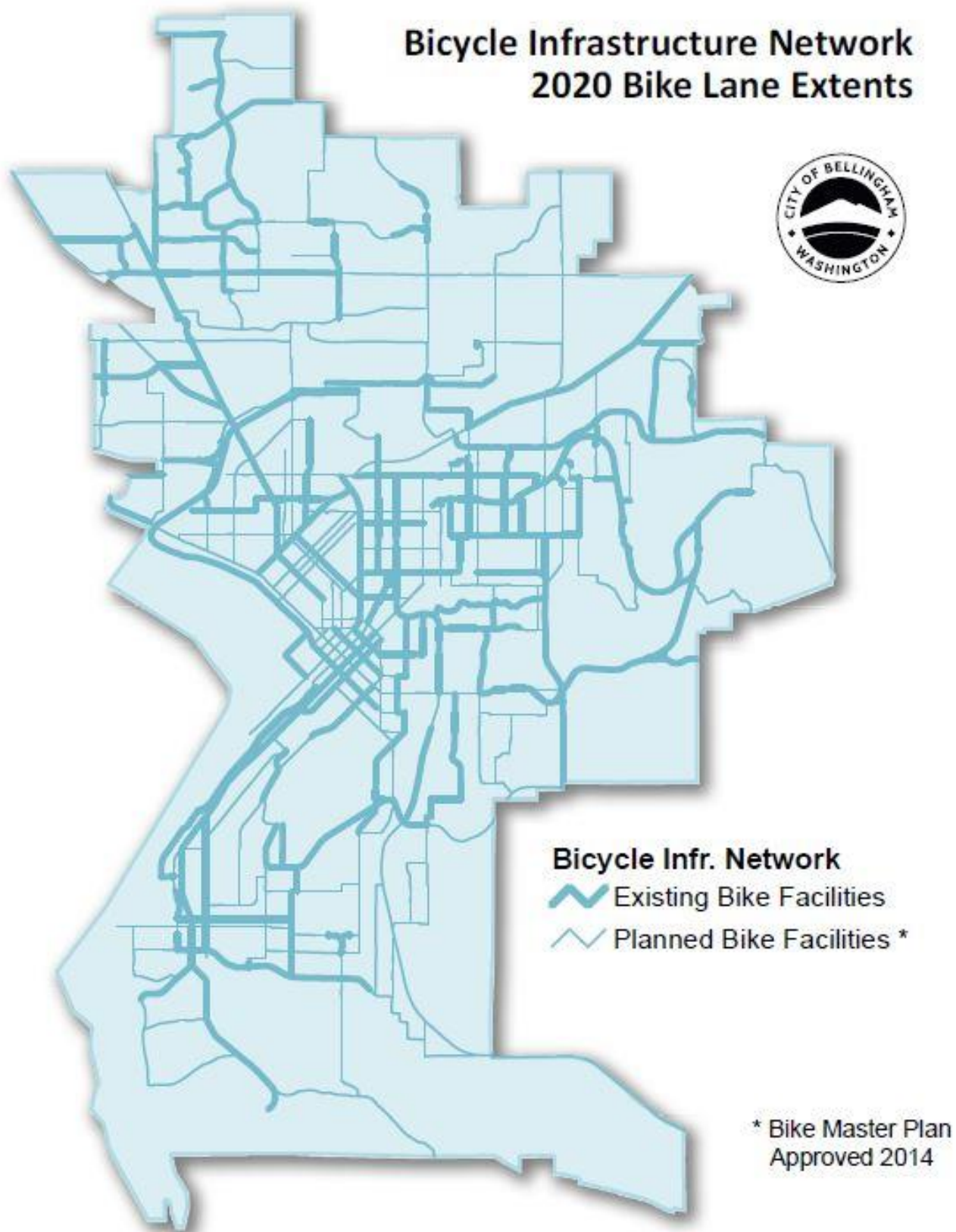


Figure 5.5.

Bicycle Infrastructure Network 2020 Facility Extents By Concurrency Service Area

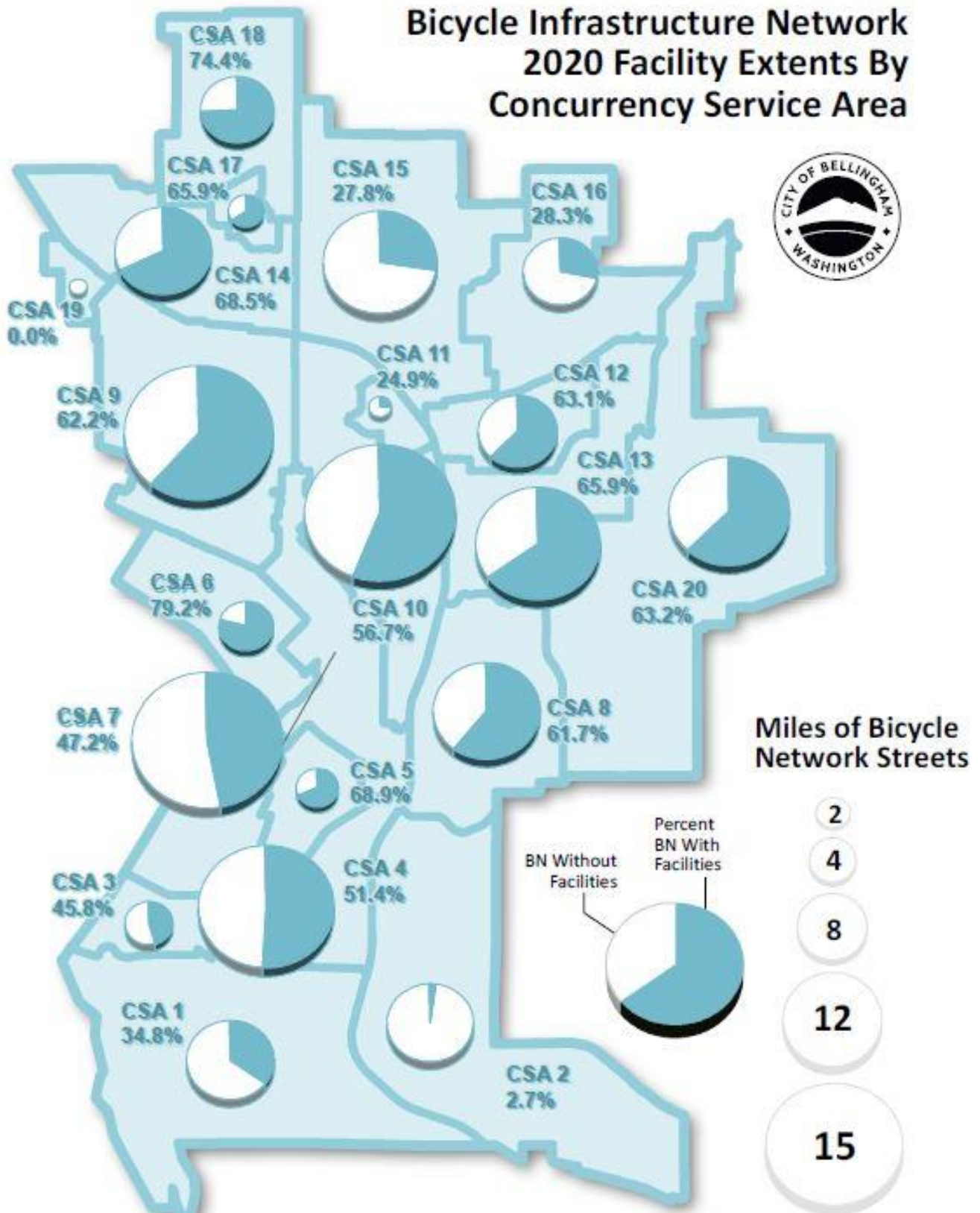


Table 5.2.



2020

Bicycle Infrastructure Extents by Concurrency Service Area

CSA	Total Recommended Network Length (Miles)	Existing Facility Miles	Recommended Upgrade Facility Miles	Recommended New Facility Miles	Recommended Network Percent Complete
CSA 1	7.0	2.4	0.0	4.6	34.8%
CSA 2	6.9	0.2	0.0	6.7	2.7%
CSA 3	2.4	1.1	0.0	1.3	45.8%
CSA 4	15.1	7.7	0.0	7.3	51.4%
CSA 5	2.0	1.4	0.0	0.6	68.9%
CSA 6	3.0	2.4	0.0	0.6	79.2%
CSA 7	18.1	8.6	0.0	9.6	47.2%
CSA 8	9.9	6.1	0.3	3.8	61.7%
CSA 9	17.7	11.0	0.0	6.7	62.2%
CSA 10	18.2	10.3	0.0	7.9	56.7%
CSA 11	0.7	0.2	0.0	0.5	24.9%
CSA 12	5.9	3.7	0.4	2.2	63.1%
CSA 13	13.0	8.6	0.4	4.4	65.9%
CSA 14	8.3	5.7	0.0	2.6	68.5%
CSA 15	11.1	3.1	0.0	8.0	27.8%
CSA 16	5.3	1.5	0.0	3.8	28.3%
CSA 17	1.4	0.9	0.1	0.5	65.9%
CSA 18	5.1	3.8	0.9	1.3	74.4%
CSA 19	0.4	0.0	0.0	0.4	0.0%
CSA 20	12.3	7.7	0.0	4.5	63.2%
Grand Total	163.8	86.5	2.2	77.3	52.8%

Chapter 6: Bellingham Transportation Benefit District No. 1 - 2020



In July 2010, the Bellingham City Council created [Transportation Benefit District Number 1 \(TBD\)](#), contiguous with the City of Bellingham corporate limits. In November 2010, Bellingham voters approved a ballot measure in the general election that authorized the TBD to collect a two tenths of one percent sales tax within TBD boundaries (city limits) for a 10-year period to fund transportation infrastructure and transit service. The TBD expires December 31, 2020 with last revenue 1st Quarter 2021, unless re-approved by voters in 2020. The TBD is governed by a Board of Directors, which is comprised of the current elected members of the Bellingham City Council.

The TBD began receiving sales tax receipts in April 2011 and the TBD Board directed that the TBD revenues be dedicated to the following activities in generally equal amounts (about 1/3 for each):

- Purchase of additional WTA transit bus service hours via contract between the City and WTA
- Enhance and improve pedestrian and bicycle transportation infrastructure
- Resurfacing streets to maintain the City of Bellingham's investment for all transportation users

The 5-year City contract with WTA expired and the TBD Board has directed that the TBD revenues be dedicated to the following activities from 2017-2020:

- Enhance and improve pedestrian and bicycle transportation infrastructure
- Resurfacing streets to maintain the City of Bellingham's investment for all transportation users
- Transit-supportive capital projects considered with asphalt resurfacing and non-motorized priorities

Figure 6.1.
Projects by Funding Type
2010 – 2021 (160 Total Projects)

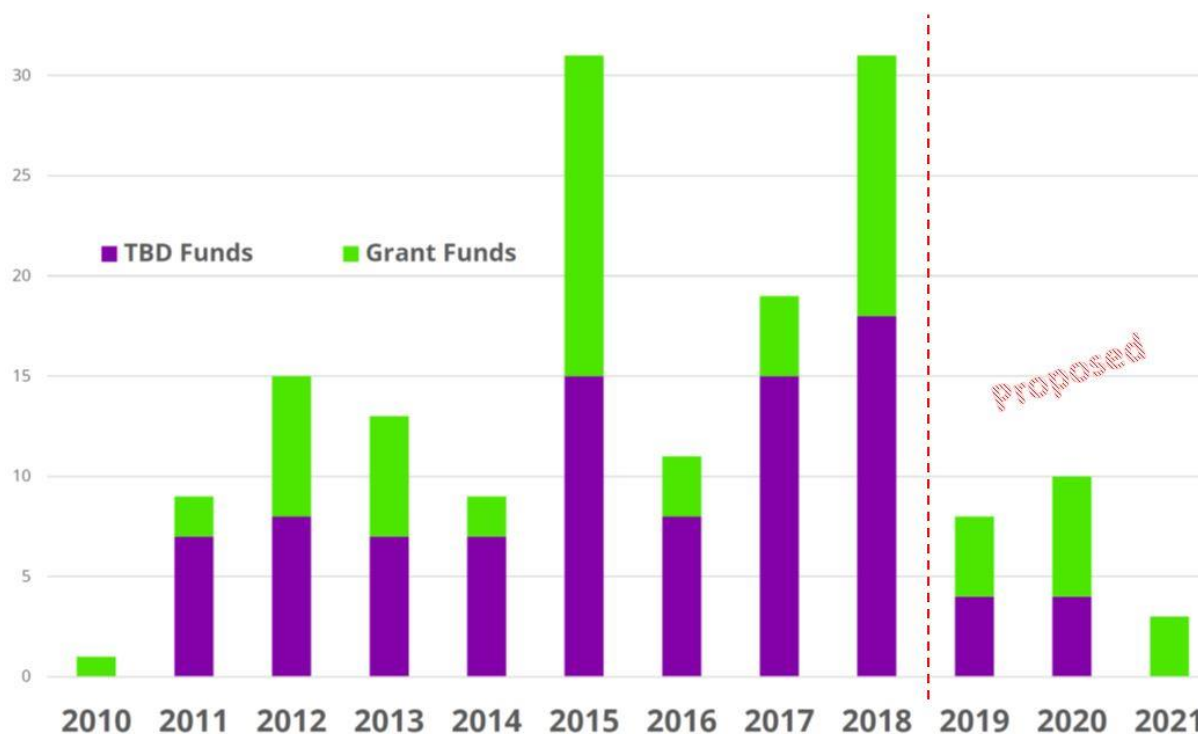
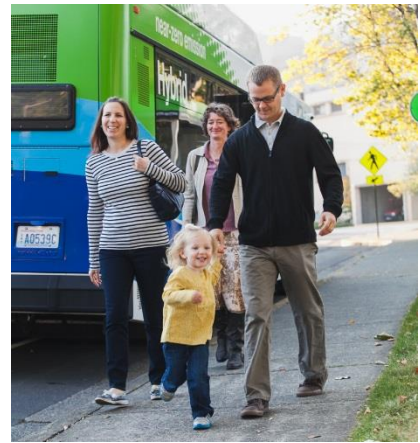


