

**LYNNWOOD
CITY COUNCIL
Work Session**

Date: Monday, February 1, 2021

Time: 6:00 PM

Place: This meeting will be held electronically via Zoom. See the City of Lynnwood website for details.

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- | | | |
|---------|----------|---|
| 6:00 PM | A | Roll Call |
| 6:05 PM | B | Comments and Questions on Memo Items |
| 6:10 PM | C | Interview: Diversity, Equity and Inclusion Commission Candidate Jennifer McLaughlin |
| 6:30 PM | D | Briefing: City Center Update and Development Standards |
| 7:30 PM | E | Legislative Priorities- Specific Bills to Review |
| 7:50 PM | F | Break |
| 8:00 PM | G | Council Summit Agenda and Format |
| 8:20 PM | H | Mayor Comments and Questions |
| 8:25 PM | I | Council President and Council Comments |
| 8:30 PM | J | Executive Session, If Needed |
| | | Adjourn |

Memorandums for Future Agenda Items:

- M-1 Interlocal Agreement - City of Edmonds - 76th Avenue W Overlay Project
- M-2 Change Order Approval: Water Meter Replacement Project

Memorandums for Your Information:

Contact: Executive Office (425) 670-5001

CITY COUNCIL ITEM A

CITY OF LYNNWOOD Executive

TITLE: Roll Call

DEPARTMENT CONTACT: Leah Jensen

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM B

CITY OF LYNNWOOD Executive

TITLE: Comments and Questions on Memo Items

DEPARTMENT CONTACT: Leah Jensen

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM C

CITY OF LYNNWOOD Executive

TITLE: Interview: Diversity, Equity and Inclusion Commission Candidate Jennifer McLaughlin

DEPARTMENT CONTACT: Evan Chinn, Human Resources Director

SUMMARY:

Position #1 on the Diversity, Equity and Inclusion Commission is vacant. Mayor Smith and staff respectfully nominate Jennifer McLaughlin to fill Position #1; term ending December 31, 2022.

ACTION:

Consider Jennifer McLaughlin to fill Positions #1 on the Diversity, Equity and Inclusion Commission.

BACKGROUND:

Ms. McLaughlin submitted an application to serve on the Diversity, Equity and Inclusion Commission in October of 2020. She was interviewed by Mayor Smith on November 11, 2021. Ms. McLaughlin has attended two DEIC meetings. She lives within City limits.

ADMINISTRATION RECOMMENDATION:

Appoint Jennifer McLaughlin to Position #1 on the Diversity, Equity, and Inclusion Commission.

DOCUMENT ATTACHMENTS

Description:	Type:
DEIC Application - Jennifer McLaughlin	Backup Material

Board and Commission Application



Submission date: 1 October 2020, 5:27PM

Receipt number: 46

Related form version: 2

Question	Response
All Are Welcome	
Name	Jennifer McLaughlin
Address	
Phone	
Alternate Phone	
Email Address	
Are you a registered voter in the City of Lynnwood?	Yes
Are you a registered voter somewhere else?	No
Please choose the Board or Commission for which you are applying	Diversity, Equity and Inclusion Commission
Why are you interested in serving on this board or commission?	I am passionate about transformative action to eliminate inequity and oppression. I am particularly interested in racism and misogyny.
What do you perceive as the role of a board or commission member?	Advocating for the marginalized in our community
How would you represent the interests of the community?	Center the voices of the marginalized, act as a co-collaborator, use my privilege to uplift the needs of those who are oppressed.
List any experiences that may assist you in serving in this role.	MA in Social Justice and Community Organizing, Planner for Edmonds MLK Events in 2019, 2020, Leader of anti-racist camps at Edmonds United Methodist Church 2017-2020.
List any other information you would like us to consider.	
Optional resume upload	_____
Date	10/1/2020

CITY COUNCIL ITEM D

CITY OF LYNNWOOD Economic Development

TITLE: Briefing: City Center Update and Development Standards

DEPARTMENT CONTACT: David Kleitsch and Karl Almgren

SUMMARY:

This presentation provides an introduction in the current status of the City Center and the potential to achieve the City Center Vision and the goals of the City Center Plan. Attaining the vision and implementing the plan is based on the interrelated topics of environmental review, mitigation projects, a development massing study, development scenarios, and amenities. The review includes analysis of references to the City Center Environmental Impact Statement (EIS), Planned Action Ordinance (PAO), three-dimensional development visuals, and a recent study by the Urban Land Institute (ULI). These topics identify a gap between the Vision / City Center Plan, and the adopted maximum development capacity that is allowed.

POLICY QUESTION(S) FOR COUNCIL CONSIDERATION:

Should the adopted maximum development capacity of City Center attain the City Center Vision?

Should the City Center Planned Action Ordinance be updated?

ACTION:

Receive a briefing and ask questions of staff.

BACKGROUND:

Attached to this agenda item is a staff memorandum regarding environmental review, mitigation projects, a massing study, development scenarios, and the Urban Land Institute National Study Visit.

PREVIOUS COUNCIL ACTIONS:

March 14, 2005, City Council approved Ordinance No. 2553 adopting the City Center Sub-Area Plan.

May 14, 2012, City Council approved Ordinance No. 2943 adopting the City Center Planned Action Ordinance and amended Chapter 17.02.

KEY FEATURES AND VISION ALIGNMENT:

The Lynnwood Community Vision calls for developing a vibrant City Center which encourages a broad business base in sector, size and related employment; promotes high quality development; and promotes Lynnwood as an affordable place to live, work, and play. The City Center Plan and related documents serves to implement the Vision.

The City Center Plan serves to implement Lynnwood's Strategic Plan priorities: Priority 1 - Fulfill the Community Vision for the City Center and Lynnwood Link light rail; Priority 2 – Ensure financial stability and economic success; and Priority 5 - Pursue and maintain collaborative relationships and partnerships.

The analysis presented in this briefing illustrates that the existing regulations hinder the ability to achieve the Vision, City Center Plan, and Strategic Plan. Staff will review the analysis and discuss options to address this situation.

ADMINISTRATION RECOMMENDATION:

Receive a briefing regarding and ask questions of staff.

DOCUMENT ATTACHMENTS

Description:	Type:
Staff Report	Backup Material
Attachment 1: Alternative B Mitigation Projects Map	Backup Material
Attachment 2: 194th Street SW Project Background	Backup Material
Attachment 3: City Center Visuals	Backup Material
Attachment 4: ULI Report Link	Backup Material
Attachment 5: Staff Presentation	Backup Material

MEMORANDUM

Date: January 27, 2021

To: Mayor Smith and City Council

From: Karl Almgren, City Center Program Manager

Subject: City Center Update and Development Standards

The City Center represents a significant component of the city's economic development strategy to create a diversified and vibrant center. The Community Vision and Strategic Plan prioritizes the implementation of the City Center with the Lynnwood Link Extension. The City has continued to make strategic efforts to support attractive investments and fulfill the Community Vision.

This staff report will review the interrelated topics of:

- Environmental Review
- Mitigation Projects (including 194th Street SW)
- Massing Study
- Development Scenarios
- Urban Land Institute's National Study Visit

Environmental Review:

The City is required by Washington State to conduct environmental review by the State Environmental Policy Act (SEPA). This occurs on most construction projects and policies related to development. When a proposed project or policy is likely to create unavoidable significant adverse environmental impacts, those impacts must be reviewed through an Environmental Impact Statement (EIS).

The City wrote the City Center EIS by reviewing impacts associated with three development scenarios. These scenarios are not 'new development' but based on 'total development'. These ranged from low to high with the medium alternative pre-selected as the 'Preferred Alternative':

- Alternative A – Low Intensity: 5.9 million square feet
- Alternative B "Preferred Alternative" – Medium Intensity: 9.1 million square feet
- Alternative C – High Intensity: 12.3 million square feet

These alternatives included allocations of land uses including residential, office, and retail uses. Residential uses included two measurements. The first was the number of dwelling units and the second was square footage. The EIS assumed an average dwelling unit would be 1,200 SF. The land use allocations are detailed here:

	Alt. A – Low Intensity	Alt. B “Preferred Alt.” - Medium Intensity	Alt. C - High Intensity
Residential DU	2,000 DUs	3,000 DUs	4,000 DUs
Residential SF	2,400,000 SF	3,600,000 SF	4,800,000 SF
Office SF	2,000,000 SF	4,000,000 SF	6,000,000 SF
Retail SF	1,500,000 SF	1,500,000 SF	1,500,000 SF
Total SF	5,900,000 SF	9,100,000 SF	12,300,000 SF

DUs – Dwelling Units

SF – Square Feet

The City identified Alternative B as the ‘Preferred Alternative’ and incorporated the alternative into planning documents. This scenario was chosen as the ‘preferred alternative’ as it was to strike a balance of growth while prioritizing jobs, replacing existing retail opportunities, and adding new housing. All scenarios included projects to mitigate impacts such as widening 196th Street SW and building a refined street grid pattern including 42nd Avenue West and 194th Street SW.

In 2012, the City strategically pursued and adopted a Planned Action Ordinance (PAO) to expedite development applications that comply with Alternative B. This ordinance enacted the City Center Environmental Impact Statement (EIS). The Planned Action Ordinance is a critical element of seeking development and investors to the City Center.

Mitigation Projects:

As the City Center development occurs in stages, mitigation projects can be phased with the demand. Some projects have already occurred such as upsizing utilities, while others are scheduled to begin in the near term. Other projects may occur in later stages. Some of the near-term projects include:

- 196th Street SW Widening by City of Lynnwood
- 200th Street SW Widening by Sound Transit
- 200th/44th Street SW Intersection by Sound Transit

It is important to note that Preferred Alternative B and Alternative C had common mitigation projects including:

- Refined Street Grid (42nd Avenue West, 194th Street SW, 46th Avenue West, 198th Extension)
- Widening of 196th Street SW and 44th Avenue to 7 lane boulevard street
- Signal improvements at 44th/196th and 44th/200th intersections
- New signal at 40th and Alderwood Mall Blvd (completed)
- Transit improvements (*This review occurred prior to voter approval of ST2 in 2008. The notion of ‘transit improvements’ was only for bus service.*)
- Parking programs

Attached to this staff report is a map of mitigation projects in the City Center for Alternative B based on current work plans.

194th Street SW – One of the mitigations projects that has been of special interest to the Council is 194th Street SW. The proposed project is to extending 194th from 40th Avenue West to 33rd Avenue West. This project will include a new street located on the Public Facilities District (PFD) property. The PFD had previously expressed concern that this new street would hinder long term development of the property. However, under new leadership the street is being considered possibly as an asset to attract new development opportunities. The PFD will be continuing their master planning process throughout 2021.

The City pursued a review of 194th Street SW’s requirement for development of the City Center. This was reviewed by the City’s traffic consultant and concluded that:

“[t]he 194th St SW extension represents a significant piece of the planned City Center street network as identified in the City Center Sub-Area Plan. It is recommended that the 194th St SW extension be maintained as a long-range transportation improvement project and re-evaluated as the City Center area continues to develop.” – Transportation Solutions, Inc. (TSI) December 3, 2019.

Key Finding #1: The review by TSI did identify that 194th Street SW will not be required by 2035 based on development projections. Beyond 2035, it is likely that the street will be required to provide for better transportation circulation. Analysis of 194th Street SW is attached to this staff report.

Massing Study

Following submittal of the Northline Village Concept Plan, the City hired a consultant to model the current Alternative B. This exercise was done for planning purposes only and does not dictate future use of a property nor does it limit the uses of a property beyond that of the existing zoning regulations.

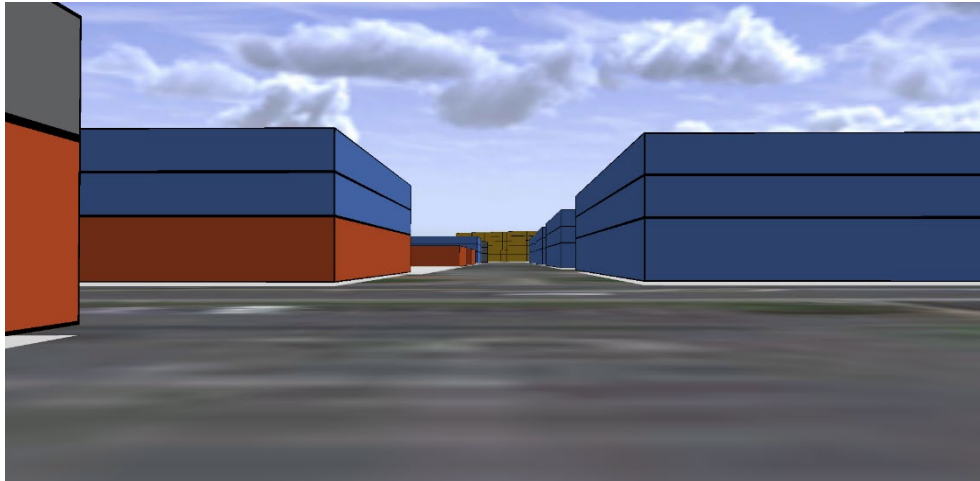
The consultant, Housel Lavigne (HL), carried forward some recent projects as future land uses and considered the rest of the land as a blank slate. Then HL used the remaining land use allocations from Alternative B and spread them throughout areas in the City Center. Some land uses were concentrated more than others near the Lynnwood Transit Center.

The result is a model of primarily low-rise buildings with some six and seven story buildings. Most of the taller structures are located within Northline Village, not within the future development capacity. The following images represent the model HL created demonstrating this low-rise character of the City Center under the current development capacity.

Land Use Key:

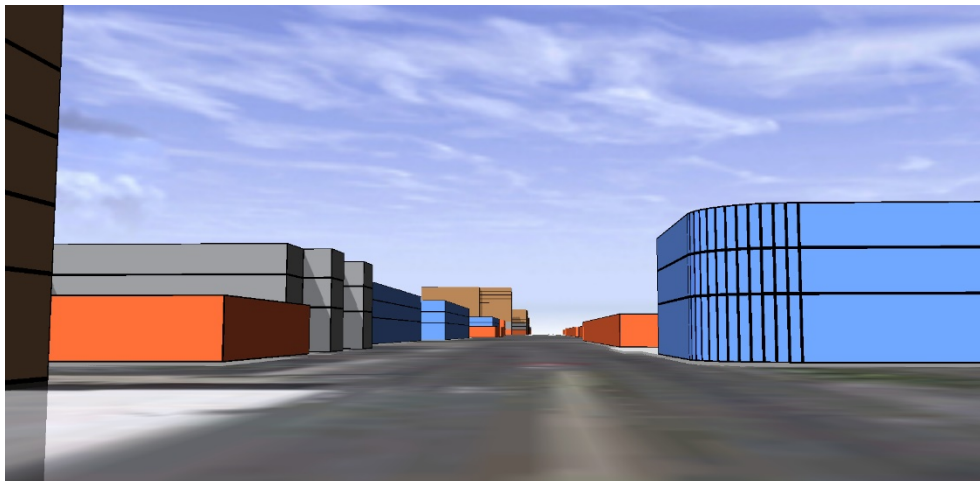


City Center Promenade Modeling



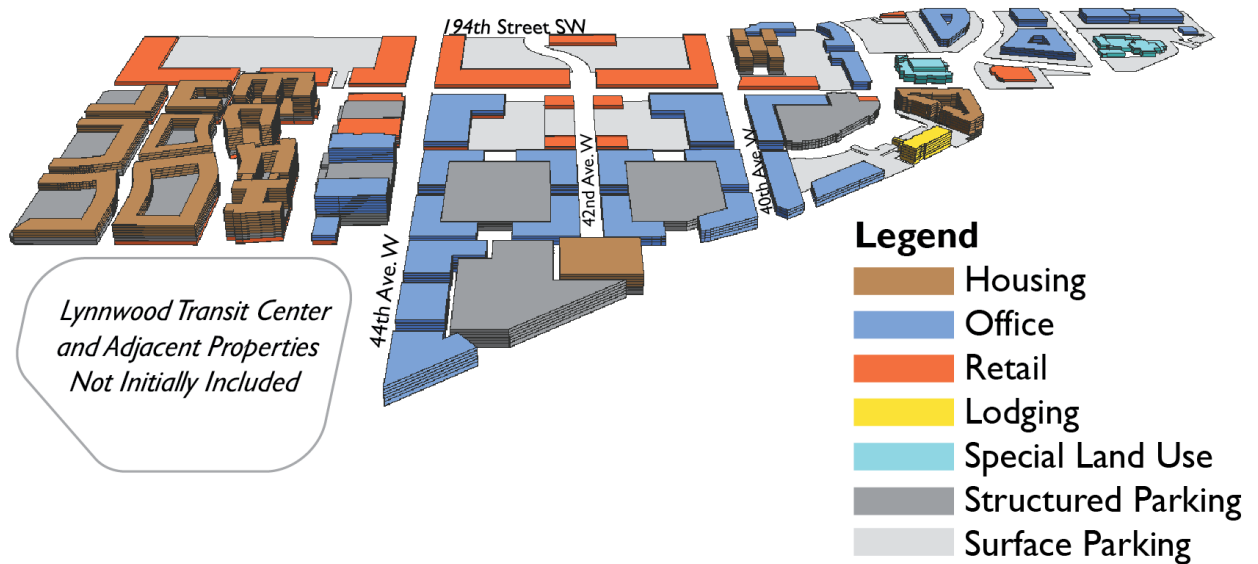
This rendering is looking east from the intersection of 44th Avenue West and 198th Street SW (Promenade). The development scenario identifies capacity for three story construction along a street that is supposed to be the central core of City Center.

City Center 196th Corridor

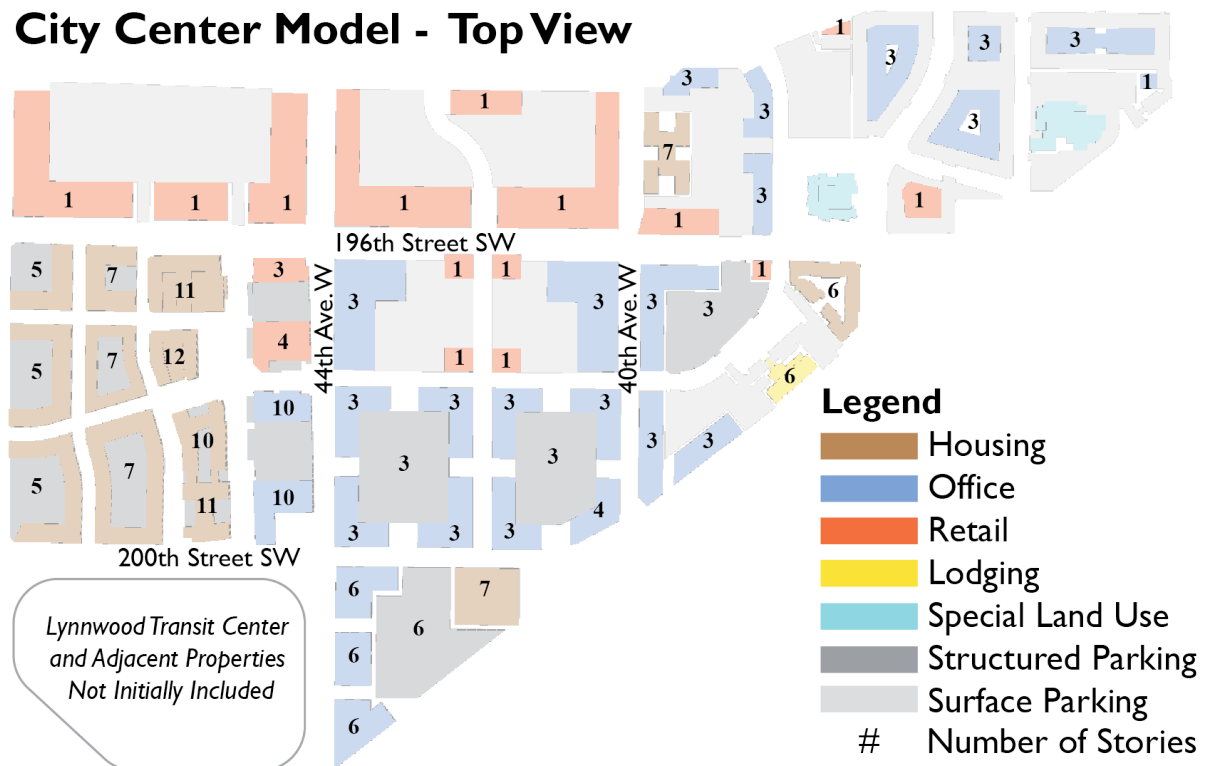


This rendering is looking west on 196th from the 3800 Block towards Northline Village (distant brown building). Under this model, the primary corridor of the city becomes lined with low-rise structures.

City Center Model - 3D View



City Center Model - Top View



Key Finding #2: The Massing Study identifies that the existing development capacity would likely lead to primarily low and mid-rise construction patterns if spread throughout City Center. If development was concentrated on fewer properties for mid- and high-rise construction, then the existing development regulations would prevent the remaining City Center area from redeveloping due to a cap of 9.1M SF total development (LMC 21.60.800). This is not consistent with the City Center Vision to promote mid- and high-rise construction throughout the sub-area.

Development Scenario

The City's current Alternative B is limited. Alternative B allows for 9.1 million square feet of development in the City Center and the Massing Study identified that doesn't make a City Center of mid- and high-rise construction. Alternative B also does not allocate enough housing units to meet the market demand.

Key Finding #3: The Planned Action Ordinance for housing project is now obsolete. Currently, all housing units have been either constructed or under an approved project. This does not stop new housing from coming to the City Center, but any project would be required to be reviewed under SEPA and not the Planned Action Ordinance. The Planned Action Ordinance is a significant attractive element for developers as it provides higher predictability and certainty for project delivery. This is a cornerstone of conversations with investors and developers for City Center.

	Alt. B "Preferred Alt." - Medium Intensity	Remaining Capacity
Residential DU	3,000 DUs	0 DUs
Residential SF	3,600,000 SF	206,447 SF
Office SF	4,000,000 SF	2,330,280 SF
Retail SF	1,500,000 SF	157,456 SF
Total SF	9,100,000 SF	2,694,183 SF

City Staff is recommending revising the existing development scenario to align housing market demands and the Planned Action Ordinance with the Community Vision.

Urban Land Institute National Study Vision

Within all the development scenarios for City Center, the vision included public spaces and amenities for people. This included transforming the City Center from an auto-centric environment to a community setting with vibrant activities and high-quality public spaces.

In February 2020, the Development & Business Services and Parks, Recreation & Cultural Arts Department partnered with Urban Land Institute (ULI) to host a 'National Study Visit'. This included a panel of experts from throughout the country visiting Lynnwood City Center to make recommendations on best practices to support the '10

Minute Walk’ campaign as well as urban design. The panel was asked to consider the following study questions when framing their recommendations:

1. What role would a City Center urban park play in catalyzing civic activity and promoting property investment in the neighborhood?
2. Which tools and partnership opportunities are available to leverage public and private investment in the area to build public amenities, like parks and plazas? How can more private development be incentivized? How can the city assist the development community with consolidation of small parcels?
3. Because arterials in City Center are barriers to nonmotorized movement, what streetscape interventions can remake City Center into a pedestrian-oriented, transit-oriented development, integrating existing infrastructure like the Interurban Trail, with active park-facade interfaces creating an integrated greenspace-to-urban fabric?

The panel was then led on a walking and van tour of the City Center. Following the tour, the panel of experts interviewed local stakeholders.

Interviewees:

<i>Mayor Smith</i>	Lynnwood Mayor	Elected Official
<i>Councilmember Altamirano-Crosby</i>	Lynnwood City Council	Elected Official
<i>Chad Braithwaite</i>	Lynnwood Planning Commission	Board and Commission
<i>Kris Hildebrandt</i>	Lynnwood Parks Board	Board and Commission
<i>Mira Jeong</i>	SKS Trading	Local Partner
<i>William Kang</i>	SKS Trading	Local Partner
<i>Linda Jones</i>	Lynnwood Chamber of Commerce	Local Partner
<i>Phong Nguyen</i>	Lynnwood Business Consortium & Anna’s Furniture	Local Partner
<i>Matt Smith</i>	Sno. Co. Economic Alliance	Local Partner
<i>Jamas Gwilliam</i>	Merlone Geier Partners	Developer
<i>Trent Mummery</i>	Trent Development	Developer
<i>David Sinnet</i>	American Property Development	Developer
<i>Michael Delury</i>	Sno-Isle Library	Agency
<i>Wally Webster</i>	Lynnwood Public Facilities District	Agency
<i>Miranda Redinger</i>	Sound Transit	Agency

<i>Danielle Carnes</i>	Edmonds College	Agency
<i>William Franz</i>	City of Lynnwood	Public Works Director
<i>David Kleitsch</i>	City of Lynnwood	DBS Director
<i>David Mach</i>	City of Lynnwood	City Engineer
<i>Lynn Sordel</i>	City of Lynnwood	Parks Director
<i>Ashley Winchell</i>	City of Lynnwood	Planning Manager

After the information gather stage, the panel of experts broke into a work session to draft recommendations identifying themes. While some recommendations focused on physical design standards, an underlying theme was identified.

Key Finding #4: The panel recommended providing amenities residents want to support attracting residents and investors to City Center. This includes a focus on what residents will likely be attracted to including quality public spaces, coffee shops, restaurants, and entertainment venues. This also includes residents who are seeking ways to engage their immediate neighborhood through walking or biking.

The entire report is available from the City’s website. To access use the search bar and enter ‘City Center’, select the first link, open the drop-down Implementation Strategies & Reports, and select the report. Hard copies being placing in the Councilmember’s mailbox by Friday, January 29th.

Next Steps:

Development Scenario:

City Staff is seeking concurrence from City Council to revise City Center development scenario. This revision will utilize the massing model software to analyze the reallocation of land uses as well as increase the development capacity. The SEPA thresholds and mitigations identified in the City Center EIS will not be exceeded. The following are considerations for the revised development scenario.

