Final Report
City of Lynnwood
Mode Split for City Center Street Master Plan
Project Number 28035

December 2009

Prepared for:

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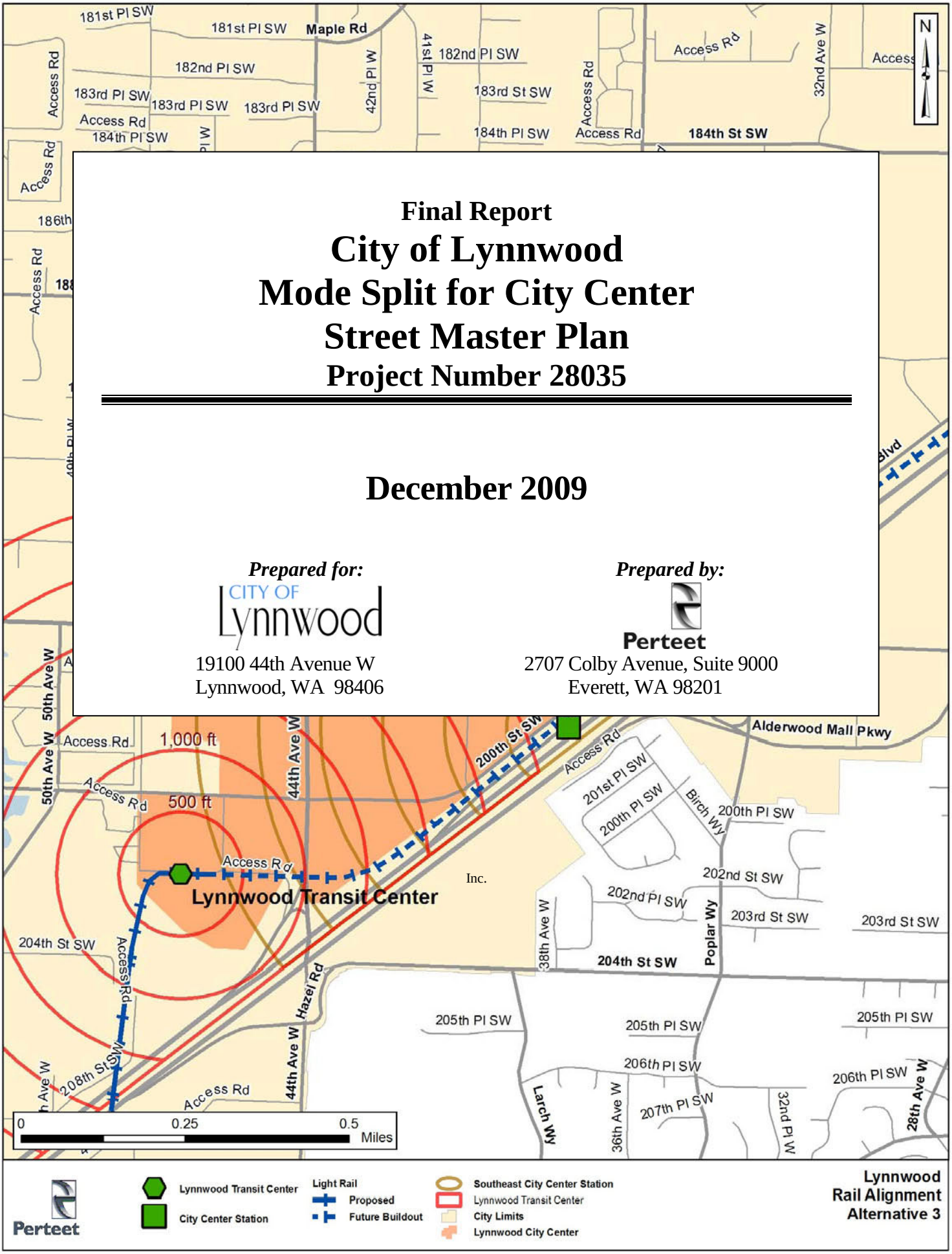

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Executive Summary

On March 14, 2005, as amended September 2007, the City of Lynnwood adopted the City Center Sub-Area Plan. The Plan addressed implementation of the Lynnwood Sub-Regional Center (previously identified by the Puget Sound Regional Council (PSRC) and adopted by the City of Lynnwood) by concentrating PSRC projected employment and population growth for Lynnwood within a mixed-use, pedestrian friendly and transit–supported center. The City Center is generally located north and west of Interstate – 5, south 194th Street SW, and east 48th Ave. W., within the vicinity of 196th Street SW (SR-524) and 44th Ave. W. Fundamental to the City Center Plan is that development of high-capacity transit as an alternative to single occupancy vehicles, and that transit should serve as a catalyst for achieving the land-use policies of the City Center Plan by encouraging transit oriented development. This document, ***Final Report, City of Lynnwood, Mode Split for City Center Street Master Plan, December 2009***, presents a preliminary analysis of the transit mode split confirmation for the City Center; suggested light rail station locations;, bus route streamlining; and bus "super-stop" considerations.

Within the four county metropolitan regions, the City of Lynnwood, Washington, was identified as a designated urban center by the Puget Sound Regional Council, (PSRC). Based on the State's Growth Management Act requirement to determine where additional growth is expected to be accommodated in the region, the PSRC projected a significant amount of development for Lynnwood due to its inherent attributes of geographic location, access to the transportation system, and development opportunities.[1]

To accommodate the PSRC projections, Lynnwood has approved the City Center Plan for a mixed –use employment and population center immediately adjacent to Interstate -5. The plan calls for 9.1 million square feet of mixed used development within the City Center Plan area. City Center employment is projected to reach 20,000 by 2025, and approximately 3,000 housing units are anticipated to be constructed during this period. The provision of attractive transit services must be encouraged to accommodate the fact that Lynnwood will transform into a regional destination.

The City Center Plan outlines a vision for the Lynnwood City Center that transitions from the existing auto-orientated land uses into a compact, vibrant downtown area. It is an ongoing land use plan for growth and not constrained to a 20 year horizon. Features of the City Center include a smaller street grid to assist with circulation, enhanced pedestrian amenities, and a significant amount of new development. Development would include new high density housing, office and retail, as well as civic buildings and parks.

To maximize access into the City Center to accommodate planned development a reduction in the dependence of single occupancy vehicles and increasing the use of transit is essential. Providing transit as attractive and feasible alternative for employees, residents and commuters will accomplish this objective. The availability of transit

[1] City of Lynnwood; City Center Sub-Area Plan, Background/History, September 2007

alternatives will also address community land-use policies for transit oriented development.

With the passage of Sound Transit's ST2 proposal in November 2008, Sound Transit will be extending light rail north from the University District reaching Lynnwood by 2023. The City has considered whether Sound Transit's proposed ST2 station location in the Lynnwood Transit Center is ideally suited to attract the most riders, increase transit's mode split, promote economic activity and align with current land use plans of the City. The City has concluded that it is not possible to locate a single station that adequately serves both commuters at the Transit Center and also supports high density development that will be built in the City Center core. ST has approved construction of additional stations with limited separation to serve Bellevue's Bell-Red Corridor under ST2. Accordingly, Lynnwood is planning on a short extension of light rail north of the Transit Center and a second station designed to support urban scale development, also under ST2.

Overall, this study provides a framework of ideas for discussion with the transit agencies to develop a transit network that would support the City Center project, increase transit use and validate the desired mode split for transit projected at 10.3% in year 2025.

The City selected three alternatives for an additional light rail station in the City Center Core. This station is designed to support intensive urban densities within the core and not SOV commuters seeking to get out of their cars and onto LRT. No parking is needed to support this station. A fourth alternative to relocate the Lynnwood Transit Center Station to 44 Ave W. & Alderwood Mall Blvd was developed and reviewed with a goal of serving a dual purpose of meeting the needs of both commuters and City Center development. It was concluded that the walking distances between the Transit Center and the City Center Core are too great to effectively serve dual purposes and destinations, and that Alternative 4 will not be considered as a viable alternative to achieve transit oriented development land-use densities envisioned in the City Center Plan.

The next steps include additional studies and discussions with Community Transit (CT) and Sound Transit (ST). Close coordination with the transit agencies is important as the City Center continues to develop, Community Transit's Long Range Plan is produced and Sound Transit's light rail alignment is established. The City will work closely with the transit agencies to secure funding for the City Center station under the ST2 program.

Chapter 1 Existing Conditions, Plans and Goals

Chapter 1 describes the existing conditions, plans and goals that relate to proposed high capacity transit in the City of Lynnwood's City Center area.

1.0 The Lynnwood City Center Plan

According to the City of Lynnwood's City Center Sub-Area Plan (September 2007), the goal of the City Center Plan is "To create, within 20 years, a compact, intense and lively city center that offers Lynnwood new opportunities for culture, commerce and habitation." This includes the objective to "Restructure the City Center's growth toward a more concentrated, mixed-use, pedestrian-friendly and transit-supportive center."

The Lynnwood City Center Plan outlines a vision for the City Center that the area will evolve from the existing auto-orientated land uses into a compact, vibrant downtown area with mixed-use that is pedestrian friendly and transit-supportive.

The City Center is expected to become a regional draw at a much higher level than it is today. Employment is projected to increase by 50% by the year 2020. The provision of attractive transit services in the future must be encouraged to accommodate the fact that Lynnwood will transform into a regional destination. With development of this scale, the management of traffic is essential, and the City Center Project will require a greater percentage of non-single occupant vehicle trips than currently is the case in the City Center area. The year 2030 mode split assumptions provided by PSRC for Lynnwood's Central Business District are shown in the exhibit below. For this study, year 2025 was interpolated with an assumption to be 80% of year 2030.

Exhibit 1 – PSRC Mode Split Forecast

YEAR	SOV	HOV2	HOV3	Transit	Bike	Walking
2025	78.7%	5.9%	1.3%	10.3%	2.3%	1.5%
2030	77.1%	6.0%	1.3%	11.6%	2.4%	1.6%

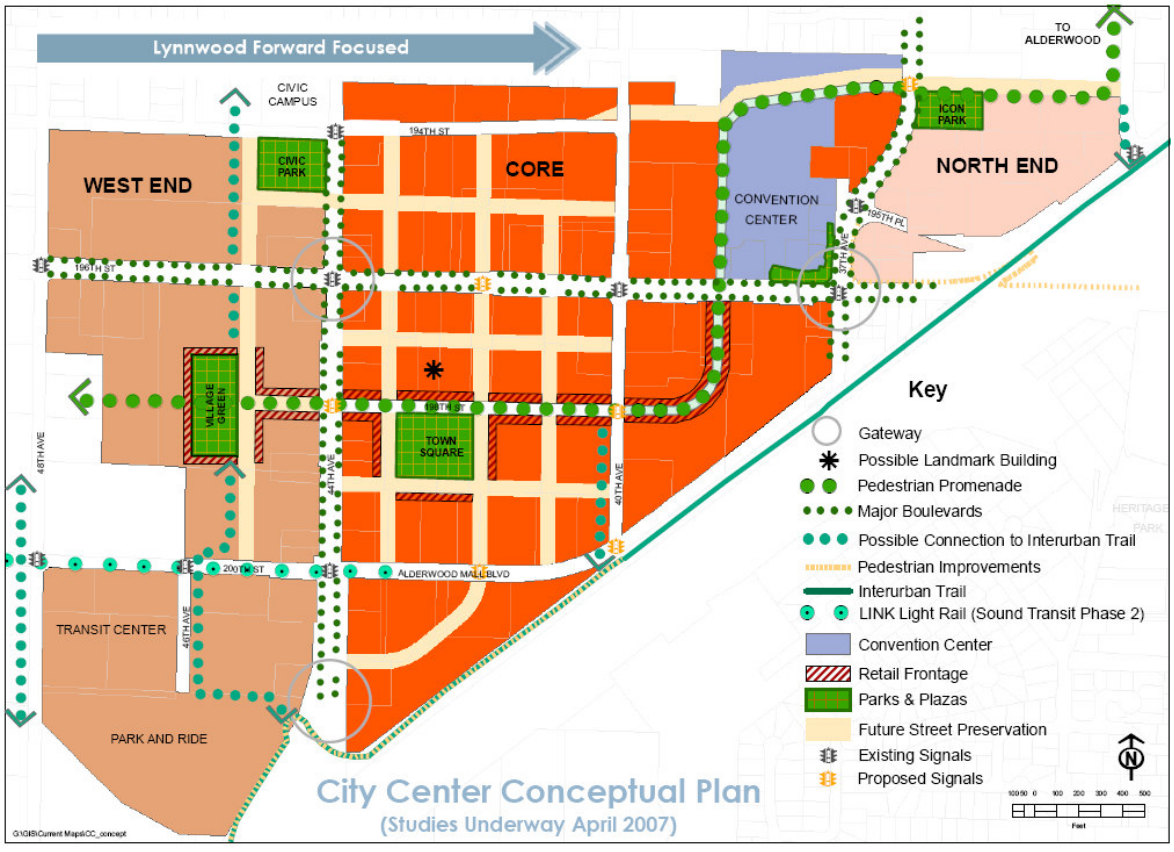
Transit is expected to perform an important role in the City Center. The accommodation of frequent and direct transit services delivered in a convenient and attractive manner is desirable while providing connections to other parts of Lynnwood and the region.