Table 6.1. Transportation Benefit District #1 Revenues & Expenditures [Source: Public Works Financial Services]										
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	2011-19
	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Revenues										
Sales Tax Receipts (.2%)	\$2,454,454	\$4,350,591	\$4,655,993	\$4,700,864	\$4,903,512	\$5,169,348	\$5,473,547	\$5,898,842	\$6,121,740	\$43,728,891
Other Revenues	\$4,235	\$52,050	\$464,539	\$45,732	\$92,623	\$34,829	\$198,403	\$2,261,236	\$1,240,454	\$4,394,101
Total Specific Revenue	\$2,458,689	\$4,402,641	\$5,120,532	\$4,746,596	\$4,996,135	\$5,204,177	\$5,671,950	\$8,160,078	\$7,362,194	\$48,122,992
Expenditures										
Total Overhead / Administrative	\$96,605	\$144,760	\$315,019	\$142,485	\$59,654	\$504,084	\$638,606	\$511,419	\$750,413	\$3,163,046
Total WTA Transit	\$485,703	\$1,116,031	\$1,353,497	\$1,596,099	\$1,705,571	\$1,062,351	\$8,286	\$0	\$0	\$7,327,537
ES540 - 2017 TBD Overlay							\$6,312	\$273,845	\$2,045,278	\$2,325,435
WF1011 - Granary Ave. and Laurel Street								\$2,051,217	\$74,544	\$2,125,762
ES538 - Lakeway/Lincoln Ped and Bike							\$43,911	\$1,718,099	\$340,905	\$2,102,915
ES517 - W Maplewood Multimodal						\$47,260	\$936,387	\$1,115,120		\$2,098,766
ES547 - 2019 TBD N/M Improvements									\$1,950,182	\$1,950,182
ES479 - 25th St. Ped & Bike			\$126,487	\$1,547,045	\$60,347	\$846				\$1,734,725
ES495 - 2015 TBD Overlay				\$1,412,033	\$173,798					\$1,585,831
ES475 - 2013 Overlay			\$1,364,658	\$849						\$1,365,507
ES535 - 2017 Ped & Bike Imps							\$40,064	\$1,172,358	\$13,836	\$1,226,258
ES539 - Texas Street Overlay								\$1,102,499	\$1,004	\$1,103,503
ES513 - Holly St. Overlay							\$986,926			\$986,926
ES530 - Cordata/Stuart RAB								\$397,347	\$476,923	\$874,270
ES490 - Eliza Ave. Sidewalks				\$12,898	\$651,776	\$260				\$664,935
ES459-2012 Street Resurfacing / TBD		\$637,000								\$637,000
ES548 - Cordata/Horton/Stuart Improvements									\$621,233	\$621,233
ES531 - Cordata SRTS									\$606,534	\$606,534
ES443 - 2011 Street Resurfacing / TBD	\$560,000									\$560,000
ES491 - Ohio St Bike Lanes				\$8,072	\$546,294					\$554,366
ES474 - Bill McDonald Parkway			\$481,373	\$36,347						\$517,721
ES466 - Alabama Corridor					\$500,000					\$500,000
ES512 - Nevada/Kentucky Bike Blvd					\$23,306	\$451,642				\$474,948
ES448 - TBD Non-motorized Indian St.		\$447,358	\$10,035	\$6,450						\$463,843
ER-0014 - State/Ellis Bridge Replacement								\$349,403	\$74,594	\$423,997
ES458 - State and Maple	\$14	\$9,886	\$341,905	\$2,175	\$1,500	\$15				\$355,495
ES447 - TBD-Northwest/Elm/DuPont	\$13,276	\$331,187								\$344,463
ES522 - 12th and Mill					\$159	\$10,089	\$277,822	\$41,311		\$329,381
ES449 - TBD Samish Ped & Bike		\$220,019	\$42,429							\$262,448
ES536 - TBD Re-Striping							\$257,238	\$241		\$257,479
ES510 - Yew St. Sidewalks				\$123	\$251,578	\$520				\$252,222
ES544 - 2019 TBD Overlay									\$184,002	\$184,002
ES545 - Sunset Sidewalks									\$154,920	\$154,920
ES553 - 2020 TBD N/M - 40th Street Sidewalk									\$115,690	\$115,690
Other projects	\$357,465	\$299,502	\$439,579	\$129,950	\$259,294	\$136,696	\$64,021	\$30,837	\$80,908	\$1,798,251
Total TBD Projects	\$930,755	\$1,944,952	\$2,806,467	\$3,155,943	\$2,468,053	\$647,328	\$2,612,682	\$8,252,277	\$6,740,552	\$29,559,008
										\$0
Total TBD Expenditures	\$1,513,063	\$3,205,743	\$4,474,983	\$4,894,526	\$4,233,278	\$2,213,763	\$3,259,574	\$8,763,696	\$7,490,965	\$40,049,591



TBD-Funded Transit Services

In 2011, the Bellingham TBD Board of Directors signed an Interlocal Agreement with the Whatcom Transportation Authority for a 5-year period to purchase supplemental transit service in Bellingham. Initially, the TBD-funded transit service restored the Sunday transit bus service that had been cut by WTA in 2010. The TBD has also extended evening transit service on some routes and funded an experimental transit route to see if a ridership base existed for commercial and industrial employers on the Waterfront. The TBD - WTA Interlocal Agreement expired in 2015 and the TBD Board decided to cut TBD transit funding in half for 2016 while WTA completed the [2016 WTA Strategic Plan](#). Bellingham no longer contracts with WTA for supplemental transit service inside the City and WTA funds Sunday transit service in Bellingham as part of its normal operations. Further information about the WTA Primary Transit Network in Bellingham is in Chapter 8.



TBD-Funded Street Resurfacing

Over the past century, Bellingham has made a significant investment in providing a public street system throughout the City. Public streets have a functional lifespan that varies according to the amount of use that the street is subject to and, at some point, all public streets require maintenance, repair, and resurfacing. Traditional sources of funding for street construction and resurfacing, such as Street funds and Real Estate Excise Tax (REET) funds, have been significantly diminished through budgeting decisions.

Since 2011, TBD revenue allocated to street resurfacing has helped to replace some of the Street and REET funding lost for street resurfacing projects. Approximately \$1.4 million in TBD funds have been spent each year to help maintain the City's investment in arterial streets, providing mobility for all transportation users. When streets are resurfaced, pedestrian and bicycle facilities approved in the Pedestrian and Bicycle Master Plans are also installed, whenever possible, as reflected in Tables 4.1., 5.1., 6.2, and 6.3.

Transportation Benefit District Funded Resurfacing Projects 2011 - 2020											
Year	Street Resurface	Vehicle Lanes	On-Street Parking / Shoulder	Asphalt Lane Miles	From	To	ADA Ramps	Cross walks	Side walks	Parking Removal	Bike ways
2011	Lakeway Drive	2	2	1.60	Raymond Street	City limit	Y	N	N	Y	Y
2011	Electric Avenue	2	2	0.80	Portal Drive	Lakeway Drive	Y	Y	Y	N	Y
2011	Billy Frank Jr. Street	2	2	1.62	Chestnut Street	Ivy Street	Y	Y	N	N	Y
2012	Dupont/Elm/Northwest	2	2	8.66	Lottie Street	McLeod Road	Y	Y	Y	Y	Y
2013	Woburn Street	2	2	5.00	Alabama Street	Lakeway Drive	Y	Y	Y	N	N
2013	Monroe Street	2	1	2.13	Cherry Street	Broadway Avenue	Y	Y	Y	N	N
2014	Hawthorn Road	2	0	0.95	12th Street	Fieldston Road	Y	Y	Y	N	Y
2014	Electric Avenue	2	2	1.60	Ohio Street	Portal Drive	Y	Y	N	N	Y
2014	14th Street	2	0	0.78	Garden Street	Douglas Avenue	Y	Y	Y	N	Y
2015	Alabama Street	4	0	6.94	Cornwall Avenue	St. Clair Street	Y	Y	Y	N	Y
2015	Kellogg Road	3	0	0.73	Cordata Parkway	Eliza Avenue	Y	Y	Y	N	Y
2015	Eliza Avenue	2	3	0.26	Kellogg Road	Westerly	Y	Y	Y	N	Y
2016	Bill McDonald Pkwy	2	1	0.97	W. College Way	21st Street	Y	Y	Y	N	Y
2016	30th Street	2	1	0.37	Old Fairhaven Pkwy	Connolly Avenue	Y	N	N	N	N
2016	Billy Frank Jr. Street	2	2	0.39	Chestnut Street	Holly Street	Y	N	N	N	Y
2017	Holly Street	3	2	1.06	Railroad Avenue	Bay Street	Y	N	Y	Y	N
2018	Texas Street	2	0	0.87	Valencia Street	Pacific Street	Y	Y	Y	N	Y
2019	Roeder Avenue	2	2	4.97	C Street	Squalicum Pkwy	Y	Y	Y	Y	Y
2020	James Street	2	2	1.60	Woodstock Way	Barkley Blvd	Y	N	N	Y	Y
2020	Bill McDonald Pkwy	2	1	3.36	21st Street	N. Samish Way	Y	Y	N	N	Y
2020	Britton Road	2	1	1.05	Northshore Drive	City limit	Y	N	N	N	Y
Total				45.71							

TBD-Funded Non-motorized Bicycle and Pedestrian Improvements

The City Council annually approves TBD funding for a number of non-motorized transportation projects that have been approved in Bellingham's [2012 Pedestrian Master Plan](#) (PMP) and [2014 Bicycle Master Plan](#) (BMP) and recommended for construction by Public Works and the Transportation Commission. As shown in the tables below, since TBD revenue became available for the construction of non-motorized transportation improvements in 2011, Bellingham TBD funding has helped transportation planners and engineers to make significant progress in implementing the 343 sidewalk and crossing improvement projects in the PMP and the 215 bikeway and crossing improvement projects in the BMP.



In 2019, vehicle lanes in each direction were removed from Cordata Parkway (above) from Kellogg Road to Kline Road to install robust buffer-separated bike lanes. In 2018-2019, vehicle lanes or parking was removed to install robust buffer-separated bike lanes on Barkley Boulevard, Roeder Avenue, and Chestnut Street. In 2020, vehicle lanes or parking will be removed in favor of installing robust buffer-separated bike lanes on the N. Samish-Maple-Ellis-York corridor and James Street surrounding the Sunset Square shopping center.

In 2014, transportation planners received TBD Board approval to set aside 10% of annual TBD revenue to use as local matching funds to leverage additional state and federal grant funding for pedestrian and bicycle projects, which will allow TBD funds to be maximized. Successful examples of using TBD funds to leverage additional state and federal grant funds for pedestrian and bicycle facilities are listed in Tables 4.1. and 5.1.

In November 2014, the TBD Board also approved a 2.5% annual TBD reserve fund for transportation planners to use in the design and preliminary engineering phases of pedestrian and bicycle projects which require further study before a specific capital improvement recommendation can be made to the Transportation Commission and the TBD Board. There are several pedestrian crossing improvements listed in the Pedestrian Master Plan and several important network links in the Bicycle Master Plan that will require further study by transportation planners before engineering and construction recommendations can be made.

Great Success To Date; More Work To Do In Future

As demonstrated in the Tables 6.2. and 6.3., below, Public Works has already accomplished a great deal in the 9 years that TBD funding has been available for bicycle, pedestrian, and street resurfacing projects, but there is much more work to be done. If the TBD is renewed by voters in November 2020, then it will continue to play a critical role in funding and completing Bellingham's PMP and BMP in the most expeditious manner possible. While the PMP and the BMP are a key part of the Bellingham Comprehensive Plan Transportation Element, they are not 20-year plans. The TBD revenue currently allocated for non-motorized transportation projects will not be enough to complete the 343 sidewalk and crossing improvement projects in the PMP and the 215 bikeway and crossing improvement projects in the BMP. The planning level costs to complete the PMP are estimated to be about \$300 million and the BMP cost estimates are about \$50 million. As currently funded, the PMP and the BMP will be completed over multiple generations.

TBD Expires December 31, 2020

Public Works transportation planners intend to accomplish a great deal more through the strategic efforts to capitalize on opportunities to link land use, development, and other infrastructure projects, use TBD funds for local match requirements to leverage larger state and federal grant funds, and by including pedestrian and bicycle improvements wherever possible in street resurfacing projects (see tables below). As the 2020 sunset date of the TBD draws closer, it is hoped that the public will recognize the transportation benefits that the TBD revenue has allowed the City to construct, as demonstrated here in the TRAM, and that voters will choose to renew the TBD for an additional 10 years, or longer. Local TBD funding will be critical to continue progress implementing Pedestrian and Bicycle Master Plans given the long-term state transportation grant funding shortfalls that are expected to result from voter approval of Initiative 976.

As in Chapter 4. Primary Pedestrian Network Completeness, Figure 4.1. shows Bellingham's "Low to Moderate Income Neighborhoods" from the 2013-2017 Bellingham Consolidated Plan and Tables 6.2., 6.2.a., and 6.3., as well as Figures 6.2. and 6.3. highlight TBD-funded pedestrian and bicycle projects that have been or will be completed in these neighborhoods using the same orange-color shading as Figure 4.1.

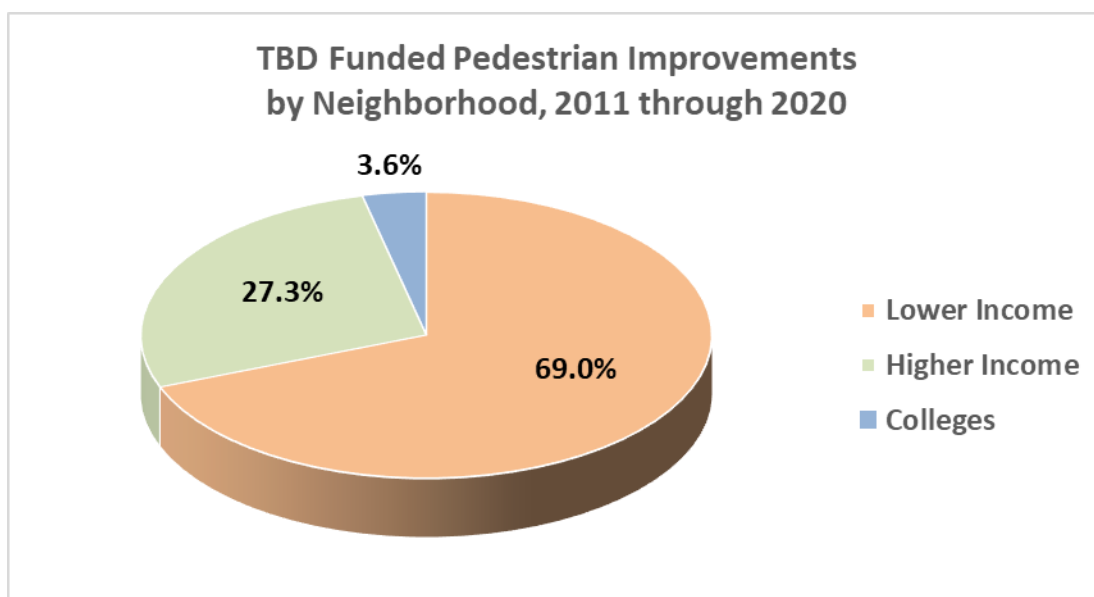


Figure 6.3. Since 2011, 69% of TBD funded pedestrian projects have been in lower income neighborhoods

Table 6.2. Pedestrian Improvements Constructed With TBD Non-Motorized and Arterial Resurfacing Funds - 2011 through 2018

