Council work session agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Tuesday, July 31, 2018 **2:00 PM** **Metro Regional Center, Council Chamber**

REVISED 7/27

2:00 Call to Order and Roll Call

2:05 Chief Operating Officer Communication

Work Session Topics:

2:10 Wet Waste Tonnage Allocations 18-5057

Presenter(s): Paul Slyman, Metro
Molly Vogt, Metro
Roy Bower, Metro

Attachments: Work Session Worksheet

2:55 Solid Waste Rate Transparency 18-5058

Presenter(s): Tim Collier, Metro

Attachments: Work Session Worksheet
Transfer Station Rate Transparency Letter and Responses
TS Transfer Station Draft Information Sheet

3:10 SW Corridor Update on LRT Preferred Alternative Selection 18-5059

Presenter(s): Chris Ford, Metro
Malu Wilkinson, Metro

Attachments: Work Session Worksheet
Executive Summary
Summer 2018 Newsletter

3:40 Councilor Communication

3:45 Adjourn

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February 2017

Wet Waste Tonnage Allocations

Work Session Topics

Metro Council Work Session
Tuesday, July 31, 2018
Metro Regional Center, Council Chamber

METRO COUNCIL

Work Session Worksheet

PRESENTATION DATE: July 31, 2018 **LENGTH:** 45 minutes

PRESENTATION TITLE: Wet Waste Tonnage Allocation

DEPARTMENT: Property and Environmental Services

PRESENTERS: Paul Slyman, 503-797-1510, paul.slyman@oregonmetro.gov
Molly Vogt, 503-797-1666, molly.vogt@oregonmetro.gov
Roy Brower, 503-797-1657, roy.brower@oregonmetro.gov

WORK SESSION PURPOSE AND DESIRED OUTCOMES

The purpose of this work session discussion is for the Metro Council to understand how the region's wet waste tonnage is proposed to be allocated to private transfer stations, starting in 2020, and provide staff with direction on whether to proceed with the proposed approach, including consideration of four enhancements to the process.

TOPIC BACKGROUND AND FRAMING THE WORK SESSION DISCUSSION

Oregon law (ORS 268.300 *et. seq.*) provides Metro with exclusive authority over the transfer and disposal of waste that is generated within its jurisdictional boundary. Metro exercises its broad legal authority to meet the following public benefits:

- Protect the public's health
- Protect the environment
- Get good value for the public's money
- Keep our commitment to the highest and best use of materials
- Be adaptable and responsive in managing materials
- Ensure services are accessible to all types of customers

The Metro region has had a "hybrid" mix of transfer stations that are privately and publicly owned since 1983, when Metro first began operating Metro South. Metro Central was opened in 1991 in anticipation of the closure the St. Johns Landfill and the need to haul wet waste long distances for disposal. Today there are five privately owned and two publicly owned stations transferring wet waste generated from within Metro's jurisdictional boundary. Two transfer stations located outside the region receive small volumes of wet waste that is generated inside the region. The Metro Council reaffirmed this basic system through the adoption of its Transfer System Configuration Policy in July 2016 (Resolution No. 16-4716). The policy required that by 2020 Metro will:

1. Establish tonnage allocations in percentages so that all allocations change proportionally as regional tonnage rises or falls;
2. Establish a predictable and transparent framework for adjusting tonnage allocations that Council could adopt as a policy;
3. Promote more efficient off-route travel to reduce greenhouse gases and minimize travel time;
4. Accommodate future changes and new technology;
5. Support small businesses;
6. Utilize the regional transfer system and require that all landfill-bound waste use the region's transfer stations; and
7. Improve rate transparency at public and private stations.

In addition, the Metro Council agreed that *no less* than 40 percent of the region's wet waste tonnage must flow to the two publicly owned transfer stations in order to ensure, among other things that Metro can offer necessary services to the public, such as seven-day-a-week self-haul service, that other stations have not provided. By providing transfer services, Metro also serves as a rate benchmark for other stations in the system as well as for local governments during their rate setting process. The Metro Council also agreed that *no more* than 40 percent of the region's wet waste would be transferred by any single company in order to enable more companies to participate in the transfer system.

The Transfer System Configuration Policy was developed with extensive waste industry input and SWAAC review in preparation for developing a more systematic process to the allocation and management of Metro's wet waste after the current disposal contract with Waste Management expires on December 31, 2019. That contract requires Metro to ensure that 90 percent of all the landfill-bound wet waste generated within Metro's jurisdiction is delivered to a Waste Management landfill for disposal. To ensure compliance with the terms of this contract, Metro established limits on the amounts of wet waste that each privately owned transfer station could receive each year and restricted the amounts of wet waste that could flow to non-Waste Management landfills to no more than ten percent annually. Metro has generally met or exceeded this contractual term in every contract year.

Starting in 2020, Metro will no longer guarantee a percentage of the region's garbage to any one company or landfill. Instead, Metro is securing disposal contracts only for the waste that is consolidated at its own transfer stations. This is anticipated to change the economics of garbage collection, hauling, transfer and disposal in the greater Portland area.

Currently, there is no systematic method for allocation of Metro's waste to the private stations. The allocations are not always predictable, often require ongoing negotiations with private operators, and make no claim to promote system efficiency. In addition, the current allocations do not account for regional population shifts or growth nor do they account for adding (or removing) transfer stations in the system. In short, staff does not believe that the current approach to allocating waste serves the public's interest.

In March, staff proposed a methodology to allocate the regional wet waste tonnage to private solid waste transfer stations beginning in 2020.[1] The methodology was developed to promote a more systematic, transparent, equitable and potentially efficient distribution of wet waste to the region's transfer stations. The proposed new approach for allocating waste to different transfer stations is as follows:

- Step 1: Map travel times to transfer stations to show baseline travel times from any point in the region to the nearest transfer station, using Metro's existing regional transportation model and established transportation analysis zones (TAZ). [2]
- Step 2: Define transfer station wastesheds based on areas most accessible to existing transfer stations.
- Step 3: Combine wastesheds where transfer stations are located in close proximity to each other to reduce arbitrary variations in allocations where transfer station are functionally serving the same area.
- Step 4: Estimate the wet waste generated in each combined wasteshed, based on population and employment data within each TAZ in the wasteshed.

[1] See https://www.oregonmetro.gov/wet-waste-allocation-study for more information about the methodology.

[2] The March proposal relied on uncongested travel time for the analysis. Staff will continue working with stakeholders to ascertain the time most reflective of garbage trucks and hauling routes.

- Step 5: Calculate and adjust waste allocations to individual transfer stations based on anticipated waste generation; physical capacity of individual transfer stations; local government restrictions on size, traffic and land uses, and any other relevant enhancements or localized factors.

The proposed new approach to wet waste allocation is expected to reduce travel time, move toward greater system efficiency, and ensure that many companies can continue to play a role in the region's garbage system. This new approach encourages haulers to minimize off-route travel to reduce greenhouse gases and road wear from unnecessary truck travel, increase pedestrian safety, and provide other public benefits. This approach seeks to minimize system costs by requiring that all landfill-bound waste use a transfer station located within or very near Metro's jurisdictional boundary.

SUMMARY OF RESPONSES

After the proposed tonnage allocation methodology was published in March, Metro staff met with each transfer station operator individually and as a group in April and June. Staff also briefed local government solid waste directors on several occasions and the Solid Waste Alternatives Advisory Committee (SWAAC) at its May and July meetings. Various comments and questions have been raised. The following is a high-level summary of the major concerns that were raised and staff's responses to those comments:

1. Metro developed this proposal too quickly and was not inclusive enough.

   Response: The allocation method was developed internally at Metro over a period of several months and proposed in March 2018 with invitations for feedback in person and in writing. The goal is to have the necessary code and administrative rule changes in place by the end of 2018 so that a new wet waste transfer allocation approach is established well before 2020.

2. The model is too generalized.

   Response: The tonnage allocation approach used in the proposed model is based on the "shortest travel time" rule, from the origin of the waste to the most proximate transfer station. This approach is generalized and intended to align with the Council objectives while being more systematic, straightforward, transparent, predictable and easily maintained over time. A much more complex empirical model could be constructed that would accomplish other goals such as better reflecting the "actual" regional system, allowing more accurate comparison of system performance from year to year, and better understanding the impact to the system if a new transfer station were to be added. It is critical to balance collecting new data with its practical application in improving the model. Staff recommend a more detailed evaluation of the model and an assessment of the data requirements necessary for its development.

3. Parking barns—where collection route trucks leave from and return to—should be included in the model.

   Response: Parking barns can be an important consideration, especially when co-located with a transfer station, because that is where integrated operations expect to park collection vehicles after delivering the last load of the day. Metro staff appreciates the significance of certain barns, especially those that serve to maintain and repair collection vehicles and serve as compressed natural gas (CNG) fueling stations for fleets. However, a particular parking barn's level of influence on off-route travel time depends on many other factors including the number of routes a truck completes in a day and traffic issues that fluctuate during the day. In addition, parking barn locations change more over time than transfer stations.

4. There is not a universally preferred way to measure proximity to transfer stations to define wastesheds for all collectors.

   Response: TAZs, which are smaller than census tracts, are the regionally accepted standard unit of analysis for modeling how different modes of transportation travel between multiple points for different purposes that indicate the most efficient ways for doing so. Metro, as the federally recognized metropolitan planning organization for the greater Portland area, develops and maintains a TAZ-based regional travel model for transportation planning and has many years of experience in modeling the flow of transportation throughout the region.

5. The model does not account for differential tip fees between transfer stations or cost efficiencies that may accrue to vertically integrated companies.

   Response: In the past, tips fees at all stations were within a very narrow range – generally within one dollar per ton. Therefore, it made no appreciable difference for unaffiliated collectors to use one facility over another facility based on tip fees. Only recently have some stations begun to increase tip fees significantly. For instance, the Forest Grove and Troutdale Transfer Stations are currently charging nearly $15 per ton more than tip fees at Metro's public stations. Much higher tip fees at Forest Grove and Troutdale have forced some collectors to re-evaluate which station they use based on cost and travel time. Local government staff have also expressed the need for greater rate transparency at facilities that would better inform their rate setting process. More uniform rates at transfer stations throughout the region coupled with the proposed tonnage allocation method could encourage greater efficiencies in the flow of waste.

6. Out-of-region transfer stations should be considered part of the system.

   Response: A few transfer stations located just outside the Metro regional boundary, including stations in Canby and Clark County, Washington, are currently authorized to receive small volumes of Metro area wet waste. The configuration policy included a plank that stated "wet waste generated in region should utilize the regional transfer system" as a way to "minimize inefficiencies." Based on the analysis, out-of-region transfer stations were closer to only a very small percentage of the regions wet waste than transfer stations located inside the region. However, staff recognize that continuing to allow some nearby transfer stations to remain active in the regional system, at least for a transitional period, acknowledges the roles of local business and investments in the region's waste system.

SUMMARY OF STAFF RECOMMENDATIONS

This proposal begins to move the system closer to better clarity, transparency, predictability and efficiency in a post-2019 world. Staff looks forward to enhancing the model as more and better information is collected in the future. Accordingly, staff recommends the following enhancements to the model as a bridge to the development of a more complete model:

1. **Collect additional data to enhance the model** – In order to improve the approach for allocating tonnage, significantly more data is required. Additional data will also allow Metro to enhance the model in the future and, more importantly, allow Metro to more accurately determine whether system performance is improving from year-to-year. Therefore, beginning in 2019 or as soon as is practicable, staff recommends additional data be evaluated for inclusion in building a more robust model, such as:
   - *Expanded transactional information* -- all transfer stations could begin reporting route information to Metro from haulers on all transactions that indicate distance and time from the end of the route to the transfer station;
   - *Truck parking barns* – truck barn locations could be routinely reported to Metro by haulers and stations as they change. Barns could then be evaluated for inclusion in the

model, especially those barns that are co-located with a transfer station and include maintenance and repair and require overnight CNG fueling;
- *Congested travel time* – staff could work with the hauling industry to determine the optimum travel time for use in the model that most accurately reflects the traveling time for garbage trucks;
- *Truck routing* – staff could evaluate the inclusion of individual routes, the number of trips made to a transfer station during a typical day, and which truck routes might be better served by splitting its tonnage between transfer stations and parking barns; and
- *Fuller analysis of other relevant factors* – there are more data points that could be useful for development of the model, such as travel time to disposal sites, vertically integrated costs, wait time at transfer stations, and other factors. Staff could evaluate these factors to determine whether the benefit outweighs the cost of collecting more information.

2. **Allow tonnage allocation adjustments** – Staff recognize that, as with any new methodology, the proposed approach may create unintended results. Therefore, as part of the allocation process, staff recommends including two additional tools for considering small tonnage adjustments:
    - *Tonnage transfers* – Private facilities may propose to shift small volumes of tonnage from one facility to another. Facilities would be limited to shifting tons that achieved a clear public benefit and that did not overwhelm another host community or create too disruptive of a shift. Metro would review and approve such proposals annually.
    - *Tonnage reallocation* – Metro may consider reallocating additional tonnage out of its share (in excess of 40 percent) to private stations when it can be demonstrated that it would serve the public good. Metro would establish a process and timetable to review and approve such requests annually.

3. **Allow nearby out-of-district transfer stations to participate and receive a tonnage allocation** – Metro could establish a process to allow out-of-district transfer stations to formally become part of the regional transfer system. Currently, Canby (KB Recycling) and West Vancouver (Waste Connections) transfer stations receive some limited tonnage from the Metro region. To continue receiving wet waste tonnage in 2020, out-of-region stations would need to become part of the regional transfer system by:
    - Becoming "designated" by the Metro Council to be part of the regional solid waste system;
    - Entering into an agreement with Metro to receive a wet waste allocation from Metro;
    - Agreeing to meet similar operational and regulatory standards as franchised transfer stations located inside the region;
    - Collecting and remitting Metro fees and taxes on waste received that is generated inside the region; and
    - Not significantly creating system inefficiencies or increased costs.

    The establishment of five-year designated facility agreements has the added advantage of eliminating the need to issue wet waste non-system licenses every two years and align with the five year terms of transfer station franchises issued by Metro.

4. **Expand the use of variance authority** – Metro Code already includes "variances" as a tool for authorized facilities when the Metro Council or the COO finds it necessary to protect public health, safety or welfare. Variances are issued when meeting a particular requirement is inappropriate because of conditions beyond the applicant's control or would be extremely impractical or burdensome due to special physical conditions or causes. Examples of when a variance might be appropriate include long term major road construction that disrupt normal routes to transfer stations, facility construction that would prolong wait times at routinely used transfer stations, or catastrophic events such as fires or earthquakes. Variances would be

issued for a specified time period. The variance tool could be expanded by Metro to include consideration of tonnage allocation changes.

CONCLUSION AND NEXT STEPS

It is important to remember that, with the expiration of the current disposal contract, the regional solid waste system that we know today will be different beginning in 2020. Different constraints and drivers will influence behavior of the private sector in ways that cannot be entirely known. Multinational waste companies may consolidate small haulers and independent transfer stations in order to feed their own landfills, making it more difficult for local companies to remain in the system. Metro is charged with planning and ensuring that the region's waste system meets the needs of the public and that the system is resilient and adaptable. With many of the current system framework sidebars removed in 2020, Metro will need to assure the public that a variety of interests, such as those described on page 1 of this staff report, are still being met in the new system.

Metro will continue to consider franchise applications for new transfer stations or expanded tonnage capacity at existing transfer stations in accordance with Metro Code Chapter 5.01 or Metro Code Chapter 5.05 (in the case of out-of-region transfer stations seeking to become part of the regional system). Metro will continue to rely on the existing provisions in Sections 5.01.150 through 5.01.240 to consider new transfer stations located inside or outside the region. Metro may re-run the allocation model to better understand the impact of potential changes to the system including increased tonnage capacity or new stations in the system.

In summary, staff has developed an approach to allocating wet waste tonnage in 2020 that begins to create a clearer, more transparent, potentially efficient and predictable system. This proposed approach also helps to support small businesses. Staff recommends several additional enhancements that will help transition to a new allocation system through increased collection of relevant data and allowing for adjustments to the methodology.

QUESTIONS FOR METRO COUNCIL CONSIDERATION

1. As Metro seeks to establish a more clear, transparent, efficient and predictable approach to allocating wet waste tonnage to transfer stations starting in 2020, does the Metro Council agree with staff's recommended approach, including the proposed enhancements?

2. If the Metro Council agrees with staff's recommendation, does it have questions or suggestions about any elements of this new approach or how it would be implemented?

3. Should staff prepare legislation for the Metro Council's consideration that would implement the proposed approach to wet waste tonnage allocation starting in 2020?

PACKET MATERIALS

- Would legislation be required for Council action ☒ Yes ☐ No
- If yes, is draft legislation attached? ☐ Yes ☒ No

Solid Waste Transparency Phase 2

Work Session Topics

Metro Council Work Session
Tuesday, July 31, 2018
Metro Regional Center, Council Chamber

METRO COUNCIL

Work Session Worksheet

PRESENTATION DATE: July 31, 2018 **LENGTH:** 15 minutes

PRESENTATION TITLE: Solid Waste Rate Transparency

DEPARTMENT: Finance and Regulatory Services

PRESENTER: Tim Collier, 503-797-1913, tim.collier@oregonmetro.gov

WORK SESSION PURPOSE AND DESIRED OUTCOMES

- Purpose: Obtain direction from Metro Council on making private transfer station charges more transparent.
- Outcome: Common understanding of local government feedback on rate transparency work to date, and clear delineation of next steps.

TOPIC BACKGROUND AND FRAMING THE WORK SESSION DISCUSSION

In July 2016, to improve overall transfer system function, Metro Council adopted the Transfer System Configuration Policy and directed the Chief Operating Officer to proceed with its implementation (Resolution no. 16-4716). The resolution included a number of new policies related to the public-private system of transfer stations that serve the greater Portland area. One of those policies seeks to highlight the costs that contribute to the rates at transfer stations, both public and private. This new policy lays out a progressive set of steps that Metro could take to provide local governments with better information that can inform their rate setting for their franchised garbage collection areas:

- Step 1: Estimate the costs of service offered at the public transfer stations by waste stream. Publish these unit costs to provide a clear, cost-based benchmark for local governments.
- Step 2: Step 1 may not yield sufficient transparency and adequate information to understand the relationship between rates charged and costs. If Step 1 is determined to be inadequate, Metro will conduct an assessment of private wet waste transfer station costs to estimate the various components (*e.g.,* transfer, transport, and disposal) of each transfer station's tip fee. To estimate these components, Metro may make site visits to observe typical operating practices and interview key operations staff, but will not typically access an operator's comprehensive financial records at a detailed level.
- Step 3: If Steps 1 and 2 do not yield sufficient transparency and adequate information to understand the relationship between rates charged and costs, Metro would conduct full rate review at private waste transfer stations, including detailed review of financial records, to determine costs relative to rates charged. An expert third-party contractor would likely be engaged to conduct such a review.