For a vibrant City Center attractive alternatives to the automobile will need to be integrated into the development plan. Although Community Transit offers an extensive local bus network serving the City Center, regional services that provide direct access to the employment center are essential in influencing the choice rider population (those who have other options i.e. single occupancy vehicle) to think of transit as their first choice as a commuting option. A strategically located light rail station would bring more people to and from the City Center if positioned within a reasonable walking distance (about ½ mile maximum distance).

As a result of the passage of the ST2 proposition in November 2008, Sound Transit proposes a light rail station at the Lynnwood Transit Center. The City has determined that it is essential to have two stations in City Center, one to serve commuters at the Transit Center, the other located in the heart of the high density urban center to support the development that will be occurring. Due to the distance between the transit center and heart of the City Center, it is not possible to meet these diverse needs with a single station. The City of Lynnwood desires to determine if these are the best locations to support the City Center project and achieve the goals of moving a high percentage of residents and employees in the City Center by transit. This report identifies ideal locations (alternatives) in the City Center area for a light rail station and it will serve as a tool to help influence the outcome of ST2 and future plan development. Stations at Alderwood Mall and Ash Way Park & Ride are proposed for future build-out programs when approved.

Exhibit 2 displays the entire City Center area. The central section of the area (shown in orange) will be developed as the "Core" District for office and commercial, residential and entertainment uses. Street level uses will include storefront retail and will be incorporated into the pedestrian environment. The Core District is the focal point for concentrating enhanced transit services.

Exhibit 2 – City Center Conceptual Plan



1.1 Light Rail Transit into Lynnwood

Light rail transit to Lynnwood has been discussed since the early 1990s. This section discusses recent efforts to expand light rail north to Lynnwood

In 1996, Sound Transit was authorized to implement the Sound Move mass transit program that included building light rail as far north as the University District. Most of the Sound Move projects are nearing completion although light rail will not reach the University District until 2016. ST2 was developed to initiate a second phase of transit projects following Sound Move. The following information describes ST2 and how it would affect Lynnwood.

November 2007 ST2

The first ST2 ballot proposition would have brought light rail as far north as Ash Way Park & Ride from the University District and included funding for planning an extension to Everett in later phases. In addition, light rail stations were proposed for Lynnwood Transit Center and Alderwood Mall. The extension would have brought light rail to the Lynnwood Transit Center, the nearest location to the City Center Core district. The November 2007 ST2 proposition along with a companion road improvement package failed to receive voter approval.

November 2008 ST2

On April 24, 2008, the Sound Transit Board moved to kick-off a public involvement process seeking input on new options that would modify the November 2007 mass transit expansion plan and to form a lower-cost package that could be implemented more quickly. The public involvement effort held during the month of May 2008 provided comment opportunities in-person, online and by mail. In August 2008, the Sound Transit Board voted to place the revised ST2 proposal on the November 2008 ballot.

In November 2008, the ballot measure passed. Included in the approved plan are the following elements that are of interest to the City of Lynnwood:

- Light rail extension to the Lynnwood Transit Center (LTC) from the University District
- Enhanced bus service on the I-5 corridor between Seattle and Everett
- Enhanced bus service on I-405 between Bellevue and Everett
- Bus base and fleet expansion funding to expand Regional Express bus service
- A System Access Program to promote the development of facilities to improve connections between surrounding communities and stations, transit centers and other customer boarding locations
- Funding for engineering, environmental review and early property purchase that would contribute extending light rail to Ash Way and Everett in later phases
- Structured parking adding 500 spaces to the Lynnwood Park and Ride
- Pedestrian bridge across 44 Ave W

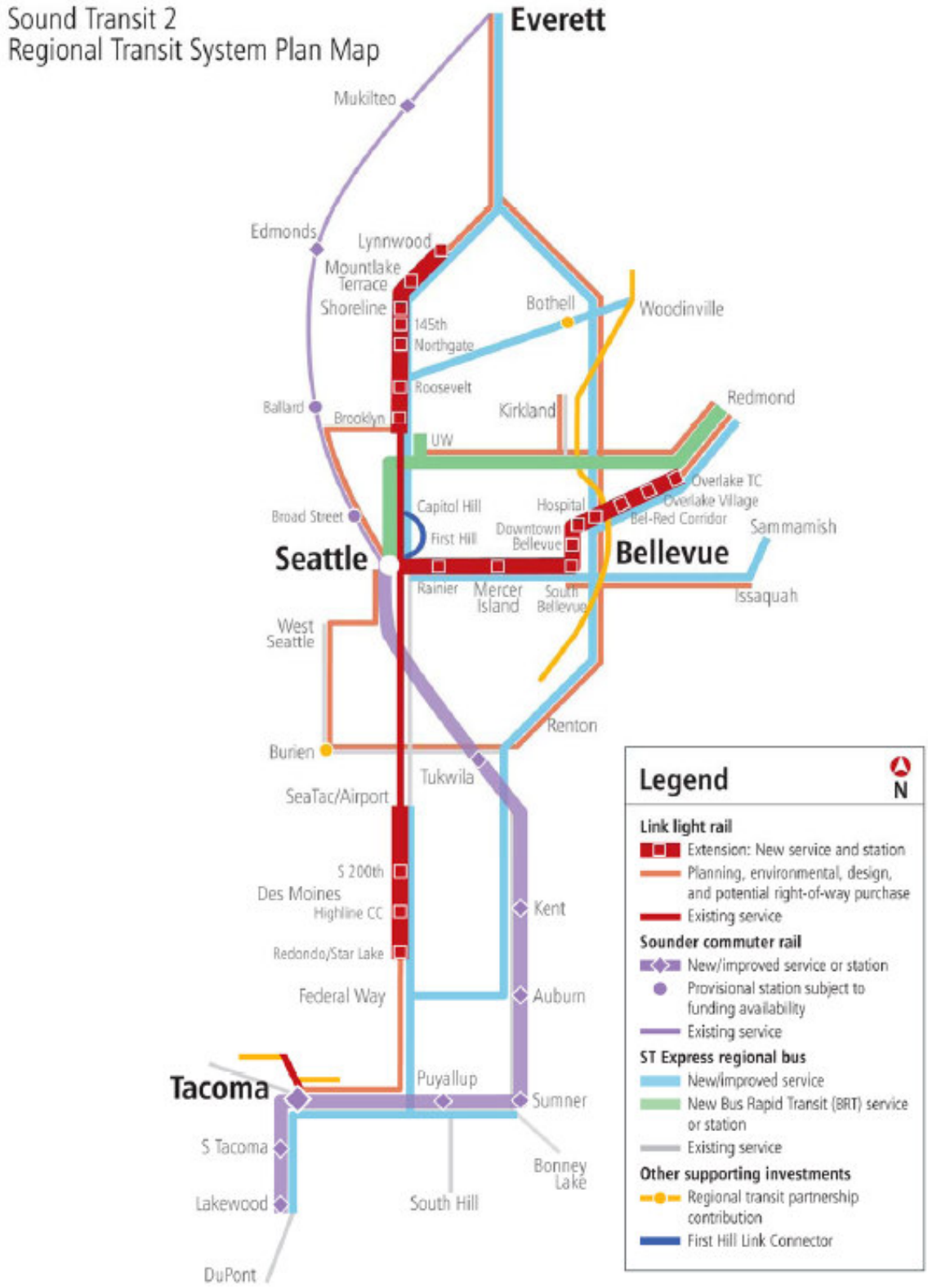
In June 2009, Lynnwood participated in the Urban Land Institute/Transit Oriented Development (ULI/TOD) Light Rail design program, Building a Sustainable Region with

Vibrant Transit Neighborhoods, hosted by the Urban Land Institute. The workshop focused on the University District, Bel-Red, and Lynnwood station areas. The purpose of the workshop was to begin a dialogue about these three stations in different neighborhood contexts as a model for the system.

Diverse teams comprised of developers, urban designers, planners, elected leaders, business owners, market analysts, community leaders, Sound Transit staff, Community Transit and national TOD (Transit Oriented Development) experts generated several big ideas for each area, identified barriers and challenges to those visions. It became clear that the initial proposals from ST did not address the community objectives for Lynnwood or Bellevue. In fact, Bellevue was adding stations with limited separation to serve the Bel-Red area.

The Design team working on Lynnwood's LRT station concluded that it was not possible to adequately serve both commuters at the Transit Center and support urban center development in the City Center with a single station. The distance between these locations is too great. Further, high volumes of auto and bus traffic needed to access the transit center create congestion and further diminish pedestrian serving potential. The purpose of a Transit Center station serving commuters, parking and transfers is also completely different from an urban center station which is in direct proximity to intensive development and requires no parking. The effort confirmed that the station proposed at the transit center was insufficient to address community objectives. Such concerns have been previously articulate to ST by the City of Lynnwood as conceptual plans for LRT were initiated.

Exhibit 3 – Sound Transit ST2 Network Approved in November 2008



Resolution No. R2008-10 - Appendix A
Adopted July 24, 2008

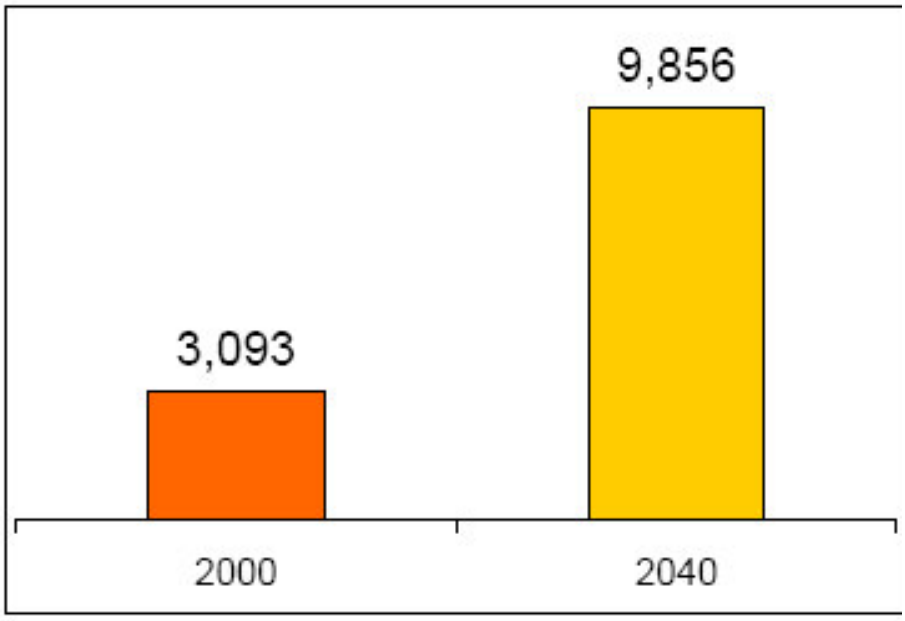
A-4

1.2 Puget Sound Regional Council Vision for Snohomish County

By 2040, Puget Sound Regional Council's (PSRC) Vision 2040 projects Snohomish County will be home to 446,000 additional people and 246,000 new jobs. The Regional Growth Strategy assumes a continued increase in congestion with delay on highways and arterials more than doubling by 2040. To help mitigate this congestion and maintain regional mobility, transit utilization must increase. Vision 2040 assumes overall Snohomish County transit mode split will grow from 2.7% of all work trips in 2000 to 7.2% in 2040. The plan for achieving this higher mode share for transit includes not only increases in bus service, but also land use and development strategies directing population and employment growth into centers and connecting corridors.

By focusing growth in areas with existing transit service and appropriate infrastructure, the regional vision will enable development of transit markets that can be effectively served by transit.[2] See Exhibits 4 and 5 comparing years 2000 and 2040 for the projected average number of jobs within 30 minutes of home and the transit mode split in Snohomish County as reported by PSRC Vision 2040. The City of Lynnwood is designated in Vision 2040 as the only core city located between Seattle and Everett.

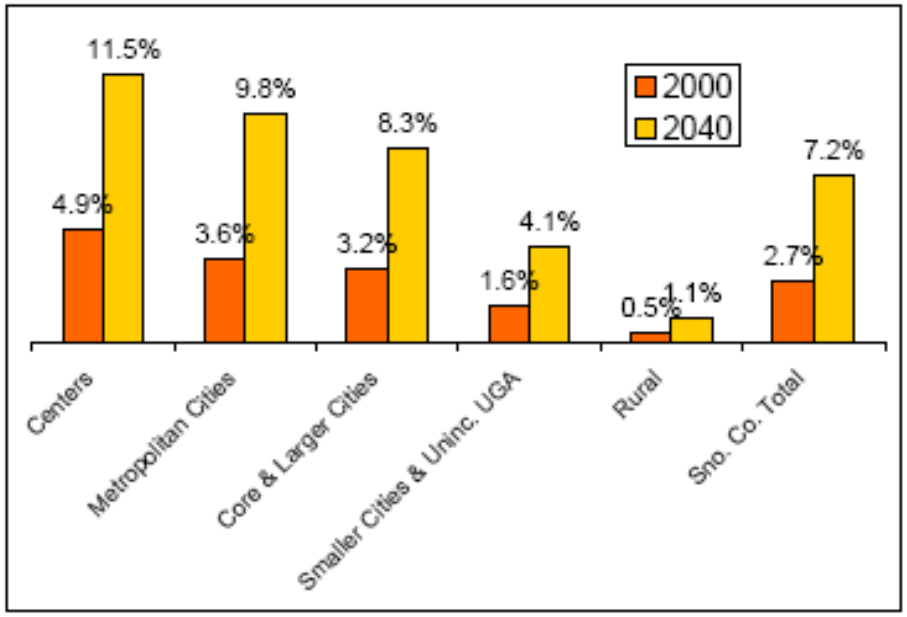
Exhibit 4 – Average Number of Jobs per Snohomish County Households within 30 Minutes by Transit



PSRC Vision 2040

[2] Community Transit; Transit Development Plan 2008-2013; February 3, 2008

Exhibit 5 – Transit Mode Share of Work Person Trips in Snohomish County



PSRC Vision 2040

Chapter 2 Bus Integration

This chapter provides suggestion for enhancing bus service and facilities in year 2025 to provide more coverage in the City Center Core District while making bus use more attractive and encouraging travel by transit. Bus services described here are for illustration purposes to provide examples of how an enhanced and modified system could potential operate in Lynnwood.