1. Maintain proposed 4 million square feet of Office.
2. Maintain proposed 1.5 million square feet of Retail.
3. Increase total capacity from 9.1 million square feet to 12.3millions square feet as established in EIS Alternative C.
4. Amend Alternative C to allocate additional housing capacity in the City Center.
5. Review total square feet per dwelling unit to align with market.
6. Allocate square footage for institutional, religious assembly, and lodging.
7. Model the development scenario for 2035- and 2044-time horizons.

On March 15th, Staff will brief the City Council on the findings prior to moving forward with analysis on impacts including transportation and utilities.

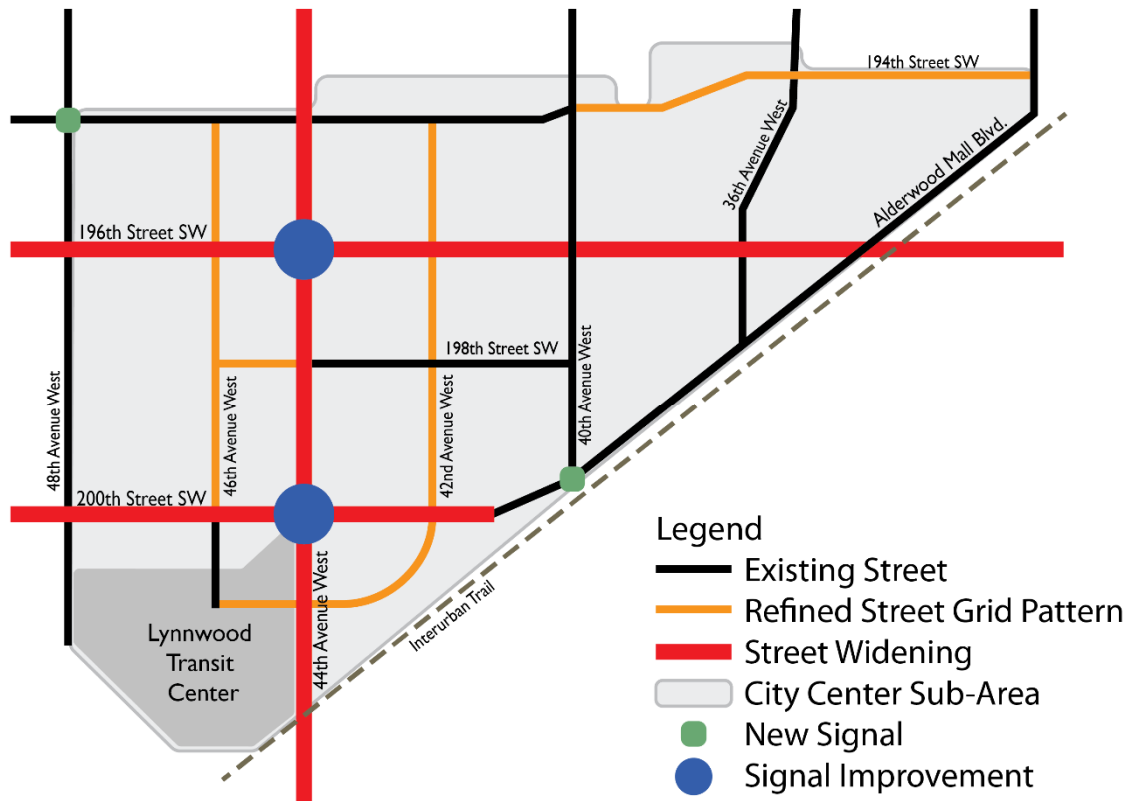
ULI National Study Visit:

City Staff will bring the item back to Council at a later meeting to identify recommendations to pursue and begin scheduling a work plan.

Document Attachments:

1. Alternative B Mitigation Projects Map
2. 194th St SW Extension Project Background and Context, December 3, 2019
3. Massing Visuals of EIS Compliant Lynnwood City Center, January 15, 2021
4. Urban Land Institute National Study Visit Report
 - <https://www.lynnwoodwa.gov/files/content/public/government/departments/economic-development/city-center/urban-land-institute-national-study-visit.pdf>
5. Staff Presentation

City Center Update and Development Standards Staff Report
Attachment I: Alternative B Mitigation Projects Map



Description	Current Status
Widen 196th Street SW to 7 lanes from 48th Ave. W to 37th Ave. W.	Under Contract
200th Street SW / 44th Ave. W intersection delete split phase	Sound Transit Agreement
Widen 44th Ave. W from I-5 to 194th St. SW to form a 7-lane roadway.	Under Preliminary Design
Double left turn at the 44th Ave. W and 196th St. SW intersection.	Under Preliminary Design
Install a traffic signal at 48th Ave. W and 194th Street SW intersection.	Future Coordination
Install a traffic signal at 40th Ave. W and 200th Street SW intersection.	Completed
Add local streets within the City Center to form refined street grids.	Underway
Increases in local transit service according to the currently adopted plan.	Ongoing with Community Transit and Sound Transit.
44th Avenue Pedestrian Bridge	Completed
Pedestrian Improvements	Developer Responsibility
Paid parking program	TBD

**Additional mitigation projects listed in the City Center EIS are located outside of the City Center.*

December 3, 2019

TO: David Mach, PE
Public Works Manager/City Engineer
City of Lynnwood

FROM: Andrew Bratlien, PE
Senior Transportation Engineer

SUBJECT: 194th St SW Extension Project Background and Context

The purpose of this memo is to summarize the background and context for the planned 194th St SW extension project in Lynnwood City Center.

PREVIOUS WORK

City Center Sub-Area Plan Environmental Impact Statement (EIS) (2004)

The EIS identifies better transportation circulation as “the most important element for a City Center.” The plan describes a future street grid network for the City Center Subarea which will support the anticipated 9.1 million square feet of new development in City Center by providing the following benefits:

- Add east-west and north south connections,
- Reduce the length of city blocks,
- Make the City Center more walkable and pedestrian-friendly,
- Disperse traffic from major arterials, and
- Provide more choices for circulating through the area.

The preferred alternative network includes an extension of 194th St SW from 40th Ave W to 33rd Ave W. A conceptual alignment is provided in **Attachment 1**.

City Center Project Prioritization (2014)

In July 2014, Lynnwood City Council approved Resolution #2014-15 prioritizing projects for City Center implementation and to support future growth. The 194th St SW project was ranked #3 out of 5 identified transportation improvement projects for City Center, as shown in **Table 1**.

Table 1. City Center Project Prioritization (Resolution #2014-15)

Rank	Project
1	42 nd Ave W (new street)
2	196 th St SW Improvements
3	194 th St SW Improvements (new street)
4	Poplar Way Extension (new bridge over I-5)
5	200 th St SW Improvements (with light rail)

Lynnwood Comprehensive Plan (2015)

The Transportation Element of the Comprehensive Plan identifies the 194th St SW extension as a planned long-range (2035) improvement project. The project was identified as necessary to maintain minimum Level of Service standards based on the Comprehensive Plan's 2035 travel demand growth forecast.

194th St SW Pre-Design Alternatives Analysis (2017)

The Pre-Design Alternatives Analysis evaluated ten improvement alternatives in the vicinity of 194th St SW, including four alternative alignments of the 194th St SW extension. The analysis, included as **Attachment 2**, used the Lynnwood travel demand and intersection operations models to calculate traffic redistribution and LOS impacts of each improvement alternative.

The analysis found that minimum transportation concurrency standards will be satisfied through 2035 without the 194th St SW extension. However, it is likely that the extension will be required to provide network connectivity and support continued commercial growth in and near City Center beyond the 2035 planning horizon. The report recommended that the project be postponed until the Public Facilities District (PFD) proposes to redevelop its facility.

Citywide Model Recalibration and LOS Evaluation for 2019-2024 TIP (2018)

The 2018 analysis included a recalibration of the citywide LOS model to reflect 2018 PM peak hour travel patterns and permitted development throughout Lynnwood. The study included a ranked evaluation of nine transportation improvement projects based on each project's anticipated peak hour aggregate delay, aggregate travel speed, and total vehicle-miles traveled. The study identified the 194th St SW extension as the fourth ranked segment improvement project, as indicated in **Table 2**.

Table 2. Ranked Segment Capacity Improvement Projects

Relative Rank ¹	2018-2023 TIP #	Project Title	From/To	Description
S-1	D	Poplar Ext. Bridge Phase I&II	196 th St SW to AMB	New bridge
S-2	68	196 th St SW (SR-524)	37 th Ave W / 48 th Ave W	7-lane section w/BAT; U-turns at 37 th , 40 th , 44 th , 48 th
S-3	112	46 th Ave W	200 th St SW / 196 th St SW	New 2/3 lane section
S-4	71	194 th St SW	33 rd Ave W / 40 th Ave W	New 2/3 lane section
S-5	2	42 nd Ave W	200 th St SW / 194 th St SW	New 2/3 lane section
S-6	76	200 th St SW (E)	40 th Ave W / 48 th Ave W	7 lane section
S-7	41	52 nd Ave W	168 th St SW / 176 th St SW	3-lane section
S-8	69	200 th St SW (W)	64 th Ave W / Scriber Lk Rd	5 lane section
S-9	92	Beech Rd Ext.	AMP to Ash Way Underpass	Phase 2: connect & signalize Ash Way
I-1	15	212 th St SW & 66 th Ave W intersection impr.		Traffic signal
I-2	-	52 nd Ave W & 208 th St SW intersection impr.		Roundabout or traffic signal
I-3	59	AMB & 28 th Ave W intersection impr.		Traffic signal
I-4	-	52 nd Ave W & 204 th St SW intersection impr.		Roundabout or traffic signal
I-5	52	176 th St SW & 52 nd Ave W intersection impr.		Roundabout or traffic signal

¹S = segment capacity improvement project; I = intersection capacity improvement project

Source: Citywide Model Recalibration and LOS Evaluation for 2019-2024 TIP

Lynnwood 2019 Transportation Concurrency Model Update (September 2019)

The 2019 concurrency model update included an evaluation of four City Center development scenarios, based on a 2025 planning horizon. The study assumed construction of the following transportation capacity improvement projects by 2025:

- **Beech Rd** realignment to intersect Alderwood Mall Parkway at old Sears driveway
- **196th St SW (37th Ave W to 48th Ave W)** widening to include seven-lane section with Business Access & Transit (BAT) lane, and
- **200th St SW (40th Ave W to 48th Ave W)** widening to include seven-lane section with BAT lane

The analysis found that the 2025 transportation network has adequate capacity to support the current development pipeline in addition to the City Center developments Northline Village and the Trent Development at 19820 40th Ave W without triggering the Lynnwood LOS deficiency concurrency threshold.

2020-2025 Capital Facilities Plan (CFP) (October 2019)

The CFP identifies the 194th St SW extension project as a planned 2024-2025 project. The CFP describes the new street as including two 12-foot drive lanes, 8-foot parking lanes on each side, and 14-foot sidewalks with curb and gutter.

The CFP indicates that a future analysis will verify the necessity of the 194th St SW extension and other capacity improvement projects to meet anticipated growth in the City Center.

SUMMARY

The 194th St SW extension project was identified in the City Center Sub-Area EIS as necessary to support anticipated growth in the City Center area, including 9.1 million square feet of commercial development.

Recent traffic operations analyses have indicated that the 194th St SW extension will not be required to satisfy minimum Lynnwood transportation LOS standards through 2035. However, the project will provide benefits which extend beyond maintaining minimum LOS standards, including improved circulation, increased nonmotorized mobility, improved property access, and enhanced livability.

CONCLUSION

The 194th St SW extension represents a significant piece of the planned City Center street network as identified in the City Center Sub-Area Plan. It is recommended that the 194th St SW extension be maintained as a long-range transportation improvement project and re-evaluated as the City Center area continues to develop.

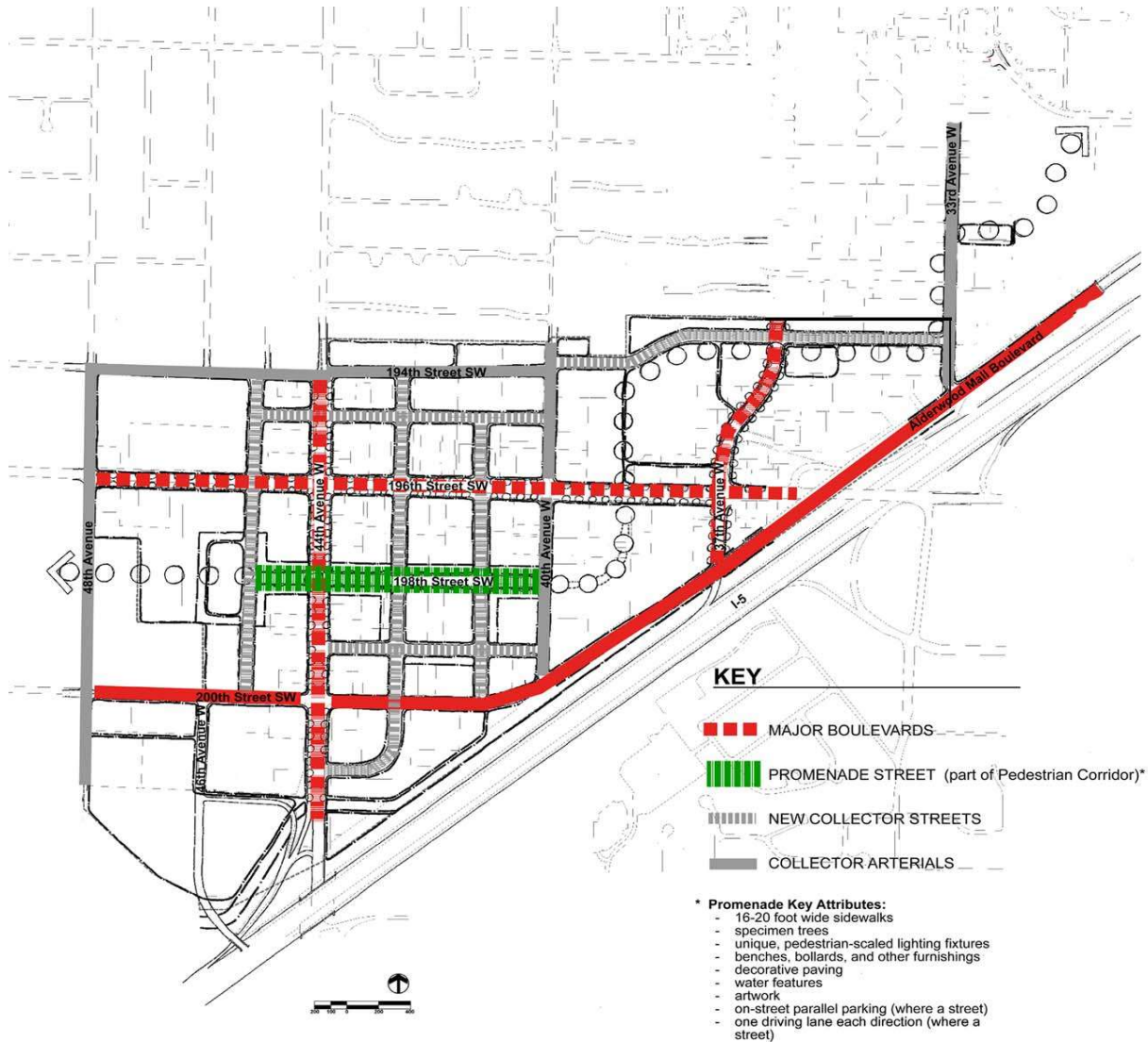
Attachment 1. City Center Sub-Area Plan EIS Conceptual Street Map

Attachment 2. 194th St SW Pre-Design Alternatives Analysis

Attachment 3. Citywide Model Recalibration and LOS Evaluation for 2019-2024 TIP

Attachment 4. Lynnwood 2019 Transportation Concurrency Model Update

Sub-Area Street Class Map



Notes:

1. All streets would have street trees.
2. Streets (not including Major Boulevards or Arterials, would have on-street parking, especially in areas with retail frontage.



194TH STREET SW PRE-DESIGN ALTERNATIVES ANALYSIS FINAL REPORT

October 30, 2017

Prepared for:
City of Lynnwood

Prepared by:



Transportation Solutions, Inc.
8250 165th Avenue NE, Suite 100
Redmond, WA 98052-6628

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- Appendix B. Lynnwood Convention Center Trip Generation**
- Appendix C. 2035 PM Peak Hour Intersection Level of Service Reports**

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INTRODUCTION

The initial purpose of this analysis was to identify a preferred alignment for the extension of 194th Street from 40th Avenue W to 36th Ave West. During meetings with City staff and representatives of the Public Facilities District (PFD) it became apparent that significant uncertainty remained regarding the ultimate use of the PFD site. Additionally, the City had progressed on the Poplar Way Extension Bridge project sufficiently for it to be considered as a near term alternative to the 194th Street extension. This analysis evaluated, using the citywide planning and operational models, whether the LOS benefits of the 194th Street SW extension could be achieved through a combination of other nearby improvements including the Poplar Way Extension Bridge project allowing the deferment of the 194th Street extension until such time as the PFD has established a long-term use for its site.

STUDY AREA

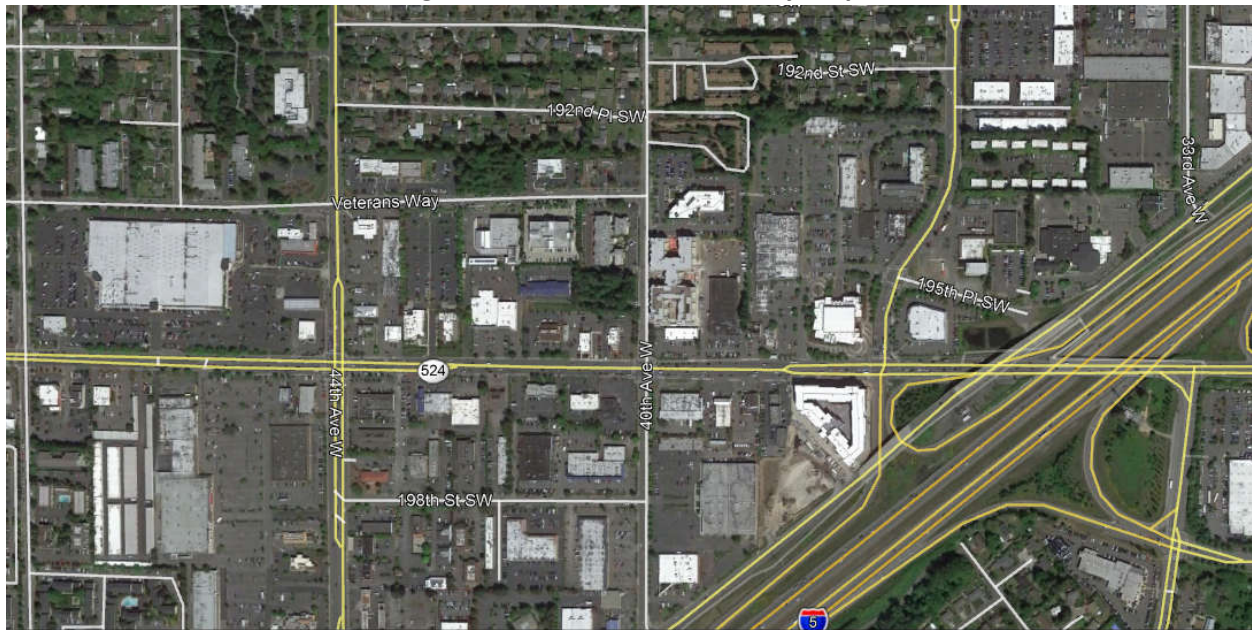
194th Street SW, also known as Veteran's Way, is a collector arterial roadway which currently extends from 52nd Avenue W to 40th Avenue W, running parallel to 196th Street SW. The street consists of two through lanes with on-street parking along portions of the existing alignment. Posted speed limit is 25 mph. A vicinity map is shown in **Figure 1**.

196th Street SW (SR 524) is classified a principal arterial from Poplar Way to the western city limits. It consists of a five-lane section from Poplar Way to 36th Avenue W, a seven-lane section from 36th Avenue W to 500 feet west of 36th Avenue W, and a five-lane section from 500 feet west of 36th Avenue W to 44th Avenue W. Posted speed limit on 196th Street SW is 35 mph.

The Lynnwood City Center Sub-Area Plan identifies 194th St SW as an element of the City Center sub-area street network and recommends an extension of 194th St SW from 40th Avenue W to 33rd Avenue W to support motorized and nonmotorized traffic through the City Center North End district. The proposed Sub-Area Plan alignment is shown in **Figure 2**. The 194th St SW extension project is also identified in the Lynnwood 2018-2023 Six-Year Transportation Improvement Program (TIP) as Project #71.

The 2015 Lynnwood Comprehensive Plan identifies three intersection improvement projects along the 194th St SW extension which would provide signal control at minor arterial 40th Avenue W and at collector arterials 33rd Avenue W and 36th Avenue W.

The 194th St SW extension is one of several transportation capacity improvement projects identified for the City Center subarea and surrounding areas in the Lynnwood Comprehensive Plan and Six-Year TIP. A full list of planned transportation network improvements is provided in **Appendix A**.

Figure 1. 194th Street SW Vicinity Map

LEVEL OF SERVICE

Level of Service Standards

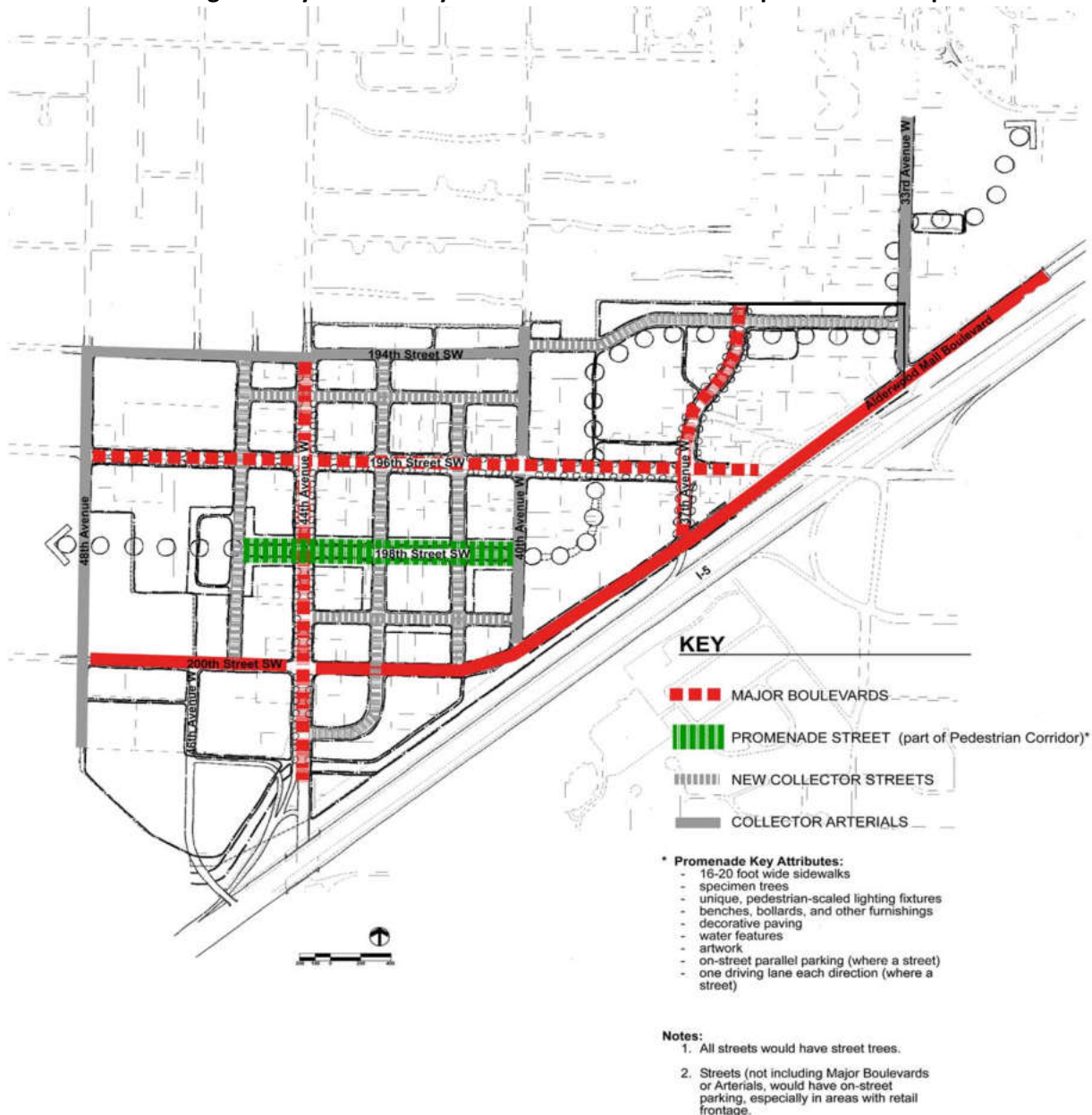
Minimum transportation Level of Service (LOS) standards are defined based on functional classification and location, per Lynnwood Municipal Code (LMC) 12.22.090. Lynnwood LOS standards apply to intersections within the city limits.

Minimum LOS for State facilities are set by the Washington State Department of Transportation (WSDOT). SR 99 and SR 524 through Lynnwood are designated by WSDOT as regionally significant (non-HSS) state highways with minimum LOS E/Mitigated, meaning that mitigation (such as transit) is required when PM peak hour LOS falls below E. Minimum LOS standards are summarized in **Table 1**.