As a result of Metro Council's direction in Resolution no. 16-4716, staff conducted analysis to make Metro's own costs for waste handling services more transparent. That analysis was most recently updated last March in conjunction with the Metro Council's consideration of the 2018-19 per-ton rates at Metro's transfer stations. The goal of the analysis was to provide local government rate setters with rates "sufficiently transparent to allow regulators to judge whether such charges are fair, acceptable, and reasonably related to the costs of services received" as prescribed by the 2008

Regional Solid Waste Management Plan (Chapter 3, Section 12.0). Metro's cost experience may or may not reflect current "market" costs for services, since Metro's costs derive from contractual terms negotiated seven or more years ago and adjusted per negotiated inflators over that time.

Metro summarized these findings in a letter to all local government elected officials, city and county administrators, and solid waste and sustainability staff and asked if this provided sufficient information and transparency. While Metro staff received letters expressing appreciation for the added transparency of public rates, several local government representatives felt that such an effort was insufficient in bringing greater understanding to the factors that influence the rates at private sector transfer stations.

At a work session on May 23, 2017, the Metro Council asked staff to wait on pursuing Step 2 until a full year's worth of local government solid waste rate reviews had taken place to better understand how the outcomes of Step 1 had affected local rate-setting. That annual rate review cycle is complete, and there is interest by local governments in Metro's further pursuit of greater transparency in how rates are established at private transfer stations. In order to better understand what goes into these rates, and in preparation for the next annual rate review cycle, staff is requesting the Metro Council's permission to begin proceeding with Step 2 of this effort.

To help illustrate and compare costs among private transfer stations, staff proposes using a template (included as Attachment A to this worksheet) and working with private transfer station operators to illustrate the factors that inform the per-ton rates charged at those stations.

The information obtained from Step 2 would be provided to the Metro Council and local government representatives. The reception by the Metro Council and local governments to this information would inform whether Metro staff would proceed to Step 3.

QUESTIONS FOR COUNCIL CONSIDERATION

1. Does the Metro Council have questions about the information that staff seeks to obtain in Step 2?

2. Does the Metro Council support staff moving forward with Step 2 of the transfer station rate transparency process?

PACKET MATERIALS

- Would legislation be required for Council action ☐ Yes ☑ No
- If yes, is draft legislation attached? ☐ Yes ☐ No N/A

Attachments:

- Template for Step 2 rate transparency information
- Letter from Paul Slyman and Tim Collier to private transfer stations, dated March 23, 2017
- Letters received from local jurisdictions June 2016:
    - Waste Management, 6/16/2017
    - City of Hillsboro, 11/27/2017
    - City of Hillsboro, 3/12/2018:
        - Summary of Rate Transparency Discussion, 1/12/2018

March 12, 2018

Martha Bennett
Chief Operating Officer
Metro
600 NE Grand Ave
Portland, Oregon 97232

Dear Martha:

We are writing to express our concern about the inequity in rates charged at the private facilities that receive solid waste from our communities. Those rates, in the case of the Forest Grove and Troutdale transfer stations remain substantially higher than those charged at the public facilities in Portland and Oregon City. Given the excellent level of transparency in rate setting at the Metro facilities, and Metro's existing authorities to ensure equity in rates, we would like to know what plans are in place to level the rates.

Last March we received Paul Slyman's letter regarding the efforts of Metro to "improve rate transparency at all transfer stations" that receive waste generated within the region. At its work session last May, the Metro Council indicated that even more transparency in rate setting at the Metro facilities ought to be tested before doing more. This approach is not helpful since 1) Much or all of our landfill-bound material does not go to a Metro transfer station, and 2) Transparency in rates at the Metro transfer stations is not what is lacking in our local rate setting. What we need is an equitable rate to those charged at the public facilities.

After seeking justification directly from Waste Management, we are more convinced than ever that the rate increases at the private facilities is not justified. This issue has dragged on for nearly six years. We would like to know what the intended course of action is by Metro, and when, to ensure that rates charged at all regional system facilities are equitable and justified.

Sincerely,

Michael Brown
City Manager of Hillsboro

Rob Drake
City Manager of Cornelius

Bob Davis
County Administrator of Washington County

Marty Wine
City Manager of Tigard

Joe Gall
City Manager of Sherwood

Sherilyn Lombos
City Manager of Tualatin

Enclosures: Summary of Rate Transparency along with past correspondence

January 12, 2018

Summary of Rate Transparency Discussion

- Since 2012, rates charged at the Forest Grove and Troutdale transfer stations owned and operated by Waste Management have continued to increase unabated relative to the rates charged at the Metro public transfer stations. The current rate at the Forest Grove Transfer Station is $7.40 higher than at the Metro stations:

Year	Tip Fee Cost Per Ton – FGTS	Transaction Fee Cost Per Load[1] – FGTS	Total Fees Per Ton – FGTS	Tip Fee Cost Per Ton – Metro TS's	Transaction Fee Cost Per Load[2] – Metro TS's	Total Fees Per Ton – Metro TS's	Total Fees Difference – FGTS vs Metro TS's
2017	$99.50	$22.00	$102.64	$94.95	$2.00	$95.24	**+$7.40**
2016	$99.50	$20.00	$102.36	$96.25	$2.00	$96.54	**+$5.82**
2015	$98.00	$16.00	$100.29	$94.98	$3.00	$95.41	**+$4.88**
2014	$94.85	$14.00	$96.85	$93.33	$3.00	$93.76	**+$3.09**
2013	$95.73	$14.00	$97.73	$94.33	$3.00	$94.76	**+$2.97**
2012	$93.53	$10.00	$94.96	$93.84	$3.00	$94.27	**+$0.69**
2011	$89.43	$10.00	$90.86	$89.53	$3.00	$89.96	**+$0.90**
2010	$85.75	$3.00	$86.18	$85.85	$3.00	$86.28	**-$0.10**
2009	$80.75	$3.00	$81.18	$80.78	$3.00	$81.21	**-$0.03**
2008	$75.75	$3.00	$76.18	$75.75	$3.00	$76.18	**$0**

- Waste Management – and perhaps other facility operators – do not provide any detailed justification for rate increases
- Metro has authority to require transparency in rate setting for facilities that receive waste generated within the Metro boundary
- In 2016, Metro staff engaged private facility operators to discuss the issue of lack of rate transparency, and the operators indicated no interest in increasing transparency
- Hillsboro and Washington County have sent Metro leadership letters (enclosed) describing concerns with the lack of rate transparency
- In March 2017 Metro issued a letter (enclosed) to local governments laying out a 'step' process to progressively require greater transparency from the private facilities, IF it was justified by each step. It also included increased transparency in rates for the Metro transfer stations, stating that this could be helpful to local governments that want greater transparency. <u>This information is not helpful to jurisdictions that do not send material to Metro transfer stations</u>.

[1] This amount is factored by load, with the average load at seven tons, so the additional cost is factored at $3.14 per ton.

[2] Similar to Forest Grove, the transaction fee has been estimated per ton based on average load size.

- At a May 2017 work session, Metro leadership asserted that the proposed 'step' process would allow local governments to judge whether some added measures would support their rate setting. This is an important point – local governments do not need the transparency to set their rates, they need it to justify the costs of disposal.
- At the May work session, Metro Council ultimately decided that the 'step' process needed more time, so that local governments could 'use' it during their upcoming 2018 rate review process. Hillsboro does not have any use for the added detail since 1. Transparency details are not pertinent to setting local rates and 2. Little to no material from Hillsboro goes to Metro transfer stations. The issue is fairness and transparency, especially in light of the major delta between rates charged at the public and private stations
- In June 2017, Hillsboro invited Waste Management to provide details that would justify the higher rates, which they sent via letter (enclosed). Hillsboro analyzed the information and deemed that it did not justify the rates, and responded via letter in November 2017 (enclosed)

Hillsboro
OREGON

November 27, 2017

Michael Jefferies
Area Pricing Director
Waste Management
7227 NE 55th Avenue
Portland, Oregon 97218

RE: June 16, 2017 Letter to Mayor Steve Callaway

Dear Michael:

We received your June 16 letter to Mayor Callaway that followed our meeting on June 13 to discuss rates charged at the Forest Grove Transfer Station (FGTS). At our meeting, Mayor Callaway expressed his hope that some justification might be provided to support the increases that have far eclipsed those at the public stations. As a key component of the public/private solid waste collection, transfer and disposal system, we feel it is incumbent upon Waste Management to demonstrate transparency in rates, so that we all are able to answer to our rate payers with the specific drivers in their service rates. We appreciate your effort to do so via the June 16 letter.

As we stated in the meeting, we understand and appreciate the need for you to generate a profit. Generally speaking, private industry sets rates with the goal to maximize profit, whereas government sets rates to mitigate impacts on rate payers. We have seen transparency in rate setting for the Metro stations for years, but it is lacking for rates at the FGTS (and the Hillsboro Landfill, which receives a sizable portion of the yard debris collected from Hillsboro homes and businesses).

Year	Tip Fee Cost Per Ton – FGTS	Transaction Fee Cost Per Load[1] – FGTS	Total Fees Per Ton – FGTS	Tip Fee Cost Per Ton – Metro TS's	Transaction Fee Cost Per Load[2] – Metro TS's	Total Fees Per Ton – Metro TS's	Total Fees Difference – FGTS vs Metro TS's
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2015	$98.00	$16.00	$100.29	$94.98	$3.00	$95.41	**+$4.88**
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2010	$85.75	$3.00	$86.18	$85.85	$3.00	$86.28	**-$0.10**
2009	$80.75	$3.00	$81.18	$80.78	$3.00	$81.21	**-$0.03**
2008	$75.75	$3.00	$76.18	$75.75	$3.00	$76.18	**$0**

[1] This amount is factored by load, with the average load at seven tons, so the additional cost is factored at $3.14 per ton.

[2] Similar to Forest Grove, the transaction fee has been estimated per ton based on average load size.

As the rate history table above shows, there is now a difference amounting to $7.40 per ton between Forest Grove Transfer Station and the Metro facilities, and we have little reason to believe that the increases will stop – though we acknowledge your assertion that there will be no added increase for the coming year.

We offer the following in response to your letter:

- Your argument seems to be based on a hypothetical comparison to Hillsboro's material going to a public facility in Portland. This has nothing to do with rates charged by Waste Management at the facilities in Washington County. In fact, it seems to suggest that Waste Management increases rates simply because it can, and argues that the infeasible option of sending route trucks to Portland would be worse than FGTS.
- Specifically, your statement regarding a Hillsboro customer's rate including a $0.40 premium for transport to a Metro facility is misleading at best. As you know, all landfill-bound material from residential customers is delivered to FGTS.
- You indicate that taxes and fees paid by Waste Management are higher due to the transportation cost. As with the prior statement, this seems to assume material being transported to a Metro facility. Again, it seems to suggest that any cost benefit that might have existed given our proximity to the FGTS is eliminated by the fee increases that have been enacted by Waste Management. The argument seems to be "be glad we are here, it could be worse."
- Our assessment of the fees you describe (property tax, community enhancement, county host fees, and fuel tax) produces a per-ton differential of $0.05. This does not come close to justifying what is now a roughly 7% ($7.40 per ton) cost premium at FGTS as compared to the Metro stations.

Again, Metro has provided transparency in both the numbers and the process for the public transfer stations for years. I sat on the regional rate committee years ago. Metro has recently initiated a process that provides even greater detail – which is great for the customers who use their transfer stations. We strongly support those efforts and we urge Waste Management to meet that same standard now. We believe that your argument would be stronger if you were to meet that standard of transparency. It would strengthen the accountability of private facility operators, it would enhance our regional public/private system, and most importantly it would allow for us to provide greater accountability to the residential and business customer stakeholders in Hillsboro.

Sincerely,

Peter Brandom
Senior Project Manager
City of Hillsboro

Cc: Dean Kampfer, Waste Management
Mike Dewey, Waste Management
Mayor Callaway
Hillsboro City Council
Michael Brown
Rob Dixon

WASTE MANAGEMENT
7227 NE 55th Avenue
Portland, OR 97218

June 16, 2017

Mayor Steve Callaway
City of Hillsboro
150 E. Main Street, 5th Floor
Hillsboro, Oregon 97123-4028

RE: Transfer Station Gates Rates

Dear Mayor Callaway:

Thank you for meeting with us on Tuesday, June 13, to discuss the gate rates at the Forest Grove Transfer Station (FGTS) and Metro transfer stations. Waste Management strives to be as environmentally conscious and cost efficient as possible for the benefit of rate payers. However, differences in the respective cost structures of FGTS and Metro, result in a higher gate rate charged at FGTS. For example:

- **Taxes** - As a corporation we pay property taxes and income taxes; Metro pays neither.
- **Landfill Fees** - FGTS and Metro use different landfills with differing disposal costs. We have experienced significant disposal cost increases at FGTS over the past few years due to higher taxes and community enhancement charges from Yamhill County and the City of Forest Grove.
- **Transportation** - Our transportation costs are higher than Metro's due to highway use taxes paid by FGTS; Metro does not incur these taxes.

Given the significant additional costs incurred at FGTS compared to Metro transfer stations, the 7.8% rate difference is reasonable. It is a testament to the efficacy of our operations, led by Senior District Manager Kirk Duncan and his very capable team. These men and women work hard to deliver value to the community we serve.

So, how does this difference in transfer station gate rates impact customers' rates? The table on page 2 illustrates the difference for Hillsboro customers (based on selected rates).

Service	Weight Per Set Out	Frequency of Collection	lbs Per Month	Metro Rate	Cost	FGTS Rate	Cost	Variance
35 Gallon Roll Cart	25 lbs	Weekly	108.325	$ 95.24	$ 5.16	$ 102.64	$ 5.56	$ (0.40)
			(25 x 4.333)		(108.325 / 2000 x $95.24)		(108.325 / 2000 x $102.64)	
1 Yard Container	85 lbs	Weekly	368.305	$ 95.24	$ 17.54	$ 102.64	$ 18.90	$ (1.36)
			(85 x 4.333)		(368.305 / 2000 x $95.24)		(368.305 / 2000 x $102.64)	
35 Gallon Roll Cart	25 lbs	Weekly	108.325	$ 108.80	$ 5.89	$ 102.64	$ 5.56	$ 0.33
			(25 x 4.333)	($95.24 + $13.56)	(108.325 / 2000 x $108.80)		(108.325 / 2000 x $102.64)	
1 Yard Container	85 lbs	Weekly	368.305	$ 108.80	$ 20.04	$ 102.64	$ 18.90	$ 1.13
			(85 x 4.333)	($95.24 + $13.56)	(368.305 / 2000 x $108.80)		(368.305 / 2000 x $102.64)	

Description	Cost/Hour	Hours	Cost
Travel Time (Round trip) from Center of Hillsboro to Metro	$ 93.00	1.666667	$ 155.00
Travel Time (Round trip) from Center of Hillsboro toFGTS	$ 93.00	0.5	$ 46.50
Difference in Travel Cost			$ 108.50
Average Tons per load			8.00
Increase in Metro rate due to added Transportation Cost			13.56
			($108.50 / 8.00)

As the table demonstrates, a Hillsboro customer's 35-gallon rate includes approximately $0.40 per month more in disposal cost than a similar resident might pay in Portland (based on using Metro's transfer station). However, this only tells part of the story. The proximity of the FGTS (compared to Metro's nearest transfer station) means that Hillsboro residents enjoy a lower transportation cost.

Adjusting the Metro disposal rate to reflect the additional transportation cost, equates to $108.80 per ton ($95.24 + $13.56). Using the 35-gallon cart example above, the adjusted monthly disposal cost increases to $5.89, or $0.33 *more* than the current FGTS rate. Clearly, FGTS is the best value, the least cost option, for Hillsboro rate payers after considering the transportation differential. It should also be noted, our gate rate is not increasing for 2017/2018, providing rate certainty for Hillsboro.

We appreciate your time and the opportunity to work together on Hillsboro's environmental service needs. We look forward to continuing our service to the Hillsboro community at the Forest Grove Transfer Station.

If you have questions, please contact me at (503) 331-2251 or mjefferies@wm.com

Sincerely,

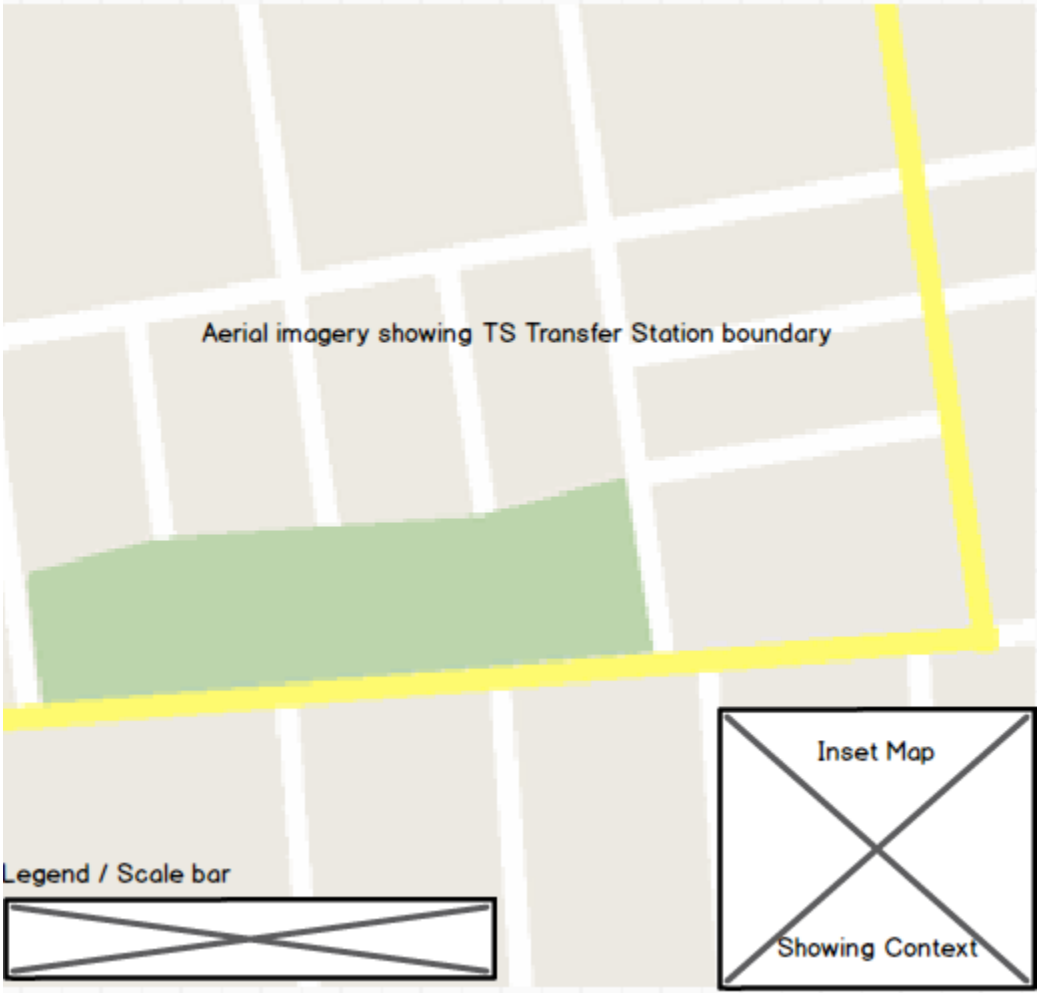
Michael Jefferies
Area Pricing Director

CC: Michael Brown, City Manager, City of Hillsboro
Peter Brandom, Senior Project Manager, City of Hillsboro
Dean Kampfer
Mike Dewey

TS Transfer Station
1234 ABC Street, Somewhere, Oregon

Overview

This section will provide some background on TS Transfer Station, including when it started operating under Metro franchise, its ownership, and it's affiliated companies in collection, disposal or both.