Orange = Low to Moderate Income Neighborhood						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2011	Sidewalk, Curb Extensions, Crosswalk	Both	Prospect Avenue: Lottie to Bay	n/a	n/a	Downtown UV
2011	Sidewalk, Curb Extensions, Crosswalk	South	Birchwood/Meridian	n/a	n/a	Birchwood
2011	Curb Extensions, Crosswalk	Both	Meridian/Connecticut	n/a	n/a	Columbia/Cornwall Park
2011	Sidewalk, Curb Extensions, Crosswalk	Both	Electric/Birch/Portal	Tier 1*	Tier 1*	Whatcom Falls
2011	Curb Extensions, Flashing Crosswalk		Electric/Bloedel-Donovan Park	Tier 1*	Tier 1*	Silver Beach
2012	Sidewalk, Curb Extensions, Crosswalk	West	Yew Street: Alabama to Texas/Yew	Tier 1*	Tier 1*	Roosevelt
2012	Curb Extensions, Crosswalk		Woburn/Texas		Tier 1	Roosevelt
2012	Curb ramps, Flashing Crosswalk		Alabama/St. Paul		Tier 1*	Roosevelt
2012	Curb Extensions, Crosswalk		Alabama/Yew		Tier 1*	Roosevelt
2012	Curb ramps, Traffic Signal		Woburn/Rimland (TBD + Private\$)		Tier 1*	Barkley UV
2012	Curb ramps, Flashing Crosswalk		Pine/Boulevard		Tier 1*	Sehome
2012	Curb ramps, extensions, and crosswalks		Dupont/Elm/Northwest		Tier 1*	Dwtn/Ltr/Col/Birchwood
2013	Sidewalk Infill	North	Bill McDonald Pkwy: 35th to Birnham Wood	Tier 1	n/a	Sehome
2013	Sidewalk, Curb Extensions, Crosswalk	South	E. Maple/Cornwall	Tier 1	Tier 2	Downtown UV
2013	Sidewalk, Curb Extensions, Crosswalk	South	State/E. Maple		Tier 1*	Downtown UV
2013	Curb Extensions, Crosswalk		E. Illinois/James		Tier 1*	Sunnyland ES
2013	Crosswalk, Ped Refuge		W. College Way/High Street (WWU)		n/a	WWU
2014	Sidewalks, Curb Extensions, Crosswalk	Both	25th Street: Bill McDonald to Douglas/24th	Tier 1	n/a	Happy Valley
2014	Ped/Bike Bridge Reconstruction (Parks)		Whatcom Creek Trail: Ellis to York		n/a	Downtown UV
2014	Sidewalk, Curb Extensions, Crosswalk	South	Hawthorn: 12th to Fieldston; Hawthorne/Bayside	Tier 3	Tier 3	Edgemoor
2015	Ped/Bike Trail/Rail Crossing (Parks)		South Bay Trail: BNSF Tracks at Boulevard Park		n/a	South Hill
2015	Sidewalk Infill	West	Eliza Avenue: Kellogg to Westerly	Tier 1	n/a	WCC/Cordata
2015	Curb Extensions, Crosswalks		Ohio/Ellis		Tier 1	Sunnyland/Downtown UV
2015	Curb Extensions, Crosswalks		Ohio/Grant		Tier 3	Sunnyland/Downtown UV
2016	Sidewalk	South	Birchwood: Northwest to Cedarwood	Tier 3	Tier 3	Birchwood
2016	Sidewalk, Curb Extensions, Crosswalk	East	12th/Mill	Fhvn UV	Fhvn UV	Fairhaven UV
2016	Curb Extensions, Crosswalk		Mill/24th St	Tier 1		Happy Valley
2016-17	Intersection Study		Barkley/Sussex		Tier 3	Barkley
				<i>*Project planned/funded prior to 2012 PMP</i>		

Table 6.2.a. (2018-2020) on next page

Table 6.2.a. Pedestrian Improvements Funded or Planned With TBD Non-Motorized and Arterial Resurfacing Funds - 2019 and 2020						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2018	Flashing crosswalk		Woburn/Fraser/Whatcom Falls Trail		Tier 1	Puget
2018	Reconstruct intersection, add crosswalks		Woburn/Kentucky		n/a	Roosevelt
2018	Curb Extensions, Crosswalks		Orleans/Illinois	Tier 1		Roosevelt
2018	Curb Extensions, Crosswalks		14th/Mill	Tier 1		South Hill
2018	Curb Extensions, Crosswalks		21st/Mill	Tier 1		Happy Valley
2018	Curb Extensions, Crosswalks, Sidewalk		Woburn/Kentucky			Roosevelt
2018	Sidewalk Infill to HAWK signal	East	Undine Street: Alabama to Texas	Tier 1	HAWK	Roosevelt
2018	Sidewalk Infill	South	Texas Street: Pacific to Valencia	Tier 1		Roosevelt
2019	Sidewalk	West	24th Street: Donovan to Old Fairhaven Parkway	Tier 1		Happy Valley
2019	Sidewalk	East	Yew Street: Alabama to Roosevelt Elementary	Tier 2		Roosevelt
2019	Curb ramps, extensions, crosswalks	West	Meridian St/North St (Fountain Urban Village Plan)		n/a	Fountain UV/Cornwall Park
2019	Flashing crosswalk		Northwest Ave/Connecticut St		Tier 3	Fountain UV/Columbia
2019	Crosswalks at compact roundabout		Cordata/Horton		n/a	Cordata
2019	Traffic Signal		State/Maple		Tier 1	Downtown UV
2019	Traffic Signal		State/Laurel (Partner w 480-bed Student Housing)		Tier 3	Downtown UV
2019	Traffic Signal		Holly/High St		n/a	Downtown UV
2020	Curb ramps, ped refuges, crosswalks		Northwest/Bakerview		n/a	Meridian
2020	Flashing crosswalk		Cordata Park north entrance		na	Cordata
2020	Flashing crosswalk		Cordata Park south entrance		na	Cordata
2020	Flashing crosswalk		14th Street/Old Fairhaven Parkway		Tier 1	Happy Valley/South
2020	Flashing crosswalk		James Street/E. North Street		BMP	Sunnyland
2020	Curb ramps, extensions, crosswalks		Kentucky/Grant		Tier 3	Sunnyland
2020	Flashing crosswalk		Orleans/Railroad Trail		n/a	Roosevelt
2020	Sidewalk	East	40th Street/Elwood Ave sidewalk	Tier 3		Samish
2020	Flashing Crosswalk		11th Street/Taylor Street		n/a	South Hill
2020	Flashing Crosswalk		Woburn/Railroad Trail		Tier 1	Roosevelt
2021	Sidewalks, crosswalks, traffic signals	Both	Telegraph Road: Deemer to James (Partial Funding)	Tier 3		King Mountain
				<i>*Project planned/funded prior to 2012 PMP</i>		

NOTE: Additional pedestrian improvements may be programmed for remaining 2021 TBD funding as opportunities are identified through the annual [6-Year Transportation Improvement Program \(TIP\)](#) public process.

Table 6.3. Bicycle Improvements Constructed With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2011 through 2016							
Orange = Low to Moderate Income Neighborhood							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2011	Marked bike lanes	East-West	Lakeway Drive: Woburn to City limit	n/a*	Yes: Birch to City limit	West	Whatcom Falls
2011	Marked bike lanes	East-West	Birchwood Avenue: Meridian to Squalicum Pkwy	n/a*	No		Cornwall Park
2012	Marked bike lanes	North-South	Northwest Avenue: Lottie to I-5	Tier 1*	Yes: Lottie to McLeod	West	Dwtn/Ltr/Col/Birchwood
2013	Climbing/Shared Lane	North-South	Highland Drive: High Street to W. College Way	n/a*	No		WWU
2013	New Shoulders	East-West	Electric Avenue: Alabama to Ohio	Tier 3	No		Silver Beach
2014	Shared Lanes	North-South	Hawthorne: 12th Street to Fieldston	Tier 3	No		Edgemoor
2014	Shared Lanes	North-South	14th Street: Edwards to Douglas	Tier 3	No		South Hill
2014	New Shoulders	East-West	Electric Avenue: Lakeway to Ohio	Tier 3	No		Whatcom Falls
2014	Marked bike lanes	North-South	25th Street: Bill MacDonald to Douglas	Tier 1*	No		WWU/Happy Valley
2015	Marked bike lanes	North-South	Eliza Avenue: Kellogg to Westerly	Tier 1	No		WCC/Cordata
2015	Marked bike lanes	East-West	Ohio Street: Grant to Cornwall	Tier 1	Yes: Dean to Grant	South	Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Grant Street: Illinois to N. State	Tier 2	No		Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Ellis: Squalicum Pkwy to Ohio	Tier 2	No		Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Moore-Texas-Nevada	Tier 2	No		Roosevelt
2015	Bicycle Boulevard	East-West	Kentucky: Moore to Cornwall	Tier 1	No		Sunnyland/Downtown
2015	Bicycle Boulevard	East-West	E. Illinois Street: Valencia to Sunset	Tier 1	No		Roosevelt/Sunnyland
2015	Bicycle Boulevard	North-South	Michigan Street: E. Illinois to Texas	Tier 2	No		Roosevelt
2015	Bicycle Boulevard	East-West	Texas Street: Michigan to Nevada	Tier 1	No		Roosevelt
2015	Climbing/Shared Lane	North-South	Lincoln: Lakeway to Meador	Tier 1	No		Puget
2015	Corridor Study	East-West	Holly Street: Ellis to Bay (Phase 1)	Tier 1	Unknown	?	Downtown
2016	Bicycle Boulevard	North-South	24th Street: Old Fairhaven Pkwy to Douglas	Tier 1	No		Happy Valley
2016	Bicycle Intersection	East-West	Cornwall/Kentucky/Young	Tier 1	No		Lettered Streets
2016	Marked bike lanes	North-South	Champion Street: Ellis to Cornwall	Tier 2	No		Downtown
2016	Corridor Study	East-West	Lakeway Drive: Ellis to Queen	Tier 1	No		Puget/York/Downtown
2016	Corridor Study	North-South	Samish-Maple-Ellis	Tier 2	No		Samish UV/Sehome/York
				*Project was planned or funded prior to 2014 BMP approval			

Table 6.3.a. (2017-2018) on next page

Table 6.3.a. Bicycle Improvements Constructed With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2017 through 2018							
Orange = Low to Moderate Income Neighborhood							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2017	Marked bike lanes	North-South	West Maplewood Ave: Northwest to Alderwood	Tier 1	No		Birchwood
2017	Bicycle Boulevard	East-West	Alderwood Ave: Northwest to Bennett	Tier 1	No		Birchwood
2017	Marked bike lanes	North-South	James St: Sunset to Woodstock (Sunset Square)	Tier 3	No		King Mtn
2017	Marked bike lanes	North-South	Orleans Street: Alabama to Barkley	Tier 2	Yes: Alabama to Barkley	West	Roosevelt
2017	Bicycle Boulevard	North-South	Orleans Street: Alabama to Texas	Tier 2	No		Roosevelt
2017	Marked bike lanes	North-South	Woburn Street: Texas to Iowa	Tier 2	Yes: Alabama to Iowa	West	Roosevelt
2017	Climbing/Shared Lane	North-South	Woburn Street: Iowa to Lakeway	Tier 2	No		Puget
2017	Bike Lane Enhancement	East-West	Lakeway Drive: Queen to City Limit	Tier 1	No		Puget & Whatcom Falls
2017	Bicycle Boulevard	North-South	Undine Street: Texas to Railroad Trail	Tier 2	No		Roosevelt
2017	Bicycle Boulevard	North-South	St. Paul Street: Railroad Trail to Texas	Tier 2	No		Roosevelt
2017	Buffered Bike Lane	East-West	State Street: York to Wharf	Tier 2	No - Upgrade Bike Lane		Downtown
2017	Buffered Bike Lane	East-West	Forest Street: Wharf to Rose	n/a	No - Parking added		Downtown
2017	Bicycle Boulevard	East-West	Mill Avenue: 12th Street to 24th Street	Tier 1	No		Fairhaven/Happy Valley
2017	Bike Wayfinding Signs		Citywide	BMP Priority	No		2 major bike routes
2018	Buffered bike lanes	East-West	Barkley Blvd: Woburn Street to Sussex	Tier 1	No-Rechannelize/Upgrade		Barkley
2018	Marked bike lanes	East-West	Barkley Blvd: Sussex to Britton Road	Tier 1	No-Rechannelize/Upgrade		Barkley
2018	Bicycle Boulevard	North-South	Byron/34th/Pasco/Whatcom/Grant/Humboldt	Tier 1	Concert w WSDOT grant		Sehome/Samish UV/York
2018	Bicycle Boulevard	North-South	James-Gladstone (Meador to Ellis)	Tier 2	Concert w WSDOT grant		York
2018	Bicycle Boulevard	North-South	Humboldt (Meador to Gladstone)	Tier 3	Concert w WSDOT grant		Samish/Puget
2018	Bicycle Boulevard	North-South	40th/Dumas/Ashley/Byron/44th/Nevada	Tier 2	Concert w WSDOT grant		Samish/Puget
2018	Bike Lanes	North-South	Puget Street: Lakeway to Civic Field parking lot	Tier 2	Concert w WSDOT grant		Puget
2018	Bike Lanes	East-West	Lakeway Drive: Puget to Undine HAWK	Tier 1	Concert w WSDOT grant		Puget
2018	Bike Lane Enhancement	North-South	Cornwall Avenue: Ohio to Illinois	n/a	No		Letter St/Cornwall Park
2018	Bike Lane Enhancement	North-South	Northwest Avenue: Lottie to W. Bakerview	n/a	No		Dwtn/Ltr/Col/Birchwood
				*Project was planned or funded prior to 2014 BMP approval			

Table 6.3.b. (2019-2020) and Figure 6.3. displayed on next pages

Table 6.3.b. Bicycle Improvements Planned for Construction With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2019 through 2020							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2019	Buffered Bike Lanes	North-South	Roeder Avenue: Squalicum Pkwy to C Street	Tier 2	Yes - Resurfacing		Waterfront
2019	Bike Climbing Lane	NW - SE	Chestnut Street: Railroad to Ellis (Road Diet)	Tier 1	No		CBD/Sehome
2019	Buffered Bike Lane	North-South	Cordata Pkwy: Kellogg to Kline (Road Diet)	Tier 2	Added - Tremont to Kline		Cordata
2019	Bike Lane Enhancement	East-West	W. Horton Rd: Meridian (SR 539) to Pacific Rim	n/a	No		Cordata
2019	Bike Lane Enhancement	North-South	Stuart-Kellogg: Cordata to Eliza	n/a	No		Cordata
2019	Bike Boulevard	East-West	Old Lakeway Drive: Lakeway to Yew Street	Tier 1	No		Puget
2019	Bike Boulevard	North-South	Halleck Street: Cornwall Avenue to Broadway Street	Tier 2	No		Lettered Streets
2019	Bike Boulevard	East-West	Kentucky Street: Pacific to Woburn	Tier 3	No		Roosevelt
2019	Bike Boulevard	North-South	12th Street: Mill Ave to Hawthorn Rd	Tier 3	No		Fairhaven Urban Village
2019	Bike Boulevard	North-South	14th Street: Douglas to Old Fairhaven Pkwy	Tier 3	No		Fairhaven UV/Happy Valley
2019	Bike Boulevard	North-South	N. State Street: Boulevard to Wharf Roundabout	Tier 2	No		Downtown UV/Sehome
2019	Bike Boulevard	North-South	Vallette Street: Broadway Street to Cornwall Park	Tier 3	No		Fountain UV/Cornwall Park
2019	Shared Lane Markings	North-South	Cornwall Avenue: Ohio Street to Champion Street	Tier 2	No		Downtown Urban Village
2020	Curb ramps, ped refuges, crosswalks		Northwest/Bakerview	n/a	n/a		Cordata/Meridian
2020	Buffered Bike Lanes	N-S-E-W	James Street (Sunset Square): Woodstock to Barkley	Tier 2	Yes - Resurfacing		Barkley/King Mountain
2020	Shared Lane Markings	North-South	Orleans Street: Indiana to Woodstock Way	Tier 2	No		Roosevelt/Barkley
2020	Buffered Bike Lanes	North-South	Ellis Street: Lakeway to Cornwall (Road Diet)	Tier 2	No - Rechannelization		Downtown UV
2020	Buffered Bike Lanes	North-South	Magnolia Street: Commercial to Ellis	Tier 2	Enhance existing bike lane		Downtown UV
2020	Bike Boulevard	East-West	Whatcom Street: Ellis St to Grant St	Tier 2	No		York
2020	Bike Boulevard	East-West	Edwards Street: Maple St to Humboldt St	Tier 3	No		York
2020	Bike Boulevard	NW-SE	E. Maple Street: Ellis St to State Street	Tier 2	No		Sehome
2020	Bike Boulevard	East-West	Victor Street: Vallett St to Eldridge Avenue	Tier 3	No		Columbia
2020	Bike Boulevard	E-W-N-S	Fruitland-Orchard	Tier 1	No		King Mountain
2020	Bike Boulevard	East-West	E. North Street (w RRFB at James St)	Tier 2	No		Sunnyland
2020	Bike Lanes	North-South	40th Street: Elwood to Adams	Tier 3	No		Samish
*Project was planned or funded prior to 2014 BMP approval							

NOTE: Additional pedestrian improvements may be programmed for remaining 2021 TBD funding as opportunities are identified through the annual [6-Year Transportation Improvement Program \(TIP\)](#) public process.