Table 1. Minimum LOS Standards

Facility Type	Minimum LOS Standard
State Highways (SR 99, SR 524)	LOS E/Mitigated
City Center Arterials	LOS E
Non-City Center Arterials/Non-State Highways	LOS D
Local Streets	LOS C

Transportation concurrency failure is triggered when 20 percent of signalized intersections within the City operate below their respective minimum LOS standards, per LMC 12.22.090.

Figure 2. Lynnwood City Center Sub-Area Plan Conceptual Street Map

Level of Service Definition

Level of service (LOS) is a qualitative description of the operating performance of an element of transportation infrastructure such as a roadway or an intersection. LOS is typically expressed as a letter score from LOS A, representing free flow conditions with minimal delays, to LOS F, representing breakdown flow with high delays.

Intersection LOS is based on the average delay experienced by a vehicle traveling through an intersection. Delay at a signalized intersection can be caused by waiting for the signal or waiting for the queue ahead to clear the signal. Delay at unsignalized intersections is caused by waiting for a gap in traffic or waiting for a queue to clear the intersection.

Table 2 shows the amount of delay used to determine LOS for signalized and unsignalized intersections. Delay is defined differently for signalized and all-way stop controlled intersections than for two-way stop controlled (i.e. stop control on minor approach) intersections. Level of service thresholds for signalized and all-way stop controlled intersections are based upon average control delay for all vehicles using the intersection. For two-way stop controlled intersections, delay is reported for the movement with the worst (highest) delay.

To maintain consistency with Lynnwood Comprehensive Plan policy, intersections were evaluated in Synchro 9 software using Highway Capacity Manual 2000 (HCM2000) methodology.

Table 2. Intersection Level of Service Thresholds

LOS	Signalized Delay (sec/veh)	Unsignalized Delay (sec/veh)
A	≤10	≤10
B	>10 – 20	>10 – 15
C	>20 – 35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 – 80	>35 – 50
F	>80	>50

TRAVEL DEMAND MODELING ASSUMPTIONS

This analysis was based on the Lynnwood 2035 travel demand model. The model is consistent with land use and transportation network changes and policies identified in the Lynnwood Comprehensive Plan. The Lynnwood model was most recently updated in 2014 and calibrated to a 2013 PM peak hour condition. This section documents the land use growth and transportation network improvement assumptions included in the baseline (2035) forecast.

Baseline (2035) Land Use Growth

Land use growth identified in the Lynnwood Comprehensive Plan includes a total of 7,674 new dwelling units and 15,406 new employees (jobs) between 2014 and 2035. See **Table 3**.

Table 3. Citywide Dwelling Units and Employment in 2035

Analysis Period	Residential (Dwelling Units)	Employment (Jobs)
2014	15,166	26,823
2035	22,840	42,229
New Growth, 2014-2035	7,674	15,406

Included in the Comprehensive Plan land use growth forecast is a total of 9.1 million square feet of commercial development in the City Center sub-area by 2035. For this analysis, City Center subarea growth was refined to account for the development of the Lynnwood Convention Center, located at the northwest corner of 196th Street and 36th Avenue West.

This analysis assumed Convention Center to include 34,000 square feet of meeting space, as specified by Lynnwood Public Facilities District (PFD).

Lynnwood Convention Center Trip Refinement

As a regional attraction, the Convention Center generates trips which are generally longer than trips generated by more local trip generators in the City. To account for these longer trips, the citywide model was updated for this analysis with Convention Center-specific trip generation and distribution sub-models.

Convention Center trip generation calculations were based on attendance information provided by Lynnwood PFD and trip generation studies at city center convention centers in Spokane, Washington and Miami Beach, Florida. Lynnwood Convention Center trip generation calculations are summarized in **Table 4**. Details on trip generation rate development are included in Appendix B.

Table 4. Lynnwood Convention Center Trip Generation

Name	Quantity	Units	Trip Rate¹	% In	% Out	In	Out	Total
Convention Center	34.000	KSF meeting space	4.61 trips/KSF	20%	80%	31	126	157

¹Based on similar sites, as described in Appendix A

The Lynnwood Convention Center is estimated to generate 157 new vehicle trips (31 in; 126 out) during the PM peak hour of analysis.

Convention Center trip distribution was based on discussion with PFD staff. Convention Center trips were assumed to consist of 50 percent local trips with the other 50 percent of trips traveling to and from regional destinations to the north (Everett), southwest (Seattle), and southeast (Bellevue). Local trips were distributed to and from seven hotels identified by PFD staff as the most frequently used by Convention Center guests. Regional trips were distributed 20 percent to and from Everett, 20 percent to and from Seattle, and 10 percent to and from Bellevue.

Baseline (2035) Network Improvements

The Lynnwood 2018-2023 Transportation Improvement Program (TIP) identifies 28 transportation network improvement projects to be completed citywide by 2023. The Lynnwood Comprehensive Plan identifies long-range transportation network improvements, including 23 projects citywide. A complete list of planned short-range (TIP) and long-range (Comprehensive Plan) network improvements is included in **Appendix A**.

Network improvements in the vicinity of the 194th St SW extension are identified in **Table 5**. Capacity improvements in the vicinity include the extension and new bridge on Poplar Way.

Table 5. Transportation Improvement Projects Included in Baseline (2035) Analysis

Planning Horizon	No.	TIP #	Project Title	Project Limits
Short-Term	S5	D	Poplar Way extension bridge	196 th St SW/ AMB
	S8	68	196 th Street SW (SR 524) widening	36 th Ave W / 48 th Ave W
	S17	-	EB left-turn prohibition at Poplar Way Extension / 196 th St SW	Intersection
Long-Range	L5	71	194 th Street SW extension	33 rd Ave W / 40 th Ave W
	L6	2	42 nd Avenue W new street	44 th Ave W / 194 th St
	L12	-	New traffic signal at 33 rd Ave W & 194 th St SW	Intersection
	L13	-	New traffic signal at 36 th Ave W & 194 th St SW	Intersection
	L14	-	New traffic signal at 40 th Ave W & 194 th St SW	Intersection
	L15	-	New traffic signal at 42 nd Ave W & 194 th St SW	Intersection
	L17	-	New traffic signal at 42 nd Ave W & 196 th St SW	Intersection

BASELINE LEVEL OF SERVICE RESULTS

The baseline forecast indicated 14 signalized intersection LOS deficiencies citywide by 2035. This represents 17.1 percent of signalized intersections citywide. The minimum transportation concurrency standard of 20 percent is satisfied.

Baseline intersection LOS deficiencies include two signalized intersections in the vicinity of the 194th Street SW extension, as shown in **Table 6**.

Table 6. Baseline (2035) Intersection LOS Deficiencies in Study Area

ID	Intersection	LOS Standard	Traffic Control	Delay (sec/veh)	LOS
74	Alderwood Mall Blvd & 33 rd Ave W	D	Signal	76.7	E
29	196 th St & 40 th Ave W	E	Signal	83.4	F

194TH STREET SW ALTERNATIVES ANALYSIS

A set of 10 194th Street SW improvement scenarios was developed through discussion with City of Lynnwood staff. Travel demand forecasts for each of the 10 improvement scenarios were generated using the Lynnwood 2035 travel demand model. The resulting travel demand forecasts were used as a screening tool to identify the four scenarios which offer the greatest potential benefits to operations along the adjacent principal arterial 196th Street SW. The subsequent LOS analysis considered intersection delay and LOS under each of the four screened alternatives and evaluated each alternative against Lynnwood transportation concurrency standards.

Design Alternatives

A set of 10 194th Street SW improvement scenarios was developed through discussion with City of Lynnwood staff. The 10 preliminary improvement scenarios, summarized in **Table 7**, considered various combinations of three major improvements along the 194th Street SW corridor:

- Poplar Way Extension Bridge: This TIP project will extend Poplar Way from 196th Street SW to Alderwood Mall Boulevard, creating a new I-5 overcrossing.
- East-West Connector Roadway: Possible new roadway alignments in the study corridor include:
 - 196th Street SW full extension; 33rd Avenue W to 40th Avenue W
 - 196th Street SW partial extension (west segment); 36th Avenue W to 40th Avenue W
 - 196th Street SW partial extension (east segment); 33rd Avenue W to 36th Avenue W
 - 195th Place SW grade raise and extension; 36th Avenue W to Alderwood Mall Boulevard
- Parking Garage Connector: A new parking garage serving Lynnwood Convention Center and several adjacent properties would include access to 40th Avenue W. The parking garage would provide an alternate route to vehicles which would otherwise access the Convention Center from 196th Street SW.

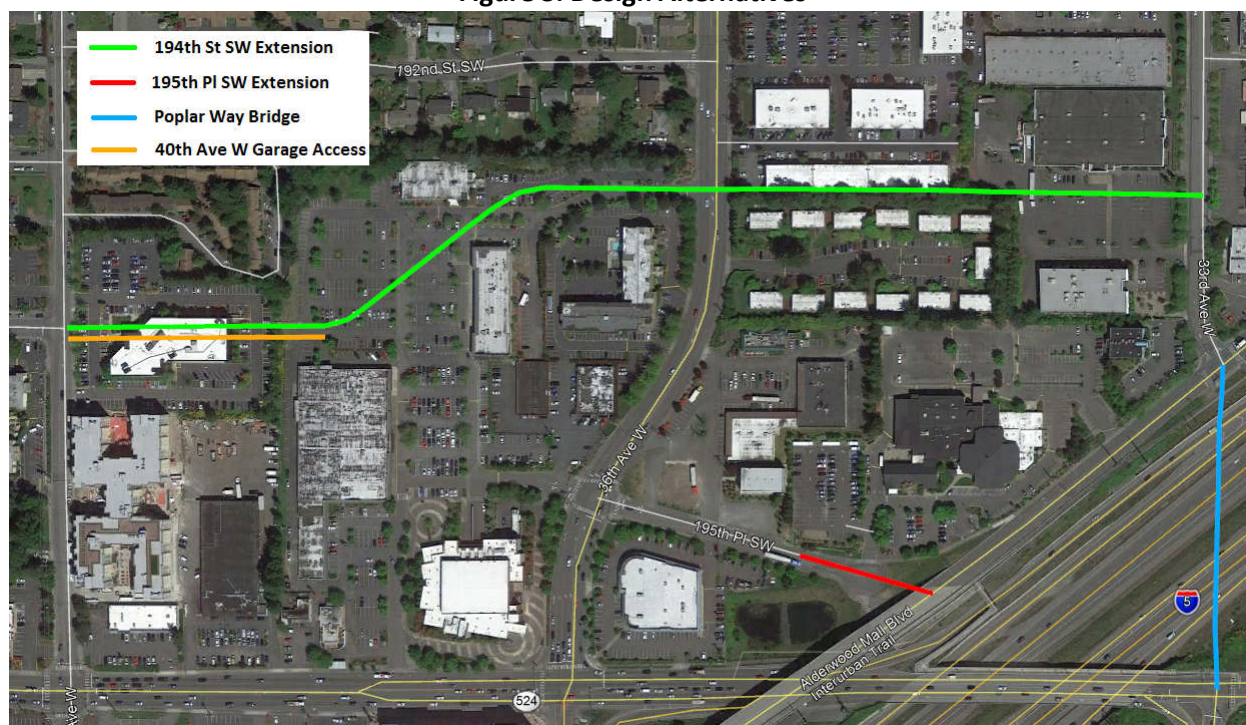
All improvement scenarios included intersection improvements (e.g. signalization) where necessary to support demand along new roadway connectors. **Figure 3** highlights the proposed alignments for each of the modeled connectors.

Table 7. Initial Improvement Scenarios for Travel Demand Analysis

Alternative	Description	Poplar Way Bridge	East-West Connector	Parking Garage Connector
A	Do Nothing			
B	Baseline (2015 Comp Plan)	X	X (194 th St; 33 rd to 40 th)	
C	Poplar Way Only	X		
D	194 th St extension w/o Poplar Bridge		X (194 th St; 33 rd to 40 th)	
E	194 th St partial extension (west)	X	X (194 th St; 36 th to 40 th)	
F	194 th St partial extension (east)	X	X (194 th ; 33 rd to 36 th)	
G	195 th St extension	X	X (195 th St; 36 th to AMB)	
H	194 th St & 195 th St extension	X	X (194 th St; 33 rd to 36 th) (195 th St; 36 th to AMB)	
I	Parking garage with access to 40 th Ave W	X		X
J	Parking garage with 195 th St extension	X	X (195 th St; 36 th to AMB)	X

¹Committed improvement project

Figure 3. Design Alternatives



Travel Demand Comparison

Travel demand forecasts for each of the 10 improvement scenarios were calculated using the Lynnwood 2035 travel demand model. The resulting travel demand forecasts were used as a screening tool to identify the four scenarios which offer the greatest potential benefits to operations along the adjacent principal arterial 196th Street SW. Constructability, possible project phasing, and cost (including right-of-way acquisition) were also considered as screening criteria.

Table 8 describes each scenario's forecasted PM peak hour demand impact on 196th Street SW.

Table 8. 2035 PM Peak Hour Volume Comparison

Alt.	Description	196 th St SW West of 36 th Ave		196 th St SW East of 36 th Ave	
		Volume (veh/hr)	Difference from "Do Nothing" (veh/hr)	Volume (veh/hr)	Difference from "Do Nothing" (veh/hr)
A	Do Nothing	4,960	-	4,920	-
B	Baseline (2015 Comp Plan)	4,360	-600	4,160	-760
C	Poplar Way Only	4,740	-220	4,540	-380
D	194 th St extension w/o Poplar Bridge	4,630	-330	4,940	20
E	194 th St partial extension (west)	4,360	-600	4,590	-330
F	194 th St partial extension (east)	4,790	-170	4,160	-760
G	195 th St extension	4,730	-230	4,300	-620
H	194 th St & 195 th St extension	4,390	-570	4,310	-610
I	Parking garage off 40 th Ave W	4,740	-220	4,520	-400
J	Parking garage with 195 th St extension	4,680	-280	4,260	-660

Alternative B, which represents the proposed Comprehensive Plan improvement scenario, will provide the greatest demand reduction to 196th Street SW, removing between 600 and 800 vehicles per hour from the principal arterial during PM peak hour. This is roughly equivalent to an ADT decrease of 6,000 to 8,000 vehicles per day.

Alternative G, including a grade raise and extension of 195th Place SW with a new signalized intersection at Alderwood Mall Boulevard, would allow a similar demand reduction along 196th St SW.

Alternatives C and D demonstrate two potential project phasing alternatives for the 194th Street SW and Poplar Bridge projects.

Based on the travel demand forecasts and screening analysis, four scenarios were identified for a more detailed intersection LOS analysis:

Four design alternatives were selected for a more detailed intersection LOS analysis:

- Alternative B: 194th St extension with Poplar Bridge
- Alternative C: Poplar Way extension (Poplar Bridge)
- Alternative D: 194th St SW extension without Poplar Bridge
- Alternative G: 195th Pl extension

Level of Service Analysis

Intersection delay and LOS were evaluated for the 2035 planning horizon for each of the four selected alternatives. Signalized intersection delay and LOS results are summarized in **Table 9**.

The Lynnwood transportation concurrency standard requires 80 percent of signalized intersections citywide to satisfy minimum LOS standards. The 2035 baseline transportation network will include 82 signalized intersections, of which 66 are required to operate at or above minimum intersection LOS standards in order for transportation concurrency to be satisfied.

Table 9. 2035 PM Peak Hour Intersection LOS Summary

ID	Intersection	Alternative B		Alternative C		Alternative D		Alternative G	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
29	196 th St & 40 th Ave W	110.0	F	121.5	F	131.3	F	121.6	F
3	196 th St & 36 th Ave W	53.7	D	75.3	E	66.9	E	80.2	F
1	196 th St & Poplar Way	47.9	D	44.4	D	17.4	B	44.6	D
24	195 th St & 36 th Ave W	9.3	A	11.0	B	11.4	A	13.6	B
74	AMB ¹ & Poplar Way	90.1	F	75.6	E	28.1	C	76.7	E
88	194 th St & 40 th Ave W	29.5	C	7.2	A	26.7	C	7.1	A
377	194 th St & 36 th Ave W	28.1	C	-	-	32.5	C	-	-
2032	194 th St & 33 rd Ave W	29.9	C	-	-	30.2	C	-	-
6	AMB ¹ & 195 th St	-	-	-	-	-	-	33.1	C
Citywide Signalized LOS Deficiencies		14 (17.1%)		14 (17.5%)		13 (15.9%)		15 (18.5 %)	

¹Alderwood Mall Boulevard

Transportation concurrency will be satisfied under each of the four alternatives.

Alternative C, the Poplar Way extension with no new east-west connector streets, will allow the City to maintain transportation concurrency for the 20-year planning horizon while deferring the 194th Street

SW extension. Additional network connectivity will likely be necessary beyond the 2035 planning horizon with continued commercial growth in and around the City Center sub-area.

CONCLUSIONS

This analysis concludes that Lynnwood transportation concurrency standards will be satisfied through 2035 without construction of the 194th Street SW extension. The committed Poplar Way Extension project will maintain transportation concurrency standards with a total of 84.1 percent of signalized intersections citywide operating at or above minimum intersection LOS standards.

Based on the uncertainty of the development of the Public Facilities District and the greater benefit of the Poplar Way extension bridge project, it is recommended that the 194th Street SW extension project be postponed until the PFD proposes to redevelop its facility.

Additional network connectivity, including the 194th Street SW extension, will likely be necessary beyond the 2035 planning horizon with continued commercial growth in and around the City Center sub-area.

The analysis described in this document is consistent with the land use, travel demand, and transportation network assumptions in the Lynnwood Comprehensive Plan. This includes allocation of a 9.1 million square-foot development to the City Center subarea.

Appendix A. Baseline Transportation Network Improvements

Short-Range Transportation Improvement Projects Included in 2035 Demand Model

Project Type	No.	TIP#	Project Title
New/Expanded Roads	1	57	36 th Avenue W widening from 164 th Street SW to SR 99
	2	56	36 th Avenue W widening from Maple Road to 164 th Street SW
	3	E	33 rd Avenue W new extension connecting Maple Road
	4	C	33 rd Avenue W new extension from 184 th Street SW to 30 th Place W
	5	D	Poplar Way new extension bridge from 196 th Street SW to AMB ²
	6	41	52 nd Avenue W widening from 168 th Street SW to 172 nd Street SW
	7	43	204 th Street SW new extension from 68 th Avenue W to SR 99
City Center New/Expanded Roads	8	68	196 th Street SW (SR 524) widening from 36 th Avenue W to 48 th Avenue W
Intersection Improvements	9		Access control placed with EB left turn allowed at AMP ¹ /182 nd Street SW
	10	59	A new traffic signal installed at 28 th Avenue W and AMB ¹
	11		A new roundabout installed at 36 th Avenue W/172 nd Street SW
	12		A new traffic signal installed at 36 th Avenue W/Maple Road
	13		A new traffic signal installed at 30 th Place/33 rd Avenue W Bypass
	14		A new traffic signal installed at Costco North Access/33 rd Avenue W Bypass
	15		A new traffic signal installed at Costco E-W Access/33 rd Avenue W Bypass
	16		A new traffic signal installed at 184 th St SW/33 rd Avenue W Bypass
	17		EB left-turn movement at Poplar Way Ext./196 th Street SW prohibited
	18	52	A new traffic signal installed at 52 nd Avenue W/176 th Street SW
	19	14	A new traffic signal installed at 48 th Avenue W/188 th Street SW
	20		A new traffic signal installed at SR 99/204 th Street SW
	21	15	A new traffic signal installed at 66 th Avenue W/ 212 th Street SW

¹Alderwood Mall Parkway (AMP)²Alderwood Mall Boulevard (AMB)

Source: Lynnwood Comprehensive Plan

Long-Range Transportation Improvement Projects Included in 2035 Demand Model

Project Type	No.	TIP#	Project Title
New/Expanded Roads	1	92	Beech Road new extension from AMP to Ash Way
	2		33 rd Avenue W extension widening to a 5-lane roadway between AMP ² and 184 th Street SW
	3	A	33 rd Avenue W new extension from 33 rd Avenue W to 184 th Street SW
	4	69	200 th St SW widening from 64 th Avenue W to 48 th Avenue W
City Center New/Expanded Roads	5	71	194 th Street SW new extension from 33 rd Avenue W to 40 th Avenue W
	6	2	42 nd Avenue W new street from 44 th Avenue W to 194 th Street SW
	7		New City Center Private Grids
	8	67	44 th Avenue W widening from I-5 to 194 th Street SW
	9	76	200 th Street SW widening from 40 th Avenue W to 48 th Avenue W
Intersection Improvements	10	B	A new turn lane constructed at 196 th St SW/AMP ²
	11		Re-channelized at 33 rd Avenue W Bypass/184 th Street SW
	12		A new traffic signal installed at 33 rd Avenue W/194 th Street SW
	13		A new traffic signal installed at 36 th Avenue W/194 th Street SW
	14		A new traffic signal installed at 40 th Avenue W/194 th Street SW
	15		A new traffic signal installed at 42 nd Avenue/194 th Street SW
	16		A new traffic signal installed at 48 th Avenue W/194 th Street SW
	17		A new traffic signal installed at 42 nd Avenue W/196 th Street SW
	18		A new traffic signal installed at 50 th Avenue W/196 th Street SW
	19		A new traffic signal installed at 40 th Avenue W/198 th Street SW
	20		A new traffic signal installed at 44 th Avenue W/198 th Street SW
	21		A new traffic signal installed at 42 nd Avenue/200 th Street SW
	22		An additional left-turn-only lane added to the westbound approach and the signal phasing at 200 th Street SW/44 th Avenue W optimized
	23		Right-In/Right-Out control at the following intersections: <ul style="list-style-type: none"> • 44th Avenue W/195th Street SW • 44th Avenue W/197th Street SW • 44th Avenue W/199th Street SW • 44th Avenue W/200th Street SW Connector • 43rd Avenue W/200th Street SW • 43rd Avenue W/196th Street SW • 41st Avenue W/200th Street SW • 41st Avenue W/196th Street SW • 45th Avenue W/196th Street SW • 45th Avenue W/200th Street SW

Source: Lynnwood Comprehensive Plan

Appendix B. Convention Center Trip Generation

Variable	Quantity	Units	Source
Meeting Space	34	KSF	Lynnwood PFD
Daily Person Trip Rate	38.396	person-trips/day/KSF	Spokane Convention Center TIA
Auto Trips	90%		Miami Beach Conv. Center TIA
Vehicle Occupancy	1.2	persons/vehicle	Spokane, Miami Beach TIAs
Internal Capture (Convention Center Hotel)	20%		
K-Factor	0.2		
% OUT	80%		Spokane Convention Center TIA
% IN	20%		













Peak Hour OUT (O)	126
Peak Hour IN (D)	31
Peak Hour Vehicle Trips	157

Appendix C. 2035 PM Peak Hour Intersection Level of Service Reports

HCM Signalized Intersection Capacity Analysis

1: Poplar Way/Poplar Way Extension & 196th St

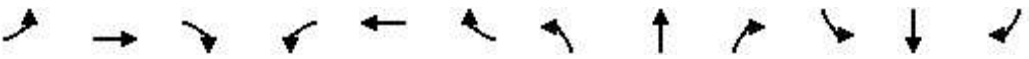







10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗		↑↑	↗	↗↗	↑↗		↗↗	↑↑	
Traffic Volume (vph)	0	1315	1191	0	895	345	194	840	0	372	1104	181
Future Volume (vph)	0	1315	1191	0	895	345	194	840	0	372	1104	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	3.0		4.8	5.8	4.5	5.5		5.5	5.5	
Lane Util. Factor		0.95	1.00		0.95	1.00	0.97	0.95		0.97	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.98	
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3539	1583		3574	1583	3433	3539		3433	3464	
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3539	1583		3574	1583	3433	3539		3433	3464	
Peak-hour factor, PHF	0.90	0.99	0.99	0.98	0.98	0.90	0.94	0.90	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	1328	1203	0	913	383	206	933	0	413	1227	201
RTOR Reduction (vph)	0	0	0	0	0	225	0	0	0	0	8	0
Lane Group Flow (vph)	0	1328	1203	0	913	158	206	933	0	413	1420	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA	Free		NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)		47.7	140.0		47.7	47.7	13.2	54.1		21.4	62.3	
Effective Green, g (s)		48.7	140.0		48.7	47.7	14.2	54.1		21.4	62.3	
Actuated g/C Ratio		0.35	1.00		0.35	0.34	0.10	0.39		0.15	0.44	
Clearance Time (s)		5.8			5.8	5.8	5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.5			4.5	4.5	2.5	2.5		3.0	3.0	
Lane Grp Cap (vph)		1231	1583		1243	539	348	1367		524	1541	
v/s Ratio Prot		c0.38			0.26		0.06	0.26		0.12	c0.41	
v/s Ratio Perm			c0.76			0.10						
v/c Ratio		1.08	0.76		0.73	0.29	0.59	0.68		0.79	0.92	
Uniform Delay, d1		45.6	0.0		40.0	33.8	60.1	35.8		57.1	36.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		49.7	3.5		2.6	0.5	2.3	2.8		7.7	10.5	
Delay (s)		95.4	3.5		42.6	34.3	62.4	38.6		64.8	47.1	
Level of Service		F	A		D	C	E	D		E	D	
Approach Delay (s)		51.7			40.1			42.9			51.1	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			47.9		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			1.01									
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					15.8		
Intersection Capacity Utilization			90.5%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: 36th Ave W & 196th St






