Land and Buildings

This section provides information about the square footage of TS Transfer Station's transfer building, as well as the acreage of the the tax lot upon which the station sits. This section also provides the most recent year (2016-17) of property taxes paid, for this site. If TS Transfer Station undertook any known improvements or expansions to the site in 2017, this section will also describe those as best as possible.

Equipment

This section will provide descriptions of equipment used at TS Transfer Station, as observed by Metro inspectors in calendar year 2017. The equipment includes scales, scalehouses, balers, compactors and sorting lines. Information on owned rolling equipment (like truck tractors or trailers) or yellow stock (heavy equipment confined to the station) is not provided.

Labor

This section will provide an estimate of the number of employees working at TS Transfer Station on a typical day, as observed by Metro inspectors in calendar year 2017.

Services

This section will provide information about the types of commercial and public services provided at TS Transfer Station, as observed by Metro inspectors or available via TS Transfer Station's public information. Types of information provided could include:

Services to Haulers	
Consolidation and transfer of wastes	Putrescible waste: Y/N (If Y, Hours of operation)
	Mixed-dry waste: Y/N (If Y, Hours of operation)
	Residential food scraps: Y/N (If Y, Hours of operation)
	Residential recyclables: Y/N (If Y, Hours of operation)
	Commercial recyclables: Y/N (If Y, Hours of operation)
	Commercial organics: Y/N (If Y, Hours of operation)
CNG filling stations	Y/N (If Y, # of stations)
Services to Public	
Self-haul/Bulky waste	Y/N (If Y, Hours of operation)
Recycling drop-off	Y/N (If Y, Hours of operation)
HHW collection events	Y/N (If Y, provide details of # of events, hours of operation)
Post-collection recovery	Y/N

Capacity and Tonnage Amounts

This section will provide estimates of wet tonnage capacity at TS Transfer Station, from a 2004 Metro study on the topic. This section will also provide information on TS Transfer Station's wet tonnage authorization for CY 2017, and actual tonnage received and transferred over the last four years, as reported by TS Transfer Station to Metro's Solid Waste Information System. Types of information provided could include:

	Inbound						Outbound		
CY	From in-district*		From other		Total	Avg	Total		Avg
	Tons	Loads	Tons	Loads	Accounts	Payload	Tons	Loads	Payload
2014	#	#	#	#	#	#	#	#	#
2015	#	#	#	#	#	#	#	#	#
2016	#	#	#	#	#	#	#	#	#
2017	#	#	#	#	#	#	3	#	#

Note: *tonnage applies to franchise limit

Cost Estimates

Estimates of TS Transfer Station's approximate 2017 operating costs, including general and administrative (G&A) expenses and profit, will be provided in this section. It will be assumed that TS Transfer Station sets its tip fees to recover operating and disposal costs, including overhead and profit. As such, operating costs (including G&A and profit) will be estimated as follows:

Operating Costs per ton (incl G&A and profit) *= Avg. Revenue per ton – Avg. Disposal costs per ton*

Revenue per ton will be estimated as the facility's tip fee, plus any transaction fees (converted to a per-ton basis) that were posted by the facility in 2017. Disposal costs per ton will be estimated as the sum of TS Transfer Station's landfill tip fees, per-ton landfill transport costs, and local and state solid waste fees and taxes. While some of these parameters are known, others are assumed and come from a variety of publicly available sources.

The following tables provide a possible methodological structure for carrying out TS Transfer Station's cost estimation, along with possible data sources for, or assumptions about each input parameter, footnoted and explained below:

Revenue ($/ton):	**$95.80**
Derivation:	
Fixed fee ($/load)[1]	*$5.00*
divided by: Average load Size (tons/load)[2]	*6.25*
equals: Per Ton Fixed Fee ($/ton)	*$0.80*
plus: Tip Fee ($/ton)[3]	*$95.00*
equals: Avg. Revenue ($/ton)	*$95.80*

Disposal Costs ($/ton)	**$74.41**
Derivation:	
Avg. Landfill tip fee ($/ton, calculated below)[4]	*33.90*
plus: Avg. transport cost ($/ton, calculated below)[5]	*$7.45*
plus: SW Fees and taxes[6]	*$33.06*
o Metro: Regional System Fee and Excise Tax ($/ton)	*$30.24*
o Local: Host fee and excise tax ($/ton)	*$1.00*
o State: DEQ fees ($/ton)	*$1.82*
equals: Disposal Costs ($/ton)	$74.41
Operating Cost, G&A and Profit ($/ton)	**$21.39**

Landfill Tip and Transport Cost Detail

	Landfill 1	Landfill 2	Weighted Average
Landfill Use (Tonnage Share, %)[7]	*80.0%*	*10.0%*	
Landfill Tip fee ($/ton)[8]	*$34.00*	*$33.00*	*$33.90*
Transport Cost to Landfill ($/ton):	$6.91	$12.33	$7.45
Derivation:			
Round trip distance (miles)[9]	80	170	
divided by: Average speed (miles/hour)[10]	50	55	
equals: Transit time (hours)	1.6	3.1	
plus: Queuing and tipping time (hours)[11]	0.3	0.3	
equals: Total time per trip (hours)	1.9	3.4	
multiplied by: Operating cost ($/hour)[12]	*$120*	*$120*	
equals: Cost per load ($)	$228.00	$406.91	
divided by: Payload (tons)[13]	33	33.0	
equals: Transport cost ($/ton)	$6.91	$12.33	

Methodology, Data Source and Assumption Footnotes:

1. Facility-posted rates in 2017. May be called transaction fee, environmental charge, or similar.
2. Average size of incoming commercial loads of putrscible waste, in tons, observed in facility-reported CY 2017 transaction data.
3. Facility-posted rates in 2017. Also referred to as "gate" rates.
4. Tonnage-weighted average landfill tip fee
5. Tonnage-weighted average transport costs
6. Tax rates that were effective in 2017.
7. The percentage of the facility's wet waste tons transferred to each landfill in CY 2017.
8. Use Metro South/Central tip fees paid to various landfills in CY 2017, or landfill gate rates.
9. Two times the Google Maps-derived distance from the facility to each landfill
10. Google Maps derived distance divided by Google Maps derived travel time, adjusted to reasonable transfer trailer highway speeds.
11. Use times from 2008 study in Appendix 1.
12. Use $/hour costs from 2008 study in Appendix 1, adjusted for approximate inflation through 2017
13. Average payload, in tons, of the facility's outbound wet waste to each landfill in CY 2017.

SW Corridor Update on LRT Preferred Alternative Selection

Work Session Topics

Metro Council Work Session
Tuesday, July 31, 2018
Metro Regional Center, Council Chamber

METRO COUNCIL

Work Session Worksheet

PRESENTATION DATE: 07/31/18 **LENGTH:** 30 minutes

PRESENTATION TITLE: SW Corridor Update on LRT Preferred Alternative Selection

DEPARTMENT: Planning & Development

PRESENTER(S): Chris Ford (x1633, chris.ford@oregonmetro.gov) and Eryn Kehe (x1881, eryn.kehe@oregonmetro.gov)

WORK SESSION PURPOSE & DESIRED OUTCOMES

- **Purpose:** Update Council on progress and upcoming steps for Southwest Corridor Plan.
- **Outcome:** Receive Council input on upcoming decision on final alignment of SW Corridor light rail.

TOPIC BACKGROUND & FRAMING THE WORK SESSION DISCUSSION

The Southwest Corridor Plan is a package of transit, roadway, bicycle and pedestrian projects that can help reduce congestion, increase transportation options, improve safety and enhance quality of life in Southwest Portland and southeastern Washington County.

Since the last update to Council in July 2016, the Southwest Corridor Steering Committee recommended the set of light rail project components to study in the federal environmental review process, including 13 alignment options in Portland, Tigard and Tualatin. That work culminated in the publication of a Draft Environmental Impact Statement (DEIS) in June 2018. The public comment period on the DEIS began June 15 and ends July 30.

In August, the Steering Committee is scheduled to recommend the Preferred Alternative for the light rail project. The Preferred Alternative must identify the final light rail alignment, stations and termini and will be used as the basis for TriMet's advanced design work and Metro's continued environmental review. Council will consider adoption of the Preferred Alternative into the Regional Transportation Plan update later this year.

The DEIS included an initial route proposal suggested by project partner staff which has served as a basis for public input, but has not yet issued its recommendation on the Preferred Alternative. Staff will provide an update on the DEIS findings and the rationale for the initial route proposal, and ask Council for input.

Public engagement on the Southwest Corridor Plan has continued to be extensive. Staff will provide an update on these efforts which include:

- The community advisory committee (CAC) for the Southwest Corridor Light Rail Project (created by Council Resolution 16-4751). The CAC's final meeting on July 30 will include a vote on a recommendation for the Preferred Alternative, which staff can share.
- Open houses, public hearings, information sessions and presentations to councils, committees, neighborhood groups and business organizations about the initial route proposal, DEIS public comment period and the upcoming Preferred Alternative decision.
- Mailed notification of the DEIS public comment period to over 10,000 addresses on the project around plus more than 700 letters sent to owners of properties who may be adversely affected by one or more light rail alignments under study.

- Interactive maps, newsletters and other materials intended to inform and engage.
- Email updates to our interested parties list, which has over 2,000 subscribers.

The Southwest Corridor Plan is one of the major projects in the Investment Areas group of Planning & Development, and will implement an important initiative of the Regional Transportation Plan. The Southwest Corridor Plan touches upon a number of other Metro programs and regional issues, notably around active transportation, fulfillment of the 2040 Growth Concept, and equitable housing.

Next steps for the Southwest Corridor Plan are:

- August 13 – Steering Committee recommendation on Light Rail Preferred Alternative
- September and October – local jurisdiction and agency endorsements of Preferred Alternative
- October and November – staff comes to JPACT and returns to Metro Council for adoption of Preferred Alternative into the Regional Transportation Plan update

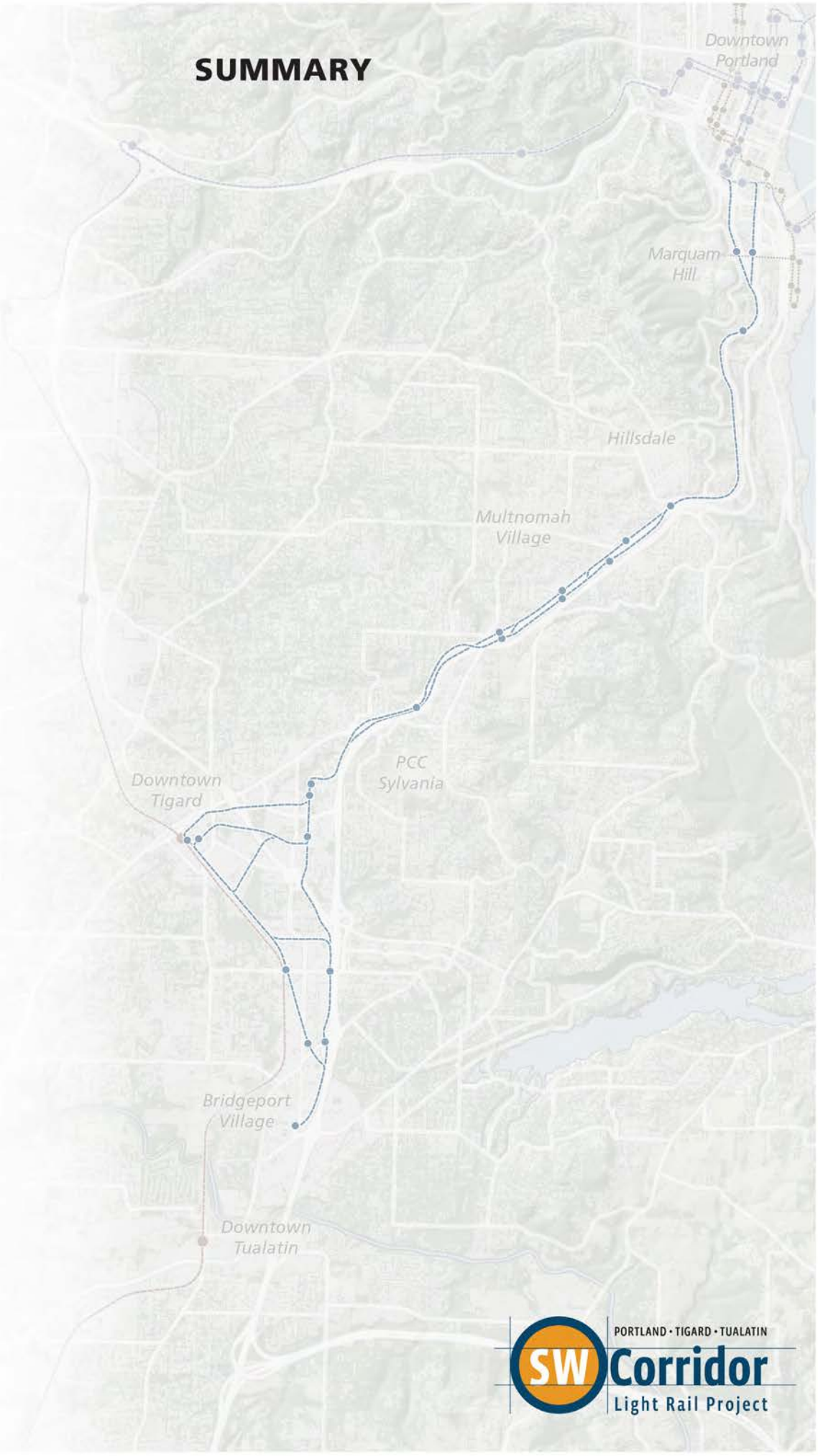
QUESTIONS FOR COUNCIL CONSIDERATION

- Does the Council have any questions or feedback for staff on the information presented today?

PACKET MATERIALS

- Would legislation be required for Council action ☐ Yes ☒ No
- If yes, is draft legislation attached? ☐ Yes ☒ No
- What other materials are you presenting today?
    - Southwest Corridor Plan Summer 2018 Newsletter
    - Executive Summary of the Southwest Corridor Light Rail Project Draft Environmental Impact Statement

SUMMARY



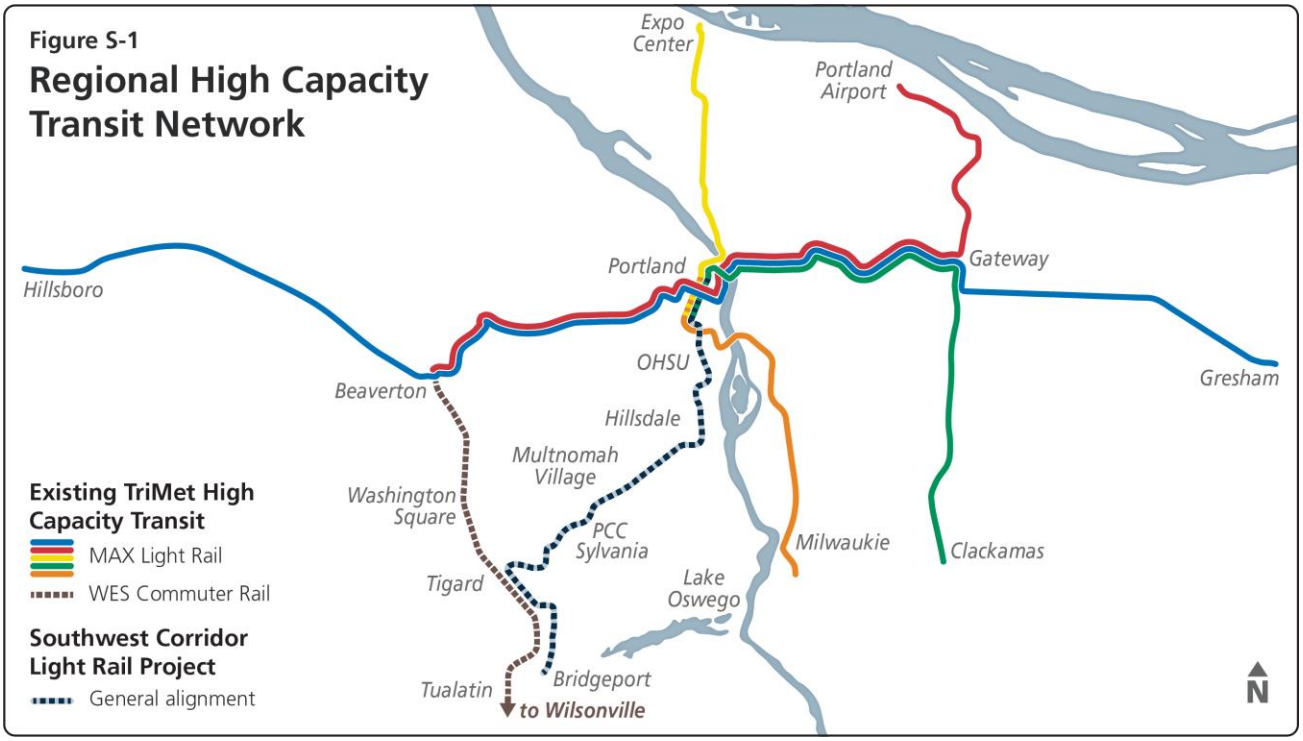
PORTLAND • TIGARD • TUALATIN
SW Corridor
Light Rail Project

S. SUMMARY

S.1 Southwest Corridor Light Rail Project

The Southwest Corridor Light Rail Project is a proposed new 12-mile Metropolitan Area Express (MAX) line from downtown Portland through Tigard, terminating near Bridgeport Village in Tualatin. The new line would be a major new spoke in the Regional High Capacity Transit Network (see Figure S-1). It would extend the existing MAX Green Line, continuing south from the Green Line's current terminus at Portland State University (PSU) and the Downtown Portland Transit Mall. The project would serve a broader north/south travel corridor generally along Interstate 5 (I-5) and Pacific Highway (99W)/SW Barbur Boulevard from southwest Portland to Sherwood, as well as communities to the east and west.