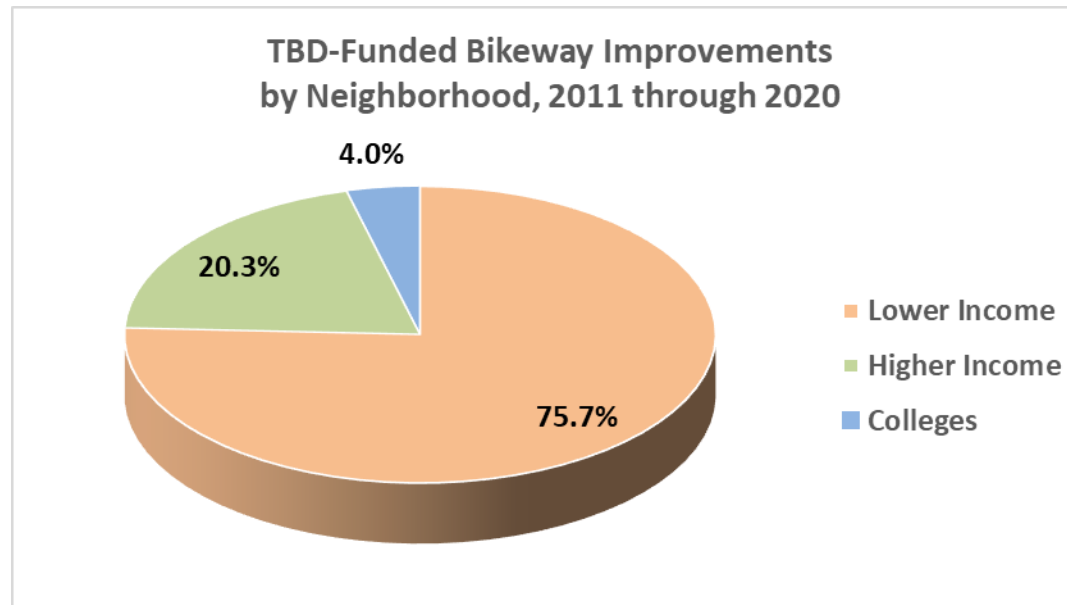


Figure 6.3. Since 2011, 75.7% of TBD funded bicycle projects have been in lower income neighborhoods

Bikeway Facility Types Constructed 2011-2020

- 1 Off-Street Cycle Track (Waterfront)
- 1 Off-Street Pedestrian-Bicycle Pathway
- 9 Buffer-Separated Bicycle Lanes
- 6 Uphill Climbing/Downhill Shared lanes
- 34 Marked Bicycle Lanes
- 4 Arterial Shared Lane Markings
- 31 Bike Boulevards
- 22 Intersection Crossing Improvements
- 7 Bike Lane Enhancements

See [Bellingham Bikeways Illustrated](#) for examples and photographs of local bikeway facility types and location criteria

Chapter 7: Off-Street Greenways Multiuse Recreation Trails - 2020

(Provide less direct and mostly unpaved alternate, or secondary, routes than on-street transportation network)

In 2009, Bellingham transportation planners amended the multimodal transportation concurrency ordinance to make several changes to Urban Village Concurrency Service Areas and also incorporated a select inventory of bike-friendly multiuse recreational trails. ***The inclusion of the bike-friendly multiuse recreational trails was not to declare them as an integral part of the citywide transportation network, but rather to acknowledge that some bicyclists do use these recreational trails as indirect and/or alternative routes to the on-street Primary Bicycle Network identified in the 2014 Bicycle Master Plan (BMP).*** Most of these recreational trails are not suitable for road/racing bicycles because they are primarily crushed limestone gravel surfaces, vary in width and steepness, and often do not connect to major destinations. However, these multiuse trail connections can be very appealing to less confident and “interested, but concerned” bicyclists.

These bicycle-friendly trail routes were identified and field verified for ride-ability over many years by individual members of City and County Bicycle and Pedestrian Advisory Committees, the Mt. Baker Bicycle Club, as well as City staff and Parks and Recreation Advisory Board and Greenways Committee members involved in an effort called “Green Streets.” Technical data came from the City’s GIS layers for trails and bicycle routes, digital air photos, and digital terrain models.

The criteria that staff used to add select bike-friendly multiuse recreational trails to the list of BMC 13.70.020 Definitions Specific to Concurrency Management included:

- 1.) Off-street multiuse trails that can serve a clear transportation function, in addition to the recreational benefits that they provide, and a safe alternative to unmarked bicycle routes on arterial streets
- 2.) Prepared gravel/crushed rock surface trails, or smooth dirt with adequate drainage, and smooth even surface facilitating safe travel by cyclists. Trails with stairs, large roots, rocky sections, off-camber cross-sections, or areas with persistent standing water/puddles are generally not included
- 3.) Trails that average at least 5-feet, but preferably 8-feet, in width to facilitate safe bi-directional passage of cyclists and pedestrians
- 4.) Trails with slopes/grades of generally less than 6% average with maximum grades of generally less than 12%.

The bike-friendly multiuse recreational trails identified in the multimodal transportation concurrency inventory generally adhere to the specified criteria above. Some exceptions exist where lack of an alternative on-street route and the need for a critical connection dictates use of trail network sections that may have sub-standard surfaces, narrow widths, or steep grades.

Bike-friendly multiuse recreational trails are credited person trips to each Concurrency Service Area based on each comparative 1% of the total planned Primary Bicycle Network identified in the 2014 BMP. Ten (10) rather than 20 person trip credits are awarded for each 1% of the total planned on-street Primary Bicycle Network in recognition that not all bicyclists will be able to use off-street gravel trails as alternatives to on-street bike routes. It should be noted, however, that several regional multiuse trails, such as the Whatcom Creek Trail, Railroad Trail, and Squalicum Creek Trail are included in the citywide bicycle network, see Figure 5.1.

Figure 7.1.

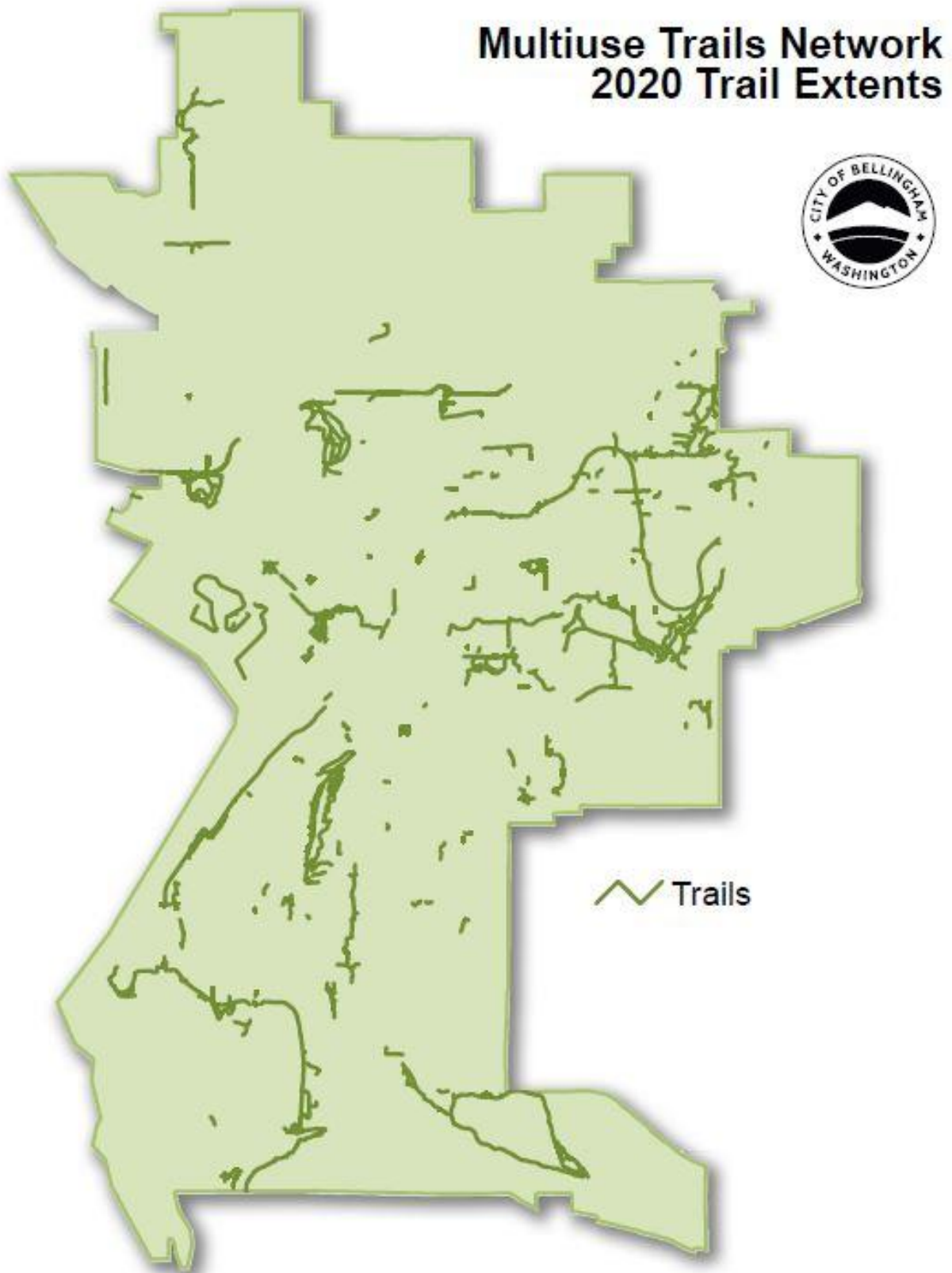


Figure 7.2.

Multiuse Trail Network 2020 Trail Mileage By Concurrency Service Area

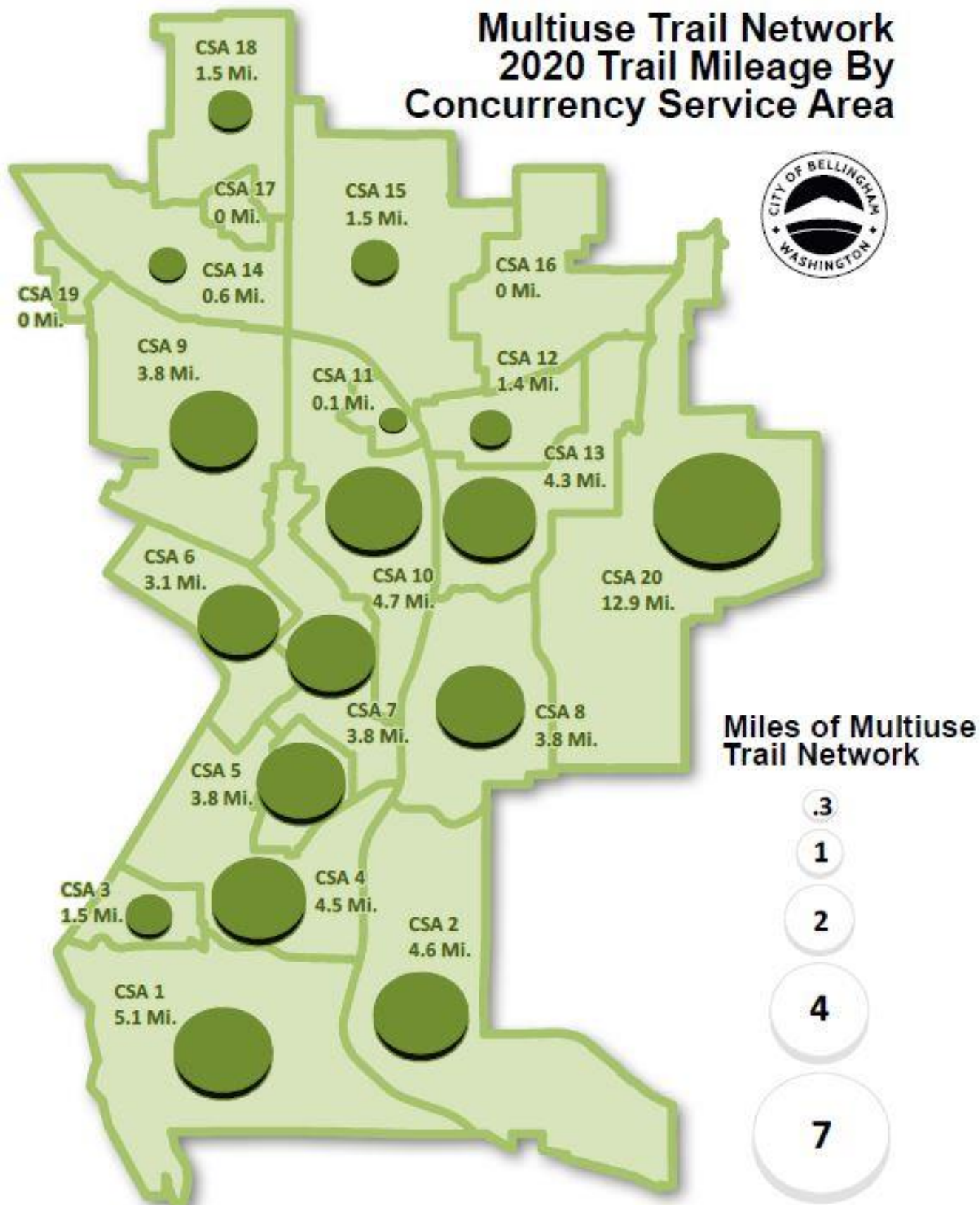


Table 7.1.