10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	532	1718	85	300	1813	177	0	0	0	162	356	205
Future Volume (vph)	532	1718	85	300	1813	177	0	0	0	162	356	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.7	3.2	4.2	2.7	3.2					2.4	2.4	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91					0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99					1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1787	5061					3433	3326	
Flt Permitted	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1787	5061					3433	3326	
Peak-hour factor, PHF	0.93	0.93	0.93	0.99	0.99	0.99	0.85	0.85	0.85	0.95	0.95	0.95
Adj. Flow (vph)	572	1847	91	303	1831	179	0	0	0	171	375	216
RTOR Reduction (vph)	0	0	23	0	7	0	0	0	0	0	59	0
Lane Group Flow (vph)	572	1847	68	303	2003	0	0	0	0	171	532	0
Confl. Peds. (#/hr)						1						2
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA					Split	NA	
Protected Phases	7	4		3	8					6	6	
Permitted Phases			4									
Actuated Green, G (s)	43.4	76.0	76.0	22.3	54.9					26.8	26.8	
Effective Green, g (s)	45.4	78.0	77.0	24.3	56.9					29.1	29.1	
Actuated g/C Ratio	0.32	0.56	0.55	0.17	0.41					0.21	0.21	
Clearance Time (s)	4.7	5.2	5.2	4.7	5.2					4.7	4.7	
Vehicle Extension (s)	2.0	2.5	2.5	2.0	2.5					2.5	2.5	
Lane Grp Cap (vph)	575	1975	872	310	2061					715	692	
v/s Ratio Prot	c0.32	c0.52		0.17	0.40					0.05	c0.16	
v/s Ratio Perm			0.04									
v/c Ratio	0.99	0.94	0.08	0.98	0.97					0.24	0.77	
Uniform Delay, d1	47.0	28.5	14.7	57.4	40.6					46.1	52.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Incremental Delay, d2	35.9	8.9	0.0	44.3	13.8					0.1	4.9	
Delay (s)	83.0	37.5	14.7	101.8	54.4					46.2	57.1	
Level of Service	F	D	B	F	D					D	E	
Approach Delay (s)		47.0			60.6			0.0			54.6	
Approach LOS		D			E			A			D	
Intersection Summary												
HCM 2000 Control Delay			53.7			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			139.7			Sum of lost time (s)				8.3		
Intersection Capacity Utilization			95.0%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: 36th Ave W & 195th St SW























10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	3	286	85	2	16	224	350	134	0	352	73
Future Volume (vph)	140	3	286	85	2	16	224	350	134	0	352	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95			0.95	
Frt	1.00	0.85		1.00	0.86		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770	1586		1770	1611		1770	3392			3448	
Flt Permitted	0.74	1.00		0.41	1.00		0.34	1.00			1.00	
Satd. Flow (perm)	1386	1586		758	1611		640	3392			3448	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	156	3	318	94	2	18	249	389	149	0	391	81
RTOR Reduction (vph)	0	232	0	0	13	0	0	42	0	0	28	0
Lane Group Flow (vph)	156	89	0	94	7	0	249	496	0	0	444	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.4	10.4		10.4	10.4		22.9	22.9			11.9	
Effective Green, g (s)	11.4	11.4		11.4	11.4		23.9	23.9			12.9	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.57	0.57			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	3.5			3.5	
Lane Grp Cap (vph)	373	427		204	434		561	1916			1051	
v/s Ratio Prot		0.06			0.00		c0.08	0.15			0.13	
v/s Ratio Perm	0.11			c0.12			c0.17					
v/c Ratio	0.42	0.21		0.46	0.02		0.44	0.26			0.42	
Uniform Delay, d1	12.7	12.0		12.9	11.3		5.0	4.7			11.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.8	0.2		1.6	0.0		0.2	0.1			0.3	
Delay (s)	13.5	12.2		14.5	11.3		5.2	4.8			12.1	
Level of Service	B	B		B	B		A	A			B	
Approach Delay (s)		12.6			14.0			4.9			12.1	
Approach LOS		B			B			A			B	
Intersection Summary												
HCM 2000 Control Delay	9.3			HCM 2000 Level of Service			A					
HCM 2000 Volume to Capacity ratio	0.49											
Actuated Cycle Length (s)	42.3			Sum of lost time (s)			10.5					
Intersection Capacity Utilization	61.5%			ICU Level of Service			B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	229	1645	23	58	286	1526	148	41	86	446	215	76
Future Volume (vph)	229	1645	23	58	286	1526	148	41	86	446	215	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.5	4.2		3.0	3.5	4.2	3.0	3.5		3.7	3.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96		1.00	1.00	0.97	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.87		1.00	0.93
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1527		1784	3574	1547	1777	1623		1805	1758
Flt Permitted	0.06	1.00	1.00		0.06	1.00	1.00	0.66	1.00		0.10	1.00
Satd. Flow (perm)	119	3539	1527		115	3574	1547	1238	1623		193	1758
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.95	0.95	0.95	0.88	0.88	0.88	0.91	0.91
Adj. Flow (vph)	244	1750	24	64	301	1606	156	47	98	507	236	84
RTOR Reduction (vph)	0	0	13	0	0	0	64	0	56	0	0	19
Lane Group Flow (vph)	244	1750	11	0	365	1606	92	47	549	0	236	130
Confl. Peds. (#/hr)	4		5		5		4	8		3	3	
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases	4		4	8	8		8	2			6	
Actuated Green, G (s)	67.9	60.9	60.9		79.9	68.2	68.2	38.7	34.7		49.7	41.0
Effective Green, g (s)	71.3	62.6	61.9		81.6	69.9	69.2	42.1	36.4		50.7	42.7
Actuated g/C Ratio	0.51	0.45	0.44		0.58	0.50	0.49	0.30	0.26		0.36	0.31
Clearance Time (s)	4.7	5.2	5.2		4.7	5.2	5.2	4.7	5.2		4.7	5.2
Vehicle Extension (s)	3.0	4.0	4.0		2.0	4.0	4.0	2.0	3.5		2.0	3.5
Lane Grp Cap (vph)	163	1582	675		257	1784	764	394	421		200	536
v/s Ratio Prot	0.09	0.49			c0.16	0.45		0.00	c0.34		c0.10	0.07
v/s Ratio Perm	c0.67		0.01		0.67		0.06	0.03			0.33	
v/c Ratio	1.50	1.11	0.02		1.42	0.90	0.12	0.12	1.30		1.18	0.24
Uniform Delay, d1	39.9	38.7	21.9		47.7	31.9	19.0	35.2	51.8		38.0	36.5
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	253.0	57.6	0.0		210.4	7.8	0.3	0.0	153.0		120.6	0.3
Delay (s)	293.0	96.3	22.0		258.1	39.6	19.4	35.2	204.8		158.7	36.8
Level of Service	F	F	C		F	D	B	D	F		F	D
Approach Delay (s)		119.2				75.6			192.5			111.5
Approach LOS		F				E			F			F
Intersection Summary												
HCM 2000 Control Delay			110.0			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			1.41									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			14.4			
Intersection Capacity Utilization			122.1%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017
























Movement	SBR
Lane Configurations	
Traffic Volume (vph)	59
Future Volume (vph)	59
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	65
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	8
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

74: Poplar Way Extension/33rd Ave W & Alderwood Mall Blvd

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	279	683	625	327	254	76	139	695	352	79	705	282
Future Volume (vph)	279	683	625	327	254	76	139	695	352	79	705	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	3.7	4.7	4.7	3.7		4.7	4.7		3.7	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.95		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3417		3433	3361		1770	3388	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3417		3433	3361		1770	3388	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.89	0.90	0.90	0.90	0.75	0.90	0.90
Adj. Flow (vph)	310	759	694	363	285	85	154	772	391	105	783	313
RTOR Reduction (vph)	0	0	111	0	18	0	0	41	0	0	28	0
Lane Group Flow (vph)	310	759	583	363	352	0	154	1122	0	105	1068	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	30.9	44.3	44.3	25.3	38.7		7.9	48.7		12.9	53.4	
Effective Green, g (s)	31.9	45.3	44.3	25.3	39.7		7.9	48.7		13.9	53.4	
Actuated g/C Ratio	0.21	0.30	0.30	0.17	0.26		0.05	0.32		0.09	0.36	
Clearance Time (s)	4.7	4.7	4.7	4.7	4.7		4.7	4.7		4.7	5.0	
Vehicle Extension (s)	3.0	2.0	2.0	3.0	3.5		3.0	2.0		2.0	3.0	
Lane Grp Cap (vph)	376	1068	467	298	904		180	1091		164	1206	
v/s Ratio Prot	0.18	0.21		c0.21	0.10		c0.04	c0.33		c0.06	0.32	
v/s Ratio Perm			c0.37									
v/c Ratio	0.82	0.71	1.25	1.22	0.39		0.86	1.03		0.64	0.89	
Uniform Delay, d1	56.4	46.5	52.9	62.4	45.2		70.5	50.6		65.6	45.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.7	1.9	128.3	124.7	0.3		30.6	34.9		6.2	9.7	
Delay (s)	70.0	48.4	181.2	187.1	45.5		101.1	85.5		71.9	55.1	
Level of Service	E	D	F	F	D		F	F		E	E	
Approach Delay (s)		104.5			115.6			87.4			56.6	
Approach LOS		F			F			F			E	
Intersection Summary												
HCM 2000 Control Delay			90.1			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.10									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)				18.1		
Intersection Capacity Utilization			96.7%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

88: 40th Ave W & 194th St SW

10/30/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	484	4	224	304	30	2	75	444	72	45	5
Future Volume (vph)	18	484	4	224	304	30	2	75	444	72	45	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.5		4.5	4.5		3.5	3.5		4.5	3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.87		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1861		1770	1838		1770	1624		1770	1833	
Flt Permitted	0.54	1.00		0.14	1.00		0.72	1.00		0.15	1.00	
Satd. Flow (perm)	1007	1861		256	1838		1342	1624		288	1833	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	20	538	4	249	338	33	2	83	493	80	50	6
RTOR Reduction (vph)	0	0	0	0	3	0	0	216	0	0	4	0
Lane Group Flow (vph)	20	542	0	249	368	0	2	360	0	80	52	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	31.1	29.4		44.4	38.2		24.0	23.1		29.6	25.9	
Effective Green, g (s)	33.1	29.4		44.4	38.2		26.0	24.1		29.6	26.9	
Actuated g/C Ratio	0.39	0.35		0.52	0.45		0.31	0.28		0.35	0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	417	645		321	828		421	462		165	582	
v/s Ratio Prot	0.00	0.29		c0.10	0.20		0.00	c0.22		c0.02	0.03	
v/s Ratio Perm	0.02			c0.31			0.00			0.15		
v/c Ratio	0.05	0.84		0.78	0.44		0.00	0.78		0.48	0.09	
Uniform Delay, d1	15.9	25.5		15.9	16.0		20.4	27.9		21.7	20.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	9.6		11.1	0.4		0.0	8.1		2.2	0.1	
Delay (s)	15.9	35.1		27.0	16.3		20.4	36.0		24.0	20.4	
Level of Service	B	D		C	B		C	D		C	C	
Approach Delay (s)		34.4			20.6			35.9			22.5	
Approach LOS		C			C			D			C	

Intersection Summary






















HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	84.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

377: 36th Ave W & 194th St SW/194th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	459	558	29	109	173	154	81	378	48	25	287	375
Future Volume (vph)	459	558	29	109	173	154	81	378	48	25	287	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	0.93		1.00	0.98		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1849		1770	1731		1770	3480		1770	3238	
Flt Permitted	0.23	1.00		0.28	1.00		0.22	1.00		0.40	1.00	
Satd. Flow (perm)	436	1849		521	1731		403	3480		743	3238	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	510	620	32	121	192	171	90	420	53	28	319	417
RTOR Reduction (vph)	0	2	0	0	41	0	0	12	0	0	300	0
Lane Group Flow (vph)	510	650	0	121	322	0	90	461	0	28	436	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	41.6	32.8		24.2	19.9		21.6	18.5		18.2	16.8	
Effective Green, g (s)	41.6	32.8		24.2	19.9		21.6	18.5		18.2	16.8	
Actuated g/C Ratio	0.55	0.44		0.32	0.27		0.29	0.25		0.24	0.22	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	547	808		239	459		172	858		199	725	
v/s Ratio Prot	c0.21	0.35		0.03	0.19		c0.02	0.13		0.00	c0.13	
v/s Ratio Perm	c0.30			0.13			0.13			0.03		
v/c Ratio	0.93	0.80		0.51	0.70		0.52	0.54		0.14	0.60	
Uniform Delay, d1	15.2	18.3		18.8	24.9		21.3	24.5		21.9	26.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	23.0	5.8		1.7	4.8		2.9	0.7		0.3	1.4	
Delay (s)	38.2	24.1		20.5	29.7		24.1	25.2		22.2	27.5	
Level of Service	D	C		C	C		C	C		C	C	
Approach Delay (s)		30.3			27.4			25.0			27.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay	28.1			HCM 2000 Level of Service			C					
HCM 2000 Volume to Capacity ratio	0.86											
Actuated Cycle Length (s)	75.0			Sum of lost time (s)			18.0					
Intersection Capacity Utilization	83.4%			ICU Level of Service			E					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2032: 33rd Ave W & 194th St

10/30/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	332	402	357	693	665	219
Future Volume (vph)	332	402	357	693	665	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	4.7	4.7	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3408	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1770	3539	3408	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	369	447	397	770	739	243
RTOR Reduction (vph)	0	335	0	0	34	0
Lane Group Flow (vph)	369	112	397	770	948	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	22.5	22.5	22.2	58.1	31.2	
Effective Green, g (s)	22.5	22.5	22.2	58.1	31.2	
Actuated g/C Ratio	0.25	0.25	0.25	0.65	0.35	
Clearance Time (s)	4.7	4.7	4.7	4.7	4.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	442	395	436	2284	1181	
v/s Ratio Prot	c0.21		c0.22	0.22	c0.28	
v/s Ratio Perm		0.07				
v/c Ratio	0.83	0.28	0.91	0.34	0.80	
Uniform Delay, d1	32.0	27.2	32.9	7.2	26.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	12.8	0.4	22.9	0.4	5.8	
Delay (s)	44.8	27.6	55.9	7.6	32.4	
Level of Service	D	C	E	A	C	
Approach Delay (s)	35.4			24.0	32.4	
Approach LOS	D			C	C	

Intersection Summary

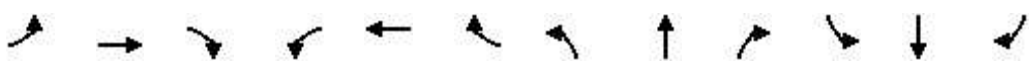
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.1
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Poplar Way/Poplar Way Extension & 196th St


























10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑	↑↑	↑↑		↑↑	↑↑	
Traffic Volume (vph)	0	1323	1318	0	930	309	245	755	0	346	887	320
Future Volume (vph)	0	1323	1318	0	930	309	245	755	0	346	887	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	3.0		4.8	5.8	4.5	5.5		5.5	5.5	
Lane Util. Factor		0.95	1.00		0.95	1.00	0.97	0.95		0.97	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.96	
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3539	1583		3574	1583	3433	3539		3433	3398	
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3539	1583		3574	1583	3433	3539		3433	3398	
Peak-hour factor, PHF	0.90	0.99	0.99	0.98	0.98	0.90	0.94	0.90	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	1336	1331	0	949	343	261	839	0	384	986	356
RTOR Reduction (vph)	0	0	0	0	0	194	0	0	0	0	24	0
Lane Group Flow (vph)	0	1336	1331	0	949	149	261	839	0	384	1318	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA	Free		NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)		48.4	140.0		48.4	48.4	15.5	54.2		20.6	59.3	
Effective Green, g (s)		49.4	140.0		49.4	48.4	16.5	54.2		20.6	59.3	
Actuated g/C Ratio		0.35	1.00		0.35	0.35	0.12	0.39		0.15	0.42	
Clearance Time (s)		5.8			5.8	5.8	5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.5			4.5	4.5	2.5	2.5		3.0	3.0	
Lane Grp Cap (vph)		1248	1583		1261	547	404	1370		505	1439	
v/s Ratio Prot		c0.38			0.27		0.08	0.24		0.11	c0.39	
v/s Ratio Perm			c0.84			0.09						
v/c Ratio		1.07	0.84		0.75	0.27	0.65	0.61		0.76	0.92	
Uniform Delay, d1		45.3	0.0		39.9	33.1	59.0	34.5		57.3	38.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.91	0.98	
Incremental Delay, d2		46.6	5.6		2.9	0.5	3.1	2.1		0.6	1.2	
Delay (s)		91.9	5.6		42.8	33.5	62.1	36.5		52.9	38.5	
Level of Service		F	A		D	C	E	D		D	D	
Approach Delay (s)		48.8			40.4			42.6			41.7	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			44.4									HCM 2000 Level of Service D
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			140.0									Sum of lost time (s) 15.8
Intersection Capacity Utilization			90.6%									ICU Level of Service E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: 36th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  					 	 	
Traffic Volume (vph)	623	1751	98	334	1923	252	0	0	0	285	302	362
Future Volume (vph)	623	1751	98	334	1923	252	0	0	0	285	302	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.7	3.2	4.2	2.7	3.2					2.4	2.4	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91					0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98					1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1787	5038					3433	3222	
Flt Permitted	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1787	5038					3433	3222	
Peak-hour factor, PHF	0.93	0.93	0.93	0.99	0.99	0.99	0.85	0.85	0.85	0.95	0.95	0.95
Adj. Flow (vph)	670	1883	105	337	1942	255	0	0	0	300	318	381
RTOR Reduction (vph)	0	0	26	0	11	0	0	0	0	0	155	0
Lane Group Flow (vph)	670	1883	79	337	2186	0	0	0	0	300	544	0
Confl. Peds. (#/hr)						1						2
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA					Split	NA	
Protected Phases	7	4		3	8					6	6	
Permitted Phases			4									
Actuated Green, G (s)	43.4	76.0	76.0	22.3	54.9					27.9	27.9	
Effective Green, g (s)	45.4	78.0	77.0	24.3	56.9					30.2	30.2	
Actuated g/C Ratio	0.32	0.55	0.55	0.17	0.40					0.21	0.21	
Clearance Time (s)	4.7	5.2	5.2	4.7	5.2					4.7	4.7	
Vehicle Extension (s)	2.0	2.5	2.5	2.0	2.5					2.5	2.5	
Lane Grp Cap (vph)	570	1960	865	308	2035					736	691	
v/s Ratio Prot	c0.38	0.53		0.19	c0.43					0.09	c0.17	
v/s Ratio Perm			0.05									
v/c Ratio	1.18	0.96	0.09	1.09	1.07					0.41	0.79	
Uniform Delay, d1	47.7	29.9	15.2	58.3	42.0					47.6	52.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Incremental Delay, d2	96.3	12.4	0.0	78.9	43.3					0.3	5.7	
Delay (s)	144.0	42.3	15.2	137.1	85.3					47.9	58.0	
Level of Service	F	D	B	F	F					D	E	
Approach Delay (s)		66.9			92.2			0.0			55.0	
Approach LOS		E			F			A			D	
Intersection Summary												
HCM 2000 Control Delay			75.3			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			140.8			Sum of lost time (s)				8.3		
Intersection Capacity Utilization			107.4%			ICU Level of Service				G		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: 36th Ave W & 195th St SW

10/30/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	0	339	116	0	0	249	472	155	0	494	44
Future Volume (vph)	111	0	339	116	0	0	249	472	155	0	494	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5		3.5			3.5	3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00			1.00	0.95			0.95	
Frt	1.00	0.85		1.00			1.00	0.96			0.99	
Flt Protected	0.95	1.00		0.95			0.95	1.00			1.00	
Satd. Flow (prot)	1770	1583		1770			1770	3408			3496	
Flt Permitted	0.76	1.00		0.34			0.26	1.00			1.00	
Satd. Flow (perm)	1410	1583		642			489	3408			3496	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	123	0	377	129	0	0	277	524	172	0	549	49
RTOR Reduction (vph)	0	224	0	0	0	0	0	35	0	0	10	0
Lane Group Flow (vph)	123	153	0	129	0	0	277	661	0	0	588	0
Turn Type	Perm	NA		Perm			pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.4	13.4		13.4			24.7	24.7			13.5	
Effective Green, g (s)	14.4	14.4		14.4			25.7	25.7			14.5	
Actuated g/C Ratio	0.31	0.31		0.31			0.55	0.55			0.31	
Clearance Time (s)	4.5	4.5		4.5			4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0			2.0	3.5			3.5	
Lane Grp Cap (vph)	431	483		196			476	1859			1076	
v/s Ratio Prot		0.10					c0.10	0.19			0.17	
v/s Ratio Perm	0.09			c0.20			c0.22					
v/c Ratio	0.29	0.32		0.66			0.58	0.36			0.55	
Uniform Delay, d1	12.4	12.6		14.2			6.5	6.0			13.6	
Progression Factor	1.00	1.00		1.00			1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.4		7.7			1.2	0.1			0.6	
Delay (s)	12.8	12.9		22.0			7.7	6.2			14.2	
Level of Service	B	B		C			A	A			B	
Approach Delay (s)		12.9			22.0			6.6			14.2	
Approach LOS		B			C			A			B	

Intersection Summary























HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	47.1	Sum of lost time (s)	10.5
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	87	1714	32	66	314	1648	220	47	79	407	304	59
Future Volume (vph)	87	1714	32	66	314	1648	220	47	79	407	304	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.5	4.2		3.0	3.5	4.2	3.0	3.5		3.7	3.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96		1.00	1.00	0.97	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.87		1.00	0.96
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1527		1784	3574	1547	1775	1623		1805	1817
Flt Permitted	0.06	1.00	1.00		0.06	1.00	1.00	0.70	1.00		0.10	1.00
Satd. Flow (perm)	119	3539	1527		115	3574	1547	1309	1623		193	1817
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.95	0.95	0.95	0.88	0.88	0.88	0.91	0.91
Adj. Flow (vph)	93	1823	34	73	331	1735	232	53	90	462	334	65
RTOR Reduction (vph)	0	0	19	0	0	0	73	0	50	0	0	8
Lane Group Flow (vph)	93	1823	15	0	404	1735	159	53	503	0	334	79
Confl. Peds. (#/hr)	4		5		5		4	8		3	3	
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases	4		4	8	8		8	2			6	
Actuated Green, G (s)	67.9	60.9	60.9		79.9	68.2	68.2	38.7	34.7		49.7	41.0
Effective Green, g (s)	71.3	62.6	61.9		81.6	69.9	69.2	42.1	36.4		50.7	42.7
Actuated g/C Ratio	0.51	0.45	0.44		0.58	0.50	0.49	0.30	0.26		0.36	0.31
Clearance Time (s)	4.7	5.2	5.2		4.7	5.2	5.2	4.7	5.2		4.7	5.2
Vehicle Extension (s)	3.0	4.0	4.0		2.0	4.0	4.0	2.0	3.5		2.0	3.5
Lane Grp Cap (vph)	163	1582	675		257	1784	764	412	421		200	554
v/s Ratio Prot	0.04	0.52			c0.18	0.49		0.01	0.31		c0.13	0.04
v/s Ratio Perm	0.25		0.01		c0.74		0.10	0.03			c0.47	
v/c Ratio	0.57	1.15	0.02		1.57	0.97	0.21	0.13	1.20		1.67	0.14
Uniform Delay, d1	30.7	38.7	22.0		47.7	34.1	20.0	35.3	51.8		38.0	35.3
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.8	76.3	0.1		275.4	15.7	0.6	0.1	109.2		322.5	0.1
Delay (s)	35.5	115.0	22.1		323.1	49.8	20.6	35.3	161.0		360.5	35.5
Level of Service	D	F	C		F	D	C	D	F		F	D
Approach Delay (s)		109.6				93.5			150.0			293.3
Approach LOS		F				F			F			F

Intersection Summary

HCM 2000 Control Delay	121.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.67		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.4
Intersection Capacity Utilization	128.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St























10/30/2017

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	20
Future Volume (vph)	20
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	22
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	8
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

74: Poplar Way Extension/33rd Ave W & Alderwood Mall Blvd

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	736	644	353	277	3	155	659	250	1	557	299
Future Volume (vph)	328	736	644	353	277	3	155	659	250	1	557	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	3.7	4.7	4.7	3.7		4.7	4.7		3.7	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3534		3433	3393		1770	3354	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3534		3433	3393		1770	3354	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.89	0.90	0.90	0.90	0.75	0.90	0.90
Adj. Flow (vph)	364	818	716	392	311	3	172	732	278	1	619	332
RTOR Reduction (vph)	0	0	143	0	1	0	0	23	0	0	50	0
Lane Group Flow (vph)	364	818	573	392	313	0	172	987	0	1	901	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	32.7	41.3	41.3	25.3	33.9		9.4	53.6		1.0	44.9	
Effective Green, g (s)	33.7	42.3	41.3	25.3	34.9		9.4	53.6		2.0	44.9	
Actuated g/C Ratio	0.24	0.30	0.29	0.18	0.25		0.07	0.38		0.01	0.32	
Clearance Time (s)	4.7	4.7	4.7	4.7	4.7		4.7	4.7		4.7	5.0	
Vehicle Extension (s)	3.0	2.0	2.0	3.0	3.5		3.0	2.0		2.0	3.0	
Lane Grp Cap (vph)	426	1069	466	319	880		230	1299		25	1075	
v/s Ratio Prot	0.21	0.23		c0.22	0.09		c0.05	0.29		0.00	c0.27	
v/s Ratio Perm			c0.36									
v/c Ratio	0.85	0.77	1.23	1.23	0.36		0.75	0.76		0.04	0.84	
Uniform Delay, d1	50.8	44.3	49.4	57.4	43.3		64.1	37.6		68.1	44.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.43	0.44		1.00	1.00	
Incremental Delay, d2	15.3	3.0	120.9	127.5	0.3		10.5	3.5		0.2	7.8	
Delay (s)	66.1	47.3	170.2	184.8	43.6		102.2	20.2		68.3	52.0	
Level of Service	E	D	F	F	D		F	C		E	D	
Approach Delay (s)		97.3			122.0			32.1			52.0	
Approach LOS		F			F			C			D	
Intersection Summary												
HCM 2000 Control Delay			75.6			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				18.1		
Intersection Capacity Utilization			95.8%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