2.0 Bus Service

In order to achieve the goal of attracting more people to transit, modification to the bus network should be considered to serve the City Center core area directly. Note that, most routes serving Lynnwood do not serve the core of the City Center. With modifications to the current route network and accompanying service improvements, the core of the City Center employment district could be effectively served by bus. The Lynnwood Transit Center (within the City Center but not within the core employment area), would remain the hub of the bus system in South Snohomish County.

2.1 Existing Bus Service

Community Transit operates 30 local bus routes in Snohomish County. Forty-three percent of Community Transit's local bus routes serve the Lynnwood Transit Center with service frequencies ranging from 15 to 30 minutes apart. This represents the highest concentration of Community Transit service anywhere in Snohomish County.

Nineteen Community Transit routes and two Sound Transit Regional Express routes currently serve Lynnwood via the Lynnwood Transit Center located in the City Center Project area. Thirteen local Community Transit routes provide service throughout the South Snohomish County area including two routes from North Snohomish County and Everett. Also there are six commuter routes providing peak-period service to downtown Seattle, the University District and Overlake. Sound Transit routes provide all day regional express service to Bellevue via Bothell and to downtown Seattle seven days a week.

Currently, the Lynnwood Transit Center is connected by bus service with Aurora Village, Mountlake Terrace, Meadowdale, North Lynnwood, Mukilteo, Harbour Point, Beverly Park, Swamp Creek, Smokey Point, Marysville, Everett, Bellevue and Bothell. One Community Transit route, Route 441 to Overlake, is a commuter route and is not orientated to serving the City Center market.

Exhibit 6 shows the current bus service network in Lynnwood for both Community Transit and Sound Transit.

Exhibit 6 – Current Community Transit and Sound Transit Lynnwood Service

Route Number Legend

Light Blue - Community Transit Local Routes
Dark Blue - Community Transit Commuter Routes
Purple - Community Transit University District Routes
Green - Sound Transit Regional Express Routes

2.2 Community Transit Future Bus Service Plans

The Community Transit Six-year Plan (2008-2013) includes proposed changes that would enhance service to the City Center. Frequency improvements on Route 201/202 between Everett and Lynnwood to about every 15 minutes were implemented with the September 2008 Service Change including extending Route 200 from Everett to Lynnwood. This provides more service between Lynnwood, Everett, Marysville and Smokey Point. For 2010, a new commuter route between Stanwood and Lynnwood is being considered.

Planned for 2011-2013 is a comprehensive route restructure in south Snohomish County. The objectives for this restructure include:

- Provide better service connections for riders in south County areas.
- Enhance connections with ***Swift*** service on Hwy 99 and other regional providers.
- Improve running times by serving areas with high transit ridership and minimizing unproductive service hours.

Route restructure decisions will be based on stop-level ridership and on-time performance data produced by Community Transit's new Advanced Public Transportation Systems (APTS) data systems. This new system will provide a new level of detail in analyzing transit route efficiency ridership demand.[3]

Swift is Community Transit's name for the bus rapid transit (BRT) route along the Highway 99 corridor between Aurora Village and Everett with buses running every 10 minutes during the day and every 20 minutes nights and weekends. Service began the last weekend of November 2009.

2.3 Sound Transit Future Bus Service Plans

With the passage of ST2, Sound Transit anticipates that when light rail reaches Lynnwood by 2023, Route 511 between Lynnwood and Seattle would be discontinued and hours reinvested into Route 532/535 Everett/Lynnwood to Bellevue service and possibly a new Mukilteo/Paine Field to Lynnwood route. Also, Route 510 between Everett and Seattle would be truncated at Lynnwood Transit Center with frequency improvements. Route 535 routing between Bellevue and Lynnwood would not be affected by light rail service.

[3] Community Transit; Transit Development Plan 2008-2013; February 3, 2008

2.4 Framework to Meet City Center Mode Split for Year 2025

In order for the aggressive future mode splits to be met, transit must be designed to cater to discretionary or choice riders. Choice riders chose to make transit their mode of transport, and are not forced into it. Features of a bus network that attract choice riders to use transit include frequent service, direct service and a reasonable travel time. For instance in 2007 over 14% of commute trips to downtown Bellevue were by transit.

To serve the City Center employment core with public transportation and to carry more transit riders to a new regional destination, changes to the bus network are necessary. Suggested service improvements to more effectively serve the City Center employment core and achieve a transit mode split similar to Bellevue's include:

- Minimizing transfers
- Redistributing buses among major arterials
- Express service
- Frequent service
- High capacity transit connecting Hwy 99
- Easy to understand focal points of service

2.5 Suggested Bus Route Modifications

At this time, three Community Transit local routes and one Sound Transit route operate through the City Center employment core on Alderwood Mall Blvd in the vicinity of 40th Ave W & 198th St SW while two Community Transit local routes operate along the periphery. The peak-period frequency of these routes varies from 20 to 30 minutes apart. To access the City Center employment core by bus many riders must transfer at Lynnwood Transit Center and the travel time for a number of riders is very long. These factors are not conducive towards attracting the choice bus rider.

Modifications to the current route network would enhance service to the City Center by bringing more routes into the employment core. Expanded bus service would feed light rail, reducing the need for more parking at the Lynnwood Transit Center. These changes could be implemented over time as the project expands, redevelopment proceeds and demand increases.

Some examples of suggested bus network enhancements for the City Center include:

- One-seat rides (no transfers) from Edmonds area neighborhoods, Edmonds Ferry, Aurora Village, Mountlake Terrace, North Lynnwood, Silver Firs, Mill Creek, Mays Pond, Martha Lake, Ash Way Park & Ride, Mukilteo, Harbour Pointe, Beverly Park and Swamp Creek Park & Ride.

- One-seat and faster rides for commuters from Stanwood, Smokey Point, Marysville, Everett, South Everett and Mukilteo Ferry. The current route network via local service is very slow and time consuming. Providing 'express' buses would attract choice riders from these outlying suburban communities to ride the bus and seek employment opportunities in the City Center.

To compliment Community Transit's *Swift* route serving the Highway 99 corridor frequent high capacity transit should be considered connecting Hwy 99 with the Lynnwood Transit Center and the City Center employment core which may include Edmonds Community College and the Alderwood Mall. Consolidation of routes along two major corridors through the City Center employment core would reduce confusion and anxiety of choice riders using the bus. It would also avoid heavily congested 44th Ave W and 196th St SW.

- 15 minute frequencies or better on core routes to attract choice riders and provide flexibility.

See Exhibit 7 for recommended service frequencies for local bus service between Lynnwood and other Snohomish County communities.

Exhibit 7 – Recommended Local Bus Frequency to/from Lynnwood

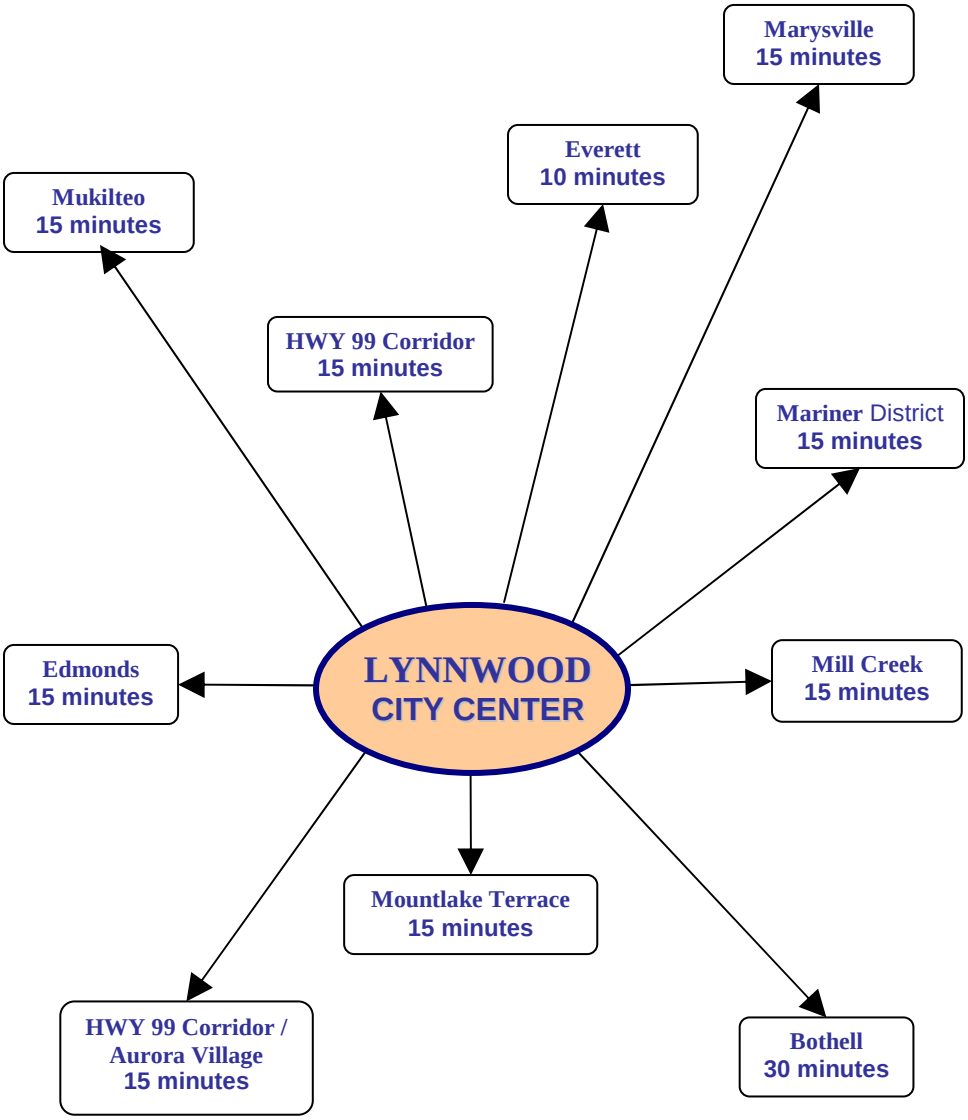


Exhibit 8 provides a detailed list of suggested modifications to the local and regional bus network while Exhibit 11 provides projected cost in terms of daily revenue hours. Revenue hour projections were based on current Community Transit running times and where information was unavailable Google Earth was utilized for travel time estimates[4].

[4] Community Transit and Google Earth travel times are comparable. However, when a schedule is prepared, actual field testing is conducted and adjustments made based on time of day. For this report, the Google Earth time provides a realistic estimate for projection purposes in lieu of actual field work.

Exhibit 8 – Suggested Bus Route Network for Lynnwood City Center

ROUTE	CHANGE	BENEFIT
110 Edmonds via 220th St SW and Stevens Hospital	Connect with Route 119; improve weekend service to every 30 min.	One-seat ride from Route 110 service area and ferry to City Center; better frequency to meet demand and attract riders
112/113 Mountlake Terrace via 44th Ave W and Mukilteo via Harbour Pointe & Beverly Park	Move route to 40th Ave W from 44th Ave W between 200th and 196th; improve peak-period to every 15 min.	Provide service to center of City Center increasing transit trips; better frequency to meet demand and attract riders
114/115/116 Edmonds via 196th St SW and Silver Firs-Mill Creek-Mays Pond via 164th St SW	Move route to 40th Ave W from 44th Ave W between 200th and 194th	Provide service to center of City Center increasing transit trips
118 Aurora Village via 84th Ave W and North Lynnwood via Hwy 99 & 148th St SW (* see below)	Move route to 40th Ave W from 44th Ave W between 200th and 196th; improve peak-period to every 15 min.	Provide service to center of City Center increasing transit trips; better frequency to meet demand and attract riders
119 Meadowdale/52nd Ave W	Connect with Route 110; improve midday/weekend service to every 30 min.	One-seat ride from Route 110 service area to City Center; better frequency to meet demand and attract riders
120/121 Bothell-Canyon Park	No changes; transfer at LTC	No practical routing and transfer ability very good
130 Aurora Village-Mountlake Terrace	No changes; transfer at LTC	No practical routing and transfer ability very good
401/402 Lynnwood-Seattle	Replaced with rail	Redeploy hours
441 Edmonds-Overlake	No changes	Route not orientated to City Center market

(continued from previous page)

ROUTE	CHANGE	BENEFIT
510 Everett-Seattle	Truncate at Lynnwood Transit Center due to rail and improve to 10 min frequency peak-periods; serve City Center via 196th, 40th, 200th to LTC	Redeploy hours; provide service to center of City Center increasing transit trips; better frequency to meet demand and attract riders
511 Lynnwood-Seattle	Replaced by rail	Redeploy hours
535 Bellevue-Bothell via I-405	No changes	Serves City Center at 200th & 40th
810/855/885 University District-Lynnwood	Replaced by rail	Redeploy hours
NEW: Stanwood Commuter Express via Smokey Point and Marysville park & rides	Per CT Six-Year Plan add commuter route from North County serving I-5 stops; serve City Center via 196th, 40th, 200th to LTC	Provide service to center of City Center increasing transit trips and to meet demand and attract riders
NEW: Mukilteo Ferry Commuter Express	Add direct express commuter route from Mukilteo; serve City Center via 196th, 40th, 200th to LTC	Provide service to center of City Center increasing transit trips and to meet demand and attract riders; reduces travel time by about 15 minutes
NEW: Marysville Area Commuter Express	Add direct express commuter route from Marysville (emulating Route 421/821 in Marysville); serve City Center via 196th, 40th, 200th to LTC	Provide service to center of City Center increasing transit trips and to meet demand and attract riders; reduces travel time by about 8 minutes or better

Exhibits 9 and 10 outlines the suggested changes to the bus route network in order to better serve the City Center and attract more trips by transit to Lynnwood's City Center employment core.