2020

Mutiuse Trails Mileage by Concurrency Service Area

CSA	Mutiuse Trails Network (Miles)
CSA 1	5.1
CSA 2	4.6
CSA 3	1.5
CSA 4	4.5
CSA 5	3.8
CSA 6	3.1
CSA 7	3.8
CSA 8	3.8
CSA 9	3.8
CSA 10	4.7
CSA 11	0.1
CSA 12	1.4
CSA 13	4.3
CSA 14	0.6
CSA 15	1.5
CSA 16	0.0
CSA 17	0.0
CSA 18	1.5
CSA 19	0.0
CSA 20	12.9
Grand Total	61.0

Chapter 8: WTA Primary Transit Network – 2020 *(Data provided by WTA)*

Whatcom Transportation Authority (WTA) provides public fixed route transit bus service, Paratransit bus service, and a vanpool program available to the public and employers. WTA is funded by sales tax revenue generated in a Public Transit Benefit Area (PTBA) that is contiguous with the boundaries of Whatcom County. WTA serves the City of Bellingham as well as the smaller towns and communities of Ferndale, Lynden, Blaine and Birch Bay, Lummi Nation, Sudden Valley, Kendall, Everson, Nooksack and Sumas. WTA also cooperates with Skagit Transit in neighboring Skagit County, to provide service between Bellingham and Mount Vernon. More information is available on the [Whatcom Transportation Authority \(WTA\)](#) web site.

Fixed Route Transit Bus Service

WTA's fixed route transit bus service features 30 routes, including a network of four high-frequency corridors within Bellingham. Service is 7 days a week, with more limited service on Saturdays, Sundays and evenings.

- From 2003-2018, WTA ridership increased by 63%, but in 2018 overall ridership decreased by 1%, which is consistent with the downward ridership trend being experienced by transit agencies across the United States
- In 2007, WWU students voted to self-fund transit passes for every student through their tuition costs and WWU students comprised 40% of WTA's overall fixed route ridership
- In 2008, WTA was recognized by the Federal Transit Administration for achieving the highest annual ridership increase in the nation
- In 2017, WTA implemented a Strategic Plan which included expanded service to rural areas
- In 2018, WTA provided 4.55 million fixed route boardings, which is 15,800 fixed route boardings per weekday
- In 2019-2020, consistent with national transit trends, WTA boardings are down despite increased revenue hours. See Figures 8.1 through 8.5 for more data on WTA transit trends.
- WTA continues to play a critical role in transporting students and employees to and from Western Washington University (WWU), Whatcom Community College, Bellingham Technical College, and Northwest Indian College, as well as Bellingham middle schools and high schools
- See Chapter 2 discussion of issues emerging in March 2020 as a result COVID-19 global pandemic

Paratransit Services

WTA's Paratransit span of service mirrors the WTA fixed route transit bus service and area. WTA provides an average of 600 Paratransit trips per weekday. Demand was down 2% in 2017. Paratransit service was expanded in 2017 to mirror fixed route evening and Sunday expansion to more rural areas.

Fleet and Facilities

WTA's fleet includes 60 full-size buses (including eight hybrid electric buses), 37 Paratransit minibuses, and 30 vanpool vans. WTA operates four transit centers: Bellingham Station, Cordata Station (in North Bellingham), Ferndale Station and Lynden Station. Demand for vanpool service has decreased in recent years but the service will continue to be provided. The vanpool fleet size will be reduced in 2019.

Integrated Transit and Transportation Planning

The City of Bellingham works directly with WTA on both land use and transportation issues and all of Bellingham's Urban Villages are served with high-frequency 15-minute transit service. City planners worked directly with WTA in the development of the 2004 and 2016 WTA Strategic Plans and WTA staff worked directly with City planners in the development of the 2006 and 2016 Transportation and Land Use Elements of the Bellingham Comprehensive Plan so that City and WTA plans are fully integrated with one another. City planners are actively working with WTA on multimodal transportation studies, WTA's long-range transit plan, and City initiatives to support transit-oriented corridor planning in Bellingham.

Figure 8.1.

U.S. & WTA Ridership

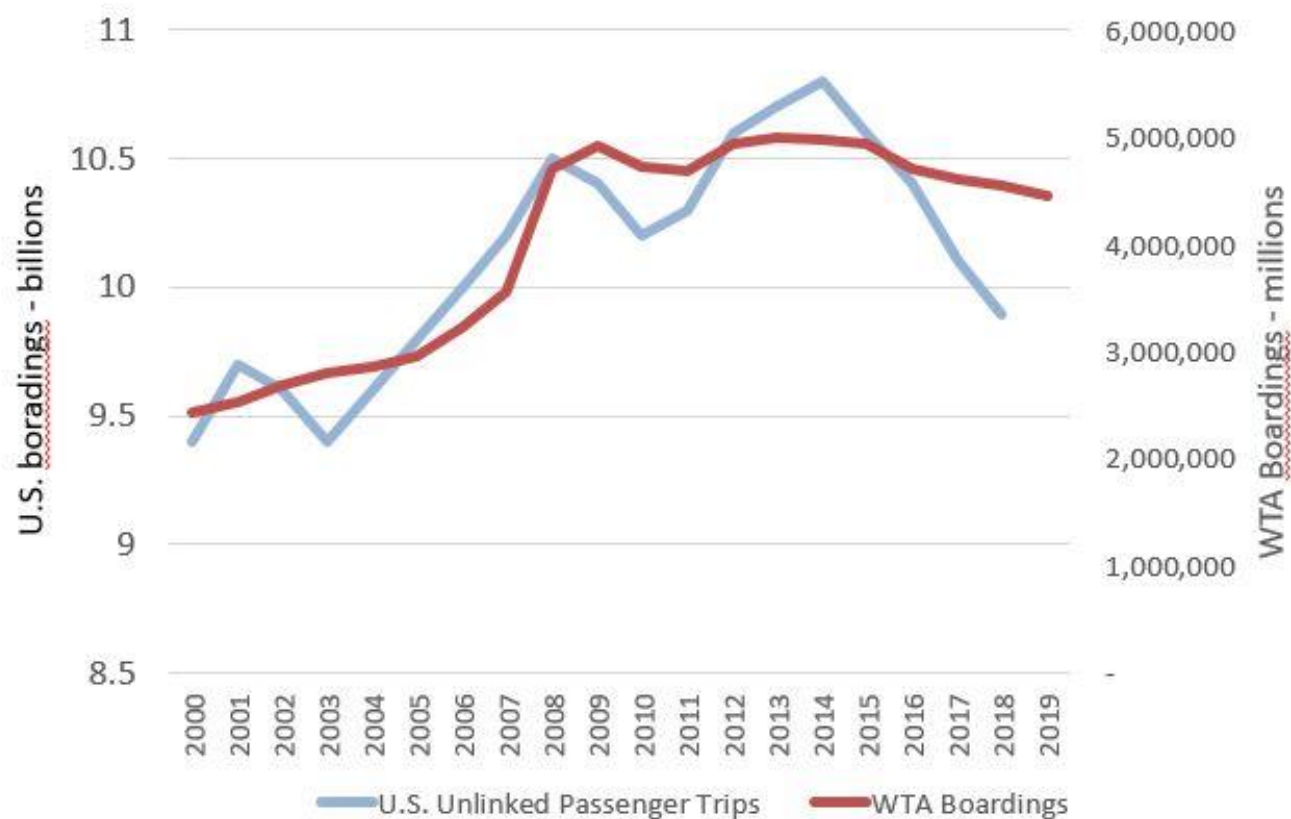


Figure 8.2.