88: 40th Ave W & 194th St SW

10/30/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	39	13	340	79	27
Future Volume (vph)	147	39	13	340	79	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5	3.5	3.5	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.97		1.00	1.00	0.97	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1741		1770	1863	1799	
Flt Permitted	0.96		0.56	1.00	1.00	
Satd. Flow (perm)	1741		1035	1863	1799	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	163	43	14	378	88	30
RTOR Reduction (vph)	19	0	0	0	18	0
Lane Group Flow (vph)	187	0	14	378	101	0
Turn Type	pm+pt		pm+pt	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	8.4		19.8	19.8	14.5	
Effective Green, g (s)	9.4		20.8	20.8	15.5	
Actuated g/C Ratio	0.25		0.56	0.56	0.42	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	439		614	1041	749	
v/s Ratio Prot	c0.11		0.00	c0.20	0.06	
v/s Ratio Perm			0.01			
v/c Ratio	0.42		0.02	0.36	0.13	
Uniform Delay, d1	11.6		3.8	4.5	6.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.7		0.0	0.2	0.1	
Delay (s)	12.3		3.8	4.8	6.8	
Level of Service	B		A	A	A	
Approach Delay (s)	12.3			4.7	6.8	
Approach LOS	B			A	A	

Intersection Summary







HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	37.2	Sum of lost time (s)	11.5
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Poplar Way & 196th St





















10/30/2017

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑↑	↑
Traffic Volume (vph)	1404	1494	0	1109	464	0
Future Volume (vph)	1404	1494	0	1109	464	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	3.0		4.8	4.5	
Lane Util. Factor	0.95	1.00		0.95	0.97	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	1.00	1.00		1.00	0.95	
Satd. Flow (prot)	3539	1583		3574	3433	
Flt Permitted	1.00	1.00		1.00	0.95	
Satd. Flow (perm)	3539	1583		3574	3433	
Peak-hour factor, PHF	0.99	0.99	0.98	0.98	0.94	0.94
Adj. Flow (vph)	1418	1509	0	1132	494	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1418	1509	0	1132	494	0
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	4			8	5	
Permitted Phases		Free				5
Actuated Green, G (s)	28.2	65.0		28.2	25.5	
Effective Green, g (s)	29.2	65.0		29.2	26.5	
Actuated g/C Ratio	0.45	1.00		0.45	0.41	
Clearance Time (s)	5.8			5.8	5.5	
Vehicle Extension (s)	4.5			4.5	2.5	
Lane Grp Cap (vph)	1589	1583		1605	1399	
v/s Ratio Prot	0.40			0.32	0.14	
v/s Ratio Perm		c0.95				
v/c Ratio	0.89	0.95		0.71	0.35	
Uniform Delay, d1	16.5	0.0		14.4	13.3	
Progression Factor	1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.1	13.9		1.6	0.1	
Delay (s)	23.6	13.9		16.1	13.4	
Level of Service	C	B		B	B	
Approach Delay (s)	18.6			16.1	13.4	
Approach LOS	B			B	B	
Intersection Summary						
HCM 2000 Control Delay			17.4		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			1.11			
Actuated Cycle Length (s)			65.0		Sum of lost time (s)	9.3
Intersection Capacity Utilization			59.8%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

3: 36th Ave W & 196th St





















10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	1969	106	161	1948	486	0	0	0	374	479	166
Future Volume (vph)	450	1969	106	161	1948	486	0	0	0	374	479	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.7	3.2	4.2	2.7	3.2					2.4	2.4	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91					0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.97					1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1787	4968					3433	3388	
Flt Permitted	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1787	4968					3433	3388	
Peak-hour factor, PHF	0.93	0.93	0.93	0.99	0.99	0.99	0.85	0.85	0.85	0.95	0.95	0.95
Adj. Flow (vph)	484	2117	114	163	1968	491	0	0	0	394	504	175
RTOR Reduction (vph)	0	0	26	0	28	0	0	0	0	0	24	0
Lane Group Flow (vph)	484	2117	88	163	2431	0	0	0	0	394	655	0
Confl. Peds. (#/hr)						1						2
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA					Split	NA	
Protected Phases	7	4		3	8					6	6	
Permitted Phases			4									
Actuated Green, G (s)	34.3	86.9	86.9	11.3	63.9					31.9	31.9	
Effective Green, g (s)	36.3	88.9	87.9	13.3	65.9					34.2	34.2	
Actuated g/C Ratio	0.25	0.61	0.61	0.09	0.46					0.24	0.24	
Clearance Time (s)	4.7	5.2	5.2	4.7	5.2					4.7	4.7	
Vehicle Extension (s)	2.0	2.5	2.5	2.0	2.5					2.5	2.5	
Lane Grp Cap (vph)	444	2174	961	164	2262					811	800	
v/s Ratio Prot	c0.27	0.60		0.09	c0.49					0.11	c0.19	
v/s Ratio Perm			0.06									
v/c Ratio	1.09	0.97	0.09	0.99	1.07					0.49	0.82	
Uniform Delay, d1	54.2	26.8	11.8	65.7	39.4					47.7	52.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Incremental Delay, d2	69.3	13.6	0.0	68.1	42.7					0.3	6.4	
Delay (s)	123.5	40.4	11.8	133.7	82.1					48.0	58.7	
Level of Service	F	D	B	F	F					D	E	
Approach Delay (s)		54.0			85.3			0.0			54.8	
Approach LOS		D			F			A			D	
Intersection Summary												
HCM 2000 Control Delay			66.9			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			1.01									
Actuated Cycle Length (s)			144.7			Sum of lost time (s)				8.3		
Intersection Capacity Utilization			102.0%			ICU Level of Service				G		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: 36th Ave W & 195th St SW























10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1	321	119	1	0	224	552	159	0	579	75
Future Volume (vph)	109	1	321	119	1	0	224	552	159	0	579	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95			0.95	
Frt	1.00	0.85		1.00	1.00		1.00	0.97			0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770	1584		1770	1863		1770	3420			3479	
Flt Permitted	0.76	1.00		0.36	1.00		0.21	1.00			1.00	
Satd. Flow (perm)	1410	1584		674	1863		394	3420			3479	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	121	1	357	132	1	0	249	613	177	0	643	83
RTOR Reduction (vph)	0	210	0	0	0	0	0	28	0	0	16	0
Lane Group Flow (vph)	121	148	0	132	1	0	249	762	0	0	710	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.3	13.3		13.3	13.3		25.6	25.6			14.4	
Effective Green, g (s)	14.3	14.3		14.3	14.3		26.6	26.6			15.4	
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.56	0.56			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	3.5			3.5	
Lane Grp Cap (vph)	420	472		201	556		439	1899			1118	
v/s Ratio Prot		0.09			0.00		c0.09	0.22			0.20	
v/s Ratio Perm	0.09			c0.20			c0.22					
v/c Ratio	0.29	0.31		0.66	0.00		0.57	0.40			0.64	
Uniform Delay, d1	12.9	13.0		14.7	11.8		6.7	6.1			13.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.4		7.5	0.0		1.0	0.2			1.2	
Delay (s)	13.3	13.4		22.2	11.8		7.7	6.3			15.1	
Level of Service	B	B		C	B		A	A			B	
Approach Delay (s)		13.4			22.1			6.6			15.1	
Approach LOS		B			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			11.4				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			47.9				Sum of lost time (s)			10.5		
Intersection Capacity Utilization			70.7%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	205	1712	23	53	323	1535	153	36	98	509	229	77
Future Volume (vph)	205	1712	23	53	323	1535	153	36	98	509	229	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.5	4.2		3.0	3.5	4.2	3.0	3.5		3.7	3.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96		1.00	1.00	0.97	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.87		1.00	0.93
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1527		1785	3574	1547	1777	1622		1805	1755
Flt Permitted	0.06	1.00	1.00		0.06	1.00	1.00	0.66	1.00		0.10	1.00
Satd. Flow (perm)	119	3539	1527		115	3574	1547	1234	1622		193	1755
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.95	0.95	0.95	0.88	0.88	0.88	0.91	0.91
Adj. Flow (vph)	218	1821	24	59	340	1616	161	41	111	578	252	85
RTOR Reduction (vph)	0	0	13	0	0	0	64	0	58	0	0	20
Lane Group Flow (vph)	218	1821	11	0	399	1616	97	41	631	0	252	133
Confl. Peds. (#/hr)	4		5		5		4	8		3	3	
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases	4		4	8	8		8	2			6	
Actuated Green, G (s)	67.9	60.9	60.9		79.9	68.2	68.2	38.7	34.7		49.7	41.0
Effective Green, g (s)	71.3	62.6	61.9		81.6	69.9	69.2	42.1	36.4		50.7	42.7
Actuated g/C Ratio	0.51	0.45	0.44		0.58	0.50	0.49	0.30	0.26		0.36	0.31
Clearance Time (s)	4.7	5.2	5.2		4.7	5.2	5.2	4.7	5.2		4.7	5.2
Vehicle Extension (s)	3.0	4.0	4.0		2.0	4.0	4.0	2.0	3.5		2.0	3.5
Lane Grp Cap (vph)	163	1582	675		257	1784	764	393	421		200	535
v/s Ratio Prot	0.08	0.51			c0.18	0.45		0.00	c0.39		c0.10	0.08
v/s Ratio Perm	0.60		0.01		c0.73		0.06	0.03			0.35	
v/c Ratio	1.34	1.15	0.02		1.55	0.91	0.13	0.10	1.50		1.26	0.25
Uniform Delay, d1	40.1	38.7	21.9		47.7	32.0	19.1	35.0	51.8		38.0	36.6
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	187.3	75.8	0.0		267.0	8.1	0.3	0.0	236.9		150.8	0.3
Delay (s)	227.4	114.5	22.0		314.7	40.2	19.4	35.1	288.7		188.9	36.9
Level of Service	F	F	C		F	D	B	D	F		F	D
Approach Delay (s)		125.3				89.0			274.5			131.4
Approach LOS		F				F			F			F

Intersection Summary

HCM 2000 Control Delay	131.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.55		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.4
Intersection Capacity Utilization	131.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	62
Future Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	68
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	8
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

74: Alderwood Mall Blvd & 33rd Ave W

10/30/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	440	864	253	271	138	323
Future Volume (vph)	440	864	253	271	138	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	3.7	3.7		3.7	
Lane Util. Factor	1.00	0.95	0.95		1.00	
Frt	1.00	1.00	0.92		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1770	3539	3265		1668	
Flt Permitted	0.95	1.00	1.00		0.98	
Satd. Flow (perm)	1770	3539	3265		1668	
Peak-hour factor, PHF	0.90	0.90	0.89	0.89	0.75	0.90
Adj. Flow (vph)	489	960	284	304	184	359
RTOR Reduction (vph)	0	0	250	0	66	0
Lane Group Flow (vph)	489	960	338	0	477	0
Turn Type	Prot	NA	NA		Prot	
Protected Phases	7	4	8		1	
Permitted Phases						
Actuated Green, G (s)	25.2	45.0	15.1		35.6	
Effective Green, g (s)	26.2	46.0	16.1		36.6	
Actuated g/C Ratio	0.29	0.51	0.18		0.41	
Clearance Time (s)	4.7	4.7	4.7		4.7	
Vehicle Extension (s)	3.0	2.0	3.5		2.0	
Lane Grp Cap (vph)	515	1808	584		678	
v/s Ratio Prot	c0.28	c0.27	0.10		c0.29	
v/s Ratio Perm						
v/c Ratio	0.95	0.53	0.58		0.70	
Uniform Delay, d1	31.3	14.8	33.8		22.2	
Progression Factor	1.00	1.00	1.00		0.63	
Incremental Delay, d2	27.1	0.2	1.5		2.5	
Delay (s)	58.4	14.9	35.4		16.4	
Level of Service	E	B	D		B	
Approach Delay (s)		29.6	35.4		16.4	
Approach LOS		C	D		B	

Intersection Summary





















HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.1
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

88: 40th Ave W & 194th St SW






















10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	483	8	251	336	28	11	78	441	22	45	5
Future Volume (vph)	13	483	8	251	336	28	11	78	441	22	45	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.5		4.5	4.5		3.5	3.5		4.5	3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.87		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1858		1770	1841		1770	1625		1770	1833	
Flt Permitted	0.52	1.00		0.16	1.00		0.72	1.00		0.19	1.00	
Satd. Flow (perm)	977	1858		307	1841		1342	1625		362	1833	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	14	537	9	279	373	31	12	87	490	24	50	6
RTOR Reduction (vph)	0	1	0	0	3	0	0	242	0	0	4	0
Lane Group Flow (vph)	14	545	0	279	401	0	12	335	0	24	52	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.5	29.7		45.2	39.9		20.6	19.8		22.2	20.6	
Effective Green, g (s)	32.5	29.7		45.2	39.9		22.6	20.8		22.2	21.6	
Actuated g/C Ratio	0.41	0.37		0.56	0.50		0.28	0.26		0.28	0.27	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	414	688		374	917		388	421		128	494	
v/s Ratio Prot	0.00	0.29		c0.10	0.22		0.00	c0.21		c0.00	0.03	
v/s Ratio Perm	0.01			c0.32			0.01			0.05		
v/c Ratio	0.03	0.79		0.75	0.44		0.03	0.80		0.19	0.10	
Uniform Delay, d1	14.3	22.5		13.5	12.9		20.8	27.7		23.0	22.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	6.2		7.9	0.3		0.0	10.0		0.7	0.1	
Delay (s)	14.3	28.7		21.4	13.2		20.8	37.7		23.7	22.1	
Level of Service	B	C		C	B		C	D		C	C	
Approach Delay (s)		28.3			16.6			37.3			22.6	
Approach LOS		C			B			D			C	
Intersection Summary												
HCM 2000 Control Delay	26.7			HCM 2000 Level of Service			C					
HCM 2000 Volume to Capacity ratio	0.78											
Actuated Cycle Length (s)	80.1			Sum of lost time (s)			17.0					
Intersection Capacity Utilization	82.0%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

377: 36th Ave W & 194th St SW/194th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	466	418	87	269	210	35	100	485	77	25	297	361
Future Volume (vph)	466	418	87	269	210	35	100	485	77	25	297	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.98		1.00	0.98		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1814		1770	1823		1770	3466		1770	3248	
Flt Permitted	0.32	1.00		0.31	1.00		0.21	1.00		0.28	1.00	
Satd. Flow (perm)	594	1814		581	1823		396	3466		526	3248	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	518	464	97	299	233	39	111	539	86	28	330	401
RTOR Reduction (vph)	0	10	0	0	8	0	0	15	0	0	269	0
Lane Group Flow (vph)	518	551	0	299	264	0	111	610	0	28	462	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.2	26.8		22.4	16.5		21.9	18.8		18.5	17.1	
Effective Green, g (s)	37.2	26.8		22.4	16.5		21.9	18.8		18.5	17.1	
Actuated g/C Ratio	0.52	0.38		0.32	0.23		0.31	0.27		0.26	0.24	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	580	685		282	424		182	919		161	783	
v/s Ratio Prot	c0.20	0.30		0.09	0.14		c0.03	c0.18		0.00	0.14	
v/s Ratio Perm	0.26			c0.25			0.16			0.04		
v/c Ratio	0.89	0.80		1.06	0.62		0.61	0.66		0.17	0.59	
Uniform Delay, d1	12.6	19.7		22.6	24.4		19.7	23.2		19.9	23.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.0	6.8		70.4	2.8		5.7	1.8		0.5	1.2	
Delay (s)	28.6	26.5		93.0	27.2		25.4	25.0		20.4	25.0	
Level of Service	C	C		F	C		C	C		C	C	
Approach Delay (s)		27.5			61.7			25.1			24.8	
Approach LOS		C			E			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			70.9				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			82.5%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2032: 33rd Ave W & 194th St

10/30/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	409	146	306	404	315	278
Future Volume (vph)	409	146	306	404	315	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	4.7	4.7	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.93	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3290	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1770	3539	3290	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	454	162	340	449	350	309
RTOR Reduction (vph)	0	118	0	0	170	0
Lane Group Flow (vph)	454	44	340	449	489	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	24.6	24.6	20.5	56.0	30.8	
Effective Green, g (s)	24.6	24.6	20.5	56.0	30.8	
Actuated g/C Ratio	0.27	0.27	0.23	0.62	0.34	
Clearance Time (s)	4.7	4.7	4.7	4.7	4.7	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	483	432	403	2202	1125	
v/s Ratio Prot	c0.26		c0.19	0.13	c0.15	
v/s Ratio Perm		0.03				
v/c Ratio	0.94	0.10	0.84	0.20	0.43	
Uniform Delay, d1	32.0	24.4	33.2	7.4	22.9	
Progression Factor	1.00	1.00	0.63	1.72	1.00	
Incremental Delay, d2	26.3	0.1	9.5	0.1	1.2	
Delay (s)	58.2	24.6	30.4	12.8	24.1	
Level of Service	E	C	C	B	C	
Approach Delay (s)	49.4			20.4	24.1	
Approach LOS	D			C	C	

Intersection Summary













HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.1
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Poplar Way/Poplar Way Extension & 196th St


























10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗		↑↑	↗	↖↗	↑↗		↖↗	↑↑	
Traffic Volume (vph)	0	1335	1244	0	956	290	217	784	0	314	977	187
Future Volume (vph)	0	1335	1244	0	956	290	217	784	0	314	977	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	3.0		4.8	5.8	4.5	5.5		5.5	5.5	
Lane Util. Factor		0.95	1.00		0.95	1.00	0.97	0.95		0.97	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.98	
Flt Protected		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3539	1583		3574	1583	3433	3539		3433	3454	
Flt Permitted		1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		3539	1583		3574	1583	3433	3539		3433	3454	
Peak-hour factor, PHF	0.90	0.99	0.99	0.98	0.98	0.90	0.94	0.90	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	1348	1257	0	976	322	231	871	0	349	1086	208
RTOR Reduction (vph)	0	0	0	0	0	177	0	0	0	0	10	0
Lane Group Flow (vph)	0	1348	1257	0	976	145	231	871	0	349	1284	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA	Free		NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)		48.4	140.0		48.4	48.4	14.3	55.4		19.4	60.5	
Effective Green, g (s)		49.4	140.0		49.4	48.4	15.3	55.4		19.4	60.5	
Actuated g/C Ratio		0.35	1.00		0.35	0.35	0.11	0.40		0.14	0.43	
Clearance Time (s)		5.8			5.8	5.8	5.5	5.5		5.5	5.5	
Vehicle Extension (s)		4.5			4.5	4.5	2.5	2.5		3.0	3.0	
Lane Grp Cap (vph)		1248	1583		1261	547	375	1400		475	1492	
v/s Ratio Prot		c0.38			0.27		0.07	0.25		0.10	c0.37	
v/s Ratio Perm			c0.79			0.09						
v/c Ratio		1.08	0.79		0.77	0.26	0.62	0.62		0.73	0.86	
Uniform Delay, d1		45.3	0.0		40.3	33.0	59.5	33.9		57.8	35.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		0.91	0.95	
Incremental Delay, d2		50.1	4.2		3.4	0.4	2.6	2.1		0.5	0.7	
Delay (s)		95.4	4.2		43.7	33.4	62.1	36.0		53.3	34.9	
Level of Service		F	A		D	C	E	D		D	C	
Approach Delay (s)		51.4			41.2			41.5			38.8	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			44.6		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					15.8		
Intersection Capacity Utilization			88.4%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: 36th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  					 	 	
Traffic Volume (vph)	600	1846	95	345	1783	244	0	0	0	110	310	423
Future Volume (vph)	600	1846	95	345	1783	244	0	0	0	110	310	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.7	3.2	4.2	2.7	3.2					2.4	2.4	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91					0.97	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98					1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1787	5035					3433	3203	
Flt Permitted	0.95	1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1787	5035					3433	3203	
Peak-hour factor, PHF	0.93	0.93	0.93	0.99	0.99	0.99	0.85	0.85	0.85	0.95	0.95	0.95
Adj. Flow (vph)	645	1985	102	348	1801	246	0	0	0	116	326	445
RTOR Reduction (vph)	0	0	24	0	11	0	0	0	0	0	172	0
Lane Group Flow (vph)	645	1985	78	348	2036	0	0	0	0	116	599	0
Confl. Peds. (#/hr)						1						2
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Turn Type	Prot	NA	Perm	Prot	NA					Split	NA	
Protected Phases	7	4		3	8					6	6	
Permitted Phases			4									
Actuated Green, G (s)	46.4	75.0	75.0	23.3	51.9					30.2	30.2	
Effective Green, g (s)	48.4	77.0	76.0	25.3	53.9					32.5	32.5	
Actuated g/C Ratio	0.34	0.54	0.53	0.18	0.38					0.23	0.23	
Clearance Time (s)	4.7	5.2	5.2	4.7	5.2					4.7	4.7	
Vehicle Extension (s)	2.0	2.5	2.5	2.0	2.5					2.5	2.5	
Lane Grp Cap (vph)	598	1904	840	315	1896					779	727	
v/s Ratio Prot	c0.36	c0.56		c0.19	0.40					0.03	c0.19	
v/s Ratio Perm			0.05									
v/c Ratio	1.08	1.04	0.09	1.10	1.07					0.15	0.82	
Uniform Delay, d1	47.4	33.0	16.5	58.9	44.6					44.2	52.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00					1.00	1.00	
Incremental Delay, d2	59.8	32.7	0.0	81.9	43.7					0.1	7.4	
Delay (s)	107.1	65.8	16.6	140.8	88.3					44.3	59.9	
Level of Service	F	E	B	F	F					D	E	
Approach Delay (s)		73.7			95.9			0.0			57.9	
Approach LOS		E			F			A			E	
Intersection Summary												
HCM 2000 Control Delay			80.2			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			143.1			Sum of lost time (s)				8.3		
Intersection Capacity Utilization			105.4%			ICU Level of Service				G		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: Alderwood Mall Blvd & 195th St SW

10/30/2017



Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	307	242	367	1363	591	258
Future Volume (vph)	307	242	367	1363	591	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.95	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3378	
Flt Permitted	0.95	1.00	0.28	1.00	1.00	
Satd. Flow (perm)	1770	1583	526	3539	3378	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	341	269	408	1514	657	287
RTOR Reduction (vph)	0	223	0	0	35	0
Lane Group Flow (vph)	341	46	408	1514	909	0
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	22.0	22.0	110.0	110.0	110.0	
Effective Green, g (s)	22.0	22.0	110.0	110.0	110.0	
Actuated g/C Ratio	0.16	0.16	0.79	0.79	0.79	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	278	248	413	2780	2654	
v/s Ratio Prot	c0.19			0.43	0.27	
v/s Ratio Perm		0.03	c0.78			
v/c Ratio	1.23	0.18	0.99	0.54	0.34	
Uniform Delay, d1	59.0	51.2	14.4	5.6	4.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	129.6	0.4	41.4	0.8	0.4	
Delay (s)	188.6	51.6	55.7	6.4	4.8	
Level of Service	F	D	E	A	A	
Approach Delay (s)	128.2			16.9	4.8	
Approach LOS	F			B	A	

Intersection Summary

HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

24: 36th Ave W & 195th St SW

10/30/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	164	221	133	85	245	201	465	179	84	490	37
Future Volume (vph)	85	164	221	133	85	245	201	465	179	84	490	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.91		1.00	0.89		1.00	0.96		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1702		1770	1655		1770	3392		1770	3502	
Flt Permitted	0.39	1.00		0.31	1.00		0.30	1.00		0.32	1.00	
Satd. Flow (perm)	723	1702		577	1655		561	3392		600	3502	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	94	182	246	148	94	272	223	517	199	93	544	41
RTOR Reduction (vph)	0	92	0	0	180	0	0	61	0	0	9	0
Lane Group Flow (vph)	94	336	0	148	186	0	223	655	0	93	576	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	15.6	15.6		15.6	15.6		22.0	17.2		17.6	15.0	
Effective Green, g (s)	16.6	16.6		16.6	16.6		24.0	18.2		19.6	16.0	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.49	0.37		0.40	0.33	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)	245	577		195	561		418	1262		326	1145	
v/s Ratio Prot		0.20			0.11		c0.06	0.19		0.02	0.16	
v/s Ratio Perm	0.13			c0.26			c0.20			0.09		
v/c Ratio	0.38	0.58		0.76	0.33		0.53	0.52		0.29	0.50	
Uniform Delay, d1	12.3	13.3		14.4	12.0		7.7	11.9		9.3	13.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	1.5		15.5	0.4		0.7	0.4		0.2	0.4	
Delay (s)	13.3	14.8		29.9	12.4		8.3	12.4		9.5	13.7	
Level of Service	B	B		C	B		A	B		A	B	
Approach Delay (s)		14.5			17.4			11.4			13.1	
Approach LOS		B			B			B			B	