Figure S-1
Regional High Capacity Transit Network



The proposed project would feature:

- **Light rail trackway:** a 12-mile light rail line between downtown Portland and Tualatin via Tigard, which would primarily run at grade but may include up to 2.6 miles of elevated trackway or bridges and up to four cut-and-cover undercrossings
- **Stations and park and rides:** up to 13 light rail stations with platforms up to 200 feet long, including up to seven park and rides with up to 4,200 spaces total, and with two relocated or reconfigured transit centers and tail tracks or third tracks at terminus stations

- **Light rail vehicles:** up to 32 light rail vehicles added to the Tri-County Metropolitan Transportation District of Oregon (TriMet) fleet that would operate in two-car train sets (16 sets)
- **Light rail service:** service frequencies ranging from 7 to 15 minutes in 2035, depending on location along alignment and time of day
- **Bus routing changes:** elimination or modification of bus routes to improve coverage and service levels and avoid duplicating light rail service (service hours reallocated throughout the corridor)
- **Marquam Hill connection:** structures making a new pedestrian connection between SW Barbur Boulevard and Oregon Health & Science University (OHSU) on Marquam Hill
- **Shared transitway:** up to 2 miles of paved light rail transitway in South Portland to allow express use by buses to and from downtown
- **PCC-Sylvania shuttle:** shuttle route connecting the Portland Community College (PCC) Sylvania campus with up to two nearby light rail stations, including either five additional 40-foot buses or three van-sized shuttle buses
- **Operations and maintenance facility:** new light rail operations and maintenance (O&M) facility in Tigard with the capacity for up to 42 light rail vehicles (one facility option would have space to add more storage tracks later for up to 60 vehicles total)
- **Roadway modifications:** modifications to roadways along or intersecting the light rail alignment, such as SW Barbur Boulevard, including addition or reconstruction of bicycle lanes and sidewalks along modified roadways
- **Station access improvements:** new walking and bicycling infrastructure, such as sidewalks, bicycle lanes and paths, to improve access to stations
- **Bridgehead Reconfiguration:** modifications to the roads and ramps accessing the west end of the Ross Island Bridge and addition of signalized intersections along SW Naito Parkway (included with a certain alignment alternative)

S.2 Purpose and Need for the Project

Federal environmental regulations for an Environmental Impact Statement (EIS) require a statement of the problems a proposed project is intended to address, along with reasons why the project is needed. The Purpose and Need is used to define the EIS alternatives to be considered, and it guides the Federal Transit Administration (FTA), Metro, TriMet and their local agency partners in other decisions about the project.

The purpose of the Southwest Corridor Light Rail Project is to directly connect Tualatin, downtown Tigard, southwest Portland, and the region's central city with light rail, high quality transit and appropriate community investments in a congested corridor to improve mobility and create the conditions that will allow communities in the corridor to achieve their land use vision. Specifically, the project aims to, within the Southwest Corridor:

- provide light rail transit service that is cost-effective to build and operate with limited local resources
- serve existing transit demand and significant projected growth in ridership resulting from increases in population and employment in the corridor

- improve transit service reliability, frequency and travel times, and provide connections to existing and future transit networks including Westside Express Service (WES) Commuter Rail
- support adopted regional and local plans including the *2040 Growth Concept*, the *Barbur Concept Plan,* the *Tigard Triangle Strategic Plan* and the *Tigard Downtown Vision* to accommodate projected significant growth in population and employment
- complete and enhance multimodal transportation networks to provide safe, convenient and secure access to transit and adjacent land uses
- advance transportation projects that increase active transportation and encourage physical activity
- provide travel options that reduce overall transportation costs
- improve multimodal access to existing jobs, housing and educational opportunities, and foster opportunities for commercial development and a range of housing types adjacent to transit
- ensure benefits and impacts that promote community equity
- advance transportation projects that are sensitive to the environment, improve water and air quality, and help achieve the sustainability goals and measures in applicable state, regional and local plans

A light rail transit project in the Southwest Corridor is needed for the following reasons:

- Transit service to important destinations in the corridor is limited, and unmet demand for transit is increasing due to growth.
- Limited street connectivity and gaps in pedestrian and bicycle facilities create barriers and unsafe conditions for transit access and active transportation.
- Travel is slow and unreliable on congested roadways.
- There are both a limited supply and a limited range of housing options in the Southwest Corridor that have good access to multimodal transportation networks. In addition, jobs and services are not located near residences.
- Regional and local plans call for high capacity transit in the corridor to meet local and regional land use goals.
- State, regional and local environmental and sustainability goals require transportation investments to reduce greenhouse gas emissions.

Project Partners

Planning for the project is being led by Metro and TriMet, in partnership with the Oregon Department of Transportation (ODOT), Washington County, and the Cities of Portland, Tigard, Tualatin, Beaverton, Durham, King City and Sherwood. A leadership group of agency officials from the partners (known as the Southwest Corridor Steering Committee) has guided the study of the transit options for the Southwest Corridor since 2011.

This Draft EIS is required by the federal government under the National Environmental Policy Act of 1970 (NEPA). It discloses to decision makers and the public the substantive adverse and beneficial effects of the project and proposes ways to avoid, minimize or mitigate negative impacts. FTA is the lead federal agency for the EIS.

S.3 Alternatives Considered

This Southwest Corridor Light Rail Project Draft EIS considers a No-Build Alternative and several light rail alternatives. The No-Build Alternative represents future conditions without the proposed project. The light rail alternatives represent different ways to complete a 12-mile extension of light rail connecting downtown Portland, Oregon, to southwest Portland, downtown Tigard and Tualatin. The EIS also considers two options for a minimum operable segment (MOS), which is a shorter version of the project that could be constructed as a standalone first phase with logical termini. Exhibit S-1 describes how the light rail alternatives relate to other elements of the Southwest Corridor Plan.

No-Build Alternative

The No-Build Alternative is the baseline for evaluating the benefits and impacts of the light rail alternatives. The No-Build Alternative represents transportation and environmental conditions without light rail to connect Portland, Tigard and Tualatin, and without the accompanying roadway, bicycle and pedestrian access improvements. It assumes regionally adopted forecasts for future population and employment growth through the year 2035, as well as adopted land use plans and other transportation investments in the region.

Light Rail Alternatives

Figure S-2 shows a map of the light rail alternatives for the full corridor from Portland to Tualatin. The alignment alternatives serving southwest Portland, Tigard and Tualatin would generally be within existing or new streets, or adjacent to I-5 or railroads. They comprise a total of up to 13 new stations, several with park and rides, as described below by segment. There are also options for a new light rail vehicle O&M facility, transit shuttles, interchange and circulation modifications, and new structures for pedestrians to reach Marquam Hill.

For analysis and comparison purposes, the alternatives are in three geographic segments with multiple alignment alternatives within each segment:

- Segment A: Inner Portland
- Segment B: Outer Portland
- Segment C: Tigard and Tualatin

Exhibit S-1

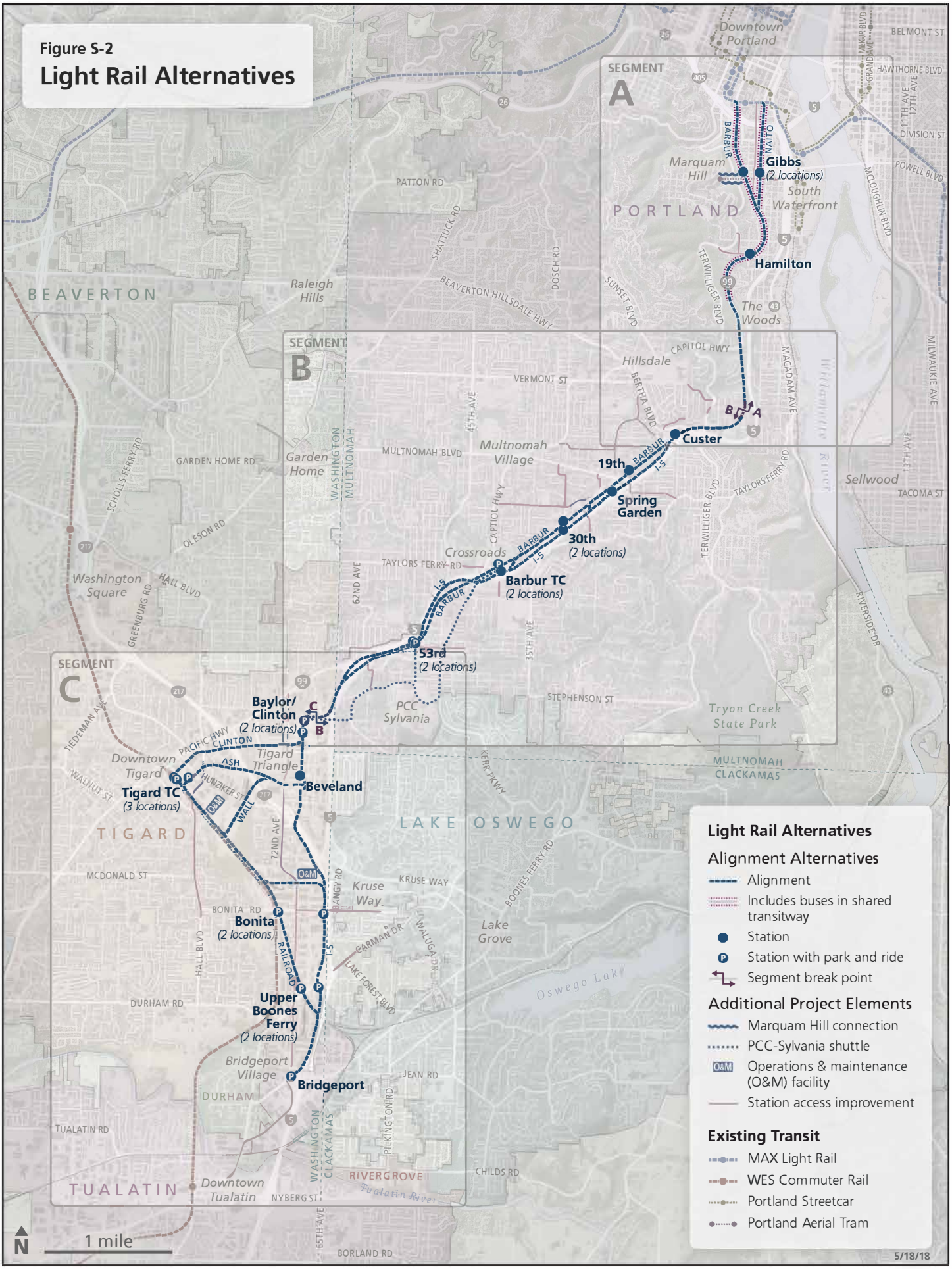
How does the Southwest Corridor Light Rail Project relate to other Southwest Corridor Plan efforts?

The project is a major component of a broader regional effort known as the Southwest Corridor Plan, which calls for strategic investments in this fast-growing part of the Portland region. The Southwest Corridor Plan includes complementary actions to support a successful light rail project. Those initiatives are not evaluated in this Draft EIS, since they are separate projects.

The Southwest Corridor regional partners are working together to support housing, business and workforce needs by making local bus service enhancements, investing in pedestrian and bicycle facilities and regional roadways, and pursuing desired development outcomes. One example is the Ross Island Bridgehead Reconfiguration, which addresses the need to improve multimodal access in the area between Interstate 405, U.S. 26 and the Ross Island Bridge, including changes to SW Naito Parkway; that project is incorporated in one of the segment A alternatives, but could be done separately with another. The Southwest Corridor Equitable Development Strategy (supported by a Corridor-Based Transit-Oriented Development Grant from FTA) is an additional plan component, which will define actions to ensure that individuals and families can continue to live, work and thrive in the Southwest Corridor and are able to take advantage of the increased opportunities that come with the light rail project. See www.swcorridorplan.org for more details.

Figure S-2

Light Rail Alternatives



Summary Details of the Light Rail Project

As shown in Table S-1, a complete, full-corridor project would be made up of one **alignment alternative** for each segment, and it would have a new O&M facility.

Each segment includes **options** that are analyzed separately from the alignment alternatives in order to aid comparisons based on the impacts of different options. These options also would work with any of the alternatives in a given segment.

The alignment alternatives also would have options for other facilities or **station access improvements** that could be added to increase the mobility benefits of the project. Unless noted otherwise below, these options could be paired with all of the alignment alternatives in a given segment.

Table S-2 lists the key characteristics of the stations that are associated with the light rail alignment alternatives. Further details on the stations and related facilities are in Chapter 2 – Alternatives Considered.

Table S-1. Light Rail Alternatives by Segment

Alignment Alternatives	Additional Project Elements *(pair with all alignment alternatives unless otherwise noted)*
Segment A: Inner Portland	
· Alternative A1: Barbur · Alternative A2-BH: Naito with Bridgehead Reconfiguration · Alternative A2-LA: Naito with Limited Access	***Marquam Hill Connection*** · Connection 1A: Elevator/Bridge and Path · Connection 1B: Elevator/Bridge and Recessed Path · Connection 1C: Elevator/Bridge and Tunnel · Connection 2: Full Tunnel ***Station Access Improvements*** · SA01 through SA03 (see Appendix A for detailed information)
Segment B: Outer Portland	
· Alternative B1: Barbur · Alternative B2: I-5 Barbur TC to 60th · Alternative B3: I-5 26th to 60th · Alternative B4: I-5 Custer to 60th	***PCC-Sylvania Shuttle*** · Barbur TC and Baylor Shuttle · 53rd Shuttle ***Station Access Improvements*** · SA04 through SA23 (see Appendix A for detailed information)
Segment C: Tigard and Tualatin	
Through Route · Alternative C1: Ash to I-5 · Alternative C2: Ash to Railroad · Alternative C3: Clinton to I-5 · Alternative C4: Clinton to Railroad ***Branched Route*** · Alternative C5: Ash and I-5 Branched · Alternative C6: Wall and I-5 Branched	***Operations and Maintenance Facility*** · Hunziker Facility · Through 72nd Facility (pairs with Alternatives C1 and C3) · Branched 72nd Facility (pairs with Alternatives C5 and C6) ***Station Access Improvements*** · SA24 through SA29 (see Appendix A for detailed information)

Note: PCC = Portland Community College; TC = Transit Center.

Table S-2. Station Characteristics

Station Name General Location	Alignment Alternatives	Park and Ride[1]		Other Notable Characteristics
		Spaces	Levels	
Lair Hill				
Gibbs Barbur Station	A1	N/A	N/A	Center platform in roadway median
Gibbs Naito Station	A2-BH, A2-LA	N/A	N/A	Center platform in roadway median
Hamilton				
Hamilton Station	All Segment A	N/A	N/A	Center platform in roadway median
Burlingame				
Custer Station	All Segment B	N/A	N/A	Center platform in roadway median
Capitol Hill				
19th Station	B1, B2, B3	N/A	N/A	Side platforms in roadway median
Spring Garden Station	B4	N/A	N/A	Center platform away from roadway
26th/30th				
30th Barbur Station	B1, B2	N/A	N/A	Staggered side platform (far-side)
30th I-5 Station	B3, B4	N/A	N/A	Center platform away from roadway
Barbur TC				
Barbur TC Barbur Station	B1	825	3	Side platforms away from roadway TC reconfigured
Barbur TC I-5 Station	B2, B3, B4	725	3	Side platforms in roadway median TC reconfigured Pedestrian bridge over I-5 replaced
53rd				
53rd Barbur Station	B1	950	3	Center platform in roadway median Pedestrian bridge over SW Barbur Blvd. added
53rd I-5 Station	B2, B3, B4	950	3	Side platforms next to roadway Pedestrian bridge over SW Barbur Blvd. added
Northern Tigard Triangle (the Tigard Triangle is bounded by I-5, Highway 217 and Pacific Highway)				
Baylor Station	C1, C2, C5, C6	425	3	Center platform in side-running configuration
Clinton Station	C3, C4	425	3	Center platform in side-running configuration
Southern Tigard Triangle[2]				
Beveland Station	C1, C2, C5, C6	N/A	N/A	Center platform in side-running configuration
Tigard TC				
Tigard TC Ash Station	C1, C2, C5	300	3	Side platforms in side-running configuration TC moved to SW Ash Ave. For Alt. C5: tail track to Hunziker O&M facility
Tigard TC Clinton Station	C3, C4	275	3	Center platform away from roadway TC moved south on SW Commercial St.
Tigard TC Wall Station	C6	275	3	Platforms at three tracks away from roadway TC moved south on SW Commercial St.
Bonita				
Bonita I-5 Station	C1, C3, C5, C6	150	surface	Side platforms away from roadway 10- to 20-foot walls north and east of platforms
Bonita Railroad Station	C2, C4	100	surface	Center platform on elevated trackway
Upper Boones Ferry				
Upper Boones Ferry I-5 Station	C1, C3, C5, C6	600	3	Side platforms away from roadway 10- to 20-foot walls north and east of platforms
Upper Boones Ferry Railroad Station	C2, C4	50	surface	Center platform away from roadway
Bridgeport Village				
Bridgeport Station	All Segment C	950	4	Platforms at three tracks away from roadway Pedestrian bridge to P&R over SW LBF Rd.

Note: LBF = Lower Boones Ferry; N/A = not applicable; P&R = park and ride; TC = Transit Center.

[1] Based on the maximum proposed size for each park and ride. Subject to refinement during the Final EIS process.

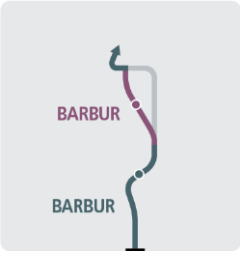
[2] Alternatives C3 and C4 would not include a southern Tigard Triangle station.

Segment A: Inner Portland

Segment A begins at the southern edge of downtown Portland (see Figure S-3) at the south end of the Downtown Portland Transit Mall, with three alignment alternatives that would extend light rail service from SW 5th Avenue and SW Jackson Street, near PSU, to SW Barbur Boulevard just north of SW Brier Place in southwest Portland. The alignments are either continuously along SW Barbur Boulevard, or along SW Naito Parkway and then along SW Barbur Boulevard. All of the alternatives include a 2-mile shared transitway for buses and light rail, starting at SW Barbur Boulevard near SW Capitol Highway, and extending to SW Lincoln Street.

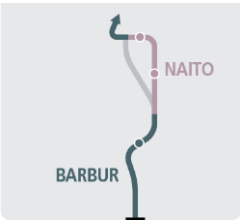
All of the alignment alternatives carry options to build structures providing a new pedestrian connection from SW Barbur Boulevard up to the OHSU Marquam Hill complex. There are three station access improvement options in this segment that involve sidewalks and bicycle lanes.

Alternative A1: Barbur



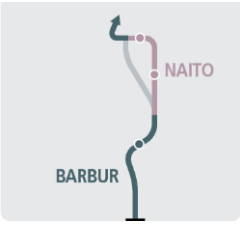
Alternative A1 would run on SW Barbur Boulevard for most of Segment A, primarily operating at grade in the center of the roadway. The light rail alignment for Alternative A1 differs from the other Segment A alignment alternatives between the Transit Mall and the junction of SW Barbur Boulevard and SW Naito Parkway. Stations would be located near SW Gibbs Street and SW Hamilton Street. Both stations would use at-grade center platforms.

Alternative A2-BH: Naito with Bridgehead Reconfiguration



Alternative A2-BH would operate in the center of a widened SW Naito Parkway instead of on SW Barbur Boulevard until about SW Lane Street, where SW Naito Parkway connects to SW Barbur Boulevard. Alternative A2-BH would include stations on SW Naito Parkway at SW Gibbs Street, with an alternate location at SW Hooker Street, and on SW Barbur Boulevard at SW Hamilton Street.