WTA Fixed Route Boardings – 10 Years

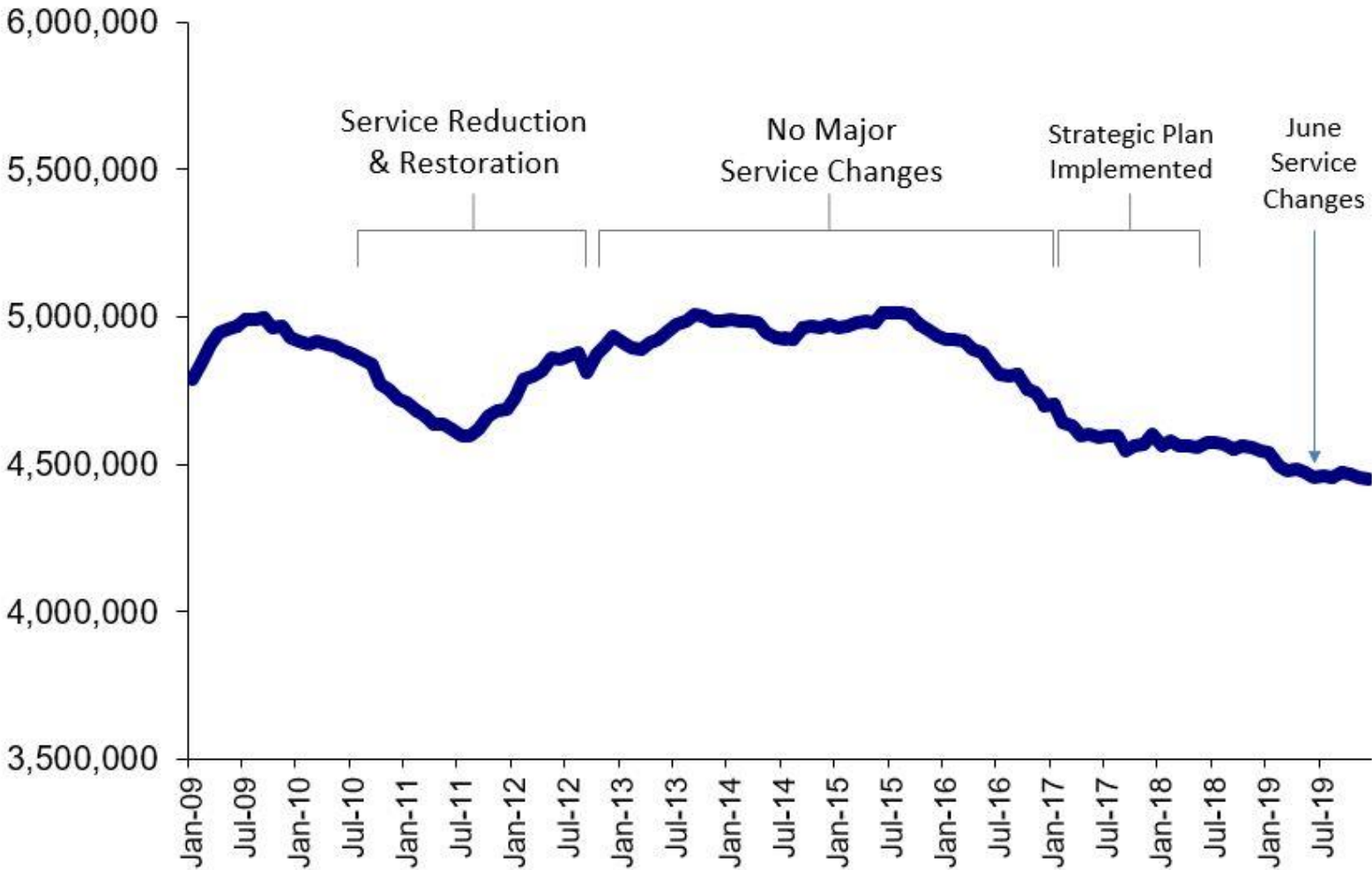


Figure 8.3

WTA Fixed Route Revenue Hours

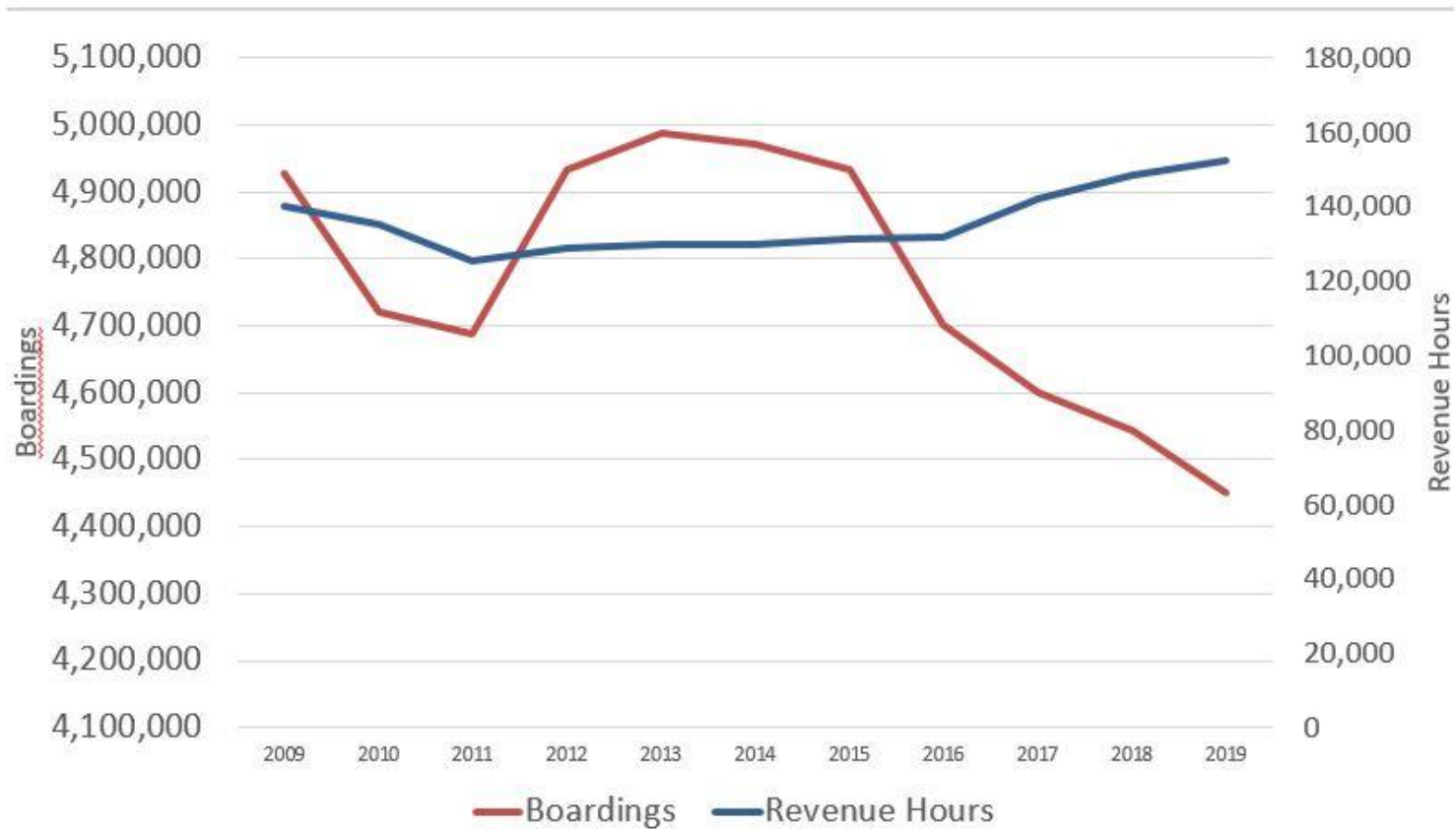
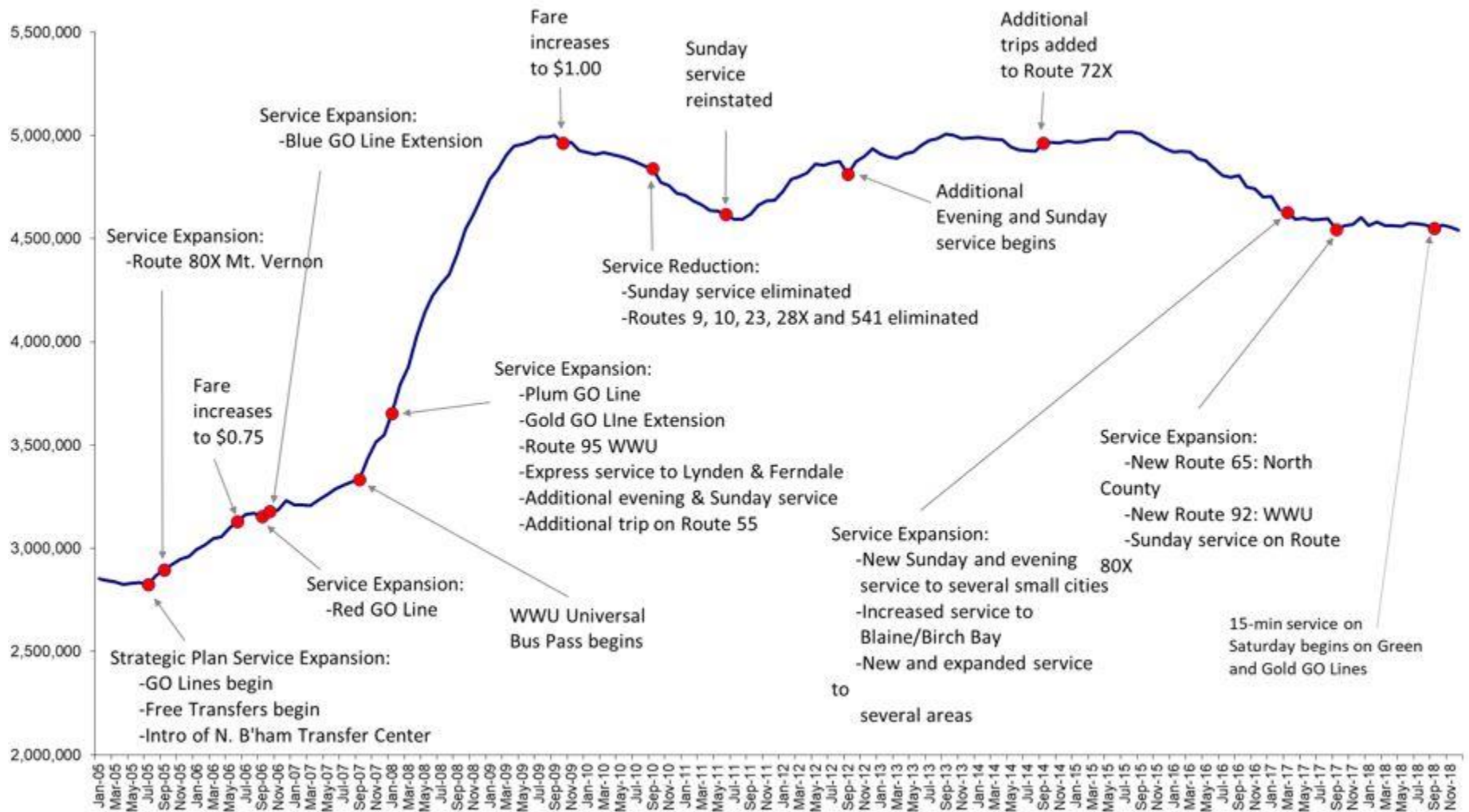


Figure 8.4



City of Bellingham Primary Transit Network



Chapter 9: Automobile and Freight Truck Arterial Networks -2020

Arterial Streets and Traffic Signals

Arterial streets and traffic signals are available and provide benefit to all users (pedestrian, bicycle, transit, automobile, and freight truck), but previous chapters have discussed pedestrian, bicycle, and transit networks and this chapter focuses on arterial streets and infrastructure as it relates to automobile and freight trucks use. The [Multimodal Transportation Chapter of the Bellingham Comprehensive Plan](#) describes the existing and planned arterial street network needed to support motorized transportation, such as transit busses, private automobiles, and freight trucks. Arterial streets and traffic signal devices are depicted on Figure 8.1.

Major transportation improvements take several years to strategically plan, fund, and construct at great cost. Bellingham adopts a rolling [6-Year Transportation Improvement Program \(TIP\)](#) each June that shows how the City plans to fund and construct major transportation projects.

Bellingham's arterial street network is locally classified into Principle, Secondary, and Collector arterials, with 2017 lane mile totals as follows:

- Principal Arterial: Major regional transportation corridors, including State and federal highways, that provide connections into Bellingham from other cities, Whatcom and Skagit Counties, and British Columbia, Canada. Typically very high traffic volumes.
- Secondary Arterial: Major local transportation corridors that provide connections across, within, and between different parts of Bellingham. Typically higher to medium traffic volumes.
- Collector Arterial: Local transportation corridors that provide connections from neighborhood residential streets to secondary and principal arterial streets. Typically medium to lower traffic volumes.
- Residential Street: Local access to individual driveways within residential neighborhoods. Typically lower traffic volumes.

In **2020**, Bellingham's 663-lane mile arterial street network includes the following major features:

Vehicle Lane Miles

- 108 lane miles of principal arterial (16.3%)
- 107 lane miles of secondary arterial (16.1%)
- 61 lane miles of collector arterial (9.2%)
- 387 lane miles of residential streets (58.4%)

Intersection Traffic Control

- 138 intersection traffic signals (+3 in construction; +3 in engineering; +3 in planning study)
- 7 multimodal roundabouts (+1 in engineering; +4 in planning studies)

Person-Activated Crossing Signals

- 28 pedestrian-activated amber flashing crosswalks (+2 in engineering; +2 in planning studies)
- 10 pedestrian hybrid red (HAWK) signals (+2 in planning studies)

Automated Safety Warning Signs

- 47 automated school zone flashing signs
- 2 variable message radar speed signs

Figure 9.1. Bellingham's Arterial Street Network



Designated Freight Truck Network

Bellingham has classified several arterial streets and all state and federal highways as Designated Freight Truck Routes, as depicted below. The City encourages major freight shipping companies to direct their drivers to primarily use the designated freight truck routes, but freight delivery trucks cannot be prevented from using any public street for deliveries unless there are weight restrictions on bridges or other public safety access restrictions. As an example, if a family is moving into or out of a house and has hired a moving company to load or unload their belongings, then the large semi-sized moving van must have access to their house via the local residential street. The same is true for large construction vehicles arriving to residential remodel sites.

In 2015, Bellingham worked with WCOG to collect freight truck counts and update Designated Freight Truck Route classifications by annual freight tonnage according to [WSDOT Freight and Goods Transportation System](#) requirements, as shown below.

Bellingham Designated Freight Truck Route Classifications		
Classification	Annual Tonnage	Example (see map)
T-1	> 10 million	Interstate 5
T-2	4 - 10 million	SR 539 (Guide Meridian)
T-3	300,000 - 4 million	SR 542 (Mt. Baker Highway)
T-4	100,000 - 300,000	12th St-State-Boulevard
T-5	< 100,000	None designated

In 2020, Bellingham is again working with WCOG to collect freight truck counts and update Designated Freight Truck Route classifications by annual freight tonnage. The classifications shown above and on maps in Bellingham transportation planning documents are subject to change based on the findings of these freight traffic counts.

See Chapter 2 discussion of issues emerging in March 2020 as a result COVID-19 global pandemic

Figure 9.2. Bellingham Designated Truck Route Network



Chapter 10: Multimodal TIF System and Urban Village TIF Reduction Program - 2020

In December 2018, Bellingham adopted a new [Multimodal Transportation Impact Fee \(TIF\) System](#) based on ‘person trips’ rather than the traditional TIF system based on ‘vehicle trips’ with increasing TIF rates adopted for 2019-2025 (see below). The new Multimodal TIF system is consistent with policies and funding expectations in the Multimodal Transportation Chapter of the Bellingham Comprehensive Plan and was implemented on January 1, 2019. Bellingham is one of only four cities in Washington with Multimodal TIFs and this new program will help to provide critical funding contributions from private development to help complete the citywide pedestrian and bicycle networks, in addition to the street system for motorized auto, freight, and transit vehicles.

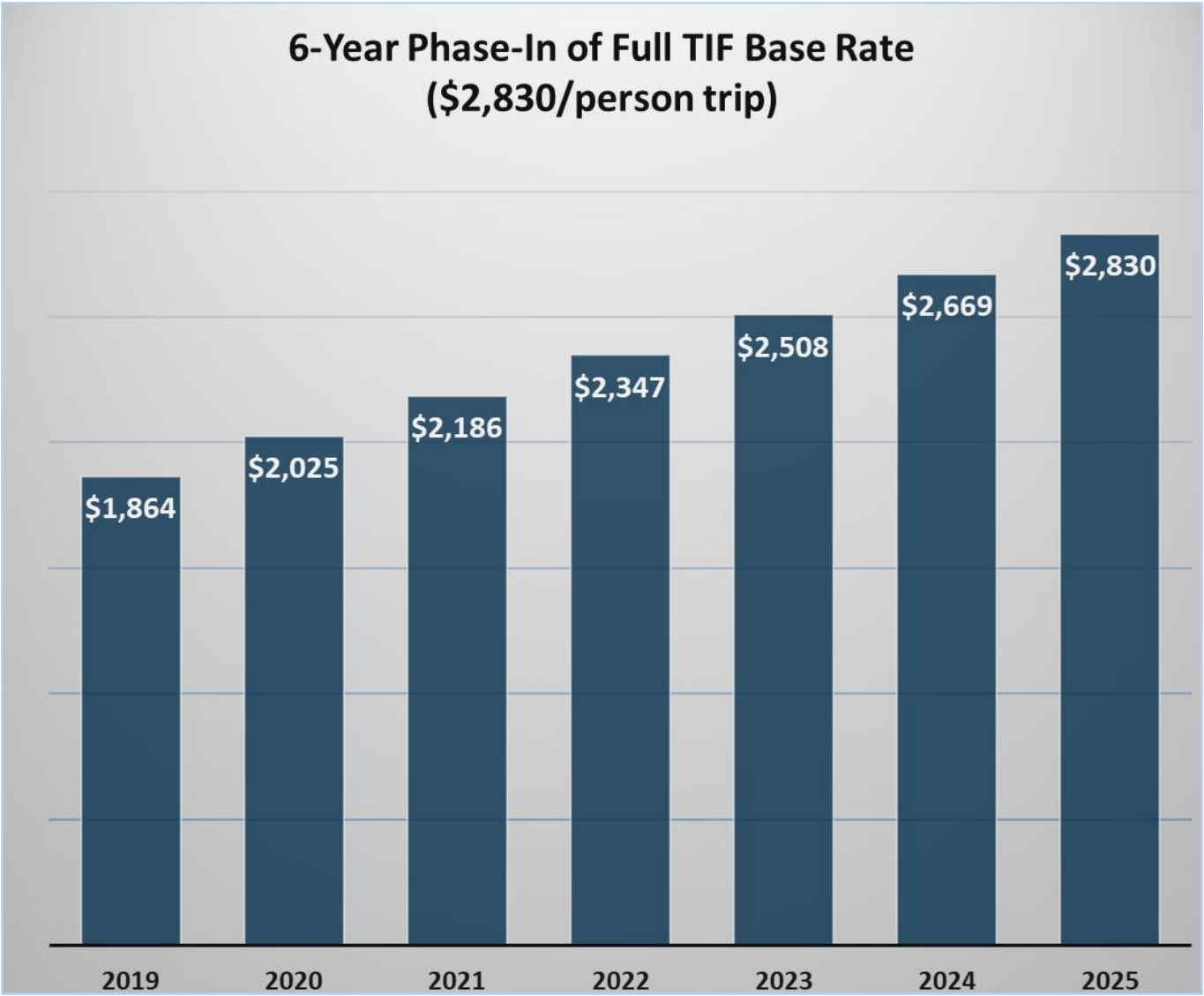
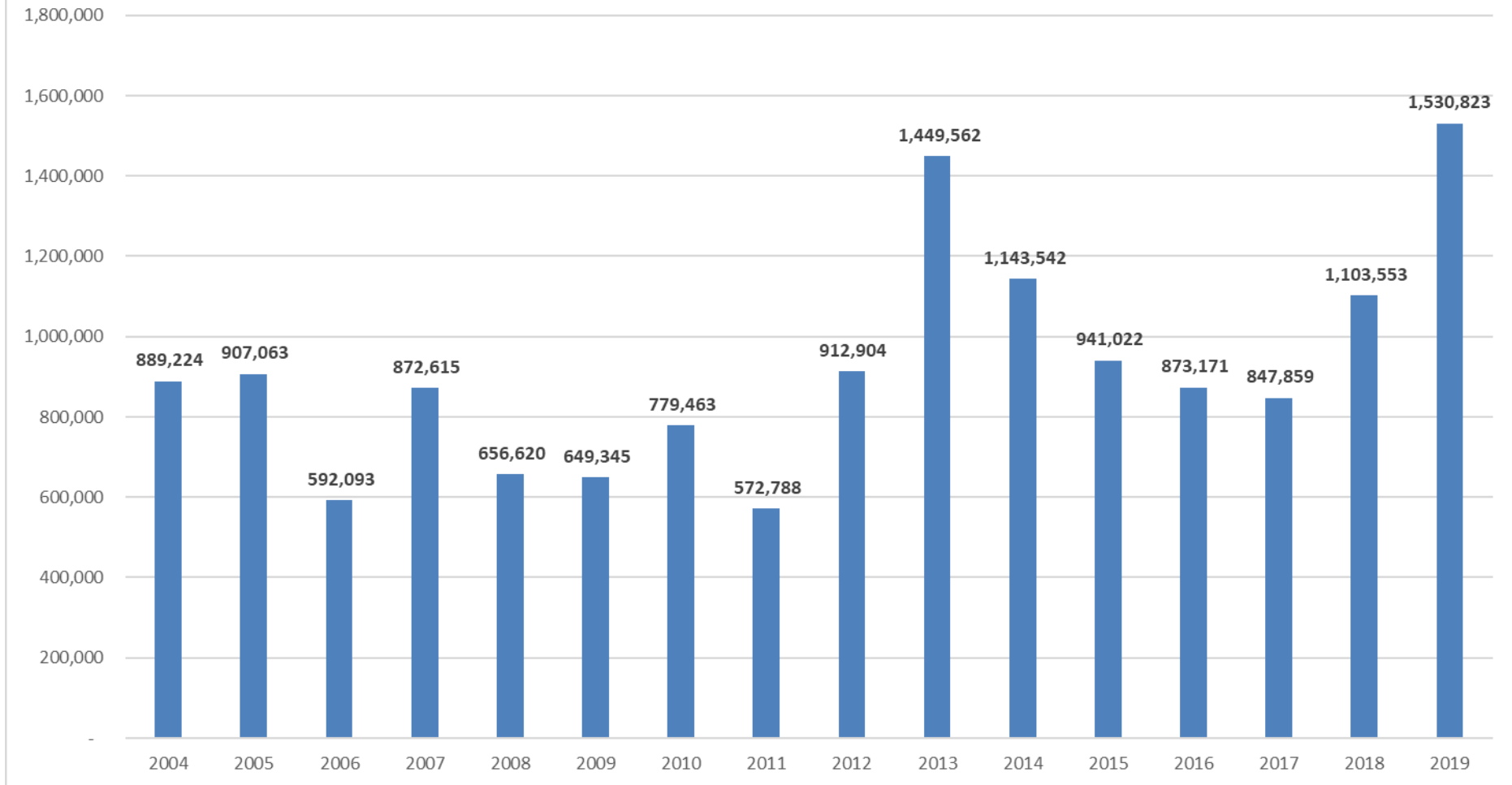


Figure 10.1 Adopted Bellingham TIF Base Rates, 2019-2025

Figure 10.2 TIF Revenue Collected From Development, 2004 -2019



In Bellingham, Transportation Impact Fees (TIF) were first assessed for private development beginning in 1995 with the adoption of the City’s first GMA-compliant Comprehensive Plan. Figure 10.2 shows the annual totals for TIF revenue collected from private development from 2004 through 2019. While some complain that the City charges too much in TIF rates, the annual amount pales in comparison to the costs of providing transportation infrastructure.