Intersection Summary























HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	10.5
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	69	1802	23	68	270	1620	222	40	78	376	315	47
Future Volume (vph)	69	1802	23	68	270	1620	222	40	78	376	315	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.5	4.2		3.0	3.5	4.2	3.0	3.5		3.7	3.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96		1.00	1.00	0.97	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.88		1.00	0.96
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1527		1783	3574	1547	1775	1626		1805	1803
Flt Permitted	0.06	1.00	1.00		0.06	1.00	1.00	0.71	1.00		0.10	1.00
Satd. Flow (perm)	119	3539	1527		114	3574	1547	1324	1626		193	1803
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.95	0.95	0.95	0.88	0.88	0.88	0.91	0.91
Adj. Flow (vph)	73	1917	24	76	284	1705	234	45	89	427	346	52
RTOR Reduction (vph)	0	0	13	0	0	0	73	0	47	0	0	10
Lane Group Flow (vph)	73	1917	11	0	360	1705	161	45	469	0	346	64
Confl. Peds. (#/hr)	4		5		5		4	8		3	3	
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases	4		4	8	8		8	2			6	
Actuated Green, G (s)	66.5	60.9	60.9		79.9	69.6	69.6	38.7	34.7		49.7	41.0
Effective Green, g (s)	69.9	62.6	61.9		81.6	71.3	70.6	42.1	36.4		50.7	42.7
Actuated g/C Ratio	0.50	0.45	0.44		0.58	0.51	0.50	0.30	0.26		0.36	0.31
Clearance Time (s)	4.7	5.2	5.2		4.7	5.2	5.2	4.7	5.2		4.7	5.2
Vehicle Extension (s)	3.0	4.0	4.0		2.0	4.0	4.0	2.0	3.5		2.0	3.5
Lane Grp Cap (vph)	145	1582	675		257	1820	780	416	422		200	549
v/s Ratio Prot	0.03	0.54			c0.16	0.48		0.00	0.29		c0.14	0.04
v/s Ratio Perm	0.22		0.01		c0.65		0.10	0.03			c0.49	
v/c Ratio	0.50	1.21	0.02		1.40	0.94	0.21	0.11	1.11		1.73	0.12
Uniform Delay, d1	30.3	38.7	21.9		47.7	32.2	19.2	35.1	51.8		38.0	35.0
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	2.7	101.4	0.0		202.2	10.7	0.6	0.0	77.3		348.6	0.1
Delay (s)	33.0	140.1	22.0		249.9	42.9	19.8	35.2	129.1		386.6	35.2
Level of Service	C	F	C		F	D	B	D	F		F	D
Approach Delay (s)		134.8				73.0			121.6			324.7
Approach LOS		F				E			F			F

Intersection Summary

HCM 2000 Control Delay	121.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.4
Intersection Capacity Utilization	126.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: 40th Ave W & 196th St

10/30/2017
























Movement	SBR
Lane Configurations	
Traffic Volume (vph)	20
Future Volume (vph)	20
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	22
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	8
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

74: Poplar Way Extension/33rd Ave W & Alderwood Mall Blvd

10/30/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	662	706	293	356	3	177	599	297	1	480	325
Future Volume (vph)	288	662	706	293	356	3	177	599	297	1	480	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	3.7	4.7	4.7	3.7		4.7	4.7		3.7	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.95		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3535		3433	3363		1770	3325	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3535		3433	3363		1770	3325	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.89	0.90	0.90	0.90	0.75	0.90	0.90
Adj. Flow (vph)	320	736	784	326	400	3	197	666	330	1	533	361
RTOR Reduction (vph)	0	0	166	0	0	0	0	37	0	0	84	0
Lane Group Flow (vph)	320	736	618	326	403	0	197	959	0	1	810	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	30.1	41.3	41.3	25.3	36.5		9.5	53.6		1.0	44.8	
Effective Green, g (s)	31.1	42.3	41.3	25.3	37.5		9.5	53.6		2.0	44.8	
Actuated g/C Ratio	0.22	0.30	0.29	0.18	0.27		0.07	0.38		0.01	0.32	
Clearance Time (s)	4.7	4.7	4.7	4.7	4.7		4.7	4.7		4.7	5.0	
Vehicle Extension (s)	3.0	2.0	2.0	3.0	3.5		3.0	2.0		2.0	3.0	
Lane Grp Cap (vph)	393	1069	466	319	946		232	1287		25	1064	
v/s Ratio Prot	0.18	0.21		c0.18	0.11		c0.06	c0.29		0.00	0.24	
v/s Ratio Perm			c0.39									
v/c Ratio	0.81	0.69	1.33	1.02	0.43		0.85	0.75		0.04	0.76	
Uniform Delay, d1	51.7	43.0	49.4	57.4	42.4		64.5	37.3		68.1	42.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.45	0.44		1.00	1.00	
Incremental Delay, d2	12.2	1.5	160.7	56.1	0.4		20.6	3.3		0.2	5.1	
Delay (s)	63.9	44.5	210.1	113.5	42.7		114.0	19.6		68.3	47.9	
Level of Service	E	D	F	F	D		F	B		E	D	
Approach Delay (s)		118.4			74.4			35.2			48.0	
Approach LOS		F			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			76.7			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.1			
Intersection Capacity Utilization			95.1%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

88: 40th Ave W & 194th St SW

10/30/2017



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	134	39	12	314	72	25
Future Volume (vph)	134	39	12	314	72	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5		3.5	3.5	3.5	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frt	0.97		1.00	1.00	0.96	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1739		1770	1863	1798	
Flt Permitted	0.96		0.56	1.00	1.00	
Satd. Flow (perm)	1739		1044	1863	1798	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	149	43	13	349	80	28
RTOR Reduction (vph)	22	0	0	0	16	0
Lane Group Flow (vph)	170	0	13	349	92	0
Turn Type	pm+pt		pm+pt	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	8.3		19.8	19.8	14.5	
Effective Green, g (s)	9.3		20.8	20.8	15.5	
Actuated g/C Ratio	0.25		0.56	0.56	0.42	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	435		620	1044	751	
v/s Ratio Prot	c0.10		0.00	c0.19	0.05	
v/s Ratio Perm			0.01			
v/c Ratio	0.39		0.02	0.33	0.12	
Uniform Delay, d1	11.5		3.8	4.4	6.6	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.6		0.0	0.2	0.1	
Delay (s)	12.1		3.8	4.6	6.7	
Level of Service	B		A	A	A	
Approach Delay (s)	12.1			4.6	6.7	
Approach LOS	B			A	A	

Intersection Summary

HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	37.1	Sum of lost time (s)	11.5
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

May 8, 2018

To: David Mach, PE
Resident Capital Project Engineer
City of Lynnwood Department of Public Works
19100 44th Ave W
Lynnwood, WA 98036

From: Andrew Bratlien, PE
Senior Transportation Engineer



SUBJECT: CITYWIDE MODEL RECALIBRATION AND LOS EVALUATION FOR 2019-2024 TIP

The purpose of this memo is to summarize the methods, assumptions, and results of the 2018 Lynnwood travel demand model update, and to use the results of the travel demand model update to identify recommended projects and prioritization for the 2019-2024 Transportation Improvement Program (TIP).

Existing Conditions

Travel Demand Model Recalibration

The Lynnwood 2018 travel demand model represents the most current planning-level traffic forecasting tool for the City of Lynnwood. The 2018 model accounts for the latest residential and employment inventories, development forecasts, transportation facility inventories, and planned transportation improvement projects in the City of Lynnwood.

The Lynnwood model was most recently updated in 2013 and calibrated to a 2013 PM peak hour condition. The 2018 model was refined and calibrated to a 2018 PM peak hour condition to reflect traffic counts collected in February 2018. The calibrated 2018 model was then used as a base on which to update the Lynnwood concurrency (2024) forecasting model.

The calibrated model produced by this effort will replace the current Lynnwood travel demand model, which is used by TSI through a contract with the City to evaluate the transportation impacts of new development applications for the purposes of transportation concurrency review and capacity reservation.

The 2018 travel demand model was calibrated to capture a snapshot in time representing the weekday PM peak hour of travel in the Lynnwood area in 2018. PTV Visum software (version 15.00-18) was used for the model update.

The 2018 model was updated in three key areas:

- Land use inventory
- Transportation network inventory
- Modeling procedures and parameters

Land Use Inventory

Lynnwood staff developed a list of developments which had been permitted between 2014 and 2018. Developments which were completed between 2014 and 2018 were added to the 2014 modeled land use to calculate the 2018 modeled land use.

Transportation Network Inventory

The modeled street network was updated to reflect current street geometry, lane channelization, and intersection control in the City of Lynnwood and surrounding area. Street network characteristics were verified through satellite photography and discussion with City staff.

Thirteen recently-completed transportation capacity improvement projects were identified by City staff and applied to the updated model. These projects, summarized in **Table 1**, were completed after the 2014 model update but before the 2018 traffic counts were collected.

Table 4. Recently Completed Transportation Improvement Projects

Location	Project Description
68 th Ave W & 204 th St SW	New roundabout
204 th St SW & SR 99	New traffic signal
176 th St SW & Olympic View Dr	New traffic signal
Alderwood Mall Blvd & 40 th Ave W	New traffic signal
33 rd Ave W extension & 184 th St SW	New traffic signal
32 nd Pl SW & 33 rd Ave W	New traffic signal
South Costco Dr & 33 rd Ave W extension	New traffic signal
208 th St SW & 68 th Ave W	Removed signal
204 th St SW (68 th Ave W to SR 99)	Extension & improvements
33 rd Ave W (184 th St SW to AMP)	New street
52 nd Ave W & 212 th St SW	Reduce north leg from 2 lanes to 1
171 st St SW (36 th Ave W to 33 rd Pl W)	New connection
179 th St SW (33 rd Pl W to Maple Rd)	New connection

Model Procedures and Parameters

Network Architecture

The travel demand model street network architecture was updated based on a link/node architecture which TSI has applied successfully to numerous other planning models throughout the region, including the current WSDOT SR 16 Tacoma Narrows to Bremerton Corridor Congestion Study.

Modeled link, node, and turn capacities are identified in **Tables 2, 3, and 4**. These represent a planning-level network capacity framework for the purposes of travel demand modeling, and do not apply to the more detailed intersection LOS analysis presented later in this document.

Table 2. Link Types and Attributes

Link Type	Description	# of Lanes (per direction)	Capacity (veh per hour)	Speed (mph)
2	Freeway (60mph, 2ln per dir)	2	3600	60
3	Freeway (60mph, 3ln per dir)	3	5400	60
4	Freeway (60mph, 4ln per dir)	4	7200	60
5	Freeway (60mph, 5ln per dir)	5	9000	60
11	Ramps (45mph, 1ln per dir)	1	1500	45
12	Ramps (45mph, 2ln per dir)	2	3000	45
14	Ramps (35mph, 1ln per dir)	1	1200	35
15	Ramps (35mph, 2ln per dir)	2	2400	35
17	Ramps (25mph, 1ln per dir)	1	1200	25
22	Non-freeway (55mph, 2ln)	1	1600	55
26	Freeway (55mph, 2ln per dir)	2	3600	55
27	Freeway (55mph, 3ln per dir)	3	5400	55
28	Freeway (55mph, 4ln per dir)	4	7200	55
32	Non-freeway (50mph, 2ln)	1	1600	50
33	Non-freeway (50mph, 3ln)	1	1700	50
42	Non-freeway (45mph, 2ln)	1	1350	45
43	Non-freeway (45mph, 3ln)	1	1500	45
44	Non-freeway (45mph, 4ln)	2	2700	45
45	Non-freeway (45mph, 5ln)	2	3000	45
47	Non-freeway (45mph, 7ln w BAT)	3	3200	45
52	Non-freeway (40mph, 2ln)	1	900	40
53	Non-freeway (40mph, 3ln)	1	1100	40
54	Non-freeway (40mph, 4ln)	2	1650	40
55	Non-freeway (40mph, 5ln)	2	2200	40
57	Non-freeway (40mph, 7ln)	3	4500	40
62	Non-freeway (35mph, 2ln)	1	900	35
63	Non-freeway (35mph, 3ln)	1	1100	35
64	Non-freeway (35mph, 4ln)	2	1650	35
65	Non-freeway (35mph, 5ln)	2	2200	35
72	Non-freeway (30mph, 2ln)	1	900	30
73	Non-freeway (30mph, 3ln)	1	1100	30
74	Non-freeway (30mph, 4ln)	2	1400	30
75	Non-freeway (30mph, 5ln)	2	2000	30
82	Non-freeway (25mph, 2ln)	1	550	25
83	Non-freeway (25mph, 3ln)	1	825	25
84	Non-freeway (25mph, 4ln)	2	900	25
85	Non-freeway (25mph, 5ln)	2	1300	25
92	Non-freeway (20mph, 2ln)	1	600	20
93	Non-freeway (20mph, 3ln)	1	900	20
94	Non-freeway (15mph, 2ln)	1	500	15

Table 3. Node Types and Attributes

Node Type	Description
1	Shape node (no delay)
5	Minor-approach-only stop control ¹ (uses node delay)
10	All-way stop control (AWSC)
20	Roundabout, single-lane
25	Roundabout, dual-lane
31	Signal, 3 approaches, single LT all, single RT minor
32	Signal, 3 approaches, single LT all, dual RT minor
41	Signal, 4 approaches, single LT all, 1x1 unbalanced volumes
42	Signal, 4 approaches, single LT all, 1x1 balanced volumes
43	Signal, 4 approaches, single LT all, 2x1 unbalanced volumes
45	Signal, 4 approaches, single LT all, 2x2 unbalanced volumes
46	Signal, 4 approaches, single LT all, 2x2 balanced volumes
53	Signal, 3 approaches, dual LT on major only
54	Signal, 4 approaches, dual LT on major only
61	Signal, 3 approaches, dual LT on minor only, single RT minor
62	Signal, 3 approaches, dual LT on minor only, dual RT minor
73	Signal, 3 approaches, dual LT on all approaches
74	Signal, 4 approaches, dual LT on all approaches

¹Minor approach stop control includes intersections having at least one approach (typically the lower-volume minor road) under the control of a stop sign and at least one approach not controlled by a stop sign.

Table 4. Turn Capacities and Initial Delays

Node Type	Turn Capacities (vehicles per hour)						Initial Turn Delay (seconds)					
	Major Approach			Minor Approach			Major Approach			Minor Approach		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	99999	99999	99999	99999	99999	99999	0	0	0	0	0	0
5 ¹	99999	99999	99999	99999	99999	99999	0	0	0	10	10	5
10	250	450	250	250	450	250	15	15	15	15	15	15
20	800	800	800	800	800	800	5	5	5	5	5	5
25	1200	1200	1200	1200	1200	1200	5	5	5	5	5	5
31	350	2000	750	450	1000	750	12	5	8	12	5	8
32	350	2800	750	450	1000	1200	12	5	8	12	5	8
41	300	1500	450	230	380	380	12	5	8	12	5	8
42	250	800	450	230	600	380	12	5	8	12	5	8
43	500	2800	750	380	630	630	12	5	8	12	5	8
45	400	2800	1050	300	880	880	12	5	8	12	5	8
46	300	1200	500	250	1000	500	12	5	8	12	5	8
53	550	2000	750	450	1000	750	12	5	8	12	5	8
54	700	1500	500	300	1000	500	12	5	8	12	5	8
61	350	2000	750	700	1000	750	12	5	8	12	5	8
62	350	2000	750	700	1000	1200	12	5	8	12	5	8
73	550	2000	750	700	1000	750	12	5	8	12	5	8
74	550	1500	500	550	1000	500	12	5	8	12	5	8

¹ Turn delays for minor-approach-only stop control nodes are calculated in two steps. First, node delay is calculated by applying a volume-delay function to the volume-capacity ratio of the node. Second, turn delay is calculated as the sum of node delay and turn-specific delay (calculated with a turn-specific volume-delay function). Minor-approach-only stop control node delay only applies to turns from a stop-controlled approach. This approach allows node capacity and, by extension, link capacity to constrain minor-approach-only stop control turn capacity.

Trip Generation Rates

Base PM peak hour trip generation rates were based on the 2013 Lynnwood travel demand model and calibrated based on 2018 turning movement count data. Trips were divided into five purposes: **work-to-home** (WH), **work-to-other** (WO), **home-to-other** (HO), **other-to-home** (OH), and **non-home based** (NHB) trips. Trip rates were also defined according to trip origins (O) and destinations (D). Calibrated trip generation rates are identified in **Table 5**.

Table 5. PM Peak Hour Trip Generation Rates

Land Use Category	Units	WH-O	WH-D	HO-O	HO-D	OH-O	OH-D	WO-O	WO-D	NHB-O	NHB-D	Total
Single-Family (SFDU)	DU	0.000	0.000	0.000	0.139	0.310	0.000	0.000	0.410	0.000	0.000	0.949
Multi-Family (MFDU)	DU	0.000	0.000	0.000	0.080	0.180	0.000	0.000	0.240	0.000	0.000	0.550
Retail (RETAIL)	EMP	0.000	0.000	0.060	0.000	0.000	0.280	0.350	0.000	0.000	0.060	1.810
Financial, Insurance, Real Estate, and Services (FIRES)	EMP	0.000	0.000	0.140	0.000	0.000	0.080	0.140	0.000	0.100	0.020	0.550
Government (GOV)	EMP	0.000	0.000	0.160	0.000	0.000	0.070	0.120	0.000	0.100	0.020	0.530
Education (EDU)	EMP	0.000	0.000	0.160	0.000	0.000	0.010	0.010	0.000	0.100	0.000	0.300
Wholesale Trade, Transportation, and Utilities (WTU)	EMP	0.000	0.000	0.090	0.000	0.000	0.010	0.010	0.000	0.100	0.000	0.230
Manufacturing (MAN)	EMP	0.000	0.000	0.090	0.000	0.000	0.010	0.010	0.000	0.100	0.000	0.230
Entertainment (ENTERT)	EMP	0.000	0.000	0.080	0.000	0.000	0.070	0.060	0.000	0.000	0.020	0.330
Shopping Mall (MALL)	EMP	0.000	0.000	0.030	0.000	0.000	0.250	0.300	0.000	0.000	0.040	0.810
College (COLLEGE)	Stud.	0.000	0.000	0.000	0.000	0.000	0.005	0.021	0.000	0.000	0.000	0.038
Hotel (HOTEL)	Rooms	0.000	0.000	0.040	0.040	0.010	0.010	0.010	0.040	0.000	0.000	0.650
Park & Ride (PR)	Spaces	0.000	0.000	0.000	0.000	0.000	0.020	0.300	0.000	0.000	0.000	0.420

Trip Distribution

Trips were distributed between TAZs using a gravity model, which is based on the principle that the attraction between two bodies is directly proportional to the bodies' masses and inversely proportional to the distance between the bodies. For the purposes of travel demand modeling, a TAZ's "mass" is represented by the number of trips generated by (produced by or attracted to) the TAZ, while the distance factor is represented by route travel time.

The gravity model calculates the attraction between any two TAZs using the following utility function:

$$f(U) = \frac{1}{U^b + c \cdot U^a}$$

In the utility function, U is defined as travel time between zones. The parameters a, b, and c are calibration factors which influence the weight of travel time in the gravity model. The gravity parameters used in the 2017 model are shown in **Table 6** and are based on values used by TSI in other models in the Puget Sound region, per guidance from *NCHRP Report 716* (TRB 2012).

Table 6. Trip Distribution Gravity Model Parameters

Trip Purpose	Model Parameter		
	a	b	c
Work-Home (WH)	-0.4	2.45	5.00
Work-Other (WO)	-0.4	2.45	5.00
Home-Other (HO)	-0.4	3.10	5.00
Other-Home (OH)	-0.4	3.10	5.00
Non-Home Based (NHB)	-0.4	3.05	5.00

Traffic Assignment

Trips were assigned to the roadway network using an equilibrium assignment process which allocates vehicle trips between origins and destinations along the route with the least impedance, where impedance is calculated as a weighted average of travel time and distance. The assignment routine updates network impedance iteratively to reflect network congestion, re-assigning traffic until an equilibrium solution is found – i.e. until no vehicle can decrease its travel time by shifting to a new path.

Network impedance settings and volume-delay functions (VDFs) for links, nodes, and turns were modeled consistent with other citywide and regional planning models throughout Western Washington.

Traffic Counts

Traffic counts were collected at 135 intersections and 15 segments throughout the City in February 2018.

Intersection turning movement counts were collected on weekdays from 4:00 – 6:00 PM to capture the PM peak period of travel. The Lynnwood travel demand model and intersection LOS models are calibrated to the PM peak hour of travel, defined as the highest four consecutive fifteen-minute volume intervals during the PM peak period. PM peak hour represents the one-hour period when traffic volumes are typically at their peak, and generally corresponds to the period of rush hour traffic with commuters returning home from work.

Segment Average Daily Traffic (ADT) counts were collected at 15 locations on weekdays over a 24-hour period. Segments counts were used to estimate daily peaking (K-factor) throughout Lynnwood.

A citywide traffic count map was developed by combining 24-hour ADT counts with PM peak hour intersection turning movement counts. ADT counts were extrapolated from PM peak hour counts by applying K-factors observed at nearby ADT count locations. The resulting ADT map is attached. Raw count data is available by request.

Model Validation

Travel demand model calibration consists of adjusting model procedures and formulas to allow the model to best represent local travel behavior for a known condition. This may involve adjusting trip generation rates, trip distribution gravity model parameters, and other more detailed model parameters including network volume-delay functions and model procedure settings.

Travel demand model validation consists of comparing the model's traffic assignment output to actual traffic counts, and possibly other available survey data, to establish correlation between the base-year model and base-year survey data.

A well-calibrated model, when populated with land use and street network data that existed at the time traffic counts were collected, will generate traffic volumes that closely correlate with traffic counts.

Calibration errors should be minimal and evenly distributed to consider a model “validated” and therefore suitable for use in concurrency tests, planning, and design studies.

The 2018 model was calibrated according to best practices identified in *National Cooperative Highway Research Program Report 765: Analytical Travel Forecasting Approaches for Project-Level Planning and Design* (TRB 2014) and *Travel Model Validation and Reasonableness Checking Manual Second Edition* (FHWA 2010).

Intersection turning movement counts were aggregated to obtain 913 link volume counts. Link counts were used for reference points during the model calibration. The 2018 model traffic volumes were checked against the 2018 PM peak hour link volume counts and the model was calibrated to improve the correlation between the modeled and observed traffic volumes.

The most common statistical measures of travel demand model accuracy are the coefficient of determination (R^2) and the percent root-mean square error (%RMSE) statistics. The R^2 statistic can be interpreted as a “goodness of fit” statistic and measures the strength of the linear relationship between the calculated model volumes and observed (counted) traffic volumes. Percent RMSE measures the average error between the modeled and observed traffic volumes and can be calculated using the following formula:

$$\%RMSE = 100 \times \sqrt{\frac{\sum(\text{Assignment Errors})^2}{\text{Number of Links} \times \text{Average Count}}}$$

R and %RMSE measure the overall degree to which modeled volumes correspond to observed count data. Perfection would be 100 percent correlation of modeled volumes to counts ($R^2 = 1.00$, %RMSE = 0). R^2 values above 0.88 are desirable, per *Model Validation and Reasonableness Checking Manual* (FHWA 1997).

There are no national standards for R^2 or %RMSE. However, the Federal Highway Administration (FHWA) provides guidelines for model calibration. **Table 7** shows that the 2018 model calibration meets the recommended values of the FHWA guidelines. The calibrated model has an R^2 statistic of 0.97, which represents a very close correlation between traffic counts and modeled volumes. A scatterplot showing the observed (counted) and model-assigned PM peak hour link volume is attached.

Table 7. Model Calibration Statistics

Calibration Statistic	FHWA Recommended Value	2017 Model Statistic
R^2	≥ 0.88	0.97
%RMSE	$\leq 35\%$	15%
%In ¹	$\geq 75\%$	96%

¹%In represents the percent of assigned volumes within the NCHRP Report 765 recommended allowable error curves. The maximum value is 100 percent; the higher the value the more accurate the model.

Although the Lynnwood model was well calibrated, there were still some minor differences between the 2018 raw model volumes and the base year 2018 counts. The minor differences were post-processed and assembled into a correction matrix. The correction matrix was incorporated in the total trip table and assigned into the roadway to obtain the post-processed model volumes. The 2018 post-processed model volumes were used as a baseline condition from which to compare future (2024) traffic volume growth for concurrency analysis.

Existing (2018) Level of Service

Level of Service Definition

Level of service (LOS) is a qualitative description of the operating performance of an element of transportation infrastructure such as a roadway or an intersection. LOS is typically expressed as a letter score from LOS A, representing free flow conditions with minimal delays, to LOS F, representing breakdown flow with high delays.

Intersection LOS is based on the average delay experienced by a vehicle traveling through an intersection. Delay at a signalized intersection can be caused by waiting for the signal or waiting for the queue ahead to clear the signal. Delay at roundabouts and stop-controlled intersections is caused by waiting for a gap in traffic or waiting for a queue to clear the intersection or roundabout.

To maintain consistency with Lynnwood Comprehensive Plan policy, delay for signalized and stop-controlled intersections was calculated in Synchro 9 software using Highway Capacity Manual 2010 (HCM2010) methodology. Roundabout delay was calculated in Sidra Intersection 7 software using the HCM6 capacity model and HCM2000 level of service thresholds, per WSDOT Sidra policy guidelines.

Table 8 shows the amount of delay used to determine LOS for signalized and unsignalized intersections. Delay is defined differently for signalized and all-way stop controlled intersections than for two-way stop controlled (i.e. stop control on minor approach) intersections. For signalized and all-way stop controlled intersections, level of service thresholds are based upon average control delay for all vehicles (on all approach legs) entering the intersection. For minor-approach-only stop controlled intersections, delay is reported for the movement with the worst (highest) delay.

Table 8. Intersection Level of Service Thresholds

LOS	Signalized and Roundabout Delay (sec/veh)	Unsignalized Delay (sec/veh)
A	≤10	≤10
B	>10 – 20	>10 – 15
C	>20 – 35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 – 80	>35 – 50
F	>80	>50

Level of Service Policy

Lynnwood Municipal Code (LMC) 12.22.090 defines Level of Service Standards as shown in **Table 9**. State routes within city limits include SR 99 and SR 524 (196th St SW). Per LMC 12.22.090, concurrency failure occurs when 20 percent of signalized intersections citywide operate below their respective LOS standards.

Table 9. Minimum LOS Standards

Facility Type	Minimum LOS Standard
State Highways	LOS E/Mitigated ¹
City Center Arterials	LOS E
Non-City Center Arterials	LOS D
Local Streets	LOS C

¹Congestion should be mitigated (such as transit) when PM peak hour LOS falls below E.

Existing Level of Service Deficiencies

LOS deficiencies currently exist at 7 intersections citywide, as shown in **Table 10**. None of the 67 signalized intersections within city limits are currently deficient.