Alternative A2-LA: Naito with Limited Access



Alternative A2-LA would follow the same alignment as Alternative A2-BH, and have the same station locations. As with Alternative A2-BH, it would rebuild SW Naito Parkway to accommodate center-running light rail, but it would not include the Bridgehead Reconfiguration. Instead, Alternative A2-LA would largely maintain SW Naito Parkway's current roadway access restrictions.

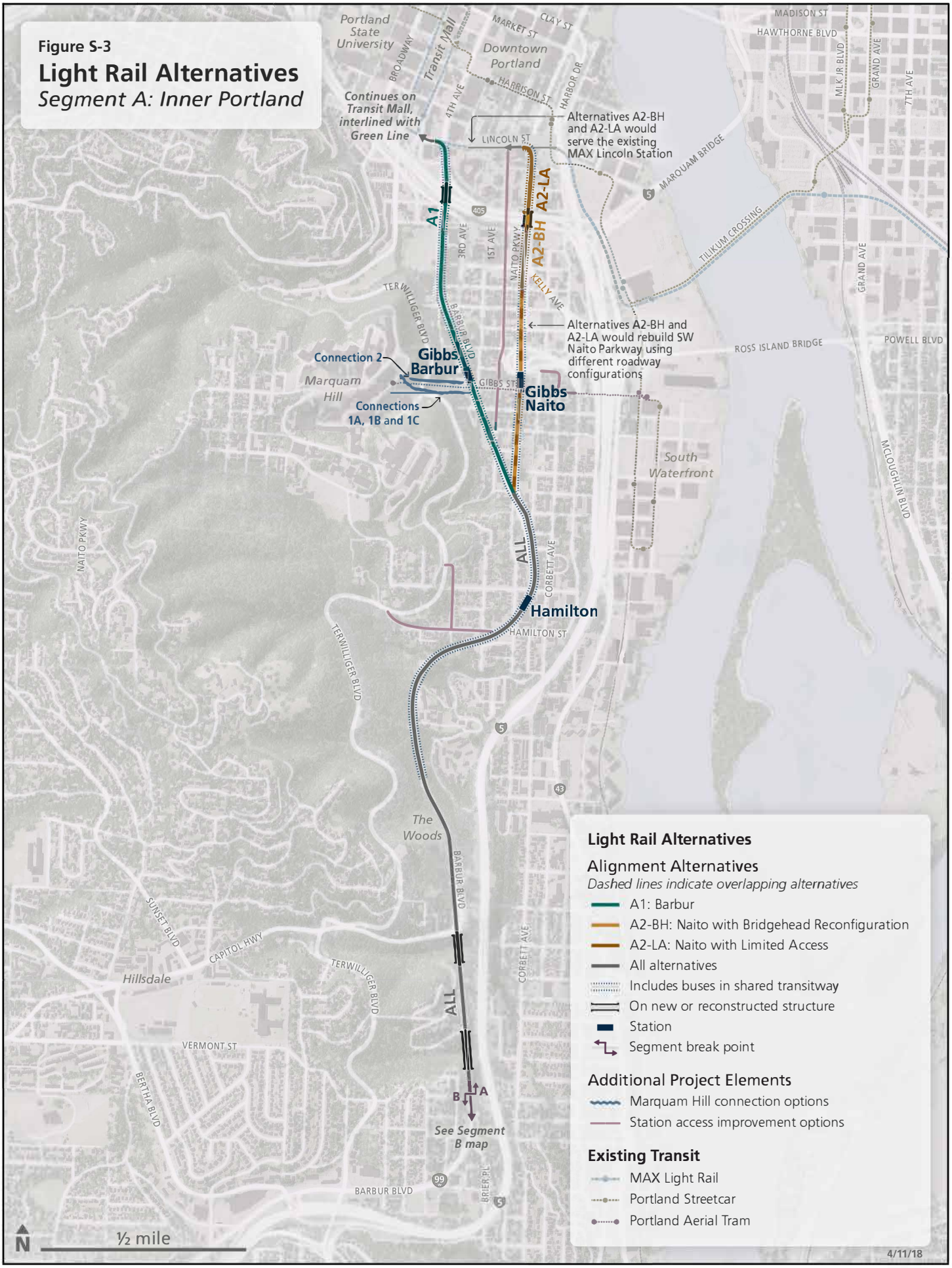
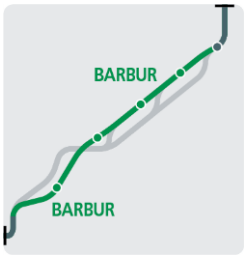


Figure S-3
Light Rail Alternatives
Segment A: Inner Portland
Portland State University
BROADWAY
Transit Mall
MARKET ST
CLAY ST
Downtown Portland
HARRISON ST
HARBOR DR
4TH AVE
Continues on Transit Mall, interlined with Green Line
Alternatives A2-BH and A2-LA would serve the existing MAX Lincoln Station
LINCOLN ST
MADISON ST
HAWTHORNE BLVD
MLK JR BLVD
GRAND AVE
7TH AVE
MARQUAM BRIDGE
A1
A2-BH
A2-LA
405
3RD AVE
1ST AVE
NAITO PKWY
KELLY AVE
TILIKUM CROSSING
GRAND AVE
TERWILLIGER BLVD
BARBUR BLVD
Alternatives A2-BH and A2-LA would rebuild SW Naito Parkway using different roadway configurations
ROSS ISLAND BRIDGE
POWELL BLVD
Connection 2
Gibbs
Barbur
Marquam Hill
GIBBS ST
Gibbs
Naito
Connections 1A, 1B and 1C
South Waterfront
MCLOUGHLIN BLVD
NAITO PKWY
ALL
CORBETT AVE
Hamilton
HAMILTON ST
TERWILLIGER BLVD
5
43
The Woods
BARBUR BLVD
SUNSET BLVD
CAPITOL HWY
Hillsdale
TERWILLIGER BLVD
CORBETT AVE
ALL
VERMONT ST
BERTHA BLVD
B
A
See Segment B map
99W
BARBUR BLVD
BRIER PL
5
N
½ mile
Light Rail Alternatives
Alignment Alternatives
Dashed lines indicate overlapping alternatives
A1: Barbur
A2-BH: Naito with Bridgehead Reconfiguration
A2-LA: Naito with Limited Access
All alternatives
Includes buses in shared transitway
On new or reconstructed structure
Station
Segment break point
Additional Project Elements
Marquam Hill connection options
Station access improvement options
Existing Transit
MAX Light Rail
Portland Streetcar
Portland Aerial Tram
4/11/18

Segment B: Outer Portland

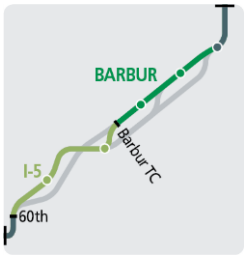
Segment B extends from SW Barbur Boulevard at SW Brier Place to the intersection of SW 68th Parkway and SW Atlanta Street, just west of the Portland/Tigard city boundary (see Figure S-4). The light rail alternatives all have five stations and two park and rides. They all would widen SW Barbur Boulevard to accommodate light rail in the center, but they vary in how long they would stay on SW Barbur Boulevard. One of the alternatives would follow SW Barbur Boulevard through the entire segment, while three would have sections that transition to be adjacent to I-5. Segment B also has two options for a shuttle connection to the PCC-Sylvania campus, as well as 20 options for station access improvements involving sidewalks, bicycle lanes, missing street connections and pedestrian bridges.

Alternative B1: Barbur



Alternative B1 would run in the center of SW Barbur Boulevard until SW 60th Avenue. West of SW 60th Avenue, the alignment would cross back over I-5 between SW Barbur Boulevard and Tigard on a new light rail structure. Stations would be located at grade in the center of SW Barbur Boulevard at SW Custer Street, SW 19th Avenue, SW 30th Avenue, the Barbur Transit Center and SW 53rd Avenue. Three-level park and ride structures would be included at the Barbur Transit Center and 53rd Stations.

Alternative B2: I-5 Barbur Transit Center to 60th

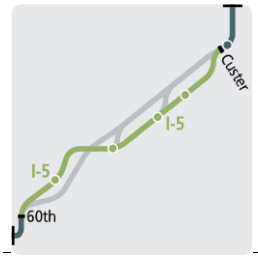


Alternative B2 would be identical to Alternative B1 from SW Brier Place to just north of the Barbur Transit Center, where light rail would transition away from the center of SW Barbur Boulevard to run adjacent to I-5. South of the Barbur Transit Center, the alignment would cross over I-5, SW Capitol Highway and SW Barbur Boulevard on a new light rail structure, and then continue adjacent to I-5 until SW 60th Avenue. West of SW 60th Avenue, the alignment would cross over I-5 and SW Barbur Boulevard on a new bridge. The stations would be the same as Alternative B1 except that the Barbur Transit Center and 53rd Stations would be located next to I-5.

Alternative B3: I-5 26th to 60th

Alternative B3 would be the same as Alternatives B1 and B2 from SW Brier Place to SW 26th Way, where it would shift to run adjacent to I-5. The alignment would depart from SW Barbur Boulevard just north of SW 26th Way and continue south along I-5 to the Barbur Transit Center. The stations would be the same as Alternative B2 except that the 30th Avenue Station would be at grade adjacent to I-5.

Alternative B4: I-5 Custer to 60th

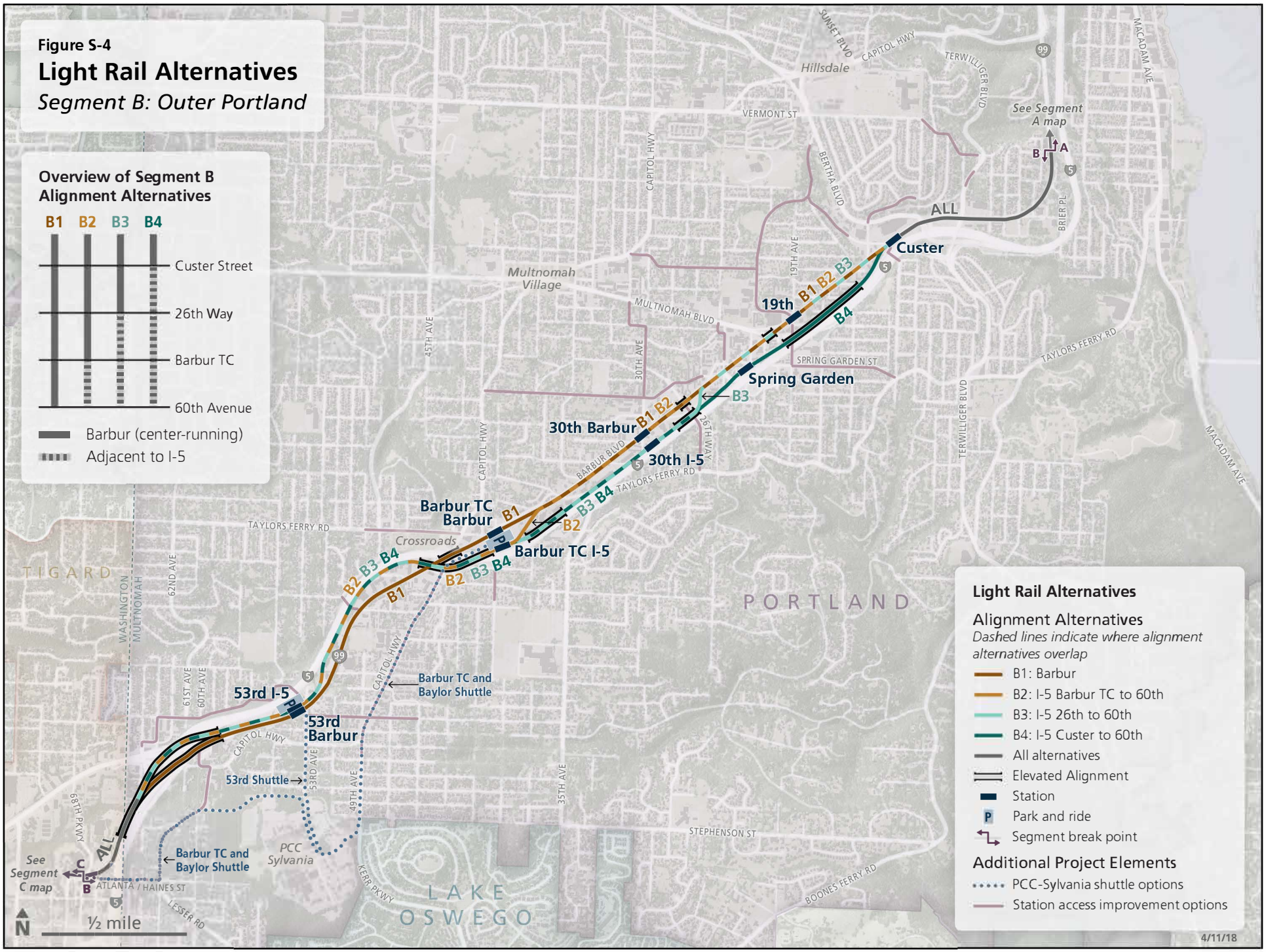


Alternative B4 runs the longest distance adjacent to I-5, starting near SW Barbur Boulevard at SW Custer Street. South of SW 26th Way, Alternative B4 would be identical to Alternative B3. The Custer Station would be the same as in Alternative B1. The 30th, Barbur Transit Center and 53rd Stations would be the same as Alternative B3. The Spring Garden Station would be at grade adjacent to I-5.

Figure S-4

Light Rail Alternatives

Segment B: Outer Portland



Segment C: Tigard and Tualatin

This segment extends from the intersection of SW 68th Parkway and SW Atlanta Street, just west of the Portland/Tigard city boundary, to near Bridgeport Village in Tualatin, which would be the southern terminus of the light rail alignment (see Figures S-5 and S-6). It includes six alternatives with up to six stations, and the alternatives are also grouped by how they would operate. Light rail could run on a continuous "Through Route" serving Tualatin via downtown Tigard, or a "Branched Route," with one branch going to downtown Tigard and the other branch to Tualatin. Segment C has three options for an O&M facility to support light rail operations, and six options for station access improvements for sidewalks, bicycle lanes, missing street connections and pedestrian bridges.

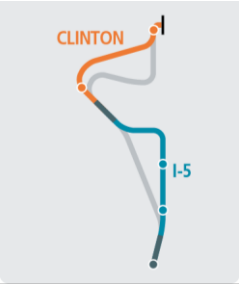
Alternative C1: Ash to I-5

This Through-Routed alignment alternative would be along new and existing streets between the Tigard Triangle (the area bounded by I-5, Highway 217 and Pacific Highway) and downtown Tigard, and then would follow the freight rail and WES tracks before turning east to run along I-5 to Bridgeport Village. It would feature several new bridges, including a crossing over Highway 217 to reach downtown Tigard. There would be two stations in the Tigard Triangle, one with a park and ride; a station in downtown Tigard near a relocated transit center and park and ride; and stations and park and rides along I-5 at SW Bonita Road, SW Upper Boones Ferry Road and Bridgeport Village.

Alternative C2: Ash to Railroad

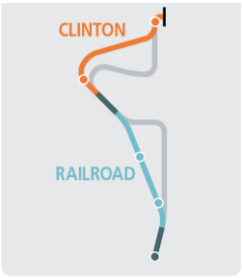
This Through-Routed alignment alternative would be identical to Alternative C1 between the Tigard Triangle and downtown Tigard, including the station locations and park and rides. It then would follow the WES Commuter Rail and freight rail tracks before transitioning to I-5 near SW Upper Boones Ferry Road and continuing to Bridgeport Village. The southern stations and park and rides would be along the freight rail tracks at SW Bonita Road and SW Upper Boones Ferry Road, and along I-5 at Bridgeport Village.

Alternative C3: Clinton to I-5



This Through-Routed alignment alternative would also be mostly along new or existing streets between the Tigard Triangle and downtown Tigard, but the alignment would be to the north of Alternatives C1 and C2 in the Tigard Triangle. Alternative C3 would have one station in the Tigard Triangle and one station in downtown Tigard, both with new park and ride structures. South of downtown Tigard, Alternative C3 would be identical to Alternative C1.

Alternative C4: Clinton to Railroad

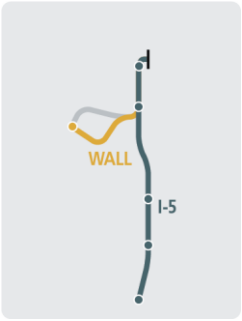


This Through-Routed alignment alternative would use the Alternative C3 alignment between the Tigard Triangle and downtown Tigard, and the Railroad alignment between downtown Tigard and Bridgeport Village. The alignment, station locations and park and rides for this alternative would be identical to Alternative C3 north of and into downtown Tigard and identical to Alternative C2 south of downtown Tigard.

Alternative C5: Ash and I-5 Branched

This Branched alignment alternative would use the Ash alignment for a Tigard branch, and would have a Bridgeport branch that would continue south through the Tigard Triangle to cross Highway 217 and run adjacent to I-5 to reach Bridgeport Village. North of the branch split point, which would be at the Beveland Station, the alternative would be identical to Alternative C1. The Tigard branch alignment to downtown Tigard would be similar to the alignment used for Alternative C1, and the Bridgeport branch alignment would be the same as Alternative C1 south of SW Bonita Road.

Alternative C6: Wall and I-5 Branched



This Branched alignment alternative would be similar to Alternative C5 except that it would connect to SW Wall Street west of Highway 217. At the end of SW Wall Street, the alignment would turn northwest and run parallel to the WES/freight rail tracks to terminate near a reconfigured Tigard Transit Center. The Bridgeport branch would be identical to that of Alternative C5. With the exception of the Tigard Transit Center Station, Alternative C6 would include the same station and park and ride locations as Alternative C1. The Tigard Transit Center Station would be at grade adjacent to the WES station and a reconfigured transit center.

Operations and Maintenance Facility Options

Two locations are being considered for a new light rail O&M facility to serve the corridor. Both are in Segment C. The "Hunziker Facility" option for an O&M facility would be at SW Hunziker Street, adjacent to the WES Commuter Rail tracks. The second location, known as the "Through 72nd Facility," would be southeast of the Tigard Triangle between SW 72nd Avenue and I-5.

Minimum Operable Segments

A minimum operable segment (MOS) is a shorter version of the project that would be suitable to build as a first phase. An MOS must have the ability to function as a standalone project with logical termini if no other phases are built. This Draft EIS considers MOS options that terminate either at the Tigard Transit Center (for either a Through Route or a Branched Route) or at Bridgeport Village (for a Branched Route only).