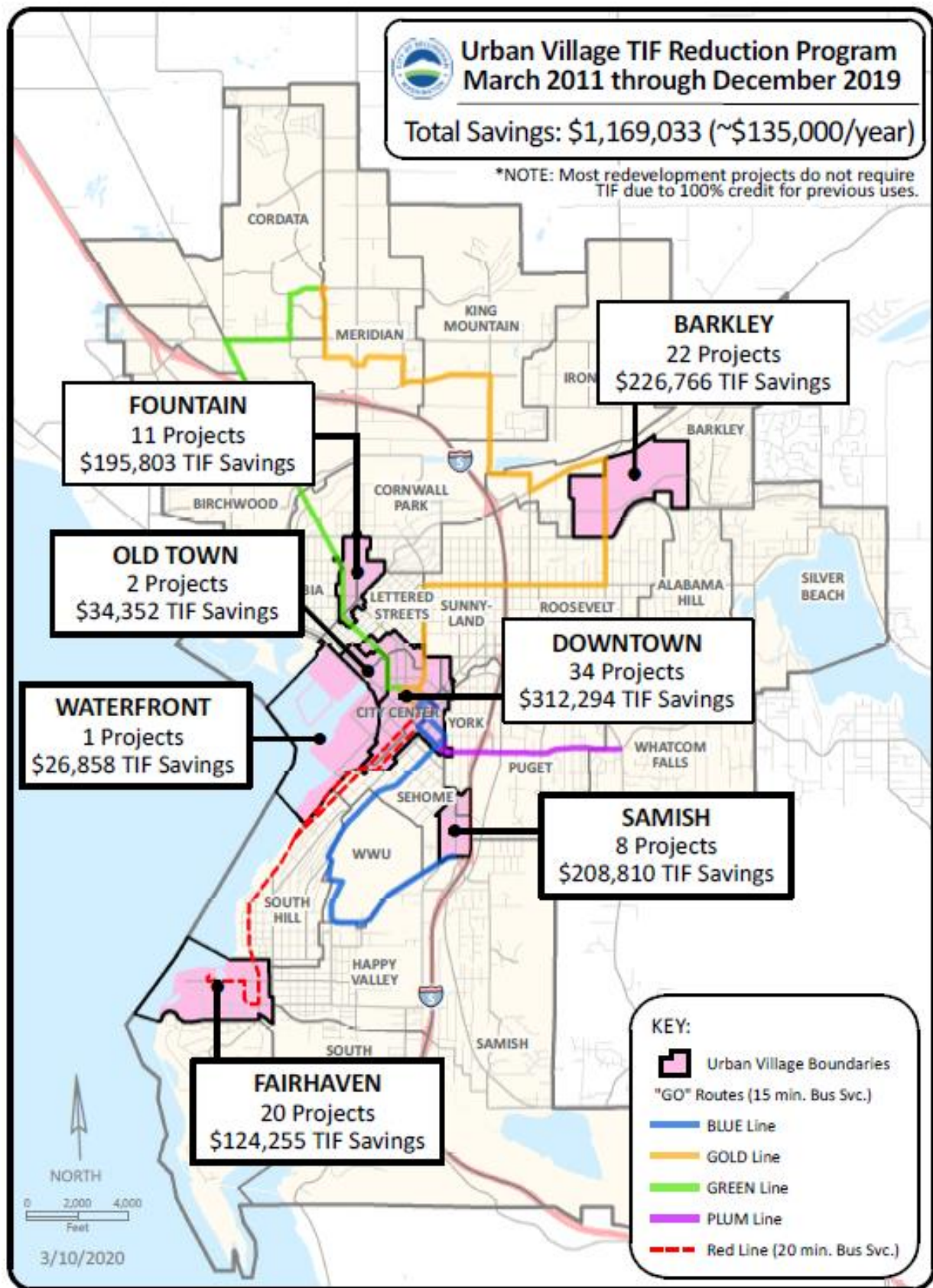


Figure 10.3. Urban Villages Eligible for TIF Reduction Program

Urban Village TIF Reduction Program

In 2010-2011, Public Works created Bellingham's Urban Village Transportation Impact Fee (TIF) Reduction Program to provide an economic incentive for developers to help the City achieve its goals for infill growth in compact, mixed use Urban Villages served with complete sidewalk and bikeway networks and WTA high-frequency transit service. Success with this land use strategy is also expected to help the City achieve its long-term transportation mode shift goals (Figure 2.3 and Table 2.1).

A case study on the creation of this program is available in an article titled [The Urban Village TIF Reduction Program in Bellingham](#) on the City web site.

As shown in Figure 10.3 (above) and Table 10.1. (below), in the 9 years from March 2011 through December 2019, the Urban Village TIF Reduction Program has saved developers of 100 projects in Urban Villages over **\$1,169,033*** in TIFs, which is an average of over **\$135,000 per year**.

***NOTE:** Many redevelopment projects do not require TIFs due to 100% credit for previous uses.

Bellingham Urban Village TIF Reduction (BMC 19.06.040) Cumulative Savings: March 1, 2011 to December 31, 2019 ¹										
Note: The 2019-2020 TIF Comparison Chart of 74 Cities and 5 Counties in western Washington at https://www.cob.org/Documents/pw/transportation/2020-wa-statewide-tif-chart.pdf shows that Bellingham has one of the lowest TIF base rates in western Washington. Many redevelopment projects in Urban Villages do not require any TIFs due to 100% credit for previous uses.										
Data Tracked and Compiled by Chris Comeau, AICP-CTP, Transportation Planner, Public Works Engineering (360) 778-7946 or ccomeau@cob.org										
		Infill Development Type			Automatic 22% - 25% Less		Voluntary Measures Up To 50%			Total
Designated Urban Villages in Bellingham	Total Projects	Res Units	Comm SF	Office SF	UV TIF Cost ²	UV TIF Saved ²	Bike Rack ³	Bus Passes ⁴	CTR ⁵	TIF Saved ²
Downtown Urban Village	34	1,107	31,733	27,689	\$486,633	\$259,957	\$11,445	\$40,892	\$0	\$312,294
Fairhaven Urban Village	20	198	36,341	5,718	\$167,338	\$118,549	\$5,706	\$0	\$0	\$124,255
Barkley Urban Village	22	203	94,418	58,842	\$603,375	\$200,878	\$1,907	\$23,384	\$597	\$226,766
Samish Way Urban Village	8	131	9,719	11,200	\$116,069	\$69,552	\$2,138	\$0	\$0	\$208,810
Fountain District Urban Village	11	82	24,168	1,196	\$87,791	\$76,578	\$5,988	\$0	\$0	\$195,803
Old Town Urban Village	2	31	2,815	0	\$21,884	\$9,621	\$0	\$0	\$0	\$34,352
Waterfront District Urban Village (Granary-Laurel)	1	0	17,266	23,700	\$65,649	\$26,858	\$0	\$0	\$0	\$26,858
Institutional UV TIF Reductions (Type 1A-BMC 13.70)	2	150	0	9,857	\$148,048	\$39,896	\$0	\$0	\$0	\$39,896
Cumulative		Infill Development Type			Automatic 22% - 25% Less		Voluntary Measures Up To 50%			Total
All Urban Village TIF Reductions	Total Projects	Res Units	Comm SF	Office SF	UV TIF Cost ²	UV TIF Saved ²	Bike Rack ³	Bus Passes ⁴	CTR ⁵	TIF Saved ²
Grand Total Urban Village TIF Reductions from March 1, 2011 to December 31, 2019		1,902	216,460	138,202	\$1,696,786	\$801,889	\$27,184	\$64,276	\$597	\$1,169,033
Notes: 1.) Urban Village TIF Reduction Program adopted February 2011, implemented March 1, 2011. 2.) Net new TIF calculated only after 100% credit is awarded for previous uses. Most redevelopment projects do not require any new TIF due to previous use credit, which is included in this column. 3.) Developer purchase and installation of a City-approved bike rack with capacity for four bicycles in appropriate location can reduce overall trip generation by one vehicle trip. 4.) Developer purchase of up to 28 WTA bus passes can reduce TIF by up to maximum of 50% 5.) 10% trip reduction for businesses with more than 100 on-site employees, consistent with Washington State Commute Trip Reduction (CTR) law [RCW 70.94.527]										

Chapter 11: Waterfront District Biennial Monitoring Program - 2020

In 2010, Public Works created Concurrency Service Area (CSA) #6 for the Waterfront District in preparation for the adoption of a Waterfront District Master Plan. In 2019, CSA #6 has 1,792 PTA with no credits given yet for pedestrian facilities, bicycle lanes, or transit services, but 860 credits provided for multiuse trails.

- Cornwall Avenue has continuous sidewalks on both sides between Wharf Street and West Laurel Street and from Maple to Chestnut, but lack of sidewalk on the north side of the Cornwall Avenue Bridge requires people to cross to the south side of Cornwall to walk from downtown into the Waterfront.
- Wharf Street is a steep and narrow street without sidewalks or bicycle lanes and construction of either would require major excavation of the hillside, construction of retaining walls, and significant environmental impact mitigation. Sidewalks and bikeways on Wharf are considered cost prohibitive.
- WTA transit service does not exist within the Waterfront District boundary. WTA does not currently have plans to serve the Waterfront, and it is likely to be a very long time before fixed route transit service becomes a viable option to serve the Waterfront District.

From a concurrency standpoint, additional person trip credits were awarded upon completion of new arterials, sidewalks, and bicycle lanes are constructed to increase the PTA to serve new Waterfront development in 2019. Additional person trip credits will also be awarded if and when fixed route WTA transit service becomes available to the public on Granary-Laurel within the Waterfront redevelopment area.

- Public Works constructed the Granary-Laurel arterial street in 2018-2019 in the “Downtown” portion of the Waterfront (Figure 11.1.), with sidewalks on both sides and a two-way bikeway/cycletrack on one side. These improvements added Person Trips Available to CSA #6.
- The historic Granary Building began redevelopment in 2016 as the first major project in the redevelopment of the 200-acre Waterfront District and at the beginning of 2020 is yet to be completed.
- All-American Marine Boats has relocated its manufacturing site from the Fairhaven Shipyards industrial area to the I-J Waterway in the Waterfront District.
- Itek, a major solar panel manufacturer, has relocated its manufacturing site from the Irongate Industrial Area to 800 Cornwall Avenue in the Waterfront District.

Biennial Monitoring Program Report

In December 2013, the City of Bellingham and the Port of Bellingham adopted the Bellingham Waterfront District Master Plan to guide the redevelopment of over 200 acres of industrial waterfront land into a vibrant, new neighborhood filled with a mix of industrial, commercial, institutional, residential, and public uses. The Bellingham Waterfront District Master Plan and Interlocal Agreement between the City and Port of Bellingham is available on the City web site at <http://www.cob.org/services/planning/urban-villages/waterfront.aspx>

Section 20 of the Interlocal Agreement for Facilities within the Waterfront District requires the Port of Bellingham to provide the City with a Biennial Monitoring Program report by December 31, 2015 and every two years after, which will document transportation mobility into and out of the Waterfront District on arterial streets for pedestrians, bicyclists, transit busses, automobiles, and freight trucks. In October 2019, TranspoGroup, Inc. completed the third Biennial Monitoring Report for the Waterfront District. Highlights from this report are included in the following pages. **The Port is required to update the Biennial Monitoring Report again in late 2021 and the results will be included in the 2022 Transportation Report on Annual Mobility.**