Table 10. Existing (2018) Level of Service Deficiencies

ID	Location ¹	Control Type ²	Delay ³ (sec/veh)	LOS
35	33 rd Ave W & NW mall access	TWSC	43.5	E
44	212 th St SW & 66 th Ave W	AWSC	44.1	E
63	52nd Ave W & 208 th St SW	TWSC	70.7	F
197	176 th St SW & 52 nd Ave W	TWSC	35.2	E
408	SR 99 & 186 th St SW	TWSC	65.1	F
891	Maple Rd & Ash Way	TWSC	326.	F
944	AMB & 28 th Ave W	TWSC	50.8	F

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

²TWSC = minor approach stop controlled; AWSC = all-way stop control; Signal = signalized

³For TWSC intersections, delay is reported for the worst (i.e. highest-delay) movement; for all other control types, average intersection delay is reported.

Future (2024) Baseline Conditions

Land Development

Lynnwood staff developed a list of pipeline developments which had been permitted between 2014 and 2018. Developments which had been approved but not completed as of February 2018 were added to the 2018 modeled land use to calculate the 2024 baseline land use.

Baseline land use included expansion of the Lynnwood Transit Center to include 500 new park & ride spaces, consistent with the Lynnwood Link Extension.

Transportation Improvement Projects

The Baseline forecast included three transportation improvement projects which are most likely to be constructed by 2024, per City staff. See **Table 11**.

The baseline forecast also assumed completion of the Lynnwood Link Extension, including park and ride expansion and associated travel demand pattern shifts at the Lynnwood Link Station. Trip generation growth at the Transit Center was modeled consistent with Sound Transit trip generation forecasts.

Table 11. Baseline Transportation Improvement Projects

Location	Project Description
36 th Ave W (Maple Rd to 164 th St SW)	Realign & signalize 179 th St intersection; New roundabout at 172 nd St SW
Maple Road (AMP to 32 nd Ave W)	Complete connection
Beech Road & AMP	Realign Beech Rd to intersect AMP at Sears DW
Lynnwood Transit Center	North Link LRT Extension (Park & Ride expansion)

Baseline Level of Service Deficiencies

By 2024, eight intersections will operate with LOS deficiencies. See **Table 12**.

Table 12. Baseline (2024) Level of Service Deficiencies

ID	Location ¹	Control Type ²	Delay ³ (sec/veh)	LOS
35	33 rd Ave W & NW mall access	TWSC	43.9	E
44	212 th St SW & 66 th Ave W	AWSC	40.7	E
63	52 nd Ave W & 208 th St SW	TWSC	79.7	F
114	52 nd Ave W & 204 th St SW	TWSC	36.2	E
197	176 th St SW & 52 nd Ave W	TWSC	35.4	E
408	SR 99 & 186 th St SW	TWSC	448	F
891	Maple Rd & Ash Way	TWSC	663	F
944	AMB & 28 th Ave W	TWSC	51.9	F

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

²TWSC = minor approach stop controlled; AWSC = all-way stop control; Signal = signalized

³For TWSC intersections, delay is reported for the worst (i.e. highest-delay) movement; for all other control types, average intersection delay is reported.

Transportation Improvement Project Recommendations

Segment Improvement Projects

TSI worked with City staff to identify 9 preliminary 2024 transportation improvement scenarios, as summarized in **Table 13**. Improvement scenarios were designed to quantify the relative benefits of segment capacity improvement projects identified in the 2018-2023 Transportation Improvement Program.

Table 13. Lynnwood 2024 Model Scenarios

Alternative	2018-2023 TIP #	Project Title	From/To	Description
A	D	Poplar Ext. Bridge Phase I&II	196 th St SW to AMB	New bridge
B	41	52 nd Ave W	168 th St SW / 176 th St SW	3-lane section
C	92	Beech Rd Ext.	AMP to Ash Way Underpass	Phase 2: connect & signalize Ash Way
D	69	200 th St SW (W)	64 th Ave W / Scriber Lk Rd	5 lane section
E	68	196 th St SW (SR-524)	37 th Ave W / 48 th Ave W	7-lane section w/BAT; U-turns at 37 th , 40 th , 44 th , 48 th
F	2	42 nd Ave W	200 th St SW / 194 th St SW	New 2/3 lane section
G	71	194 th St SW	33 rd Ave W / 40 th Ave W	New 2/3 lane section
H	76	200 th St SW (E)	40 th Ave W / 48 th Ave W	7 lane section
I	112	46 th Ave W	200 th St SW / 196 th St SW	New 2/3 lane section

Transportation Improvement Project Prioritization

Transportation improvement projects were modeled and evaluated based three Measures of Effectiveness (MOEs): delay, travel speed, and Vehicle-Miles Traveled (VMT). Each MOE was evaluated relative to the Baseline (2024) condition and measured citywide to provide a baseline for comparison. Projects were ranked based on their relative benefit to each of the 3 MOEs, as shown in **Table 14**.

Because the MOEs summarized in **Table 14** were evaluated at a citywide level, their values (with the exception of the Poplar Way bridge) are less than one percent. A comparison at the subarea or corridor level would likely show more significant benefits but would be less suited to a system-wide, planning level analysis.

Table 14. 2024 Improvement Project Relative Benefits (Citywide)

Alternative	Delay Reduction		Travel Speed Increase		VMT Reduction		Aggregate Rank	Relative Rank
	Percent	Rank	Percent	Rank	Percent	Rank		
Baseline	-	-	-	-	-	-	-	-
A: Poplar Ext. Bridge	2.04%	1	0.19%	2	1.05%	1	1.33	1
B: 52 nd Ave W	0.25%	7	0.14%	3	-0.14%	8	6.00	7
C: Beech Rd Ext.	0.05%	8	0.03%	8	-0.01%	7	7.67	9
D: 200 th St SW (W)	0.29%	6	0.03%	7	0.02%	5	6.00	8
E: 196 th St SW	0.93%	2	0.24%	1	-0.47%	9	4.00	2
F: 42 nd Ave W	-0.05%	9	0.06%	5	0.16%	3	5.67	5
G: 194 th St SW	0.48%	3	-0.02%	9	0.29%	2	4.67	4
H: 200 th St SW (E)	0.31%	5	0.05%	6	0.00%	6	5.67	6
I: 46 th Ave W	0.46%	4	0.14%	4	0.11%	4	4.00	3

The Poplar Way bridge is the highest priority improvement project, with delay and VMT reductions of over 3 times the next most beneficial projects. By providing a new I-5 overcrossing and completing the north-

south Poplar Way/33rd Avenue W route, the Poplar Way bridge will reduce delay and VMT on alternate and more indirect north-south routes.

The 196th Street SW widening project will improve mobility and transit service along the key City Center arterial corridor and is identified as the second-highest priority improvement project. The corridor widening and full median with access control will require right-in right-out driveway accesses with U-turns at signalized intersections along the corridor, resulting in a slight increase in overall VMT. However, an emphasis on mobility over access is consistent with the 196th Street SW corridor's role as a principal arterial and state highway.

City Center grid completion projects, including new segments of 194th Street SW, 42nd Avenue W and 46th Avenue W, will provide mobility benefits while also improving land access in the City Center subarea.

The Beech Road extension will provide relatively limited mobility benefits in the 2024 planning horizon but will improve access to commercial parcels along the east side of Alderwood Mall Parkway.

The result of the prioritization evaluation is a ranked transportation improvement project list as shown in **Table 15**.

Table 15. Ranked Segment Capacity Improvement Projects

Relative Rank	2018-2023 TIP #	Project Title	From/To	Description
1	D	Poplar Ext. Bridge Phase I&II	196 th St SW to AMB	New bridge
2	68	196th St SW (SR-524)	37th Ave W / 48th Ave W	7-lane section w/BAT; U-turns at 37th, 40th, 44th, 48th
3	112	46th Ave W	200th St SW / 196th St SW	New 2/3 lane section
4	71	194th St SW	33rd Ave W / 40th Ave W	New 2/3 lane section
5	2	42nd Ave W	200th St SW / 194th St SW	New 2/3 lane section
6	76	200th St SW (E)	40th Ave W / 48th Ave W	7 lane section
7	41	52 nd Ave W	168 th St SW / 176 th St SW	3-lane section
8	69	200th St SW (W)	64th Ave W / Scriber Lk Rd	5 lane section
9	92	Beech Rd Ext.	AMP to Ash Way Underpass	Phase 2: connect & signalize Ash Way

Intersection Improvement Projects

Intersection capacity improvement projects were identified for intersections within city limits which will operate with LOS deficiencies by 2024. Recommended intersection capacity improvement projects are summarized in **Table 16**. Two LOS-deficient stop-controlled intersections with low-volume local access minor approaches are recommended to be tolerated through 2024 but monitored for potential future improvements. A complete summary of 2024 intersection LOS is attached.

Table 16. Recommended (2024) Level of Service Improvements

ID	Location ¹	Deficiency Year	Baseline			Recommended Improvement	Recommended		
			Control Type ²	Delay ³ (sec/veh)	LOS		Control Type ²	Delay ³ (sec/veh)	LOS
35	33 rd Ave W & N mall access	2018	TWSC	43.9	E	Tolerate ⁴	TWSC	66.2	F
44	212 th St SW & 66 th Ave W	2018	AWSC	40.7	E	Traffic signal (TIP #15)	Signal	9.7	A
63	52nd Ave W & 208 th St	2018	TWSC	79.5	F	New RAB/signal (add to TIP)	RAB	6.0	A
114	52 nd Ave W & 204 th St SW	2024	TWSC	36.2	E	New RAB/signal (add to TIP)	RAB	6.3	A
197	176 th St SW & 52 nd Ave W	2024	TWSC	35.4	E	New RAB/signal (TIP #52)	RAB	7.4	A
408	SR 99 & 186 th St SW	2018	TWSC	448	F	Tolerate ⁴	TWSC	538	F
891	Maple Rd & Ash Way	2018	TWSC	663	F	Beech Rd ext. (TIP #92)	Signal	14.1	B
944	AMB & 28 th Ave W	2018	TWSC	51.9	F	Traffic signal (TIP #59)	Signal	4.8	A

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

²TWSC = minor approach stop-controlled; AWSC = all-way stop control; Signal = signalized

³For TWSC intersections, delay is reported for the worst (i.e. highest-delay) movement; for all other control types, average intersection delay is reported.

⁴Tolerate LOS deficiency on low-volume minor approach

Total control delay before and after each recommended intersection improvement project are summarized in **Table 17**. Intersection improvement projects are ranked by control delay improvement.

Table 17. Ranked Intersection Capacity Improvement Projects

ID	Location ¹	Deficiency Year	Baseline Delay (min)	Recommended Improvement	Recommended Delay (min)	Delay Reduction (min)	Rank
44	212 th St SW & 66 th Ave W	2018	1,022	Traffic signal (TIP #15)	270	751	2
63	52nd Ave W & 208 th St	2018	224	New RAB/signal (add to TIP)	111	113	3
114	52 nd Ave W & 204 th St SW	2024	137	New RAB/signal (add to TIP)	108	29	5
197	176 th St SW & 52 nd Ave W	2024	154	New RAB/signal (TIP #52)	213	0	6
891	Maple Rd & Ash Way	2018	2,613	Beech Rd ext. (TIP #92)	443	2,170	1
944	AMB & 28 th Ave W	2018	131	Traffic signal (TIP #59)	102	28	4

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

Recommended 2019-2024 Transportation Improvement Program Projects

A combined list of segment and intersection capacity-related transportation improvement project recommendations for the 2019-2024 Transportation Improvement Program are shown in **Table 18**.

Table 18. Recommended Capacity-Related 2019-2024 Transportation Improvement Program Projects

Relative Rank ¹	2018-2023 TIP #	Project Title	From/To	Description
S-1	D	Poplar Ext. Bridge Phase I&II	196 th St SW to AMB	New bridge
S-2	68	196 th St SW (SR-524)	37 th Ave W / 48 th Ave W	7-lane section w/BAT; U-turns at 37 th , 40 th , 44 th , 48 th
S-3	112	46 th Ave W	200 th St SW / 196 th St SW	New 2/3 lane section
S-4	71	194 th St SW	33 rd Ave W / 40 th Ave W	New 2/3 lane section
S-5	2	42 nd Ave W	200 th St SW / 194 th St SW	New 2/3 lane section
S-6	76	200 th St SW (E)	40 th Ave W / 48 th Ave W	7 lane section
S-7	41	52 nd Ave W	168 th St SW / 176 th St SW	3-lane section
S-8	69	200 th St SW (W)	64 th Ave W / Scriber Lk Rd	5 lane section
S-9	92	Beech Rd Ext.	AMP to Ash Way Underpass	Phase 2: connect & signalize Ash Way
I-1	15	212 th St SW & 66 th Ave W intersection impr.		Traffic signal
I-2	-	52 nd Ave W & 208 th St SW intersection impr.		Roundabout or traffic signal
I-3	59	AMB & 28 th Ave W intersection impr.		Traffic signal
I-4	-	52 nd Ave W & 204 th St SW intersection impr.		Roundabout or traffic signal
I-5	52	176 th St SW & 52 nd Ave W intersection impr.		Roundabout or traffic signal

¹S = segment capacity improvement project; I = intersection capacity improvement project

Attachment A. Citywide Average Daily Traffic (ADT) Map

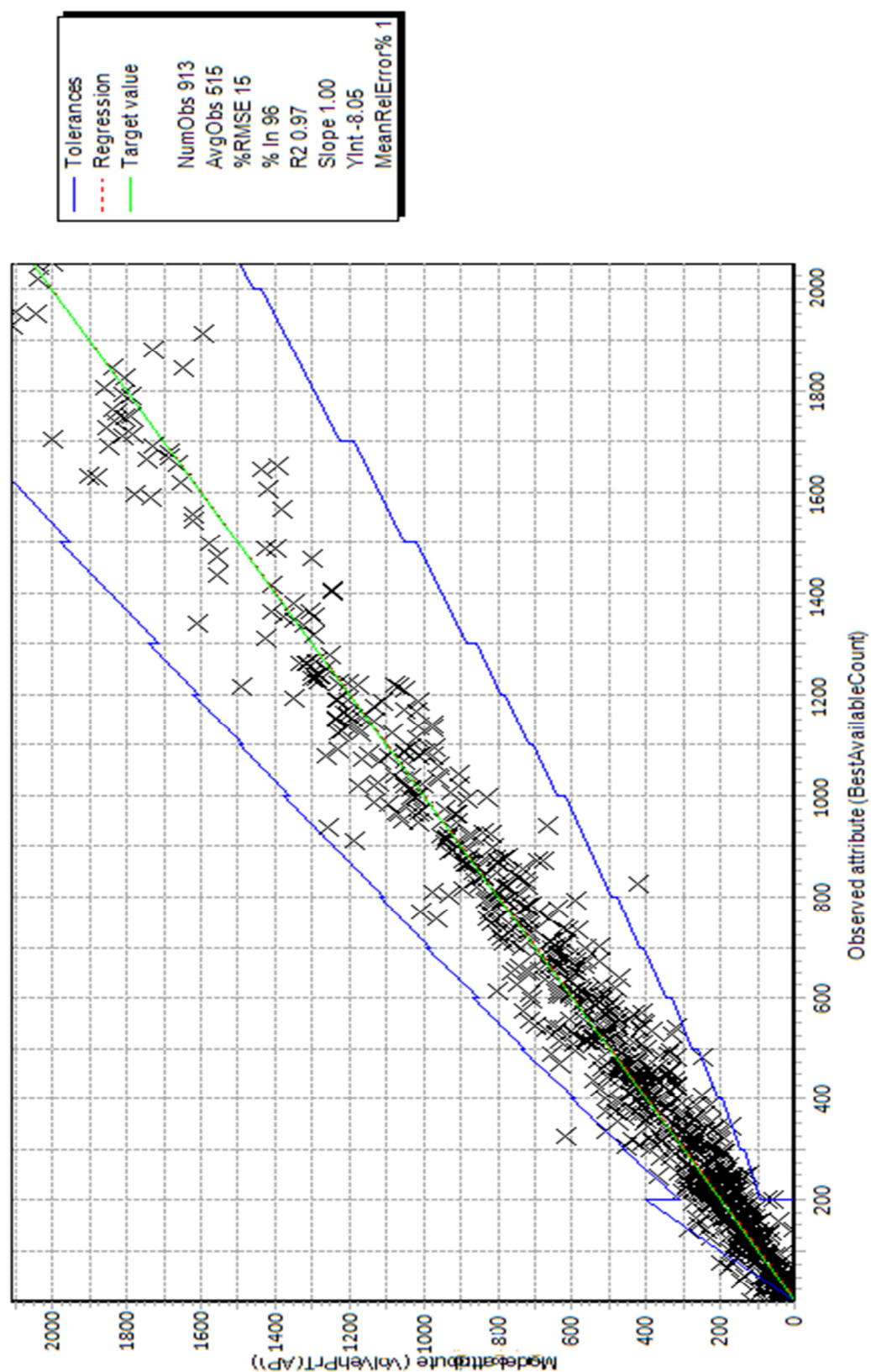
Attachment B. Travel Demand Model Calibration Statistics

Attachment C. Existing (2018) Intersection LOS Summary

Attachment D. Baseline (2024) Intersection LOS Summary

Attachment E. Recommended (2024) Intersection LOS Summary

Assignment Analysis, Lynnwood 2018 PM



Lynnwood 2018 LOS

ID	Location	In City	Facility Type	LOS Std	Existing (2018)			
					Control Type	Delay	LOS	Pass/Fail
1	196th St SW & Poplar Way	1	State	E	Signal	5.5	A	PASS
2	196th St SW & I-5 SB off-ramp	1	State	E	N/A		A	PASS
3	196th St SW & 36th Ave W	1	City Center	E	Signal	18.6	C	PASS
4	196th St SW & 44th Ave W	1	City Center	E	Signal	47.8	D	PASS
5	200th St SW & 44th Ave W	1	City Center	E	Signal	41.1	D	PASS
6	204th St SW & 44th Ave W	1	Arterial	D	Signal	3.1	A	PASS
7	44th Ave W & I-5 NB off-ramp	1	State	E	Signal	23.0	C	PASS
8	196th St SW & 48th Ave W	1	City Center	E	Signal	26.1	C	PASS
9	196th St SW & 58th Ave W	1	State	E	Signal	36.8	D	PASS
10	196th St SW & 64th Ave W	1	State	E	Signal	16.3	B	PASS
11	196th St SW & 68th Ave W	1	State	E	Signal	20.2	C	PASS
12	196th St SW & 76th Ave W	1	State	E	Signal	27.5	C	PASS
13	SR 99 & 168th St SW	1	State	E	Signal	37.0	D	PASS
14	SR 99 & 176th St SW	1	State	E	Signal	39.4	D	PASS
15	SR 99 & 188th St SW	1	State	E	Signal	38.3	D	PASS
16	SR 99 & 196th St SW	1	State	E	Signal	40.9	D	PASS
17	SR 99 & 200th St SW	1	State	E	Signal	35.3	D	PASS
18	SR 99 & 208th St SW	1	State	E	Signal	23.9	C	PASS
19	SR 99 & 212th St SW	1	State	E	Signal	27.3	C	PASS
23	SR 99 & 216th St SW	1	State	E	Signal	24.8	C	PASS
24	36th Ave W & 195th St SW	1	City Center	E	Signal	7.8	A	PASS
25	44th Ave W & 176th St SW	1	Arterial	D	Signal	24.0	C	PASS
26	SR 99 & 174th Pl SW	1	State	E	Signal	11.2	B	PASS
27	188th St SW & 52nd Ave W	1	Arterial	D	Signal	17.4	B	PASS
28	200th St SW & 68th Ave W	1	Arterial	D	Signal	18.7	B	PASS
29	196th St SW & 40th Ave W	1	City Center	E	Signal	26.7	C	PASS
30	194th St SW & 44th Ave W	1	City Center	E	Signal	16.1	B	PASS
31	196th St SW & AMP	1	State	E	Signal	38.4	D	PASS
32	196th St SW & 24th Ave W	1	State	E	Signal	10.9	B	PASS
33	200th St SW & 60th Ave W	1	Arterial	D	Signal	28.5	C	PASS
34	SR 99 & 180th St SW	1	State	E	TWSC	31.9	C	PASS
35	33rd Ave W & NW mall access	1	Arterial	D	TWSC	43.5	E	FAIL
41	200th St SW & 50th Ave W	1	Arterial	D	Signal	33.3	D	PASS
42	200th St SW & 48th Ave W	1	City Center	E	Signal	25.7	C	PASS
43	196th St SW & 52nd Ave W	1	State	E	Signal	11.3	B	PASS
44	212th St SW & 66th Ave W	1	Arterial	D	AWSC	44.1	D	PASS
45	33rd Ave W & W mall access	1	Arterial	D	TWSC	20.9	C	PASS
46	44th Ave W & 208th St SW	1	Arterial	D	Signal	6.1	A	PASS
48	204th St SW & 56th Ave W	1	Arterial	D	TWSC	10.8	B	PASS
49	168th St SW & 62nd Ave W	1	Arterial	D	Signal	14.3	B	PASS
50	168th St SW & 52nd Ave W	1	Arterial	D	Signal	24.0	C	PASS
51	168th St SW & 48th Ave W	1	Arterial	D	Signal	8.4	A	PASS
52	168th St SW & 44th Ave W	1	Arterial	D	Signal	37.1	D	PASS
53	188th St SW & 33rd Ave W	1	Arterial	D	Signal	24.0	C	PASS
54	188th St SW & 36th Ave W	1	Arterial	D	Signal	25.1	C	PASS
56	188th St SW & 44th Ave W	1	Arterial	D	Signal	32.2	C	PASS

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Lynnwood 2018 LOS

ID	Location	In City	Facility Type	LOS Std	Existing (2018)			
					Control Type	Delay	LOS	Pass/Fail
57	184th St SW & 36th Ave W	1	Arterial	D	Signal	20.3	C	PASS
58	184th St SW & 33rd Ave W	1	Arterial	D	Signal	40.1	D	PASS
59	184th St SW & Nordstrom access	1	Arterial	D	Signal	23.4	C	PASS
60	AMP & 184th St	1	Arterial	D	Signal	45.8	D	PASS
61	212th St SW & 44th Ave W	1	Arterial	D	Signal	20.2	C	PASS
63	52nd Ave W & 208th St SW	1	Arterial	D	TWSC	70.7	E	FAIL
64	52nd Ave W & 212th St SW	1	Arterial	D	Signal	53.5	F	FAIL
65	AMP & Poplar Way	1	Arterial	D	Signal	19.2	B	PASS
66	AMP & 30th Ave W	1	Arterial	D	Signal	3.7	A	PASS
67	AMP & 28th Ave W	1	Arterial	D	Signal	22.6	C	PASS
68	196th St SW & 30th Ave W	1	State	E	Signal	14.5	B	PASS
69	76th Ave W & 208th St SW	1	Arterial	D	Signal	9.7	A	PASS
70	AMP & Alderwood Mall Blvd	1	Arterial	D	Signal	13.4	B	PASS
71	AMP & Sears access	1	Arterial	D	Signal	9.7	A	PASS
72	AMP & Maple Rd	1	Arterial	D	Signal	45.1	D	PASS
73	44th Ave W & Maple Rd	1	Arterial	D	Signal	15.2	B	PASS
74	AMB & 33rd Ave W	1	Arterial	D	Signal	9.2	A	PASS
75	SR 99 & 164th St SW	1	State	E	Signal	14.9	B	PASS
76	188th St SW & 40th Ave W	1	Arterial	D	Signal	11.4	B	PASS
77	AMP & 193rd St SW	1	Arterial	D	Signal	23.8	C	PASS
78	200th St SW & 40th Ave W	1	City Center	E	Signal	15.7	B	PASS
80	48th Ave W & 192nd Pl	1	Arterial	D	AWSC	8.2	A	PASS
81	164th St SW & 36th Ave W	0	Arterial	D	Signal	21.4	C	PASS
82	200th St SW & 46th Ave W	1	City Center	E	Signal	38.2	D	PASS
86	194th St SW & 48th Ave W	1	City Center	E	AWSC	10.6	B	PASS
87	40th Ave W & 198th St SW	1	City Center	E	TWSC	13.9	B	PASS
88	40th Ave W & 194th St SW	1	City Center	E	TWSC	14.1	B	PASS
89	200th St SW & 56th Ave W	1	Arterial	D	TWSC	20.0	C	PASS
91	44th Ave W & 180th St SW	1	Arterial	D	TWSC	20.5	C	PASS
92	AMP & NE mall access	1	Arterial	D	TWSC	12.2	B	PASS
93	44th Ave W & 198th St SW	1	City Center	E	TWSC	14.9	B	PASS
94	188th St SW & 68th Ave W	1	Arterial	D	AWSC	12.4	B	PASS
95	196th St SW & 56th Ave W	1	State	E	TWSC	26.1	D	PASS
98	Olympic View Dr & Blue Ridge Dr	1	Arterial	D	TWSC	21.6	C	PASS
99	208th St SW & 68th Ave W	1	Arterial	D	Signal	52.6	F	FAIL
101	60th Ave W & 188th St SW	1	Arterial	D	AWSC	13.0	B	PASS
102	60th Ave W & 180th St SW	1	Arterial	D	AWSC	8.2	A	PASS
107	60th Ave W & 176th St SW	1	Arterial	D	AWSC	13.1	B	PASS
109	64th Ave W & 180th St SW	1	Arterial	D	AWSC	9.3	A	PASS
110	64th Ave W & 188th St SW	1	Arterial	D	AWSC	19.6	C	PASS
111	64th Ave W & 176th St SW	1	Arterial	D	AWSC	10.7	B	PASS
113	64th Ave W & 200th St SW	1	Arterial	D	AWSC	11.8	B	PASS
114	52nd Ave W & 204th St SW	1	Arterial	D	TWSC	34.4	D	PASS
119	60th Ave W & 204th St SW	1	Arterial	D	AWSC	10.3	B	PASS
120	52nd Ave W & 164th St SW	0	Arterial	D	TWSC	39.0	E	FAIL
122	168th St SW & 56th Ave W	1	Arterial	D	TWSC	30.0	D	PASS