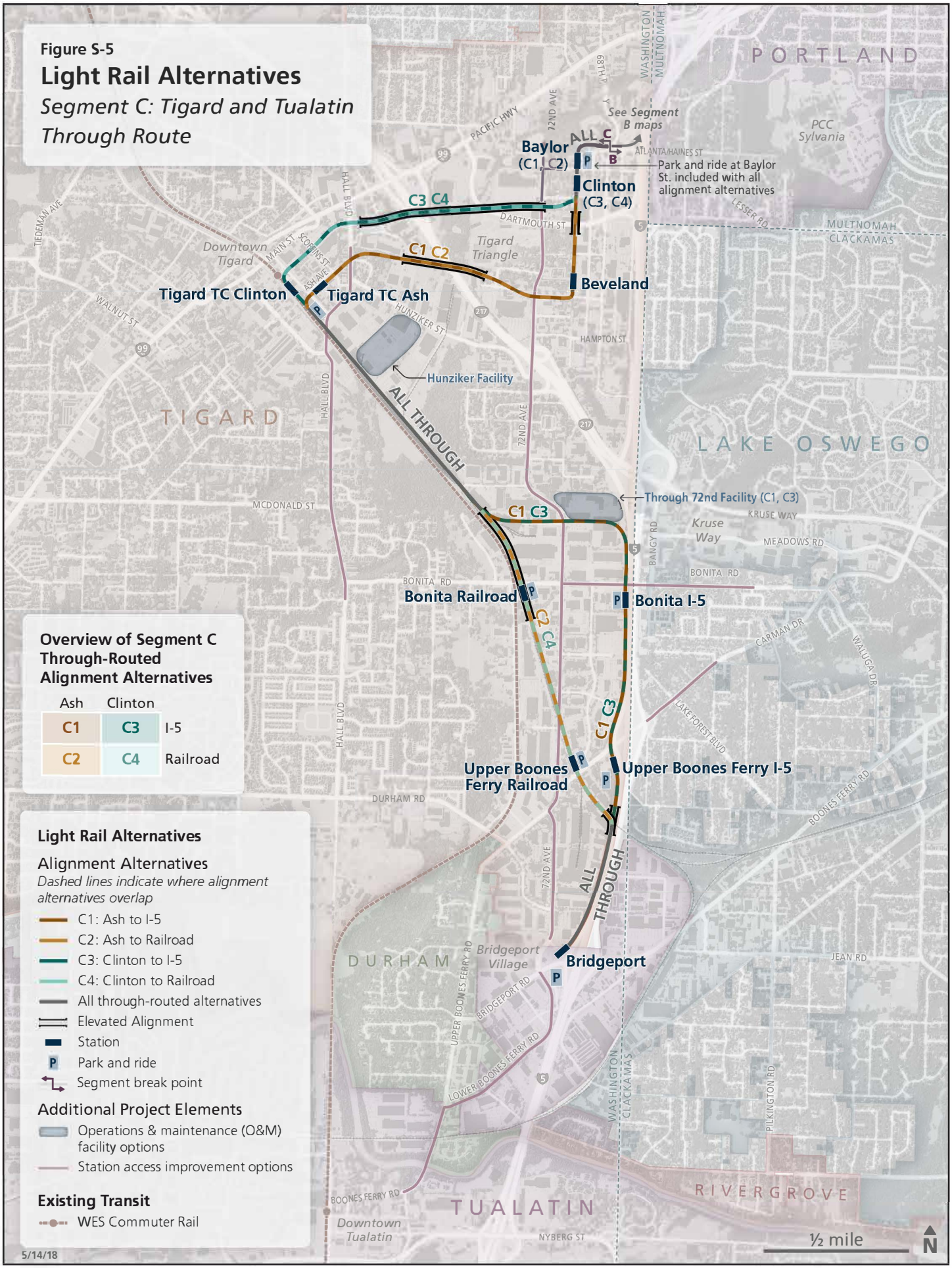


Figure S-5
Light Rail Alternatives
Segment C: Tigard and Tualatin Through Route
PORTLAND
See Segment B maps
PCC Sylvania
Baylor (C1, C2)
ALL C
B
Park and ride at Baylor St. included with all alignment alternatives
Clinton (C3, C4)
C3 C4
C1 C2
Tigard Triangle
Beveland
Downtown Tigard
Tigard TC Clinton
Tigard TC Ash
Hunziker Facility
TIGARD
ALL THROUGH
LAKE OSWEGO
Through 72nd Facility (C1, C3)
C1 C3
Kruse Way
Bonita Railroad
Bonita I-5
C2 C4
Upper Boones Ferry Railroad
Upper Boones Ferry I-5
Bridgeport
DURHAM
Bridgeport Village
TUALATIN
Downtown Tualatin
RIVERGROVE
½ mile
N
Overview of Segment C Through-Routed Alignment Alternatives
Ash
Clinton
C1
C3
I-5
C2
C4
Railroad
Light Rail Alternatives
Alignment Alternatives
Dashed lines indicate where alignment alternatives overlap
C1: Ash to I-5
C2: Ash to Railroad
C3: Clinton to I-5
C4: Clinton to Railroad
All through-routed alternatives
Elevated Alignment
Station
Park and ride
Segment break point
Additional Project Elements
Operations & maintenance (O&M) facility options
Station access improvement options
Existing Transit
WES Commuter Rail
5/14/18

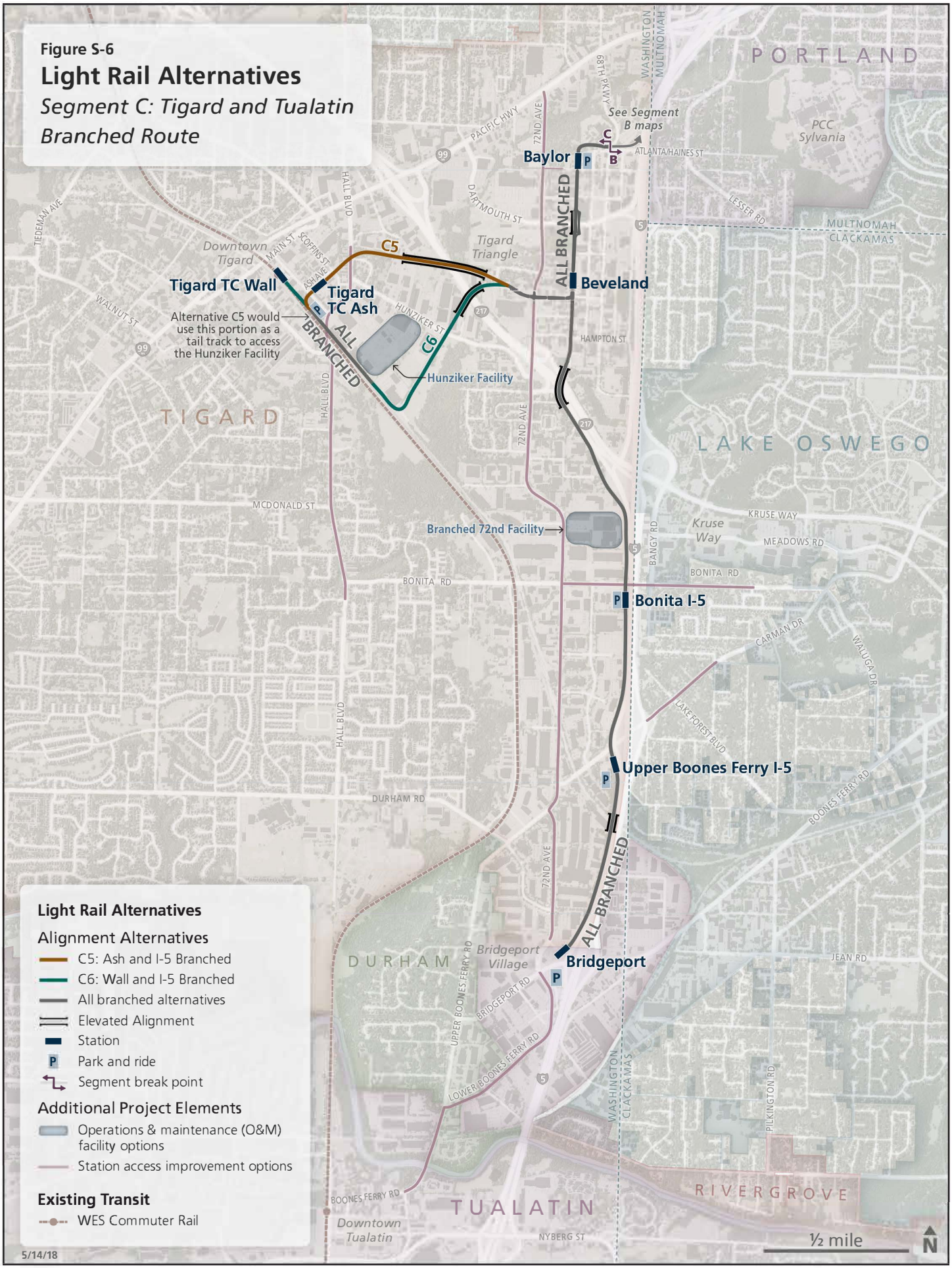


Figure S-6
Light Rail Alternatives
Segment C: Tigard and Tualatin
Branched Route
PORTLAND
TIGARD
LAKE OSWEGO
TUALATIN
DURHAM
RIVERGROVE
Baylor
Beveland
Tigard TC Wall
Tigard TC Ash
Alternative C5 would use this portion as a tail track to access the Hunziker Facility
C5
C6
ALL BRANCHED
Hunziker Facility
Branched 72nd Facility
Bonita I-5
Upper Boones Ferry I-5
Bridgeport
See Segment B maps
Downtown Tigard
Tigard Triangle
Kruse Way
Bridgeport Village
Downtown Tualatin
PCC Sylvania
MULTNOMAH CLACKAMAS
WASHINGTON MULTNOMAH
WASHINGTON CLACKAMAS
PACIFIC HWY
72ND AVE
HALL BLVD
DARTMOUTH ST
HUNZIKER ST
HAMPTON ST
MCDONALD ST
BONITA RD
KRUSE WAY
MEADOWS RD
BANGY RD
CARMAN DR
WALUGA DR
LAKE FOREST BLVD
BOONES FERRY RD
UPPER BOONES FERRY RD
LOWER BOONES FERRY RD
BRIDGEPORT RD
JEAN RD
PILKINGTON RD
NYBERG ST
ATLANTA/HAINES ST
LESSER RD
TIEDEMAN AVE
MAIN ST
SCOFFINS ST
ASH AVE
WALNUT ST
Light Rail Alternatives
Alignment Alternatives
C5: Ash and I-5 Branched
C6: Wall and I-5 Branched
All branched alternatives
Elevated Alignment
Station
Park and ride
Segment break point
Additional Project Elements
Operations & maintenance (O&M) facility options
Station access improvement options
Existing Transit
WES Commuter Rail
5/14/18
½ mile
N

Initial Route Proposal

This Draft EIS identifies a draft Preferred Alternative, known as the initial route proposal, to give the public and federal, state and local agencies, and tribal governments an opportunity to comment on a full-length light rail alternative. The initial route proposal was developed by project partner staff based on information from the Draft EIS analysis and on public outreach.

The initial route proposal is a 12-mile through-routed light rail line with 13 stations, a Marquam Hill connection, a PCC-Sylvania shuttle and an O&M facility (Figure S-7 and Table S-3). The initial route proposal is based on Alternatives A1 (Barbur), B2 (I-5 Barbur Transit Center to 60th), and C2 (Ash to Railroad), with design refinements in selected areas where impacts could be reduced or benefits improved by modifying the design. If there is insufficient funding to construct the entire light rail line, the MOS for the initial route proposal would terminate at the Tigard Transit Center.

The Southwest Corridor Light Rail Project will include a set of station access improvements that will be selected prior to the Final EIS. If Alternative A1 is included in the Preferred Alternative, the Portland region will seek to fund and construct the Bridgehead Reconfiguration as a companion project.

Potential Design Refinements

Based on the impact analysis conducted for this Draft EIS, TriMet, Metro and their partners developed design refinements that could be used to help avoid or reduce impacts by making design modifications, and would result in an overall improvement in project impacts, benefits and costs. These refinements are discussed in Chapter 2 – Alternatives Considered, and more detail is in Appendix E.

Construction Activities

The construction of the Southwest Corridor Light Rail Project would be a major undertaking, similar in scale, duration and complexity to other major public works projects that have been built in the region, such as the Orange Line extending light rail from downtown Portland to Milwaukie. Construction activities could begin by 2022, with major construction lasting approximately four years, followed by system testing. The phases of construction include clearing and demolition, utility relocation, development of major structures, civil and track construction, systems installation and installation of station amenities. The final phases involve testing and finish work, leading up to the opening of the line to passenger service. In addition to the areas where the project would be constructed, other areas would be needed for project staging, including for equipment and materials storage, laydown or preconstruction of some elements; field administration offices; and construction vehicle parking. The project area's major roadways, as well as I-5, would be construction haul routes.

Table S-3. Initial Route Proposal Overview

Alignment Alternatives with Design Refinements[1]	Additional Project Elements
Alternative A1: Barbur	
· *Includes a design refinement for "The Woods" area along SW Barbur Blvd. that shifts the alignment to reduce historic property impacts and construction-period impacts* · Shorter pedestrian connection to Marquam Hill · Faster travel time for light rail and buses in the shared transitway · Fewer displacements of residential units, businesses, employees and potentially eligible historic resources	· Marquam Hill connection[2]
Alternative B2: I-5 Barbur Transit Center to 60th	
· *Includes design refinements for a Taylors Ferry I-5 overcrossing and a modified SW Barbur Blvd. crossing and related alignment to reduce property impacts and other impacts* · More accessible station locations and greater safety improvements for all travel modes compared to Alternatives B3 and B4 · Fewer residential displacements than Alternative B4 · Avoidance of complex reconstruction of the SW Barbur Blvd./I-5 bridge at Crossroads required under Alternative B1	· PCC Sylvania- shuttle[2]
Alternative C2: Ash to Railroad	
· *Includes refinements to the Tigard Transit Center Station with a revised alignment in the Tigard Triangle to downtown Tigard, in order to reduce property impacts and other impacts* · Better support for land use development plans with two stations serving the Tigard Triangle (compared to Alternatives C3 and C4) · Avoidance of critical traffic impact at SW Hall Blvd. associated with Alternatives C3 and C4 · Fewer business and employee displacements along I-5 in southern Tigard compared to Alternatives C1, C3, C5 and C6 · More frequent service in downtown Tigard and better transit connectivity between downtown Tigard and areas to the south compared to the Branched Route (Alternatives C5 and C6)	· Hunziker O&M facility

Note: O&M = operations and maintenance; PCC = Portland Community College; TC = Transit Center.

[1] The design refinements have not been analyzed at the same level of detail as the alignment alternatives in this Draft EIS. Design refinements would be incorporated into the Preferred Alternative in the Final EIS.

[2] The specific options for the Marquam Hill connection and the PCC-Sylvania shuttle route will be identified after the Draft EIS and before the Final EIS through a public process that will involve the institutions, neighborhoods and appropriate resource agencies.

Figure S-7

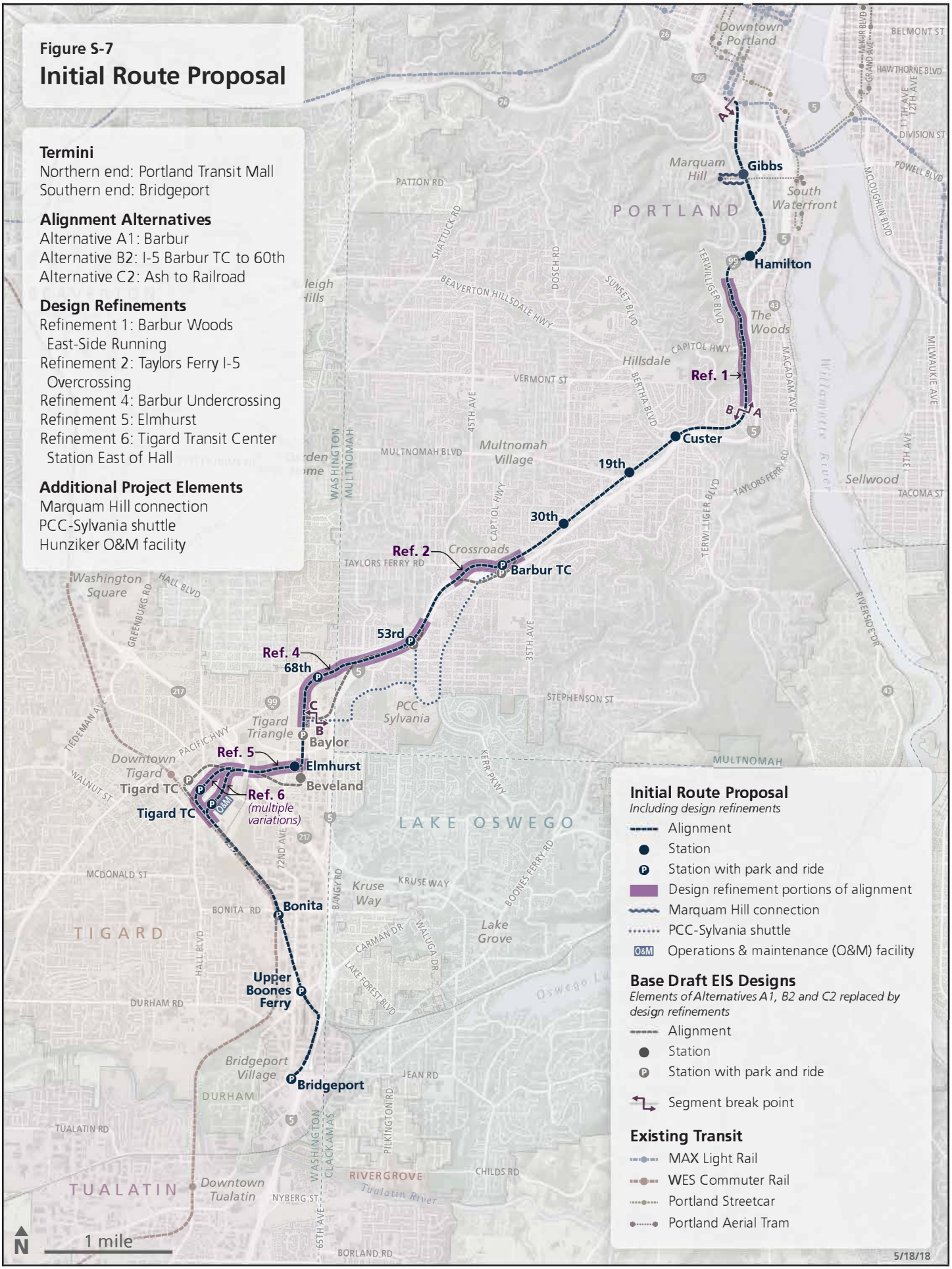
Initial Route Proposal

Termini
Northern end: Portland Transit Mall
Southern end: Bridgeport

Alignment Alternatives
Alternative A1: Barbur
Alternative B2: I-5 Barbur TC to 60th
Alternative C2: Ash to Railroad

Design Refinements
Refinement 1: Barbur Woods East-Side Running
Refinement 2: Taylors Ferry I-5 Overcrossing
Refinement 4: Barbur Undercrossing
Refinement 5: Elmhurst
Refinement 6: Tigard Transit Center Station East of Hall

Additional Project Elements
Marquam Hill connection
PCC-Sylvania shuttle
Hunziker O&M facility



S.4 Background on Southwest Corridor Planning

Public scoping for the Southwest Corridor Light Rail Project EIS began September 2, 2016, and included a comment period that ended October 3, 2016. Public scoping was intended to encourage public and agency comments on the project's Purpose and Need, the range of alternatives being studied and the focus of the environmental analysis. During the public comment period, there were:

- two public online surveys
- five neighborhood association meetings
- an agency and tribal scoping meeting on September 20, 2016
- a public scoping meeting on September 22, 2016

The start of the EIS process for the project follows years of regional planning. In 2009, Metro adopted the 30-year *High Capacity Transit System Plan*, also known as the HCT Plan, to guide investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the Portland region. The HCT Plan identified the Southwest Corridor, the area between downtown Portland and Sherwood including Tigard and Tualatin, as a priority. Between 2011 and 2016, Metro and its local agency partners[1] developed the Southwest Corridor Plan to identify a high capacity transit project and other investment strategies to help improve safety and quality of life, and to support regional and local land use plans and economic development. This plan and its accompanying alternatives analysis and public engagement created the framework for the Purpose and Need (Chapter 1) and the alternatives now being considered in this Draft EIS. Chapter 6 – Public Involvement and Agency Coordination has more information on public engagement efforts to date.