Exhibit 9 – Suggested Lynnwood City Center Local Bus Service Network

Direct service to and from City Center serving:

- Mukilteo (Ferry)
- Harbour Pointe
- Beverly Park
- Swamp Creek
- Silver Firs
- Mill Creek
- Mays Pond
- Martha Lake
- North Lynnwood
- Edmonds Ferry & Neighborhoods
- Aurora Village
- Mountlake Terrace

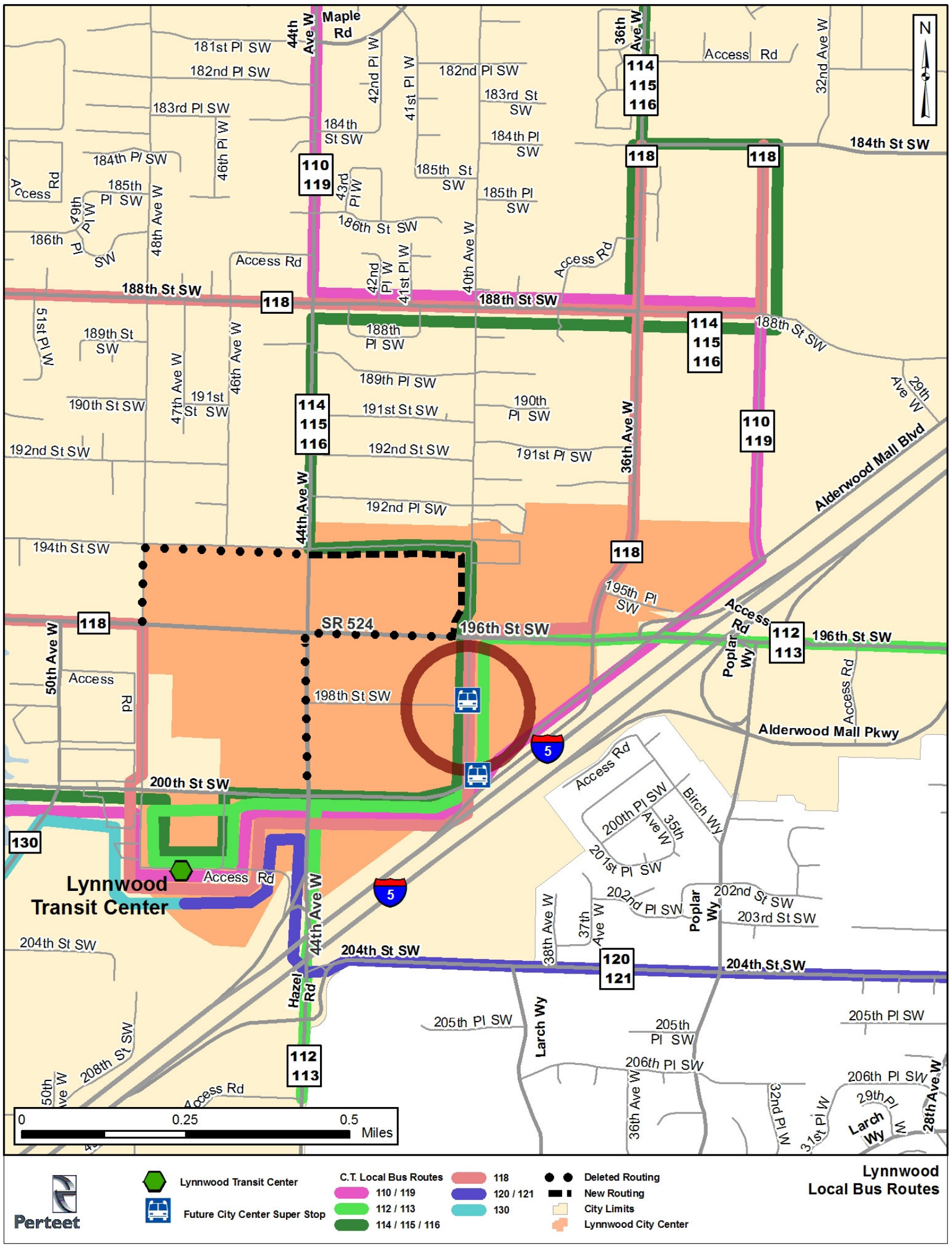


Exhibit 10 – Suggested Lynnwood City Center Regional Bus Network Service

Direct service to and from City Center serving:

- Stanwood
- Smokey Point
- Marysville
- Everett
- Mukilteo (ferry)
- Bellevue
- Bothell
- Canyon Park
- Hwy 99 Corridor BRT

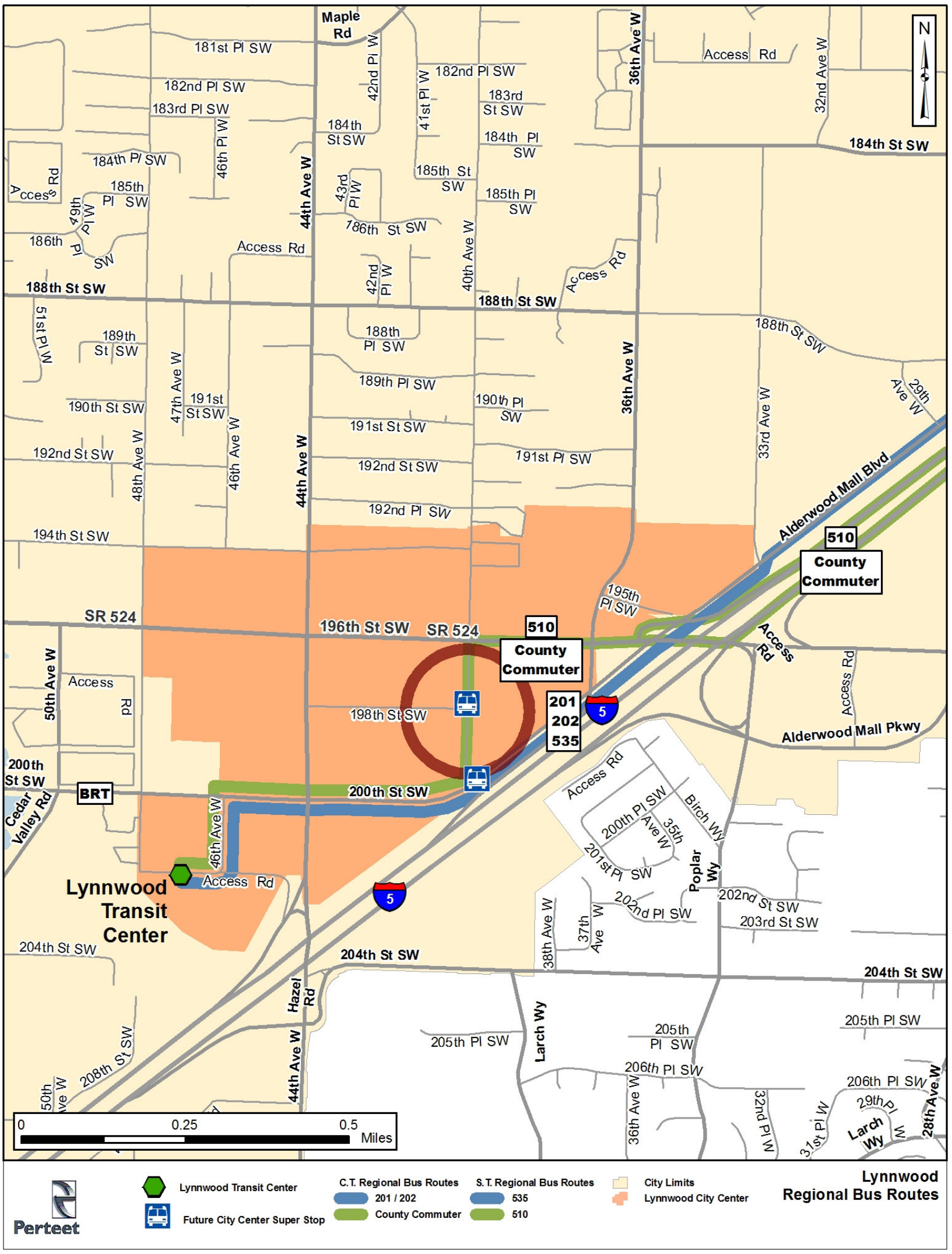


Exhibit 11 – Projected Cost by Number of Trips and Daily Revenue Hours

ROUTE	WEEKDAY	SATURDAY	SUNDAY
110 weekend frequency to 30 min	-	26 trips/11 daily hours	26 trips/11 daily hours
112/113 peak-period frequency to 15 min	12 trips/17 daily hours	-	-
118 peak-period frequency to 15 min	24 trips/27 daily hours	-	-
119 midday and weekend frequency to 30 min	6 trips/4 daily hours	26 trips/9 daily hours	26 trips/9 daily hours
201/202 15 min frequency all day	48 trips/27 daily hours	-	-
510 truncate at LTC & 10 min peak-period frequency	36 trips/15 daily hours (reallocated hours)	-	-
NEW: Stanwood Commuter Express	12 trips/15 daily hours 30 min headway	-	-
NEW: Mukilteo Commuter Express	12 trips/6 daily hours 30 min headway	-	-
NEW: Marysville Commuter Express	12 trips/10 daily hours 30 min headway	-	-
Total Hours (excluding Route 510)	**106 daily hours**	**20 daily hours**	**20 daily hours**

2.6 Corridor Bus Traffic

The suggested route modifications would consolidate routes to operate along common streets through the City Center. Improvements in service frequencies would increase the number of buses operated per hour. With these two factors, the number of buses operating along certain corridors would change. The increase in the number of buses supports the City's goal of increasing the transit mode split and reducing the use of single occupancy vehicles. For example, one fully seated 40' bus is equivalent to about 37 single occupancy vehicles.

Exhibit 12 provides the PM peak-hour bus traffic volume by corridor for current service and suggested service with both directions combined. The information considers only in-service trips and does not include any deadhead (out of service) trips. The suggested bus traffic volume by corridor will assist in planning the City Center street network and

traffic control systems that should include transit friendly improvements such as transit signal priority and bus only lanes to enhance the reliability of transit.

Exhibit 12 – PM Peak-Hour Bus Counts by Corridor

CORRIDOR	CURRENT (total both directions)	SUGGESTED (total both directions)
200th St SW 44th W to 40th W	17	63
Alderwood Mall Blvd 40th W to 33rd W	16	24
40th Ave W Alderwood Mall Blvd to 196th W	1	39
44th Ave W 200th SW to 196th SW *	10	0
48th Ave W 200th SW to 196th SW *	19	8
196th St SW 44th W to 40th W *	10	0
196th St SW 40th W to 36th W	11	31
196th St SW 36th W to I-5	7	23

* Bus traffic is reduced due to consolidating bus routes on 40th Ave W

2.7 Capital Facility Needs

Planning for facility accommodations include superstops in the City Center as well as staging areas and layover/recovery areas. Other bus stops must be accommodated along route corridors at two to three block intervals with major activity centers such as the convention center given priority. Superstops and layover elements are discussed in this section.

2.7.1 Superstop Amenities

The superstop concept serves as a hybrid between a primary local stop and a transit center. Generally, a superstop is located in an area that has high transit ridership, but may not warrant a full transit center due to the route structure or land availability. Superstops are an important component of pedestrian and transit friendly design, and can help to boost transit ridership, and even be a catalyst for adjacent economic development.