Figure 11.1. Bellingham Waterfront District Boundaries

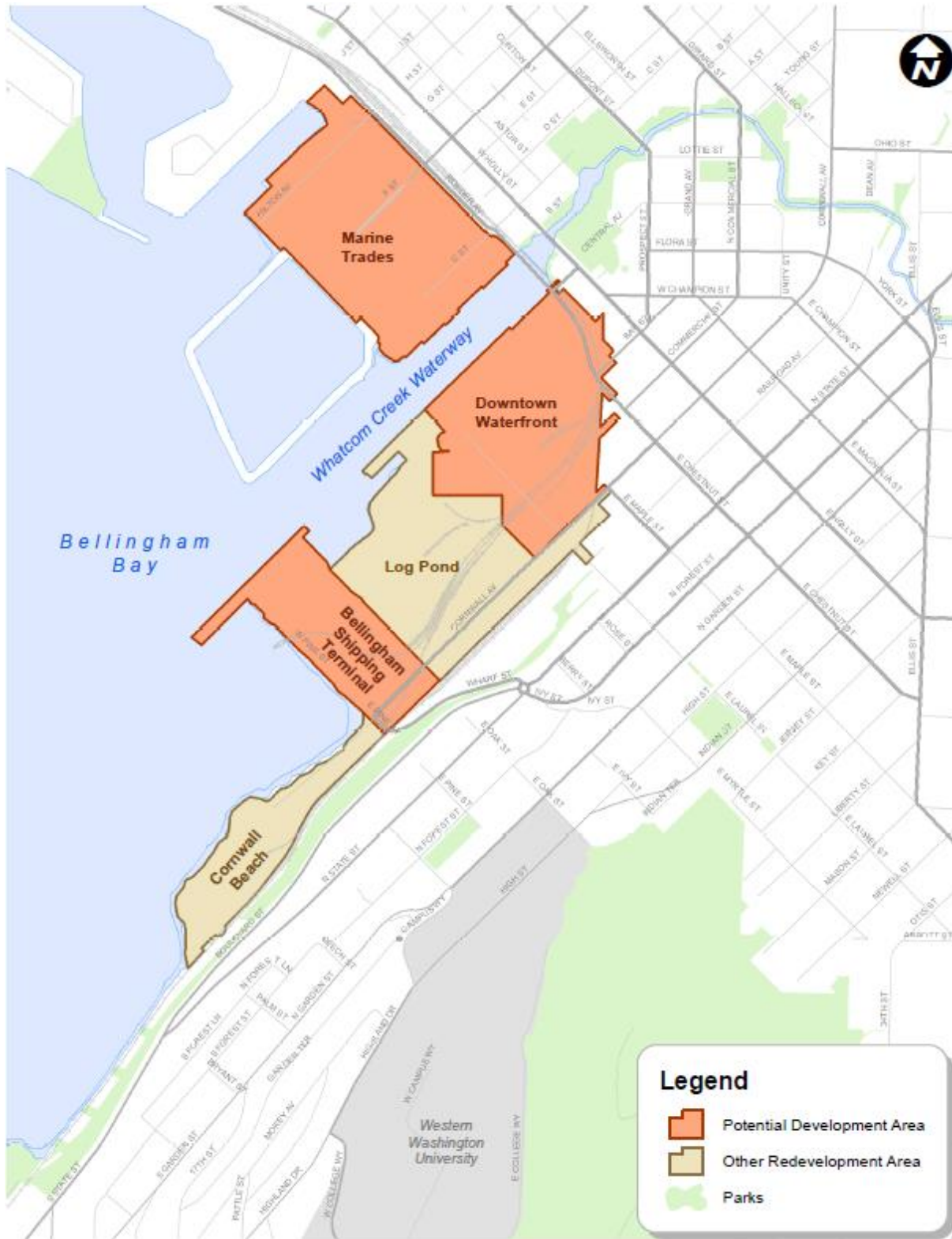


Figure 11.2. Data Collection Locations



Data Collection Locations

Waterfront District Traffic Monitoring - 2019

transpogroup 

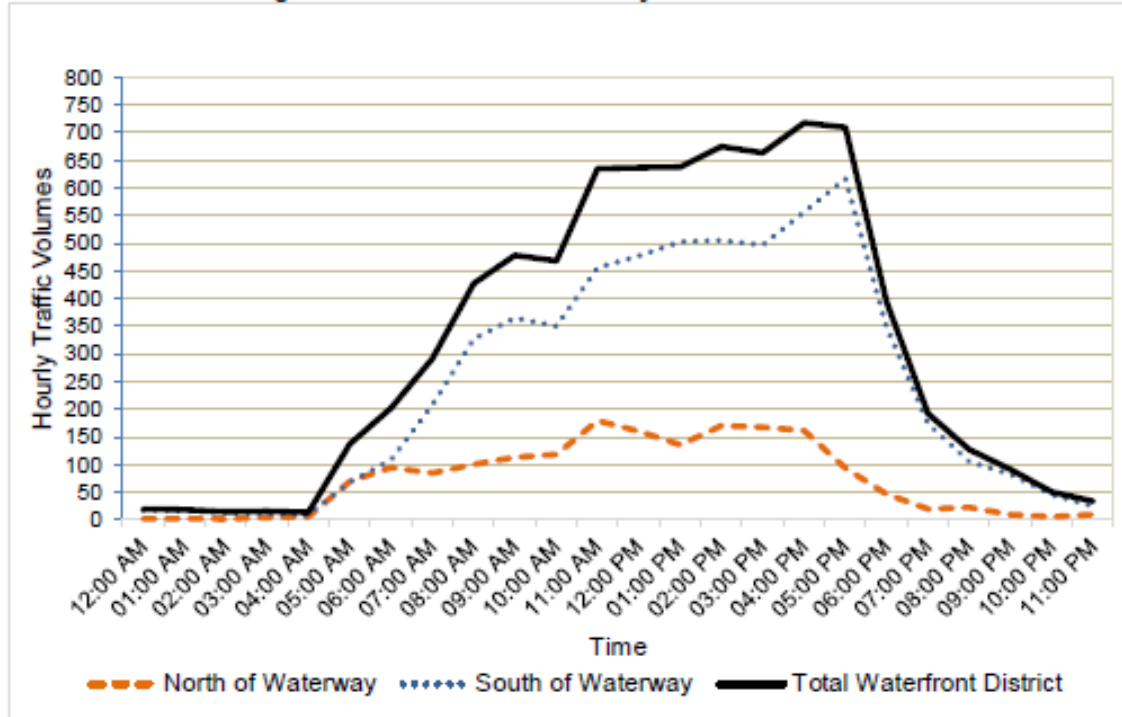
FIGURE

2

Current Conditions

Figure 3 illustrates the average hourly distribution of traffic to and from the Waterfront District. This includes all trucks, cars, and bicycles to and from the site. The highest traffic levels for the site occurs in the evening between approximately 4 and 6 p.m. consistent with previous biennial monitoring studies.

Figure 3 Waterfront District Daily Traffic Distribution



Vehicle classifications were also collected at the access points. Similar to previous monitoring studies, a review of the specific data shows travel by car represents the majority of the vehicles to and from the site both north and south of the Waterway. The number of trucks is higher north of the Waterway than south, representing approximately 50 percent of total traffic in the north versus 24 percent to the south. Figure 4 illustrates the average daily vehicle classifications for the Waterfront District. Mode splits are generally consistent with the 2017 monitoring study.

Figure 4 Waterfront District Average Daily Vehicle Classification

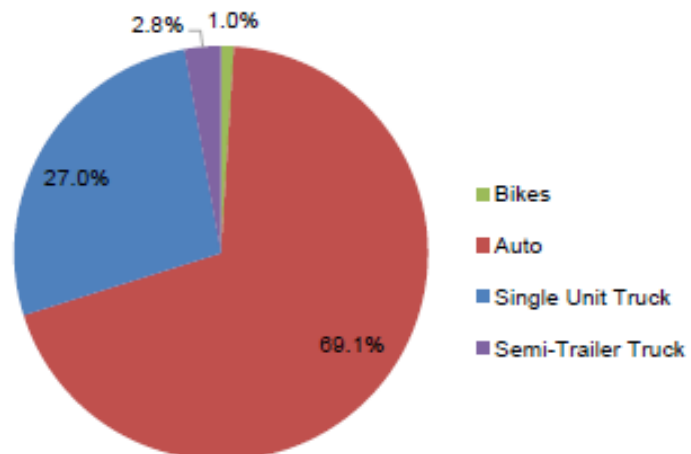


Table 2. Existing (2019) Weekday Vehicular Traffic Volumes¹

	Inbound	Outbound	Total
North of Waterway			
Daily Volumes	860	885	1,745
PM Peak Hour Volumes	40	132	172
PM Peak Hour % of Daily Volumes	5%	15%	10%
South of Waterway			
Daily Volumes	2,920	2,905	5,825
PM Peak Hour Volumes	351	350	701
PM Peak Hour % of Daily Volumes	12%	12%	12%
Waterfront District Total			
Daily Volumes	3,780	3,790	7,570
PM Peak Hour Volumes	391	482	873
PM Peak Hour % of Daily Volumes	10%	13%	12%

1. Based on data collected in October 2019.

Table 3 summarizes vehicle and non-motorized trips as well as the mode splits for north and south of the Waterway.

Table 3. Existing (2019) Weekday PM Peak Hour Trips and Mode Splits

Site Access	Trips ¹				Mode Splits ¹	
	Auto			Non-Motorized	Auto	Non-Motorized
	Inbound	Outbound	Total			
North of Waterway						
Hilton Avenue	12	60	72	3	96%	4%
F Street	11	23	34	5	87%	13%
C Street	<u>17</u>	<u>49</u>	<u>66</u>	<u>1</u>	99%	1%
Subtotal	40	132	172	9	95%	5%
South of Waterway						
Central Avenue ²	0	0	0	39	0%	100%
Granary Avenue	54	53	107	53	67%	33%
Cornwall Avenue	141	137	278	138	67%	33%
Wharf Street	<u>156</u>	<u>160</u>	<u>316</u>	<u>22</u>	<u>93%</u>	<u>7%</u>
Subtotal	351	350	701	252	77%	23%
Waterfront District Total						
Total	391	482	873	261	80%	20%

1. Based on data collected in October 2019.

2. Closed to vehicular traffic.

Table 3 shows the primary mode of travel to the site is currently via auto which is consistent with 2017 monitoring study; however, there has been an increase in non-motorized travel south of the waterway. The non-motorized trips have increased south of the waterway due to the new park on-site and the improvements to trails and bicycle facilities in the area. The resulting higher non-motorized mode split is due to limited development south of waterway besides pedestrian/bike-oriented park. There is also additional bicycle and pedestrian trips along Cornwall Avenue with additional businesses along this corridor. Future monitoring studies should collect data at the new Laurel Street access to better isolate vehicle and non-motorized trips to and from the Port.

The evaluation of mode splits only considers auto and non-motorized (pedestrian and bicycle) trips. There are no WTA bus stops located within the site. The nearest transit route operates along Holly Street. The Downtown Transit Station, which is the closest transit hub, currently has an average daily ridership of approximately 3,300 riders with approximately 640 riders during the weekday PM peak period¹. Existing transit riders are captured as pedestrian or bicycle trips to and from the site; however, with on-site transit routes and bus stops Waterfront District transit ridership could be isolated in future studies.

As more mixed-use (i.e., office, retail, residential, etc.) development occurs on-site and the infrastructure becomes more walkable, it is anticipated that pedestrian, bicycle, and transit activity would continue to increase and be monitored more closely.

Future Development Trip Generation

Future weekday daily and PM peak hour trip generation for the Waterfront District was developed based on the land use assumptions presented in Table 1 and the methodologies described in the Waterfront District EIS. Key assumptions for the trip generation analysis include:

- **Existing Trips:** Existing weekday daily and PM peak hour traffic volumes for the development areas were updated based on the 2019 data collected.
- **Mode Splits:** The future 2023 mode splits were based on the existing 2019 data collected for north and south of the Waterway. It is anticipated as mixed-use development occurs there will be a shift towards non-auto modes; however, the evaluation assumes for the next 4-years mode splits would be consistent with existing conditions with a high use of auto modes.
- **Internal Trips:** Consideration was also given to internal trips that would occur between uses within the site. An internal trip rate of approximately 15 percent was assumed as part of the Waterfront District EIS. While the planned development in the is mixed use, it was unknown if the internal trip rate would be as high as 15 percent. Internal trips were calculated based on the methods described in the Waterfront District EIS and a review of the current Institute of Transportation Engineers (ITE) Trip Generation Handbook, 3rd Edition procedures and data. The internal trip rate was estimated to be approximately 7 percent.

Table 4 provides a summary of the future vehicle trip generation for the Waterfront District. Detailed trip generation calculations are provided in Attachment 2.

Table 4. Estimated Future (2023) Weekday PM Peak Hour Vehicle Trip Generation

	Inbound	Outbound	Total
North of Waterway			
Existing Development ¹	40	132	172
Future Pipeline Development ²	6	33	39
Internal ³	<u>-9</u>	<u>-9</u>	<u>-18</u>
Net Offsite	37	156	193
South of Waterway			
Existing Development	351	350	701
Future Pipeline Development	289	300	589
Internal	<u>-52</u>	<u>-51</u>	<u>-103</u>
Net Offsite	588	599	1,187
Waterfront District Total			
Existing Development	391	482	873
Future Pipeline Development	295	333	628
Internal	61	60	121
Net Offsite	625	755	1,380

1. Based on data collected in October 2019.

2. Calculated based on person trip methodology outlined in the Waterfront District EIS with updates to reflect Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition.

3. Based on methods described in Waterfront District EIS with data updated to reflect ITE *Trip Generation Handbook*, 3rd Edition and consideration of the size of the future 2023 development.

As shown in Table 4, the future total net offsite trip generation for the Waterfront District would be 1,380 vehicles during the weekday PM peak hour with 193 vehicles within the area north of the Waterway and 1,187 vehicles south of the Waterway.

Estimated future net offsite trips are less than shown in the 2017 monitoring study due to the increase in the non-motorized mode split and overall less development projected. The auto mode split south of the waterway was 87 percent in 2017 compared to the current monitoring, which shows 77 percent. If an 87 percent auto mode split was assumed for future development then the net offsite trips would be approximately 1,440 trips, which continues to be less than the 1,530 net offsite trips projected in the 2017 monitoring study.

Future Traffic Volumes and Transportation Infrastructure Phasing Plan

The future trips were distributed to the site access points based on the location of the proposed development as well as consideration of planned infrastructure improvements and offsite travel patterns. The existing trips were not reassigned since there are no new site access points proposed. Table 5 provides a summary of the existing and future outbound PM peak hour trips for each site access point as well as the remaining capacity with the future development over the next 4-years and the planned infrastructure.

Table 5. Future (2023) Infrastructure Capacity Summary

PM Peak Hour Outbound Vehicle Trips			Estimated Vehicle Capacity (Trips) ³	Remaining Capacity	
Existing Trips ¹	Net New Trips ²	Future Trips		Trips	Square-feet ⁴
North of Waterway					
132	24	156	400	244 (61%)	340,000
South of Waterway					
350	249	599	900	301 (67%)	520,000

1. Based on October 2019 traffic counts.

2. Calculated based on person trip methodology outlined in the Waterfront District EIS and assigned based on the location of development with consideration of planned Infrastructure Improvements and offsite travel patterns.

3. Based on the infrastructure phasing analysis as documented in the memorandum subjected *The Waterfront District Subarea Plan Transportation Analysis Update for 2012 SEIS Addendum*, October 2012 with consideration of improvements that have been completed.

4. Approximate millions of square-feet (sf) of development is provided for reference and is based on the average outbound vehicle trip rate as documented in the memorandum subjected *The Waterfront District Subarea Plan Transportation Analysis Update for 2012 SEIS Addendum*, October 2012.

As shown in Table 5, the proposed infrastructure would accommodate the anticipated development over the next 4-years. North of the Waterway, the proposed development is anticipated to use approximately 39 percent of the infrastructure capacity leaving 61 percent of the capacity available for future development. South of the Waterway, the proposed development is anticipated to use approximately 33 percent of the infrastructure capacity. The remaining capacity would accommodate additional development; however, the location of future development will also need to be considered when determining if it can be accommodated without additional infrastructure improvements. Conducting traffic monitoring study every 2-years will capture changes in development estimates, location of the development and verify infrastructure needs.

Findings

Based on the review presented above, no additional infrastructure improvements are recommended. Plans for development beyond what has been analyzed herein should consider the available capacity for each area. In addition, the evaluation of infrastructure capacity remaining for the site after the projected 2023 development is conservative since all existing site uses are anticipated to remain and as development occurs existing uses would be redeveloped reducing trips from the site.