S.5 Transportation and Environmental Effects

Table S-4 reviews the range of environmental effects identified in this Draft EIS, highlighting where the light rail alternatives have different effects compared to the No-Build Alternative or each other. Where the differences in impacts between the individual alternatives and their need for mitigation are notable, the table shows more detail. Otherwise, it shows the general effects for all light rail alternatives. Environmental topics for which there are no clear differences and no effects requiring mitigation are not detailed in the table (Land Use, Air Quality, Energy, Utilities and Public Services).

Table S-4. Summary of Transportation and Environmental Effects *(multi-page table)*

Environmental Discipline	Impacts and Benefits
Transportation • Transit • Streets • Bicycle and Pedestrian • Parking • Freight • Safety	• Compared to the No-Build Alternative, the light rail alternatives would notably improve transit reliability and frequency • Light rail offers up to 9-minute faster in-vehicle transit travel times on full-corridor transit trips than the No-Build Alternative • Light rail would carry up to 41,600 daily light rail riders by year 2035, and the full-corridor project covers up to 8 percent more total transit riders (on bus and rail) than the No-Build Alternative • There would be increased vehicular, bicycle and pedestrian activity around transit stations and park and rides

[1] In addition to Metro, the local agency partners are the Tri-County Metropolitan Transportation District of Oregon (TriMet); Oregon Department of Transportation (ODOT); the cities of Beaverton, Durham, King City, Portland, Sherwood, Tigard and Tualatin; and Washington County.

Table S-4. Summary of Transportation and Environmental Effects *(multi-page table)*

Environmental Discipline	Impacts and Benefits
	• Local and arterial intersections with congestion or queues below standards would have mitigation available to return to No-Build Alternative conditions or better • Impacts to local freight access to individual properties could create out-of-direction travel and increase travel times • Construction could temporarily reduce highway and local roadway capacity, increase truck traffic, involve sidewalk and road closures or detours, and affect access and travel times for transit
Residential Acquisitions and Displacements	• A full-corridor project would acquire and displace 78 to 293 residential units • Segment A alternatives would affect 41 to 125 residential units, with A2-LA having the highest impacts and A1 the least • Segment B alternatives would affect 32 to 78 residential units, with B4 having the highest impacts and B1 the least • Segment C alternatives would affect 5 to 85 residential units, with C1/C2 and C5 having the highest impacts and C3/C4 and C6 the least
Economics (Business Displacements)	• A full-corridor project would have acquisitions affecting 106 to 156 businesses or institutions and 961 to 1,990 employees • Segment A alternatives would have acquisitions affecting 15 to 23 businesses and 108 to 371 employees, with A2-BH and A2-LA having the highest impacts and A1 the least • Segment B alternatives would affect 54 to 66 businesses and 469 to 565 employees, with B1 affecting the fewest businesses, B2 affecting the fewest employees, and the other alignment alternatives at the higher end of the impact range • Segment C alternatives would affect 31 to 55 businesses and 323 to 839 employees; C5 would affect the most businesses, and C3 the most employees • Temporary construction impacts would involve increased traffic congestion and reroutes, noise, vibration, dust, and changes to business access and visibility
Communities	• In all segments, clusters of residential and business displacements could disrupt individual social ties and indirectly cause property values to increase through redevelopment around stations, which could affect low-income populations • In Segment A, all alternatives would affect parking for a church, but replacement parking could be provided as mitigation • In Segment C, Alternatives C1, C2 and C5 would displace a community lodge and businesses providing counseling and a medical clinic • Alternatives C3 and C4 would displace the Tigard U.S. Post Office • Alternatives C3 and C6 would displace a medical clinic • Alternatives C1, C2 and C5 (SW Ash Ave. alignments) would displace a cluster of multifamily residential buildings in the Downtown Tigard neighborhood along SW Hall Blvd. and SW Ash Ave.; the relocation of several blocks of residents would alter the current character and social interactions in this neighborhood. Improved transportation infrastructure and services for all modes could benefit area residents, businesses and patrons
Visual Quality	• Segment A alternatives would have moderate visual impacts overall, but there would be areas with higher impacts due to building and vegetation removal, such as near Marquam Hill, along SW Barbur Blvd. in The Woods, and in areas with historic properties • Segment B alternatives would have moderate visual impacts overall • Segment C alternatives would have high impacts in the Tigard Triangle and downtown Tigard due to prominent new structures, vegetation removal and removal of buildings in areas with nearby residences; Alternatives C1, C2 and C5 would have the highest visual impacts
Historic and Archaeological Resources	• A full-corridor project would have a presumed adverse effect due to full parcel acquisitions of 7 to 21 historic properties • Segment A alternatives would involve full parcel acquisitions on 5 to 15 historic properties, with A2-LA having the highest • All Segment A alternatives would impact two historic trestle bridges on SW Barbur Blvd. • Segment B alternatives would involve 2 to 5 historic properties, with B1 having the most • All of the alignment alternatives could encounter potential archaeological sites

Table S-4. Summary of Transportation and Environmental Effects *(multi-page table)*

Environmental Discipline	Impacts and Benefits
Parks and Recreation Resources	• A1 would remove vegetation bordering Duniway Park and Lair Hill Park • A2-BH and A2-LA would affect strips of land bordering Water and Gibbs Community Garden and Front and Curry Community Garden • All Segment A alternatives would remove vegetation and trees along the Terwilliger Parkway/open space along SW Barbur Blvd. and for the Marquam Hill connection, and in George Himes Natural Area Park • All Segment B alternatives would remove vegetation and trees bordering Fulton Park between the community garden and the street
Geology, Soils and Hydrogeology	• All alternatives are in a seismically active region that requires engineering measures to address the risk of damage from earthquakes • All alternatives cross areas that require measures to reduce slope instability risks
Ecosystems Resources	• A full-corridor project would involve between 1.3 and 1.6 acres of permanent wetland impacts • Tree removal in Segments A and B would affect some protected areas such as stream crossings; there would be less than 0.1 acre of permanent wetland impacts in each segment • Several stream and wetland crossings by alignment alternatives in Segment C; permanent wetland impacts would range from 0.4 acre to 1.6 acres, with C3 and C4 (Clinton) having the most
Water Resources	• There would be increased pollution-generating and non-pollution-generating impervious surfaces for all alternatives • There would be floodplain impacts for all alternatives in Segment C except C6
Noise and Vibration	• There are noise and vibration-sensitive properties, including residences, that would be impacted in all three segments • More frequent trains are needed for the Branched Route, thus creating higher noise and vibration impacts • Segment A would have up to 353 moderate noise impacts, up to 8 severe noise impacts and up to 76 vibration impacts • Segment B would have up to 147 moderate noise impacts, 1 severe noise impact and up to 29 vibration impacts • Segment C would have up to 72 moderate noise impacts, up to 15 severe noise impacts and up to 21 vibration impacts • TriMet would mitigate impacts to be below federal severe impact thresholds for all alternatives
Hazardous Materials	• A full-corridor project would acquire 5 to 8 parcels with higher risk for remaining hazardous materials for the alignment, and an O&M facility could involve 2 additional parcels; resulting cleanup would be an environmental benefit • All Segment B alternatives would acquire up to 3 parcels with higher risk for remaining hazardous materials • Segment C alternatives would acquire 2 to 5 parcels with higher risk for remaining hazardous materials, with C5 having the least
Safety and Security	• Car prowls could occur with new or expanded park and rides • Some station locations in Segment C would be in areas that currently experience property and nuisance crimes, particularly in downtown Tigard
Land Use, Air Quality, Energy, Utilities, Public Services	• No adverse long-term impacts

S.6 Effects of a Full-Corridor Alternative and Minimum Operable Segments (MOS)

A full-corridor alternative adds the effects by segment, including for the O&M facility, for an overall total for the project. Transportation effects, particularly the effects that span the full corridor or are regional in nature, such as increased transit ridership and reduced vehicle trips and miles traveled, are greatest for a full-length alternative. These regional transportation effects are generally positive.

The totals for impacts related to the conversion of land ("project footprint impacts" corresponding to property-related impacts and impacts to natural resources) are at their maximum levels with a full-corridor alternative, as shown in Table S-4.

The MOS options could either avoid or defer the impacts of converting some of the existing land uses for use by the transportation project. However, the MOS options would also have less frequent trains than a full-length alternative, which would reduce noise and vibration impacts.

A shorter project involving lower train frequencies and fewer stations would still bring transportation benefits, but these benefits would be reduced (about 9,200 fewer daily trips than a full-length alternative). Other benefits, such as improvements in air quality, would be lower, and a shorter project would have reduced consistency with regional plans for land use and the transportation system.

S.7 Other Environmental Factors

Environmental Justice

FTA has preliminarily concluded that the Southwest Corridor Light Rail Project would not result in disproportionately high and adverse effects on minority and low-income populations, after mitigation and offsetting benefits have been considered. The primary source of impacts would result from residential and business acquisitions and related displacements and relocations. For all alternatives, these impacts would be mitigated through TriMet's real property acquisition policy, including its compensation and relocation assistance program. The number of people affected could be lowered by choosing alternatives with lower impacts, by applying design refinements that avoid or minimize impacts to properties where low-income or minority individuals are present, or by applying other mitigation or benefits to offset the impacts. After the Draft EIS public comment period concludes, FTA, Metro and TriMet will continue to identify and evaluate measures to minimize the impacts to low-income and minority populations, and they will seek additional ways to maximize benefits to help offset remaining impacts. More details are in Appendix C – Environmental Justice Compliance.

Section 4(f) and Section 6(f) of the Land and Water Conservation Fund Act

Section 4(f) is a federal regulation[2] that restricts FTA's ability to approve a project that adversely affects parks and recreation resources. The Land and Water Conservation Fund (LWCF) Act authorized a federal grant program, and Section 6(f) of the Act places-requirements on projects that impacts parks bought through the fund. This Draft EIS analysis has identified potential adverse impacts to historic resources in Segments A and B, as well as impacts to several parks, including the Terwilliger Parkway, which has a parcel acquired through the LWCF. Therefore, in preparing the Final EIS, FTA, Metro and TriMet will need to continue to review avoidance measures and further define mitigation, working closely with other agencies that have jurisdiction over the affected properties. These regulations, as well as the comments of other agencies with jurisdiction over affected resources, could affect the

[2] Section 4(f) refers to a U.S. Department of Transportation (USDOT) statute that restricts FTA's ability to approve a project that adversely affects significant parks, recreation resources, fish and wildlife refuges, and historic properties, unless no other feasible and prudent alternative is available. Section 6(f) of the Land and Water Conservation Act requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds be coordinated with the Department of Interior. Usually replacement in kind is required.

definition of the project that advances to the Final EIS. Additional details are in Appendix D – Draft Section 4(f) Evaluation and Draft Section 6(f) of the Land and Water Conservation Fund Evaluation.

S.8 Evaluation of Alternatives

Chapter 5 – Evaluation of Alternatives evaluates the ability of the light rail alternatives to meet the project's Purpose and Need statement, comparing the environmental, transportation and cost differences among the alternatives. While all of the light rail alternatives would meet the Purpose and Need, Chapter 5 highlights areas where the initial route proposal and its design refinements would best meet the Purpose and Need, reduce impacts, maximize benefits, and create the most cost-effective project to build and operate. Environmental effects due to property acquisitions and resulting building removals, including historic properties, as well as impacts to businesses and employees are the primary differentiating factors. There are also differences in how various alignment and station configurations affect travel times, multimodal access, constructability and construction impacts.

The chapter also covers capital and operating costs and finances, which are summarized in Table S-5 for the full corridor and MOS for both the Draft EIS alternatives and the initial route proposal with design refinements. Comparative capital costs for the alignment alternatives by segment are shown in Table S-6. Chapter 5 – Evaluation of Alternatives has more details and an illustrative finance plan.

Table S-5. Estimated Project Capital and Operating Costs

	Total Capital Cost Range[1]	Annual O&M Cost[2]
Draft EIS Alternatives		
Through Route	$3,270 to $3,590 million	$22 million
Branched Route	$3,390 to $3,630 million	$30 million
Tigard Transit Center MOS	$2,920 to $3,160 million	$19 million
Bridgeport MOS	$2,970 to $3,170 million	$22 million
Initial Route Proposal (with design refinements)		
Full corridor	$2,640 to $2,860 million	$22 million
MOS	$2,170 to $2,410 million	$19 million

Note: MOS = minimum operable segment; O&M = operating and maintenance.

[1] Capital costs are in year-of-expenditure (2024) dollars and include finance costs.

[2] Operating costs assume 2035 service frequencies.

Table S-6. Capital Cost Differences Between Alignment Alternatives

Alignment Alternative	Capital Cost Difference[1] *Compared to lowest cost*
Segment A: Inner Portland	
A1: Barbur	lowest cost
A2-BH: Naito Bridgehead	+$140 million
A2-LA: Naito Limited Access	+$160 million
Segment B: Outer Portland	
B1: Barbur	+$40 million
B2: I-5 Barbur TC-60th	+$30 million
B3: I-5 26th-60th	lowest cost
B4: I-5 Custer-60th	lowest cost
Segment C: Tigard and Tualatin	
C1: Ash-I-5	+$60 million
C2: Ash-RR	lowest cost
C3: Clinton-I-5	+$120 million
C4: Clinton-RR	+$60 million
C5: Ash-I-5 Branched	+$20 million
C6: Wall-I-5 Branched	+$60 million

[1] Costs are in year of expenditure (2024) dollars and include finance costs.

S.9 Next Steps and the Project Timeline

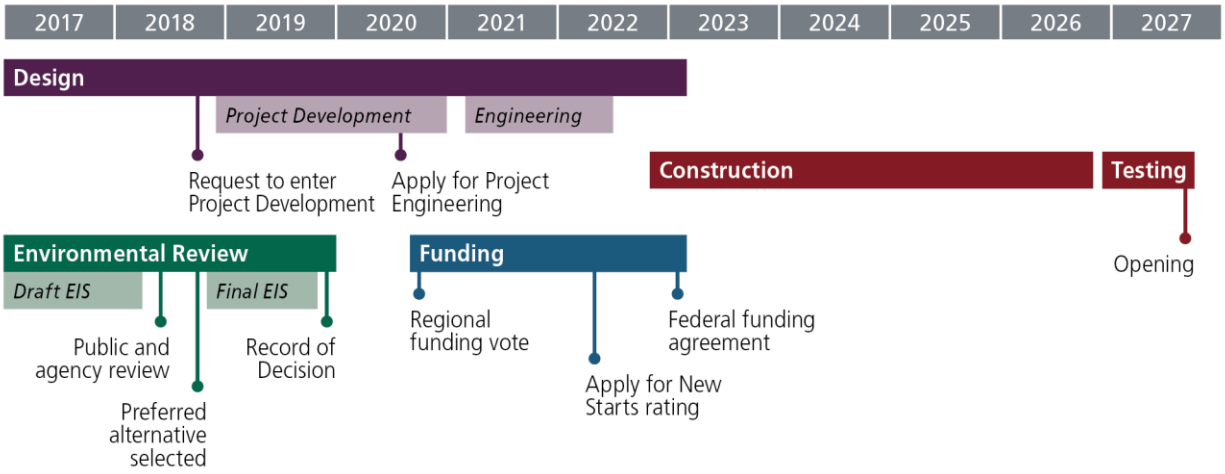
The project schedule, with this Draft EIS being a major milestone, is shown on Figure S-8. A 45-day public review period of the Draft EIS begins once it is published in the Federal Register. After the close of the review period, the Southwest Corridor Steering Committee will recommend a single route—the Preferred Alternative—considering the information from this Draft EIS and comments from the public, staff and the Community Advisory Committee. The Metro Council will also consider the recommendations, the Draft EIS, and comments from the public, agencies and Tribes before adopting the Preferred Alternative.

Certain project components (Marquam Hill connection, PCC-Sylvania shuttle, and station access improvements) may not be defined in the Preferred Alternative, due to the need for further public process, but will be identified prior to development of the Final EIS. FTA, Metro and TriMet will prepare a Final EIS to respond to the substantive comments received on this Draft EIS, and state the complete Southwest Corridor Light Rail Project, environmental findings and mitigation requirements.

Once the federal environmental review concludes, the Portland region will need to identify and commit local funds to the project and request federal matching funds. Construction would take approximately four years once funding is secured.

Figure S-8

Project Schedule



PORTLAND • TIGARD • TUALATIN

SW Corridor Light Rail Project

The Southwest Corridor Plan is a partnership of:

- Beaverton
- Durham
- King City
- Metro
- Oregon Department of Transportation
- Portland
- Sherwood
- Tigard
- TriMet
- Tualatin
- Washington County

Learn more...

swcorridorplan.org

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swcorridorDEIS@oregonmetro.gov

Add your voice to light rail decisions

Route options are being considered for a new MAX light rail line serving Portland, Tigard and Tualatin.

For the past year, engineers, planners and scientists have studied and documented how adding light rail in Southwest Portland, Tigard and Tualatin could affect the area. The resulting report, known as the Draft Environmental Impact Statement (DEIS), is now available for public review. Based on this report, project staff identified an initial route proposal for public comment.

Project partners want to hear from you to improve the project and to help them make a recommendation on the final light rail route this summer. Read on to learn about an initial proposal for the light rail route, what else comes with light rail, the Draft Environmental Impact Statement and how you can help shape the project.

Draft EIS overview

What is an EIS and why is it needed?

An Environmental Impact Statement (EIS) shares information about the anticipated effects of a major infrastructure project (like a new MAX light rail line) with the public, government agencies and decision-makers.

The Federal Transit Administration is conducting an EIS in partnership with Metro, TriMet and other project partners. The purpose is to identify and reduce potential negative impacts before federal funding is made available to build the new light rail line.

What are the findings of the Draft EIS?