The facilities focus on conveniences and comfort, and also aim to make transit more reliable for riders by providing real-time information. The superstop would provide all of the amenities that are essential at a primary local transit stop, such as shelter, seating, and bus route schedule information. Additional amenities found at a superstop may include:

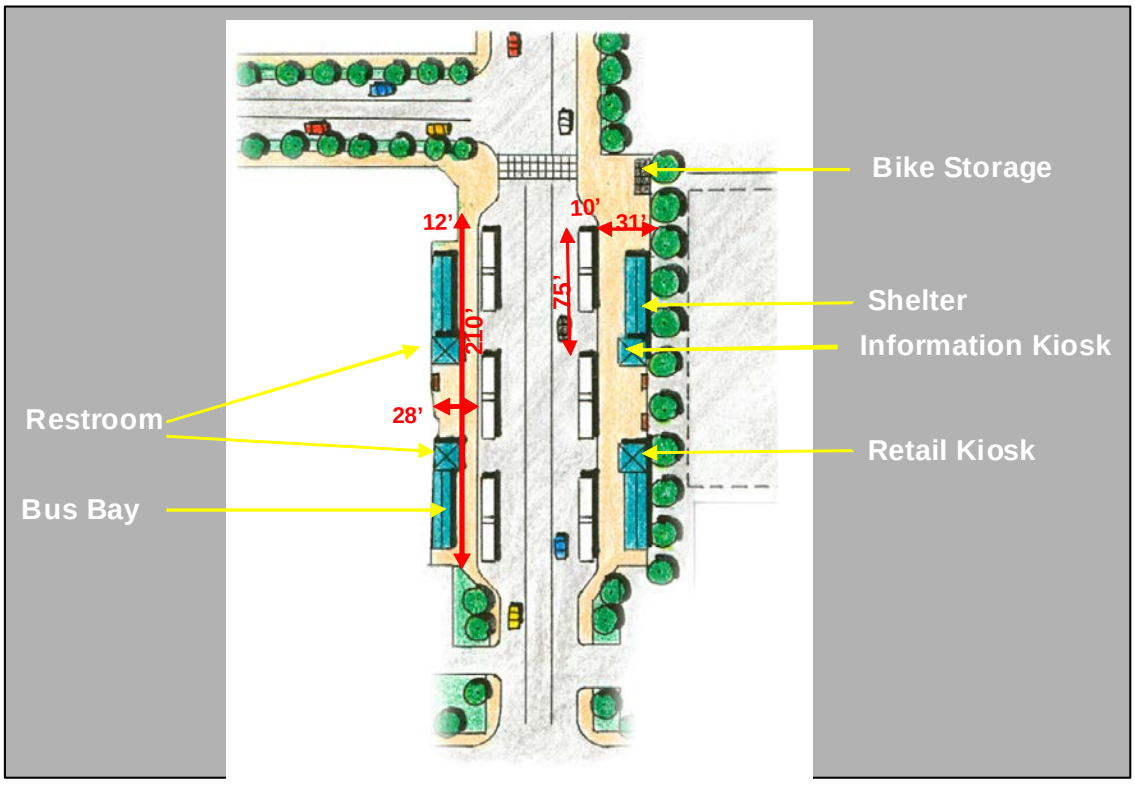
- Bicycle storage
- Information Kiosk
- Retail / vendor kiosk
- Public/courtesy telephones
- Real-time information
- Internet access to transit website
- Cash Machine
- Restrooms
- Drinking fountain
- Waste receptacle
- Postal box
- Closed circuit TV

Establishing a Superstop in Lynnwood's City Center is important towards enhancing bus service to attract choice riders and help contribute to improving the mode split. A superstop would create a focal point for transit while making it easier to understand how to use the bus system and raising riders comfort level. In addition, it helps the transit agency to better market the transit services offered.

2.7.2 Superstop Dimensions

Exhibit 13 shows how a superstop might look within the Lynnwood City Center. This drawing is intended to show the potential dimensions of a large superstop and may be modified to better fit actual streets. The proposed locations for the superstops are proposed in a general target area (red circle) shown in Exhibit 9 & 10. Exhibit 13 is provided as a visual aid for conceptualizing how a superstop would work in the City Center. The superstops may be at mid-block locations.

Exhibit 13 – Superstop Concept in Generic Location



Separate bus pullouts would allow through traffic to be unimpeded by stopped buses. This is especially important given the significant number of buses that are expected to use

the superstop. A bus pullout would be located on each side of the street to allow stops for both northbound and southbound buses. Each pullout would accommodate 3 - 60' articulated buses, and the pullout itself would be approximately 12' wide by 210' long. This length would allow for some limited spacing between buses. The spacing may not be enough to allow for independent arrival and departure, but would help to open the space up, and reduce a canyon effect for passengers waiting at the stop. The pedestrian platform area and sidewalk on each side of the street would be approximately 16' wide to allow for both pedestrians and transit users to freely use the space.

Each side of the street includes two large shelters, each at 12' wide and 60' long. The shelters would have seating, and could have exterior walls on all or most sides to provide better weather and wind protection. Real-time information would be displayed on monitors within the shelters.

Other areas of the superstop are dedicated to open air seating areas, landscaping, and bicycle storage (lockers).

Adjacent to each of the four shelters are a 15' x 15' building that can be used for restrooms, retail kiosk, information kiosk, and supply/janitorial room. In respect to the exhibit provided above, the east side area dedicated to the superstop, from the curb to the east edge of the superstop is approximately 40' wide (including sidewalk and shelter). The length of the superstop is approximately 260' long. The total area dedicated to the east side superstop is approximately 10,400 square feet.

On the west side, the width of the superstop is similar to the east side, at approximately 40'. The west side has less room dedicated to open space or bike storage, so the width at the northern end is less. The total space provided for the superstop on the west side is approximately 8,440 square feet.

This total land area of 18,840 square feet devoted to the superstop allows for a comfortable setting for patrons. The space could be potentially smaller (i.e., smaller shelters, narrower sidewalk) if needed.

2.7.3 Layover and Staging Space Needs

As shown below the suggested service improvements would not create a need for additional layover space at the Lynnwood Transit Center. Seattle and University District routes are projected to be discontinued with light rail operation and bus bay space would become available for new services. Also, most Community Transit routes pass-through the transit center and do not require layover space. Additional analysis in the future should be undertaken in the event there are service changes not currently planned.

Superstops, as discussed above, are essential for the bus network to effectively serve the City Center. The Lynnwood Transit Center would continue to be the terminal for some routes. The City Center bus stops would be for passenger drop-off and pick-up only.

The following bus bays, layover and staging spaces are identified at the Lynnwood Transit Center based on current operation, the suggested changes to the bus network as well as route changes based on light rail operating to Lynnwood.

The following is a snap shot of current conditions and projected conditions based on the suggested changes to the bus network. As Community Transit's programs are developed, future needs and conditions may be altered requiring additional consultation with the transit agencies.

Layover and Staging Area: located along the south side of the transit center and extends nearly the full length of the platform. It is currently utilized by peak-direction commuter services as well as some local bus trips waiting for time and an open bay, usually when deadheading from the base or a coach change. With the extension of light rail, the commuter routes would be discontinued opening-up layover and staging space in this area.

Currently Open Bays: Bay A3 and A5. These are general utilized by commuter buses assigned to the bays just in front (Bays A2 and A4) during the peak-hours when multiple buses may arrive. These commuter routes would be discontinued with light rail extension opening up these bays.

Projected Open Bays: Bay A3, A4, D2, D3 and D5 are utilized by commuter routes and one Sound Transit route. These routes would be discontinued with light rail extension opening up these bays.

Projected Needs with Proposed Route Network:

- Route 201/202. If the route's assigned bay is occupied, the bus can utilize the large open staging area on the south side of the platform.
- Route 510 would be truncated at Lynnwood Transit Center and improved to 10 minute headway in the peak direction. This route could utilize the two bays vacated by Route 511's cancellation with the light rail extension (Bays D2 and D3).
- A new high capacity transit route would be a pass-through route not requiring staging but utilize two bays (one in each direction). One bay (Bay D5) would be vacated with the cancellation of Route 401/402 commuter service due to light rail. For the other direction, open Bay A5 could be utilized.
- New Commuter Routes for Mukilteo, Marysville and Stanwood would be operating in the peak direction. For AM buses ending at Lynnwood Transit Center, they could utilize the large staging area on the south side of the platform if needed to wait for the next assignment. For dropping off in the AM and picking-up in the PM, there are enough open bays for each route to have its own location. These are Bay A3 and A4, opened with the replacement of University service with light rail extension and Bay A1 that is currently only used twice per day in the PM peak to drop-off riders.

This analysis identifies potential transit service requirements for the City Center. However, what is unknown at this time is the outcome of Community Transit's study to restructure South Snohomish County service between 2011 and 2013 as stated in Section 2.2. The City should work closely with Community Transit during the study to address potential additional space needs that the analysis may recommend to accommodate the restructure.

Chapter 3 Alternatives for Light Rail Stations in the City Center

The enhanced bus network and associated capital facilities described in Chapter 2 would provide effective transit service where light rail will not be provided. It would also support the light rail system providing circulation service between stations and Lynnwood area destinations.

The approved November 2008 ST2 package includes a light rail station at the Lynnwood Transit Center with future build out programs adding stations at Alderwood Mall and Ash Way Park & Ride. The City has concluded that a City Center LRT station with ST2 is essential to meet regional and local goals for developing the area. Due to location and access, it is not feasible to construct a single station that would serve both City Center and Transit Center demand.

Through this study, the City of Lynnwood is preparing to determine the best location for a light rail station to support land use plans as approved by the City Council. The analysis provided in this chapter identifies the alternative location(s) for a light rail station in Lynnwood's City Center Core district and serve as a tool to help influence future plan development.

3.0 The Need for High Capacity Transit in the City Center

Transit is expected to perform an important role in the City Center. Enhanced transit service and a strategically located light rail station(s) would bring more people to and from the City Center and increase the use of transit. It is essential to position the light rail station in a location within the City Center that people can walk to in order for this planned high density employment area to be successful.

The City Center is Lynnwood's "downtown". The outcome of this development over the next 20 years will make the City Center a major focal point and destination in the region. Locating a light rail station within a city's downtown core is consistent with high capacity transit systems regionally as well as worldwide. For example, in downtown Seattle and surrounding area, Link offers six stops within a 2.5 mile distance averaging 0.4 miles apart (Westlake to Holgate) while Sound Transit's proposed Eastside light rail project calls for two stops in downtown Bellevue and three serving the Bel-Red area. The proposed stations, Bellevue Way & Main St and Bellevue Transit Center, are about 0.6 miles apart.

3.1 Methodology

To estimate ridership at potential light rail station sites, the Transit Impact Analysis method of analysis was utilized (TIA). The TIA approach uses transit rider trip rates determined from empirical data. The TIA trip rates are based on the type of land use and the distance of the development from a high capacity transit station. To apply the trip rates, distance bands are drawn around each potential station and the trip rates are applied to the number of employees within those distance bands. The 2025 population and

employment projections were the basis of the analysis. The TIA method was applied to locations within the City Center to see how sensitive the employment based ridership was to station location for light rail. The TIA method does not account for any other ridership type other than walk-on employment, nor should it be seen as a substitute for regional modeling.

Four site alternatives between the Lynnwood Transit Center Station and Alderwood Mall Station were identified. These sites are within the highly concentrated area of employment in the City Center. The TIA produced ridership numbers for each site.

Adjusting the rail alignment through the City Center and adding a new station or relocating the LTC Station would increase costs of the Lynnwood light rail project. To estimate the additional cost of each alternative, Sound Transit's ST2 2006 cost estimate for the Lynnwood Transit Center to Alderwood Mall alignment was utilized. Using ST2 data for track construction per mile as well as cost for constructing a rail station, we arrived at the estimated cost for additional track and one additional station per alignment for alternatives 1, 2 and 3. With this second LRT location in the City Center more flexibility will be provided for the future Alderwood Mall with ST3.

3.2 Light Rail Station Site Alternatives

The ST2 plan identifies a light rail station in Lynnwood at the Lynnwood Transit Center. The City has determined that the City Center station under ST2 is essential to serving the regionally significant urban center. Long range planning with future light rail build-out includes stations at Alderwood Mall, and Ash Way Park & Ride. The Lynnwood Transit Center Station would be located within the transit center along the equivalent of 202nd St SW at about 46th Ave W. The Alderwood Mall stop may be about 1.4 miles north at a location along I-5 just south of the Alderwood Mall Parkway overpass. The developing Lynnwood City Center is located between Alderwood Mall Station and Lynnwood Transit Center Station.

Four locations were identified as potential sites for a light rail station between Lynnwood Transit Center and Alderwood Mall to serve the City Center. The locations were chosen to generate the highest number of passenger trips to and from the City Center employment core as well as to minimize travel distance and track alignment. A City Center Station for Alternatives 1, 2 and 3 would be at least 450' long by 50' wide. Alternative 4 would likely be longer in length (up to about 750') due to serving dual purposes with higher passenger volumes.

Using the TIA methodology to project pm peak-hour employment trips, the following station locations in the City Center area were reviewed.

- Lynnwood Transit Center
- Alternative #1 — 40th Ave W & 198th St SW
- Alternative #2 — 199th St SW & 41st Ave W
- Alternative #3 — I-5 & 40th Ave SW (between I-5 and Alderwood Mall Blvd)

- Alternative #4 Lynnwood Transit Center/City Center combined (intersection of 44th Ave W & Alderwood Mall Blvd)

Exhibit 14 shows Sound Transit's ST2 plan to build north to Lynnwood Transit Center and the alignment for future build-out towards Everett. Exhibits 15, 16, 17 and 18 show the alternative alignments and proposed light rail stations for the City Center.