Concerns found in the Draft EIS include:

- residential and commercial property relocations
- effects on parks and historic properties
- increased noise potential for traffic delays

The project must avoid, minimize or otherwise mitigate significant adverse impacts. Certain strategies to avoid or minimize impacts could be incorporated into the project designs for the Final EIS, such as moving or narrowing the project footprint.

The Draft EIS also identifies the benefits of the light rail project, which include:

- improved neighborhood quality of life and cohesion
- air quality
- reduced vehicle miles traveled by 2035

See the sidebar for a list of all the topics addressed in the Draft EIS.

What's the difference between the Draft EIS and Final EIS?

The EIS is split into two documents, known as the Draft EIS and Final EIS. In between, there is a public comment period and a decision on the route.

The Draft EIS, which was just published, identifies impacts for a range of route options. The report also identifies strategies to avoid, minimize or mitigate the anticipated negative impacts. An initial route proposal is identified in the Draft EIS, but all the options studied are still on the table.

The public review period provides an opportunity for comment on the Draft EIS. After the public comment period, the Steering Committee will consider the Draft EIS analysis and the comments received, and then decide on a route to study further, known as the Locally Preferred Alternative (LPA).

The Final EIS will focus on the Locally Preferred Alternative, based on more detailed designs and responds to comments made on the Draft EIS.

What topics are analyzed in the Draft EIS?

The Draft EIS considers short-term, long-term, indirect and cumulative impacts on the following elements of the natural and built environment:

- Transportation, including public transportation, auto traffic, parking, walking, biking, freight and safety
- Property acquisitions, displacements and relocations
- Land use
- Economics
- Communities
- Visual quality
- Historic, archaeological and cultural resources
- Parks and recreational resources
- Geology, soils and hydrology
- Ecosystems
- Water resources
- Noise and vibration
- Air quality and greenhouse gas emissions
- Energy
- Hazardous materials
- Utilities
- Public services
- Safety and security
- Environmental justice

Want to learn more?

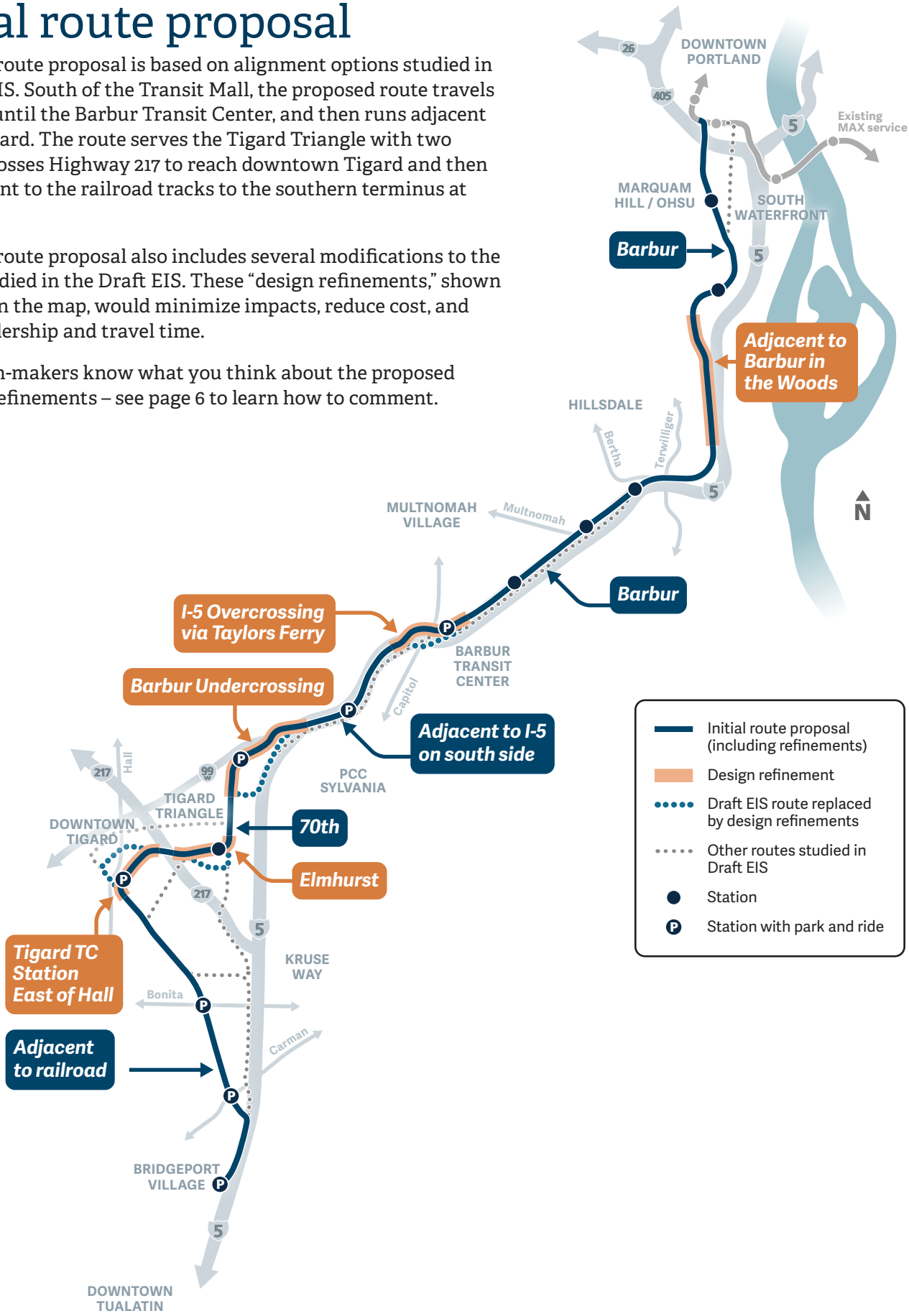
See page 6 to learn how to find the full Draft EIS or contact staff with questions.

Initial route proposal

The initial route proposal is based on alignment options studied in the Draft EIS. South of the Transit Mall, the proposed route travels on Barbur until the Barbur Transit Center, and then runs adjacent to I-5 to Tigard. The route serves the Tigard Triangle with two stations, crosses Highway 217 to reach downtown Tigard and then runs adjacent to the railroad tracks to the southern terminus at Bridgeport.

The initial route proposal also includes several modifications to the designs studied in the Draft EIS. These "design refinements," shown in orange on the map, would minimize impacts, reduce cost, and improve ridership and travel time.

Let decision-makers know what you think about the proposed route and refinements – see page 6 to learn how to comment.



Project committees

The route choice is guided by two committees:

- The Southwest Corridor **Community Advisory Committee** represents neighbors, businesses and people like you. The group includes members from Tigard, Tualatin and Portland. They will recommend a final light rail route to the Steering Committee.
- The Southwest Corridor Plan **Steering Committee**, whose members are leaders from Southwest Corridor cities, Washington County, ODOT, TriMet and Metro, will consider public comments and the Community Advisory Committee recommendation before recommending the final route to the Metro Council.

The Community Advisory Committee and Steering Committee meetings are open to the public. To learn about upcoming meetings, visit the project website, www.swcorridorplan.org.

What's in the project?

The cornerstone of the Southwest Corridor Plan is a new 12-mile MAX light rail line connecting downtown Portland to Tigard and Tualatin. But the plan also includes roadway, bicycle and pedestrian improvements and strategies to ensure that development along the light rail line meets the region's workforce, economic development and housing needs.

The project includes:

- a new walk and bike connector between SW Barbur Boulevard and **Marquam Hill** to provide access to OHSU, the VA Hospital, Doernbecher Children's Hospital and other facilities
- a **shared transitway (for buses and light rail)** on the northernmost 2-miles of Barbur Boulevard to allow buses to bypass traffic congestion in South Portland
- stations along **Barbur Boulevard** from Burlingame to the Barbur Transit Center (while maintaining two auto lanes in each direction on Barbur)
- a **shuttle** between PCC-Sylvania and nearby stations to shorten the connection between light rail and the campus
- a southern terminus station at **Bridgeport Village**, to provide access to jobs, and connect to bus lines accessing Tualatin employment areas, Wilsonville, and other points south and west
- **transfer opportunites** to other transit, including many bus lines, MAX lines and WES Commuter Rail
- new or improved **sidewalks, bike lanes and safe crossings** along the alignment and at stations to provide safe access
- new **park and rides** (2,000 to 3,500 parking spaces) near freeway ramps that would allow drivers to connect easily to light rail and avoid the daily congestion on I-5 and Barbur

The project team is pursuing additional improvements as part of the broader Southwest Corridor Plan. For example, partners have already begun to implement the Southwest Corridor Equitable Development Strategy, and are developing a strategy to reconfigure access at the west end of the Ross Island Bridge. Learn more about these efforts on the next page.

Incomplete sidewalks on Barbur Boulevard (at Alice Street)

Biking on Barbur Boulevard (at Bertha Boulevard)

Southwest Corridor Equitable Development Strategy

As the Portland region grows, we face challenges more common to our big city neighbors – lack of affordable housing and community/business displacement. We must consider how to support more inclusivity and equity as we grow.

Planning for the Southwest Corridor MAX line offers an opportunity. Portland and Tigard created an Equitable Housing Strategy, and in 2016, Metro received a federal grant to support the creation of a Southwest Corridor Equitable Development Strategy (SWEDS). Through SWEDS, Metro is developing ways to support neighborhoods with:

- housing choices for people of all incomes
- a range of jobs for people of all backgrounds
- learning opportunities that prepare people for those jobs
- wages that support people's desire to live and work in the corridor

A unique and powerful element of this work is its community-driven nature. It is guided by a Project Oversight Committee, consisting of community members, local businesses, non-profits and public agencies.

Hear the Edwards family's story at www.swcorridorplan.org.

In addition, early strategy ideas suggested by the community will be tested in a series of pilot projects. These pilot projects prepare for the changes and opportunities light rail investments would bring, and they are all led by private groups and non-profits. They are an opportunity for real creativity and innovation.

This unique partnership is intended to protect and provide opportunities for people living here today, while planning for those coming in the future.

What is the Ross Island Bridgehead Reconfiguration?

The Ross Island Bridgehead Reconfiguration would simplify access to the west end of the bridge, shifting regional traffic out of the local neighborhoods, creating a safer environment for people, and opening up land for new housing, shops, and restaurants.

The "Bridgehead" refers to the area at the west end of the Ross Island Bridge in the South Portland neighborhood. This area has been shaped and reshaped by infrastructure projects since the early 1900s. As the automobile became more popular and streets replaced streetcar lines, high-volume roadways such as I-5, Harbor Drive, Front Avenue (now Naito Parkway), freeway interchanges and Ross Island Bridge ramps displaced homes and businesses, and placed barriers to access throughout the remaining neighborhood.

Congested traffic conditions continue today with cars regularly lining up and spilling into the neighborhoods, impacting quality of life, and constraining walking and biking access. The proposed Bridgehead Reconfiguration comes from multiple past planning and engineering studies for the area, and is intended to accomplish a range of land use and transportation goals supported by the community, the City of Portland and ODOT. It would simplify access and improve traffic conditions.

The Bridgehead Reconfiguration would redirect existing ramp traffic to Kelly Avenue and onto a new, shorter bridge on-ramp and convert Naito Parkway to an improved boulevard with regular, at-grade intersections. It would also add bike lanes and open up nearly 3 acres of land for development.

Types of comments

There are two ways to comment: on the initial route proposal and the DEIS study.

1. **Comment on the initial route proposal:**
   - What do you like?
   - What would make it better?
2. **Comment on specific points in the DEIS study:**
   - Are there errors?
   - Is something missing?
   - Are there better ways to reduce negative impacts?

Tips for effective comments

Be clear, concise and organized.

Be specific. Only stating your position will not have as much effect as explaining why you support that position.

Stick to the facts. Whenever you come across something in the study with which you disagree, write down the page number, the sentence you disagree with and why. If you have conflicting information or data, share that, too.

Identify possible solutions. Suggest reasonable ways to avoid, minimize or reduce negative impacts.

Comment

Your comments ensure that all potential effects of the project are understood by decision-makers. Comments also help the Steering Committee select a preferred route for the light rail this summer. Every comment will be read, and responses to all comments will be printed in the Final EIS.

Comments will be accepted through Monday July 30, 2018.

Read the Draft EIS document

You will find the Draft EIS document at www.swcorridorplan.org/DEIS. To request a CD or printed copy of the document, call or email Metro at the contact info below.

A printed copy is available to view at the following libraries:

- Hillsdale
- Capitol Hill
- Tigard
- Tualatin
- Portland State University
- Portland Community College – Sylvania Campus
- National University of Naturopathic Medicine

Come to upcoming meetings

Visit our website for a list of upcoming meetings where you can view the document, talk with staff and comment, www.swcorridorplan.org.

There are three types of events coming up:

- During **information hours**, staff will be available to answer questions. No presentations are planned. Stop in any time.
- **Open houses** are bigger events where information will be displayed on posters and staff are available to answer your questions. Come anytime during the event hours. You'll find copies of the plan and opportunities to comment. Refreshments are provided and free childcare is available.
- The **public hearing** is an opportunity to speak before the Steering Committee to share comments about the Draft EIS and the locally preferred alternative.

Contact Metro staff with questions

Call Metro's multilingual hotline, (503) 797-1888, or email SWCorridorDEIS@oregonmetro.gov.

How to comment

- **Write a letter or email.** Send a letter to Metro, SW Corridor, 600 NE Grand Ave., Portland, OR 97232 or email Metro at SWCorridorDEIS@oregonmetro.gov.
- **Attend a meeting and comment in person.** Meeting dates and locations in SW Portland, Tigard and Tualatin are listed on the project website, www.swcorridorplan.org.
- **Comment online.** Visit www.swcorridorplan.org.

Next steps

How will a final route decision be made?

Many groups participate in picking the final light rail route. At the end of the public comment period, the Community Advisory Committee will make a recommendation to the Steering Committee. With this recommendation and feedback received from the public, the Steering Committee will recommend a final route. Then, local jurisdictions (Portland, Tigard, Tualatin) will discuss their support for the route recommendation. Finally, the Metro Council will vote to adopt the final route into the Regional Transportation Plan (RTP). At this point, the Final EIS and advanced design phases can begin.

When will light rail be built?

The plan has been in the works for years, and some roadway and sidewalk projects in the corridor have already been built. Construction on light rail itself could begin as early as 2022 and be open for service in 2027. But there are still a lot of details to iron out. It's a long road from planning to construction and it relies on a lot of public feedback to make sure we get it right.

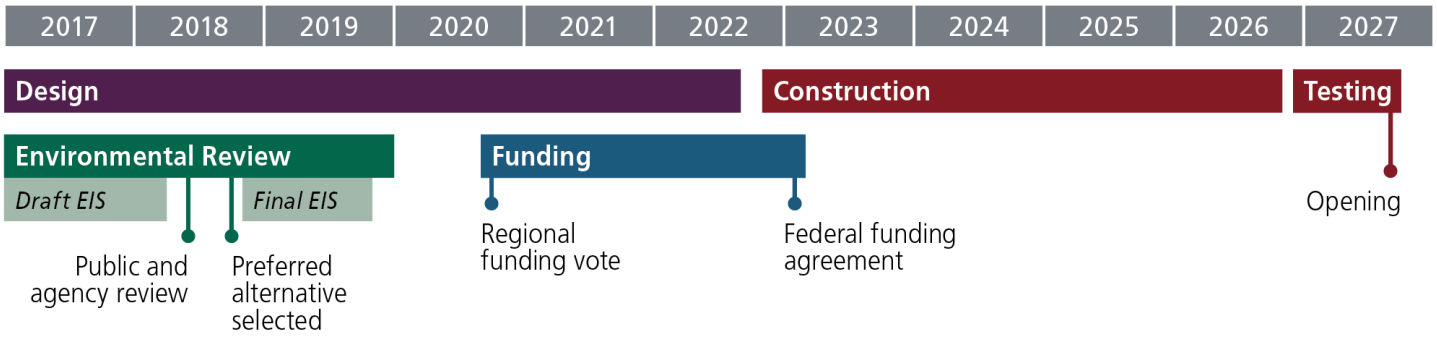
After a route is approved this fall, TriMet will work with partners and communities to refine designs. Decisions during this phase include selecting improvements for walking , biking and driving needs, refining connections to PCC-Sylvania and Marquam Hill, and more. Significant public input will be needed during this phase.

Who pays for it?

Light rail projects, like all large-scale road and highway projects, are expensive. Like with previous MAX lines, the region will pursue federal grants that could pay up to half the cost of the light rail project. Some funding may come from the state and from local sources here in the Portland metro area.

The remainder could come from a regional transportation funding ballot measure, which is anticipated in 2020. This measure is expected to include a package of transportation improvements around the region, including the Southwest Corridor Light Rail Project, for voters' approval. This local funding commitment will help the project compete for federal matching dollars.

Southwest Corridor Light Rail Schedule



By the numbers

75,000 more residents
estimated to live in the Southwest Corridor by 2035

2,000 to 3,600 spaces
proposed at park & rides

30 minutes via light rail
from Bridgeport Village to Portland State University

13 light rail stations
proposed on the line

43,000 riders on the line
on an average weekday in 2035

1 in 5 commuters on MAX
going southbound from downtown during the 2035 PM rush hour

$2.6 to 2.8 billion
estimated cost to build (including inflation and finance)

Improved transit access

Compared to a future scenario without the project, the light rail line would increase the number of households and jobs accessible by transit within half an hour:

- over **70 percent more** households could reach the Barbur Transit Center, downtown Tigard and Bridgeport Village
- over **35 percent more** jobs could be reached from downtown Tigard
- over **60 percent more** jobs could be reached from the Barbur Transit Center and Bridgeport Village

Why light rail?

The Southwest Corridor is growing – with growth comes congestion, and getting around will only become more difficult if solutions are not implemented now.

Road expansion is not the only answer. There isn't space to add auto lanes along the length of Highway 99W and I-5, and expansion would not fix the bottlenecks at places like Highway 217, I-405, and I-84 that cause backups. While TriMet is adding bus service to reach more parts of the corridor, buses are slowed by traffic just as cars are.

Light rail, on the other hand, operates in its own right of way separated from traffic, creating a congestion-proof option for traveling through the corridor. (Bus rapid transit, which is high-quality bus service in dedicated bus lanes, was also considered to address these needs, but only light rail could carry the expected high number of riders in the future.)

With an anticipated travel time of just 30 minutes between Bridgeport Village in Tualatin and downtown Portland, the MAX line is projected to attract 43,000 riders on an average weekday by 2035. This means light rail could carry almost a fifth of the southbound rush hour commuters from downtown Portland. Like MAX lines along the Sunset and Banfield Highways, Southwest Corridor light rail will be able to whisk its riders past the cars stuck in traffic. That 30 minute travel time will hold steady long into the future even as more people and cars increase congestion.

By building an essential branch in the regional transit system, the project will improve access to employment, education, housing and recreation destinations. With new sidewalks, bikeways and road improvements planned along the route, the project puts people first – by transit, on foot, on a bicycle or in a car.