Several construction projects and existing conditions are in the proposed in the vicinity of the rail alignment alternatives. The LTC and Alternatives 1 through 4 may be affected by one or more of the following projects.

- 196th St SW & I-5 Interchange: pedestrian bridge structure over I-5; crossing over the southbound I-5 ramp and heading west on 196th St SW. Construction 2009-2010.

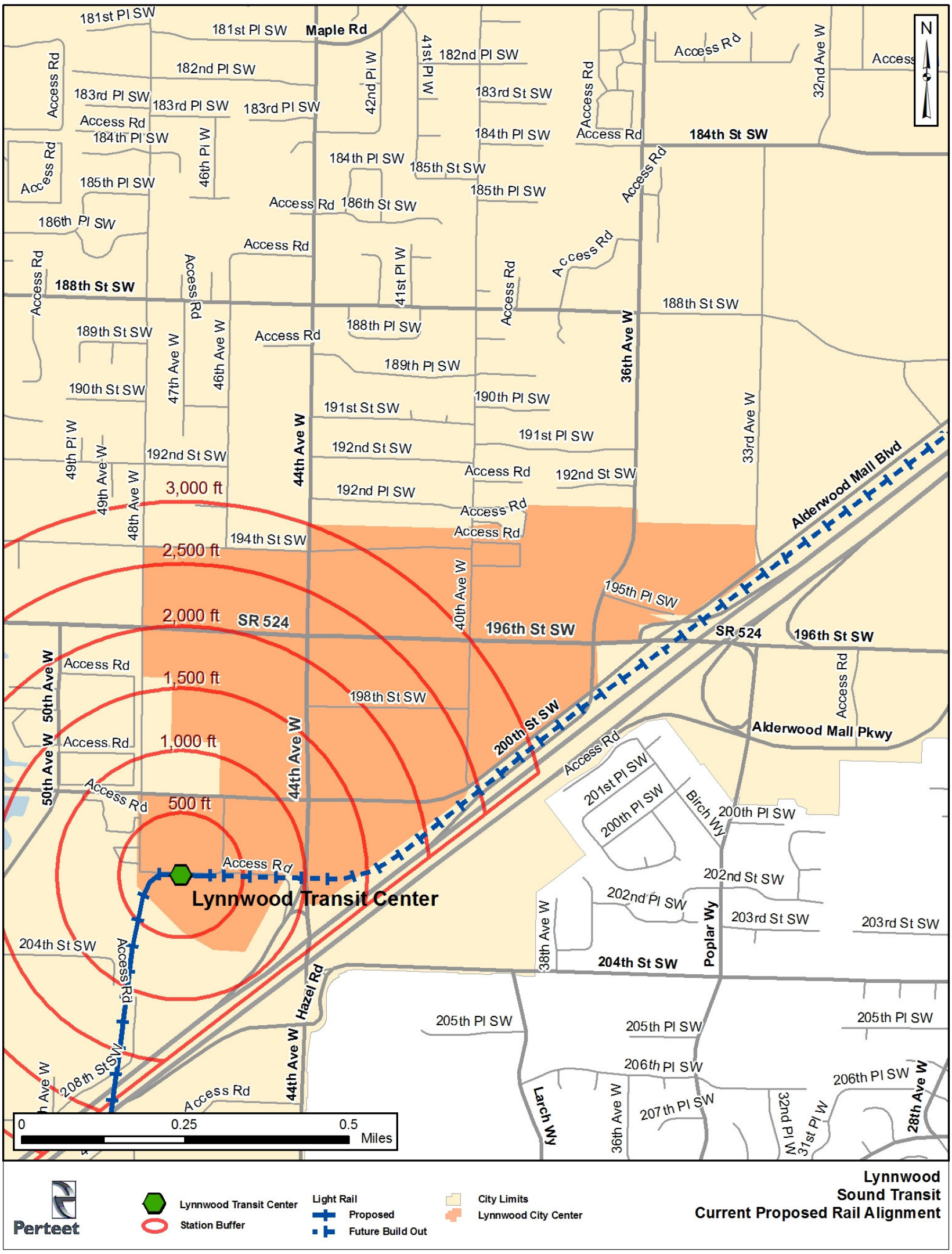
- I-5/196th St SW/SR-525: braided ramps along the Westside of I-5 between 196th St SW and SR-525. Anticipated construction 2010.

- PUD transmission lines: installation of lines near I-5 & 196th St SW interchange (existing).

- Poplar Way: the I-5 corridor Access Study (September 2007) indicates a top priority project to construct an overcrossing to relieve congestion at the I-5 & 196th St SW interchange ramps that is affecting I-5 mainline operations and on the local arterial system. Proposed/future 2013.

- 44th Ave W bridge for pedestrians and bikes. Construction 2009-2010.

Exhibit 14 – Sound Transit Current Plan



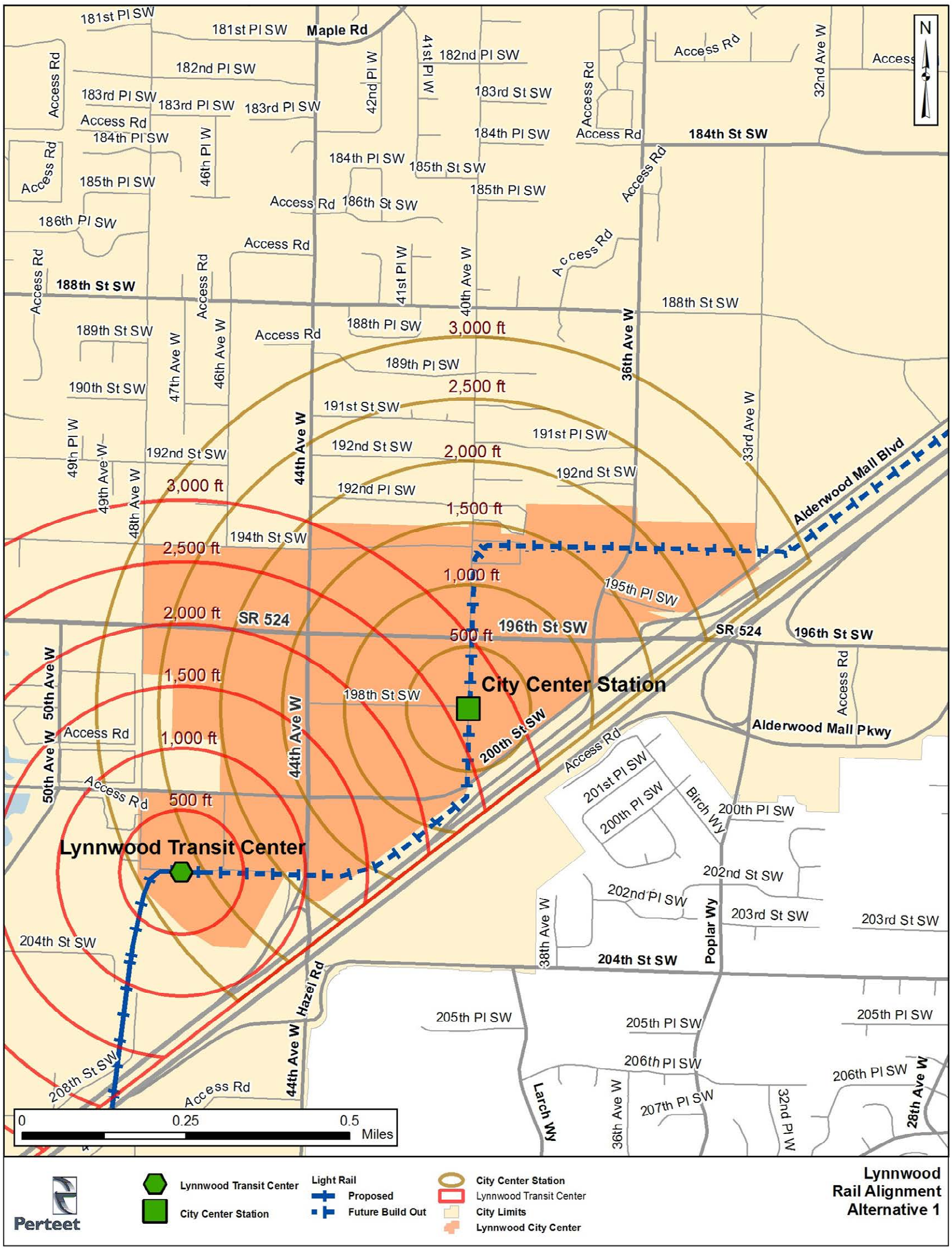
3.2.1 Alternative #1 – 40th Ave W & 198th St SW

This alternative locates the station at a highly strategic position in relationship to attract a high number of employment trips accessing the City Center. The location at 40th Ave W & 198th St SW requires modifying the currently proposed rail alignment away from I-5 by turning north along 40th Ave W and then east along 194th St SW back to I-5. This routing avoids building over or under the 196th St SW & I-5 interchange. The entire alignment through City Center would be on aerial structure.

Sound Transit estimated the cost for the Lynnwood Transit Center Station and future rail alignment to Alderwood Mall to be about $174 million. Alternative #1 and related rail alignment cost would be about $235 million or an additional $61 million and increases the route length by about 0.3 miles. The distance from the Lynnwood Transit Center Station to Alternative #1 Station is about 0.6 miles.

The following exhibit is for illustrative purposes. It is not based on any engineering design work.

Exhibit 15 – Alternative #1 40th Ave W & 198th St SW



3.2.2 Alternative #2 –199th St SW & 41st Ave W

The second alternative proposes a station slightly southwest of 198th St SW & 40th Ave W along the approximate location of proposed streets 199th St SW & 41st Ave W. It also locates the station at a highly strategic position in relationship to attracting a high number of employment trips accessing the City Center. The rail alignment would be adjusted to turn north away from I-5 at approximately 42nd Ave W then turning east on approximately 199th St SW and back to I-5. The entire alignment through City Center would be on aerial structure.

Sound Transit estimated the cost for the Lynnwood Transit Center Station and rail alignment to Alderwood Mall to be about $174 million. Alternative #2 and related rail alignment cost would be about $224 million, or an additional $50 million and increasing the route length by about 0.2 miles. The distance from the Lynnwood Transit Center Station to Alternative #2 Station is about 0.6 miles.

The following exhibit is for illustrative purposes. It is not based on any engineering design work.

Exhibit 16 – Alternative #2 199th St SW & 41st Ave W

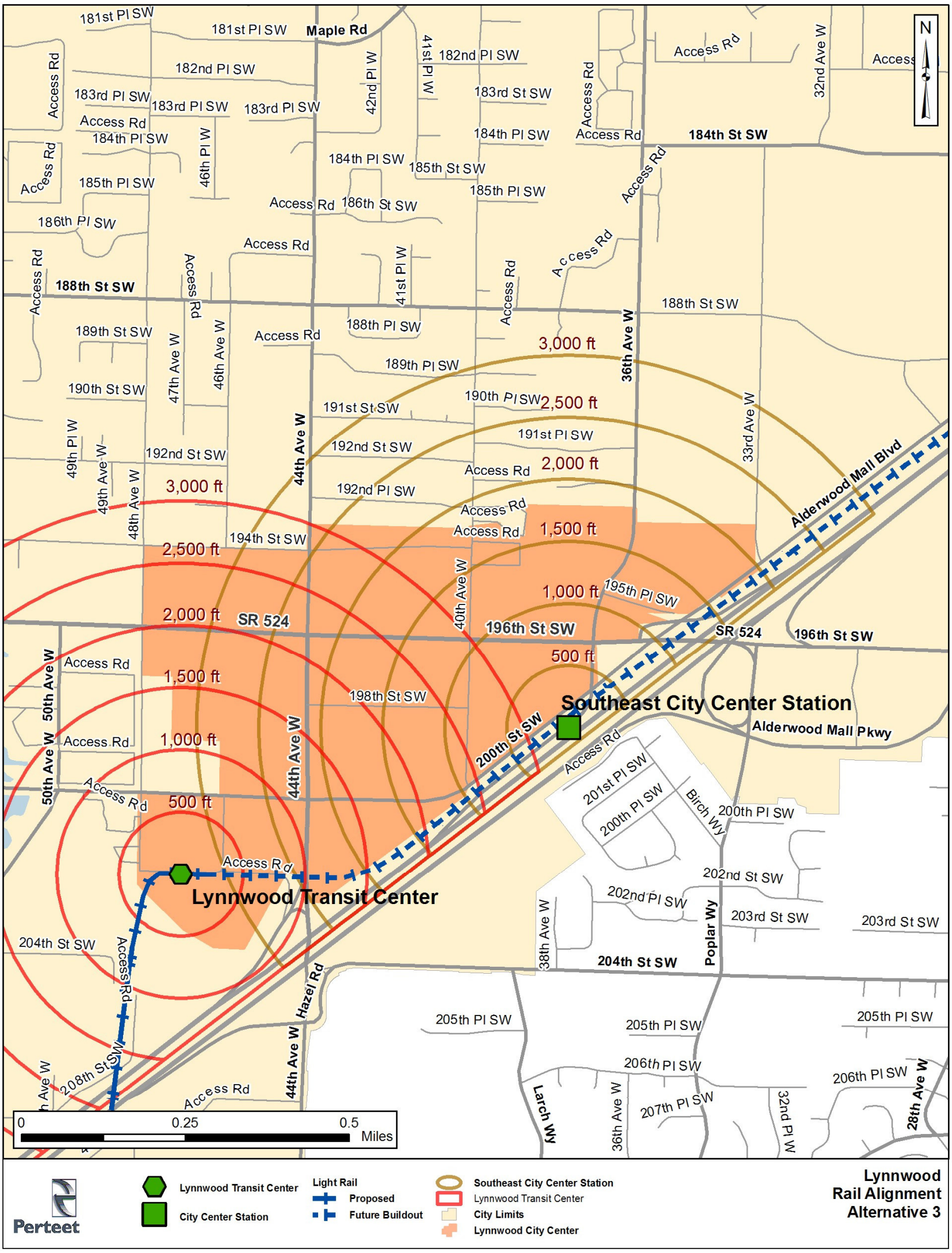
3.2.3 Alternative #3 – I-5 & 40th Ave W

The current Sound Transit proposed alignment along I-5 would remain unchanged but a station would be located along I-5 next to Alderwood Mall Blvd, between 36th Ave W and 40th Ave W. The location is not very well centralized within the City Center employment core and increases walking distances significantly.

Sound Transit estimated the cost for the Lynnwood Transit Center Station and rail alignment to Alderwood Mall to be about $174 million. Alternative #3 costs would be about $210 million, or an additional $36 million and no increase in route length. The distance from the Lynnwood Transit Center Station to Alternative #3 Station is about 0.6 miles.

The following exhibit is for illustrative purposes. It is not based on any engineering design work.

Exhibit 17 – Alternative #3 I-5 & 40th Ave W



3.2.4 Alternative #4 Alderwood Mall Blvd & 44th Ave W

This alternative would adjust the ST2 proposed station location at Lynnwood Transit Center to the northeast and serve both the transit center and City Center with one facility. The track and station alignment would straddle over the intersection of Alderwood Mall Blvd & 44th Ave W and utilize City Center right-of-way. The northern end of the station would be located in the northeast corner of the intersection providing direct access to the City Center. The southern end of the station would be located in the southwest corner of the intersection providing access to the Lynnwood Transit Center and Park & Ride facility.

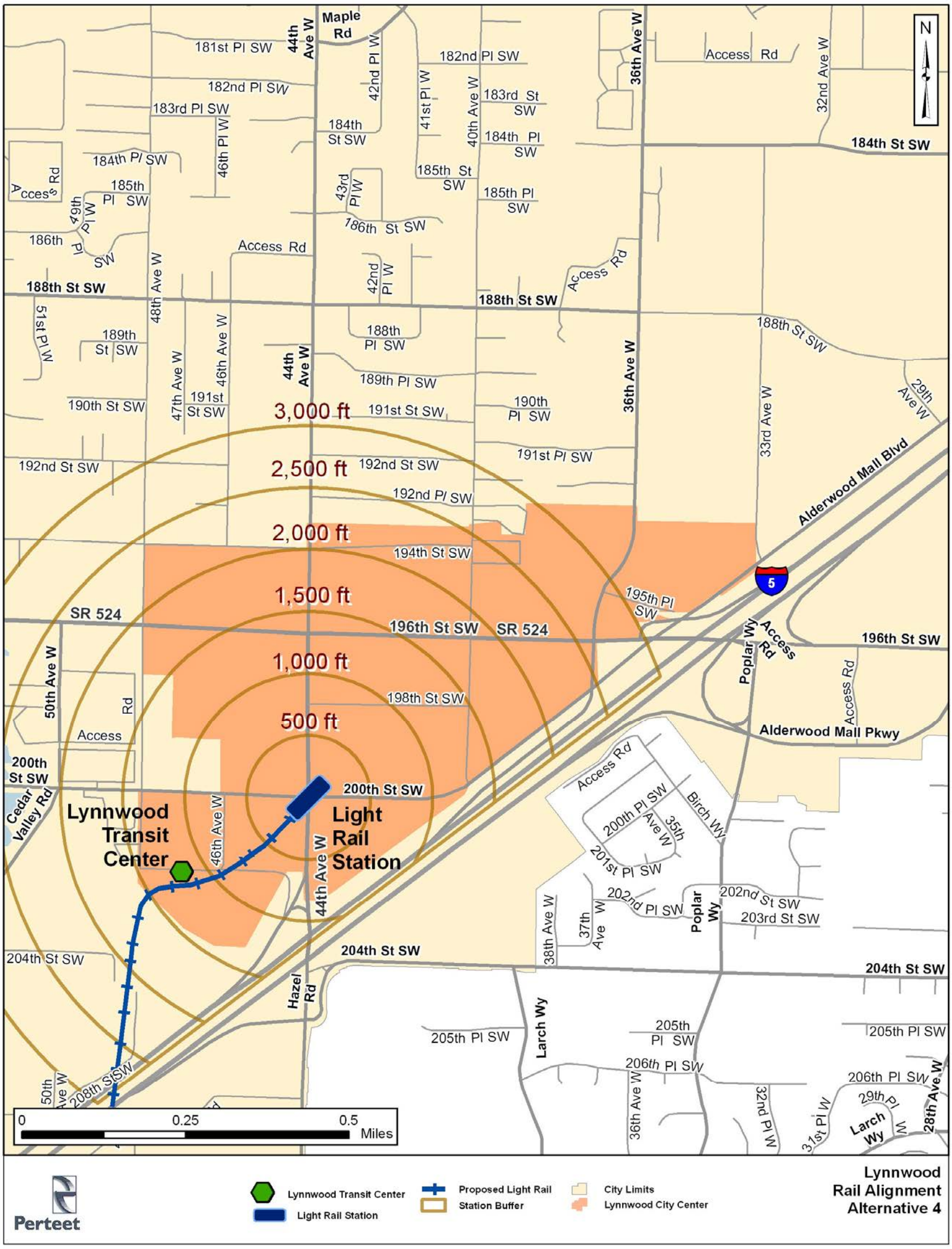
This location would remove the major pedestrian barrier (44th Ave W) between the Lynnwood Transit Center and the City Center. Also, a station location that straddles 44th Ave W would increase the walking distance for the transit center patrons to reach the bus platforms and parking area by at least 700 feet (from the southwest end of the platform). The additional cost for Alternative #4 is approximately $26 million to extend the track about 1,100 feet (0.2 miles) to reach the northeast corner of 44th Ave W & Alderwood Mall Blvd.

Any extension of light rail on this alignment would require City Center property as light rail would not be aligned with a city street where right-of-way is available. By utilizing City Center property, the ability to develop office buildings and retail space maybe reduced.

This alternative was studied by the ULI\TOD project in which the City and ST staff participated. It was concluded that this option failed to adequately serve commuters at the Transit Center and also failed to adequately serve City Center development. In both cases the station would be located too far from the uses being served. Based upon this analysis, the alternative is being dropped.

The following exhibit is for illustrative purposes. It is not based on any engineering design work.

Exhibit 18 – Alternative #4 Alderwood Mall Blvd & 44th Ave W



3.3 Ridership and Cost Impacts

The alternative light rail station locations entail different levels of projected ridership and costs. Using the TIA methodology to project pm peak-hour employment trips, Exhibit 19 shows that the estimated number of City Center employees within walking distance increases significantly with the alternative sites than if only the Lynnwood Transit Center Station were available.

Exhibit 19 – Estimated Number of City Center Employees within Walking Distance Projected to Use Transit

	Lynnwood TC	Alt 1	Alt 2	Alt 3	Alt 4
LRT Station	2,500	3,700	3,700	2,900	3,500

Note: Assumes no overlap of stations and a 3,000 foot walking radius (direct pathway)

In Exhibit 20, the number of estimated pm peak-hour trips is shown. Alternatives 1, 2 and 4 generate the highest number of trips due to their more centralized locations in the City Center. Alternative 3 generates slightly more trips than Lynnwood Transit Center due to its peripheral location in the City Center.

Projected costs for rail line extensions from Lynnwood Transit Center for the three alternatives as shown in Exhibit 20 were based on Sound Transit's methodology for costing the Lynnwood Transit Center to Alderwood Mall alignment. Both Alternatives 1 and 2 would cost higher than Alternatives 3 and 4 due to additional track length required to operate through the heart of the City Center. Alternative 1 requires the most additional track structure and Alternative 3 requires no additional track, only a station.

Alternatives 1, 2 and 3 are predicated upon a short extension of ST2's route from the Lynnwood Transit Center into the City Center. This station is essential to serve the regional urban center. Lynnwood will work with ST to secure sufficient funding for the extension.

Exhibit 20 – City Center PM Peak Hour Employment Trips Reduced by Transit

	Lynnwood TC	Alt 1	Alt 2	Alt 3	Alt 4
Daily PM Peak-hour Trips	416	616	616	483	583
Additional Cost	—	**$61 mil**	**$50 mil**	**$36 mil**	**$26 mil**

3.4 Intersection Levels of Service for Vehicle Traffic

To measure potential changes in vehicle traffic levels of service (LOS) that each station alternative may influence, a traffic analysis of the intersections, as currently configured (no street improvements are assumed), in the vicinity of the City Center was conducted.

The projected traffic data for 2025, without light rail service in Lynnwood, served as the baseline. According to the City of Lynnwood's City Center Sub-area Plan, the policy will be to, at minimum, maintain LOS E as the level of service standard for the arterial intersections in the City Center, superseding the Comprehensive Plan standard for the rest of the City'. Peak-hour LOS level E is defined in the Highway Capacity Manual as between 55 and 80 seconds delay per vehicle at signalized intersections.

The analysis, as shown in Exhibit 21, indicates that the station locations have very limited impact on LOS over the 2025 baseline projections. In most cases, delay is reduced slightly, but not enough to change LOS designations.

The intersection of 200th St SW and 42nd Ave W was the only location with a change in LOS. It improves from LOS C to LOS B for all stations. In addition, the intersection of Alderwood Mall Blvd & 40th Ave W is projected to be at LOS F under all scenarios. This is below the city's policy standard of maintaining a minimum LOS E.

Exhibit 21 – Intersection Levels of Service

		2025 Baseline		Lynnwood TC Station only		Alts 1 & 2 198th & 199th Stations		Alt 3 I-5 & 40th Station		Alt 4 200th & 44th Station	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay		
1	196th St / 44th Ave	E	60.1	E	58.6	E	58.4	E	58.7	E	58.4
2	196th St / 42nd Ave	B	19.9	B	18.4	B	17.8	B	18.3	B	17.8
3	196th St / 40th Ave	D	47.9	D	46.8	D	46.5	D	46.6	D	46.4
4	198th St / 44th Ave	B	13.1	B	13.0	B	13.3	B	13.1	B	13.1
5	198th St / 40th Ave	C	20.1	C	20.9	C	21.1	C	21.1	C	20.9
6	Alderwood Mall Blvd / 44th Ave	D	54.2	D	53.6	D	53.7	D	53.6	D	53.6
7	Alderwood Mall Blvd / 42nd Ave	C	20.7	B	17.5	B	17.2	B	17.2	B	17.6
8	Alderwood Mall Blvd / 40th Ave	F	166.8	F	156.9	F	152.3	F	155.4	F	153.1

3.5 Positive and Negative Effects of Alternatives on Transit

From a transit perspective, the alternatives were measured against each other by the objectives of ST2, light rail transit and their relative cost as outlined in Sound Transit's fact sheet "New Options for Expanding Mass Transit", May 2008. The results are displayed in Exhibit 22. Although the alternatives individually meet the objectives, the comparison is strictly between the alternatives and determining which alternative best meets the objectives. Overall, Alternatives 1, 2 and 4 measure higher in terms of meeting the objectives and providing more financial returns per trip for the investment. Alternative 1 actually has a higher cost in return for the same number of trips as Alternative 2 but falls within a reasonable range to consider the relative cost factor better in relationship to Alternative 3. However, it is also important that the provision by ST of LRT address community needs and the policy objectives of PSRC regarding the development of urban centers that address growth issues and the provision of transit.

Alternatives 1, 2 and 4 consistently meet ST2 and light rail objectives due to the significant higher number of additional pm peak-hour employment trips produced, 616 for Alternatives 1 and 2 and 583 for Alternative 4. Alternative 3 would provide only 483 pm peak-hour additional employment trips for the City Center. However, the City Center is a multi-year program extending beyond the 20 year time horizon. Development of additional densities in the City Center may have longer term benefits.

Exhibit 22 – Positive and Negative Effects from Transit Perspective

	Objective	LTC	Alt 1	Alt 2	Alt 3	Alt 4
Consistent with ST2 Objectives**	o Public feedback calls for more transit in response to growing traffic congestion o Provide the greatest and most immediate public benefits o Expand regional transit options to increase transit ridership, respond to rising environmental concerns o Remove thousands more cars off roads with expanded trains and bus services	Yes	Yes	Yes	No	Yes
Consistent with general Light Rail Transit objectives	o Provides fast, reliable and high-capacity service up to every few minutes and 20 hours a day. o Connects urban centers, operating on its own exclusive right of way independent of congestion. o Move high volumes of riders comfortable and dependably at high speeds to and from major activity centers and high density corridors	Yes	Yes	Yes	No	Yes
Relative Cost	o Cost per PM Peak-hour trips	Yes	Yes*	Yes	Yes	Yes

*cost per trip higher than Alternative 2 but ranks better in relative cost over Alternative 3

**See attachment "New Options for Expanding Mass Transit"

3.6 Positive and Negative Effects of Alternatives on the City of Lynnwood

This section provides a discussion on the potential effects of the proposed alternatives on the City of Lynnwood land use plans, policies, pedestrian circulation, noise and visual aesthetics.

Alternatives 1, 2 and 4 provide optimal locations for supporting Lynnwood's land use objectives for the City Center. Locating a station in the vicinity of 40th Ave W & 198th St SW provides a very centralized point for supporting transit, land use development and employment growth.

For pedestrian circulation, Alternatives 1, 2 and 4 provide the most centralized point for a sustainable walking radius to and from employment locations. Pedestrian amenities to access the station should be incorporated into the City Center's goal of providing a streetscape as a unifying element. A station within the City Center would encourage use of sidewalks, through-block connections and walkways through the new development supporting Lynnwood's design policies as described in the City of Lynnwood City Center Sub-Area Plan document.

A City Center Station in the 40th Ave W & 198th St SW vicinity would also be supported by numerous local and regional routes operating along 40th Ave W. Provisions for bus stops near 198th St SW would need to be included in the design process. Major transfer activity between bus and rail will likely continue at the Lynnwood Transit Center therefore transfer activity between rail and bus would be minimal at this location. However, consideration should be given to enhancing pedestrian amenities between the bus stops and the station to accommodate potential transfers and facilitate system integration.

Alternative 3, from a noise and visual perspective, offers an advantage over Alternatives 1, 2 and 4. The station location for Alternative 3 allows for the rail alignment to be located along I-5 isolating aerial tracks and noise in an area associated with noise and less desirable visual attributes. With thoughtful design elements, it may be possible that the light rail structure be built to blend-in and match the visual aesthetics of the City Center environment.

Alternatives 1, 2 and 4 would require real estate space on development property and street right-of-way as well as aerial space between buildings within the City Center to accommodate the aerial track and support structure. These alternatives will have a direct impact on the City Center's development plans and modifications to the street network as well as land acquisition. It is imperative to plan and design with light rail in-mind, otherwise it may be more difficult to acquire space and cost more to build light rail through the City Center.

Alternatives 1, 2 and 3 costs would be in addition to the planned light rail station at LTC. Alternative 4 would be a short extension of the track and locate the LTC station at the

intersection of 44th Ave W & Alderwood Mall Blvd instead of inside the transit center facility.

Exhibit 23 provides a matrix of the positive and negative effects of the proposed alternatives on the City of Lynnwood.

Exhibit 23 – Positive and Negative Effects from City of Lynnwood Perspective

	LTC	Alt 1	Alt 2	Alt 3	Alt 4
Consistent with Lynnwood Land Use	Yes	Yes	Yes	Yes	Yes
Improves Pedestrian Circulation	No	Yes	Yes	Yes	Yes
Causes Noise Impact	No	Yes	Yes	Minimal	Yes
Causes Visual Impact	No	Yes	Yes	Minimal	Yes

Attachment

Sound Transit Brochure – ***Mass Transit Expansion Proposal***

AUGUST 2008

Mass Transit Expansion Proposal

On November 4, 2008, residents will decide whether to expand mass transit in the Central Puget Sound region. The Mass Transit Expansion Proposal responds to immediate demand for more regional transit service by delivering a 17 percent increase in express bus service in 2009. It achieves a 55-mile regional light rail system, five years sooner than earlier proposed. The plan responds to the more than 15,000 public comments Sound Transit received this year and gets ready for the region's projected population increase of 1.2 million by 2030.

LINK LIGHT RAIL

Adds 36 miles of light rail to the Link system that opens for service between downtown Seattle and the airport in 2009 and to the University of Washington in 2016:

- North from the University of Washington to Northgate, Shoreline, Mountlake Terrace and Lynnwood
- East from downtown Seattle across Interstate 90 to Mercer Island, Bellevue, Overlake Hospital and Redmond's Overlake Transit Center
- South from Sea-Tac Airport to Highline Community College and Federal Way at Redondo/Star Lake
- Streetcar connector serving Seattle's International District, First Hill and Capitol Hill.

Expands light rail with a partnership to extend Tacoma Link beyond the downtown area.

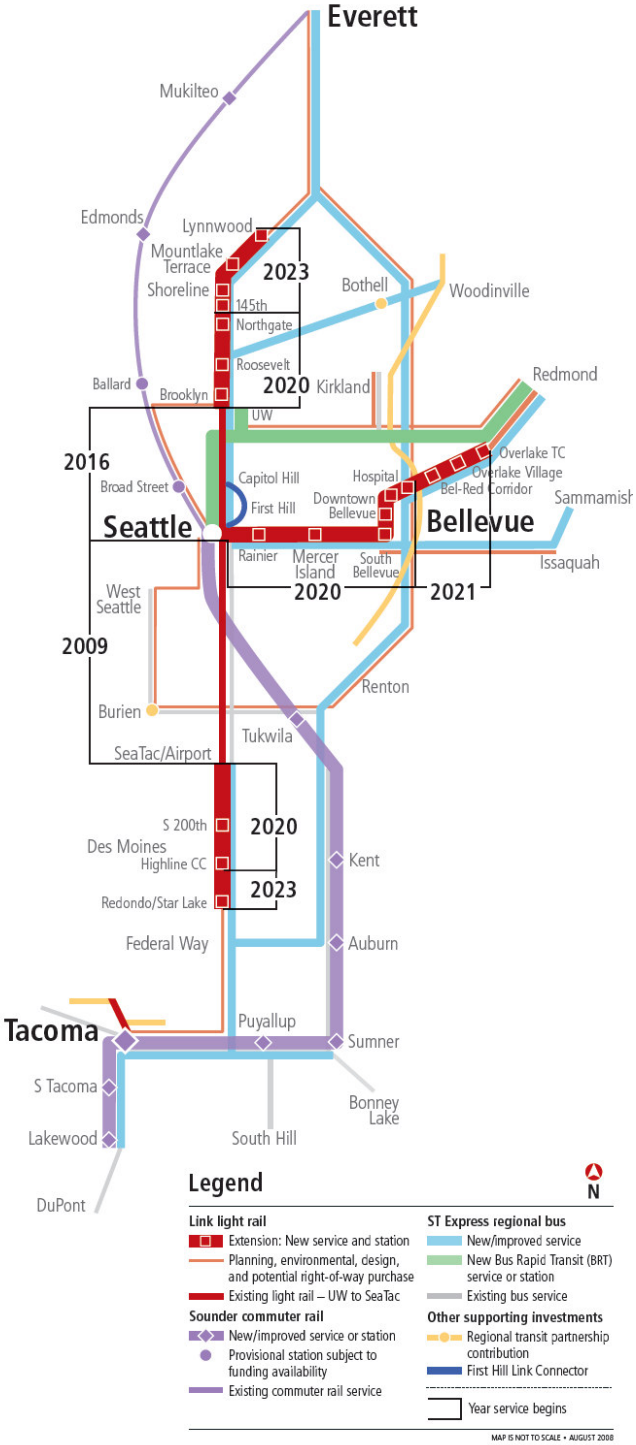
SOUNDER COMMUTER RAIL

Increases Tacoma-Seattle Sounder commuter rail service by adding four new daily round trips and by increasing platform lengths to accommodate longer trains. This increases passenger capacity by 65 percent to meet strong rider demand in the corridor, providing reliable and congestion-free travel as population growth continues to worsen roadway congestion. Builds permanent stations in Edmonds and Tukwila to replace temporary facilities. Includes two provisional rail stations at Broad Street and Ballard in Seattle that can be implemented subject to the availability of additional funds.

ST EXPRESS REGIONAL BUSES

Expands regional express bus routes serving the region's largest housing and job centers; more buses will be in service quickly to provide near-term relief while capital projects are under construction. ST Express buses operate on existing freeway HOV lanes. The plan boosts service with:

- Rapid delivery of expanded ST Express service, with funding for an increase of 17 percent in 2009 to provide 100,000 additional hours of service
- Service increases of up to 30 percent on the busiest routes
- Expands Sound Transit's bus fleet by 25 percent
- New Bus Rapid Transit service on SR 520.



Sound Transit plans, builds and operates regional transit systems and services to improve mobility for Central Puget Sound. For more information visit www.soundtransit.org, e-mail future@soundtransit.org or call 1-866-511-1398.

LINK LIGHT RAIL FEATURES

In addition to extending the Central Link light rail line, the Mass Transit Expansion Proposal supports moving forward rapidly with further extensions to Tacoma and Redmond in a future phase by funding environmental review, preliminary engineering and early right-of-way purchases where possible. The package also includes planning for a future extension to Everett.

Fast, frequent service

Environmentally friendly electric light rail trains operate in their own right-of-way, providing fast, reliable service that isn't delayed by congestion. Trains will run 20 hours per day and every few minutes during rush hours.

Ample room to grow

System capacity can be expanded to meet long-term needs from continued population growth by running trains as often as every four minutes with up to four cars, each train carrying up to 800 riders, for an hourly capacity of up to 12,000 riders in each direction. Stations will act as hubs where riders transfer from buses onto congestion-free light rail service. Per passenger, light rail systems are on average 37 percent less expensive to operate than buses.

Sample light rail travel times	
Microsoft to downtown Bellevue:	11 min.
Northgate to downtown Seattle:	15 min.
Bellevue to Qwest Field:	20 min.
Lynnwood to UW:	21 min.
Lynnwood to downtown Seattle:	28 min.
Highline C.C. to Safeco Field:	37 min.

IMPROVED STATION ACCESS

Provides funds that will allow more people to access regional transit services at key locations. Access improvements in Auburn, Edmonds, Kent, Lakewood, Mukilteo, Puyallup, South Tacoma, Sumner, Tacoma and Tukwila will be tailored to the needs of each location and may include:

- Expanded parking
- Pedestrian improvements at or near stations
- Additional bus/transfer facilities for improved feeder service to stations
- Bicycle access and storage at stations
- New and expanded drop-off areas to encourage ridesharing.

EASTSIDE RAIL PASSENGER PARTNERSHIP

Provides funds for a potential capital contribution to a partnership for Eastside passenger rail operation on existing railroad right-of-way. Sound Transit and the Puget Sound Regional Council are currently evaluating the potential benefits of passenger rail operation on this corridor.

PARTNERSHIP PROJECTS TO IMPROVE MOBILITY

The Mass Transit Expansion Proposal contributes funds to complete projects in conjunction with other parties that will improve access to transit and travel times:

- Tacoma Link extension
- Bothell transit center/parking garage
- Burien parking garage.

RESPONDING TO REGIONAL GROWTH

Continued growth in the region's population and employment puts increasing pressure on our transportation system. The plan responds with targeted investments that provide new and expanded transit options to improve near-term and future mobility for people who live and work here. In 2030, 70 percent of the residents and 85 percent of the jobs in the Sound Transit District will be within easy access to light rail or commuter rail, either on foot, by bike or a single bus ride.

Estimated growth by 2030	*Population*	*Employment*
Bellevue	+24%	+39%
Burien/Tukwila/Renton	+16%	+34%
Capitol Hill/Queen Anne	+20%	+23%
Downtown Seattle	+79%	+24%
Everett	+25%	+38%
Federal Way/Auburn	+17%	+33%
Kent	+35%	+30%
Lynnwood/Edmonds	+34%	+50%
North Seattle	+13%	+29%
Redmond/Kirkland	+26%	+40%
South Seattle	+7%	+29%
Tacoma	+18%	+28%

[Puget Sound Regional Council data]

PROTECTING OUR ENVIRONMENT

With transportation the region's largest contributor to greenhouse gas emissions, one of the most important things people can do to reduce their carbon footprints is to use public transit. This package would bring about 147,000 more daily boardings to regional transit services in 2030, increasing ridership by more than 20% over what it would be without transit system expansion. It would reduce greenhouse gas emissions by 99,550 metric tons of CO_2 equivalents per year.

RIDERSHIP

This plan takes thousands more cars off roads, with expanded train and bus services moving people through the region's most congested corridors.

2030 Estimated Daily Ridership

Service	Without Plan	With Plan
Link light rail	124,000	286,000
ST Express buses	52,000	48,000
Sounder commuter rail	19,000	24,000
Total	**195,000**	**358,000**

Figures reflect near-term demand. Actual long-term system capacity will be much higher. Figures are preliminary and subject to refinement.

PLANNING FOR THE FUTURE

Funds several studies of future expansions: light rail from Lynnwood to Everett, UW to Ballard, Ballard to downtown Seattle, West Seattle and Burien, and Burien to Renton, South Bellevue to Issaquah via I-90, UW across SR 520 to Kirkland and Redmond; and future bus rapid transit services on the I-405 corridor.

PAYING FOR EXPANDED SERVICES

- 5/10 of one percent sales tax increase, or five cents for every $10 retail purchase
- Typical new cost per adult is $69 annually
- Continuation of existing *Sound Move* taxes (0.4% sales tax and 0.3% vehicle license tax)

COSTS

$17.8 billion* in year-of-expenditure (YOE) dollars for 2009-2023, including capital costs, operations and maintenance costs, reserves and debt service.

*Includes estimates of inflation.