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Lynnwood 2018 LOS

ID	Location	In City	Facility Type	LOS Std	Existing (2018)			
					Control Type	Delay	LOS	Pass/Fail
131	44th Ave W & 172nd St SW	1	Arterial	D	TWSC	21.5	C	PASS
135	36th Ave W & 172nd St SW	1	Arterial	D	AWSC	33.2	D	PASS
136	36th Ave W & Maple Rd	1	Arterial	D	TWSC	14.3	B	PASS
149	40th Ave W & Maple Rd	1	Arterial	D	TWSC	11.0	B	PASS
150	188th St SW & 48th Ave W	1	Arterial	D	AWSC	25.7	D	PASS
154	172nd St SW & Spruce Way	1	Arterial	D	AWSC	9.5	A	PASS
155	196th St SW & 50th Ave W	1	State	E	TWSC	40.8	E	PASS
157	Spruce Way & Maple Rd	1	Arterial	D	AWSC	8.7	A	PASS
158	Spruce Way & 164th St SW	1	Arterial	D	TWSC	14.2	B	PASS
160	184th St SW & 33rd Ave W	1	Arterial	D	Signal	35.1	E	FAIL
165	44th Ave W & I-5 on-ramp	1	State	E	N/A		A	PASS
169	208th St SW & 60th Ave W	1	Arterial	D	AWSC	13.8	B	PASS
171	194th St SW & 46th Ave W	1	City Center	E	TWSC	11.9	B	PASS
197	176th St SW & 52nd Ave W	1	Arterial	D	TWSC	35.2	E	FAIL
198	208th St SW & 56th Ave W	1	Arterial	D	TWSC	11.2	B	PASS
203	208th St SW & 66th Ave W	1	Arterial	D	TWSC	22.5	C	PASS
208	176th St & Olympic View Drive	1	Arterial	D	Signal	11.0	B	PASS
230	SR 99 & 204th St SW	1	State	E	Signal	14.5	B	PASS
292	52nd Ave W & 194th St SW	1	Arterial	D	TWSC	13.1	B	PASS
341	176th St SW & 56th Ave W	1	Arterial	D	TWSC	0.0	A	PASS
358	68th Ave W & 204th St SW	1	Arterial	D	RAB	6.4	A	PASS
378	64th Ave W & 185th St SW	1	Arterial	D	TWSC	13.5	B	PASS
406	60th Ave W & 186th St SW	1	Arterial	D	TWSC	10.2	B	PASS
408	SR 99 & 186th St SW	1	State	E	TWSC	65.1	F	FAIL
480	46th Ave W & Transit Center	1	City Center	E	AWSC	10.6	B	PASS
498	196th St SW & 74th Ave W	1	State	E	TWSC	13.3	B	PASS
500	33rd Ave W & 182nd St SW	1	Arterial	D	Signal	20.6	C	PASS
501	33rd Ave W & Maple Rd	1	Arterial	D	Signal	21.2	C	PASS
510	46th Ave & HOV lanes	1	State	E			A	PASS
517	196th St SW & Red Lobster DW	1	City Center	E	TWSC	14.6	B	PASS
599	SR 99 & 202nd St SW	1	State	E	TWSC	19.3	C	PASS
615	200th St SW & 54th Ave W	1	Arterial	D	TWSC	12.5	B	PASS
858	204th St SW & 54th Ave W	1	Arterial	D	AWSC	7.9	A	PASS
859	208th St SW & 54th Ave W	1	Arterial	D	TWSC	13.1	B	PASS
891	Maple Rd & Ash Way	1	Arterial	D	TWSC	326.0	F	FAIL
894	AMP & 182nd St SW	1	Arterial	D	TWSC	14.5	B	PASS
943	AMB & 29th Ave W	1	Arterial	D	TWSC	19.6	C	PASS
944	AMB & 28th Ave W	1	Arterial	D	TWSC	50.8	F	FAIL
3008	196th St SW & Fred Meyer DW	1	City Center	E	TWSC	15.6	C	PASS
8286	Poplar Way & 204th St SW	0	Arterial	D	Signal	25.6	D	PASS
8337	Poplar Way & Larch Way	0	Arterial	D	Signal	32.6	C	PASS
9145	AMP & SR 525 off-ramp	1	State	E	Signal	20.5	C	PASS
9220	212th St SW & 60th Ave W	1	Arterial	D	TWSC	17.6	B	PASS
9302	AMP & Beech Rd	1	Arterial	D	TWSC	32.0	D	PASS

Lynnwood 2024 Baseline LOS

ID	Location	In City	Facility Type	LOS Std	Baseline (2024)			
					Control Type	Delay	LOS	Pass/Fail
1	196th St SW & Poplar Way	1	State	E	Signal	5.7	A	PASS
2	196th St SW & I-5 SB off-ramp	1	State	E	N/A		A	PASS
3	196th St SW & 36th Ave W	1	City Center	E	Signal	20.8	C	PASS
4	196th St SW & 44th Ave W	1	City Center	E	Signal	52.0	F	PASS
5	200th St SW & 44th Ave W	1	City Center	E	Signal	42.1	E	PASS
6	204th St SW & 44th Ave W	1	Arterial	D	Signal	3.1	A	PASS
7	44th Ave W & I-5 NB off-ramp	1	State	E	Signal	24.2	C	PASS
8	196th St SW & 48th Ave W	1	City Center	E	Signal	26.6	D	PASS
9	196th St SW & 58th Ave W	1	State	E	Signal	38.1	E	PASS
10	196th St SW & 64th Ave W	1	State	E	Signal	16.4	C	PASS
11	196th St SW & 68th Ave W	1	State	E	Signal	20.4	C	PASS
12	196th St SW & 76th Ave W	1	State	E	Signal	26.4	D	PASS
13	SR 99 & 168th St SW	1	State	E	Signal	37.3	E	PASS
14	SR 99 & 176th St SW	1	State	E	Signal	39.6	E	PASS
15	SR 99 & 188th St SW	1	State	E	Signal	38.9	E	PASS
16	SR 99 & 196th St SW	1	State	E	Signal	40.8	E	PASS
17	SR 99 & 200th St SW	1	State	E	Signal	35.6	E	PASS
18	SR 99 & 208th St SW	1	State	E	Signal	24.0	C	PASS
19	SR 99 & 212th St SW	1	State	E	Signal	27.3	D	PASS
23	SR 99 & 216th St SW	1	State	E	Signal	25.4	D	PASS
24	36th Ave W & 195th St SW	1	City Center	E	Signal	8.0	A	PASS
25	44th Ave W & 176th St SW	1	Arterial	D	Signal	24.8	C	PASS
26	SR 99 & 174th Pl SW	1	State	E	Signal	11.3	B	PASS
27	188th St SW & 52nd Ave W	1	Arterial	D	Signal	17.5	C	PASS
28	200th St SW & 68th Ave W	1	Arterial	D	Signal	18.8	C	PASS
29	196th St SW & 40th Ave W	1	City Center	E	Signal	27.5	D	PASS
30	194th St SW & 44th Ave W	1	City Center	E	Signal	16.2	C	PASS
31	196th St SW & AMP	1	State	E	Signal	40.2	E	PASS
32	196th St SW & 24th Ave W	1	State	E	Signal	10.9	B	PASS
33	200th St SW & 60th Ave W	1	Arterial	D	Signal	30.3	D	PASS
34	SR 99 & 180th St SW	1	State	E	TWSC	33.5	D	PASS
35	33rd Ave W & NW mall access	1	Arterial	D	TWSC	43.9	E	PASS
41	200th St SW & 50th Ave W	1	Arterial	D	Signal	33.3	D	PASS
42	200th St SW & 48th Ave W	1	City Center	E	Signal	30.4	D	PASS
43	196th St SW & 52nd Ave W	1	State	E	Signal	11.6	B	PASS
44	212th St SW & 66th Ave W	1	Arterial	D	AWSC	40.7	E	PASS
45	33rd Ave W & W mall access	1	Arterial	D	TWSC	21.2	C	PASS
46	44th Ave W & 208th St SW	1	Arterial	D	Signal	6.4	A	PASS
48	204th St SW & 56th Ave W	1	Arterial	D	TWSC	10.8	B	PASS
49	168th St SW & 62nd Ave W	1	Arterial	D	Signal	14.3	B	PASS
50	168th St SW & 52nd Ave W	1	Arterial	D	Signal	24.3	C	PASS
51	168th St SW & 48th Ave W	1	Arterial	D	Signal	8.4	A	PASS
52	168th St SW & 44th Ave W	1	Arterial	D	Signal	37.3	E	PASS
53	188th St SW & 33rd Ave W	1	Arterial	D	Signal	24.5	C	PASS
54	188th St SW & 36th Ave W	1	Arterial	D	Signal	26.2	D	PASS
56	188th St SW & 44th Ave W	1	Arterial	D	Signal	32.3	D	PASS

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Lynnwood 2024 Baseline LOS

					Baseline (2024)			
ID	Location	In City	Facility Type	LOS Std	Control Type	Delay	LOS	Pass/Fail
57	184th St SW & 36th Ave W	1	Arterial	D	Signal	21.6	C	PASS
58	184th St SW & 33rd Ave W	1	Arterial	D	Signal	40.1	E	PASS
59	184th St SW & Nordstrom access	1	Arterial	D	Signal	23.7	C	PASS
60	AMP & 184th St	1	Arterial	D	Signal	40.7	E	PASS
61	212th St SW & 44th Ave W	1	Arterial	D	Signal	20.7	C	PASS
63	52nd Ave W & 208th St SW	1	Arterial	D	TWSC	79.5	F	PASS
64	52nd Ave W & 212th St SW	1	Arterial	D	Signal	54.2	F	PASS
65	AMP & Poplar Way	1	Arterial	D	Signal	19.6	C	PASS
66	AMP & 30th Ave W	1	Arterial	D	Signal	3.7	A	PASS
67	AMP & 28th Ave W	1	Arterial	D	Signal	22.5	C	PASS
68	196th St SW & 30th Ave W	1	State	E	Signal	14.8	B	PASS
69	76th Ave W & 208th St SW	1	Arterial	D	Signal	6.1	A	PASS
70	AMP & Alderwood Mall Blvd	1	Arterial	D	Signal	13.3	B	PASS
71	AMP & Sears access	1	Arterial	D	Signal	12.5	B	PASS
72	AMP & Maple Rd	1	Arterial	D	Signal	45.5	E	PASS
73	44th Ave W & Maple Rd	1	Arterial	D	Signal	16.2	C	PASS
74	AMB & 33rd Ave W	1	Arterial	D	Signal	9.2	A	PASS
75	SR 99 & 164th St SW	1	State	E	Signal	15.2	C	PASS
76	188th St SW & 40th Ave W	1	Arterial	D	Signal	11.1	B	PASS
77	AMP & 193rd St SW	1	Arterial	D	Signal	24.9	C	PASS
78	200th St SW & 40th Ave W	1	City Center	E	Signal	17.0	C	PASS
80	48th Ave W & 192nd Pl	1	Arterial	D	AWSC	8.2	A	PASS
81	164th St SW & 36th Ave W	0	Arterial	D	Signal	22.3	C	PASS
82	200th St SW & 46th Ave W	1	City Center	E	Signal	46.6	E	PASS
86	194th St SW & 48th Ave W	1	City Center	E	AWSC	10.7	B	PASS
87	40th Ave W & 198th St SW	1	City Center	E	TWSC	14.5	B	PASS
88	40th Ave W & 194th St SW	1	City Center	E	TWSC	14.5	B	PASS
89	200th St SW & 56th Ave W	1	Arterial	D	TWSC	20.4	C	PASS
91	44th Ave W & 180th St SW	1	Arterial	D	TWSC	21.0	C	PASS
92	AMP & NE mall access	1	Arterial	D	TWSC	12.4	B	PASS
93	44th Ave W & 198th St SW	1	City Center	E	TWSC	15.0	B	PASS
94	188th St SW & 68th Ave W	1	Arterial	D	AWSC	13.9	B	PASS
95	196th St SW & 56th Ave W	1	State	E	TWSC	27.1	D	PASS
98	Olympic View Dr & Blue Ridge Dr	1	Arterial	D	TWSC	21.6	C	PASS
99	208th St SW & 68th Ave W	1	Arterial	D	Signal	52.6	F	PASS
101	60th Ave W & 188th St SW	1	Arterial	D	AWSC	13.0	B	PASS
102	60th Ave W & 180th St SW	1	Arterial	D	AWSC	8.2	A	PASS
107	60th Ave W & 176th St SW	1	Arterial	D	AWSC	13.2	B	PASS
109	64th Ave W & 180th St SW	1	Arterial	D	AWSC	9.4	A	PASS
110	64th Ave W & 188th St SW	1	Arterial	D	AWSC	19.0	C	PASS
111	64th Ave W & 176th St SW	1	Arterial	D	AWSC	10.6	B	PASS
113	64th Ave W & 200th St SW	1	Arterial	D	AWSC	11.9	B	PASS
114	52nd Ave W & 204th St SW	1	Arterial	D	TWSC	36.2	E	PASS
119	60th Ave W & 204th St SW	1	Arterial	D	AWSC	10.5	B	PASS
120	52nd Ave W & 164th St SW	0	Arterial	D	TWSC	39.0	E	PASS
122	168th St SW & 56th Ave W	1	Arterial	D	TWSC	30.4	D	PASS

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Lynnwood 2024 Baseline LOS

ID	Location	In City	Facility Type	LOS Std	Baseline (2024)			
					Control Type	Delay	LOS	Pass/Fail
131	44th Ave W & 172nd St SW	1	Arterial	D	TWSC	22.5	C	PASS
135	36th Ave W & 172nd St SW	1	Arterial	D	RAB	5.6	A	PASS
136	36th Ave W & Maple Rd	1	Arterial	D	Signal	10.5	B	PASS
149	40th Ave W & Maple Rd	1	Arterial	D	TWSC	10.6	B	PASS
150	188th St SW & 48th Ave W	1	Arterial	D	AWSC	25.7	D	PASS
154	172nd St SW & Spruce Way	1	Arterial	D	AWSC	9.3	A	PASS
155	196th St SW & 50th Ave W	1	State	E	TWSC	44.6	E	PASS
157	Spruce Way & Maple Rd	1	Arterial	D	AWSC	8.9	A	PASS
158	Spruce Way & 164th St SW	1	Arterial	D	TWSC	14.1	B	PASS
160	184th St SW & 33rd Ave W	1	Arterial	D	Signal	35.7	E	PASS
165	44th Ave W & I-5 on-ramp	1	State	E	N/A		A	PASS
169	208th St SW & 60th Ave W	1	Arterial	D	AWSC	14.1	B	PASS
171	194th St SW & 46th Ave W	1	City Center	E	TWSC	11.9	B	PASS
197	176th St SW & 52nd Ave W	1	Arterial	D	TWSC	35.4	E	PASS
198	208th St SW & 56th Ave W	1	Arterial	D	TWSC	11.4	B	PASS
203	208th St SW & 66th Ave W	1	Arterial	D	TWSC	20.0	C	PASS
208	176th St & Olympic View Drive	1	Arterial	D	Signal	11.0	B	PASS
230	SR 99 & 204th St SW	1	State	E	Signal	14.9	B	PASS
292	52nd Ave W & 194th St SW	1	Arterial	D	TWSC	13.7	B	PASS
341	176th St SW & 56th Ave W	1	Arterial	D	TWSC	0.0	A	PASS
358	68th Ave W & 204th St SW	1	Arterial	D	RAB	6.4	A	PASS
378	64th Ave W & 185th St SW	1	Arterial	D	TWSC	13.5	B	PASS
406	60th Ave W & 186th St SW	1	Arterial	D	TWSC	10.2	B	PASS
408	SR 99 & 186th St SW	1	State	E	TWSC	447.6	F	PASS
480	46th Ave W & Transit Center	1	City Center	E	AWSC	14.3	B	PASS
498	196th St SW & 74th Ave W	1	State	E	TWSC	13.3	B	PASS
500	33rd Ave W & 182nd St SW	1	Arterial	D	Signal	20.8	C	PASS
501	33rd Ave W & Maple Rd	1	Arterial	D	Signal	23.5	C	PASS
510	46th Ave & HOV lanes	1	State	E			A	PASS
517	196th St SW & Red Lobster DW	1	City Center	E	TWSC	14.7	B	PASS
599	SR 99 & 202nd St SW	1	State	E	TWSC	19.3	C	PASS
615	200th St SW & 54th Ave W	1	Arterial	D	TWSC	12.9	B	PASS
858	204th St SW & 54th Ave W	1	Arterial	D	AWSC	8.0	A	PASS
859	208th St SW & 54th Ave W	1	Arterial	D	TWSC	12.9	B	PASS
891	Maple Rd & Ash Way	1	Arterial	D	TWSC	663.4	F	PASS
894	AMP & 182nd St SW	1	Arterial	D	TWSC	17.7	C	PASS
943	AMB & 29th Ave W	1	Arterial	D	TWSC	22.5	C	PASS
944	AMB & 28th Ave W	1	Arterial	D	TWSC	51.9	F	PASS
3008	196th St SW & Fred Meyer DW	1	City Center	E	TWSC	15.5	C	PASS
8286	Poplar Way & 204th St SW	0	Arterial	D	Signal	30.2	D	PASS
8337	Poplar Way & Larch Way	0	Arterial	D	Signal	33.7	D	PASS
9145	AMP & SR 525 off-ramp	1	State	E	Signal	21.0	C	PASS
9220	212th St SW & 60th Ave W	1	Arterial	D	TWSC	17.7	C	PASS
9302	AMP & Beech Rd	1	Arterial	D	N/A		A	PASS

Lynnwood 2024 With TIP LOS

ID	Location	In City	Facility Type	LOS Std	With TIP (2024)			
					Control Type	Delay	LOS	Pass/Fail
1	196th St SW & Poplar Way	1	State	E	Signal	39.9	E	PASS
2	196th St SW & I-5 SB off-ramp	1	State	E	N/A		A	PASS
3	196th St SW & 36th Ave W	1	City Center	E	Signal	18.0	C	PASS
4	196th St SW & 44th Ave W	1	City Center	E	Signal	38.9	E	PASS
5	200th St SW & 44th Ave W	1	City Center	E	Signal	40.9	E	PASS
6	204th St SW & 44th Ave W	1	Arterial	D	Signal	2.9	A	PASS
7	44th Ave W & I-5 NB off-ramp	1	State	E	Signal	21.5	C	PASS
8	196th St SW & 48th Ave W	1	City Center	E	Signal	24.7	C	PASS
9	196th St SW & 58th Ave W	1	State	E	Signal	37.9	E	PASS
10	196th St SW & 64th Ave W	1	State	E	Signal	16.5	C	PASS
11	196th St SW & 68th Ave W	1	State	E	Signal	20.6	C	PASS
12	196th St SW & 76th Ave W	1	State	E	Signal	26.4	D	PASS
13	SR 99 & 168th St SW	1	State	E	Signal	35.8	E	PASS
14	SR 99 & 176th St SW	1	State	E	Signal	44.3	E	PASS
15	SR 99 & 188th St SW	1	State	E	Signal	38.8	E	PASS
16	SR 99 & 196th St SW	1	State	E	Signal	41.6	E	PASS
17	SR 99 & 200th St SW	1	State	E	Signal	33.1	D	PASS
18	SR 99 & 208th St SW	1	State	E	Signal	24.6	C	PASS
19	SR 99 & 212th St SW	1	State	E	Signal	28.0	D	PASS
23	SR 99 & 216th St SW	1	State	E	Signal	25.2	D	PASS
24	36th Ave W & 195th St SW	1	City Center	E	Signal	7.3	A	PASS
25	44th Ave W & 176th St SW	1	Arterial	D	Signal	27.0	D	PASS
26	SR 99 & 174th Pl SW	1	State	E	Signal	11.2	B	PASS
27	188th St SW & 52nd Ave W	1	Arterial	D	Signal	17.3	C	PASS
28	200th St SW & 68th Ave W	1	Arterial	D	Signal	18.8	C	PASS
29	196th St SW & 40th Ave W	1	City Center	E	Signal	10.9	B	PASS
30	194th St SW & 44th Ave W	1	City Center	E	Signal	14.3	B	PASS
31	196th St SW & AMP	1	State	E	Signal	34.5	D	PASS
32	196th St SW & 24th Ave W	1	State	E	Signal	11.0	B	PASS
33	200th St SW & 60th Ave W	1	Arterial	D	Signal	30.3	D	PASS
34	SR 99 & 180th St SW	1	State	E	TWSC	33.1	D	PASS
35	33rd Ave W & NW mall access	1	Arterial	D	TWSC	66.2	F	PASS
41	200th St SW & 50th Ave W	1	Arterial	D	Signal	29.4	D	PASS
42	200th St SW & 48th Ave W	1	City Center	E	Signal	25.9	D	PASS
43	196th St SW & 52nd Ave W	1	State	E	Signal	11.8	B	PASS
44	212th St SW & 66th Ave W	1	Arterial	D	Signal	9.7	A	PASS
45	33rd Ave W & W mall access	1	Arterial	D	TWSC	26.2	D	PASS
46	44th Ave W & 208th St SW	1	Arterial	D	Signal	6.1	A	PASS
48	204th St SW & 56th Ave W	1	Arterial	D	TWSC	10.5	B	PASS
49	168th St SW & 62nd Ave W	1	Arterial	D	Signal	14.2	B	PASS
50	168th St SW & 52nd Ave W	1	Arterial	D	Signal	26.2	D	PASS
51	168th St SW & 48th Ave W	1	Arterial	D	Signal	8.4	A	PASS
52	168th St SW & 44th Ave W	1	Arterial	D	Signal	34.6	D	PASS
53	188th St SW & 33rd Ave W	1	Arterial	D	Signal	26.9	D	PASS
54	188th St SW & 36th Ave W	1	Arterial	D	Signal	22.7	C	PASS
56	188th St SW & 44th Ave W	1	Arterial	D	Signal	32.3	D	PASS
57	184th St SW & 36th Ave W	1	Arterial	D	Signal	20.5	C	PASS
58	184th St SW & 33rd Ave W	1	Arterial	D	Signal	39.0	E	PASS
59	184th St SW & Nordstrom access	1	Arterial	D	Signal	24.8	C	PASS

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Lynnwood 2024 With TIP LOS

ID	Location	In City	Facility Type	LOS Std	With TIP (2024)			
					Control Type	Delay	LOS	Pass/Fail
60	AMP & 184th St	1	Arterial	D	Signal	37.6	E	PASS
61	212th St SW & 44th Ave W	1	Arterial	D	Signal	20.3	C	PASS
63	52nd Ave W & 208th St SW	1	Arterial	D	RAB	6.0	A	PASS
64	52nd Ave W & 212th St SW	1	Arterial	D	Signal	54.5	F	PASS
65	AMP & Poplar Way	1	Arterial	D	Signal	23.5	C	PASS
66	AMP & 30th Ave W	1	Arterial	D	Signal	3.5	A	PASS
67	AMP & 28th Ave W	1	Arterial	D	Signal	25.0	C	PASS
68	196th St SW & 30th Ave W	1	State	E	Signal	15.6	C	PASS
69	76th Ave W & 208th St SW	1	Arterial	D	Signal	6.1	A	PASS
70	AMP & Alderwood Mall Blvd	1	Arterial	D	Signal	16.4	C	PASS
71	AMP & Sears access	1	Arterial	D	Signal	13.7	B	PASS
72	AMP & Maple Rd	1	Arterial	D	Signal	45.1	E	PASS
73	44th Ave W & Maple Rd	1	Arterial	D	Signal	14.8	B	PASS
74	AMB & 33rd Ave W	1	Arterial	D	Signal	31.7	D	PASS
75	SR 99 & 164th St SW	1	State	E	Signal	15.7	C	PASS
76	188th St SW & 40th Ave W	1	Arterial	D	Signal	9.2	A	PASS
77	AMP & 193rd St SW	1	Arterial	D	Signal	30.2	D	PASS
78	200th St SW & 40th Ave W	1	City Center	E	Signal	11.9	B	PASS
80	48th Ave W & 192nd Pl	1	Arterial	D	AWSC	8.2	A	PASS
81	164th St SW & 36th Ave W	0	Arterial	D	Signal	22.0	C	PASS
82	200th St SW & 46th Ave W	1	City Center	E	Signal	21.4	C	PASS
86	194th St SW & 48th Ave W	1	City Center	E	AWSC	10.7	B	PASS
87	40th Ave W & 198th St SW	1	City Center	E	TWSC	11.2	B	PASS
88	40th Ave W & 194th St SW	1	City Center	E	Signal	9.4	A	PASS
89	200th St SW & 56th Ave W	1	Arterial	D	TWSC	19.9	C	PASS
91	44th Ave W & 180th St SW	1	Arterial	D	TWSC	21.3	C	PASS
92	AMP & NE mall access	1	Arterial	D	TWSC	12.1	B	PASS
93	44th Ave W & 198th St SW	1	City Center	E	TWSC	13.8	B	PASS
94	188th St SW & 68th Ave W	1	Arterial	D	AWSC	14.0	B	PASS
95	196th St SW & 56th Ave W	1	State	E	TWSC	27.6	D	PASS
98	Olympic View Dr & Blue Ridge Dr	1	Arterial	D	TWSC	21.3	C	PASS
99	208th St SW & 68th Ave W	1	Arterial	D	Signal	52.4	F	PASS
101	60th Ave W & 188th St SW	1	Arterial	D	AWSC	13.3	B	PASS
102	60th Ave W & 180th St SW	1	Arterial	D	AWSC	8.3	A	PASS
107	60th Ave W & 176th St SW	1	Arterial	D	AWSC	13.2	B	PASS
109	64th Ave W & 180th St SW	1	Arterial	D	AWSC	9.4	A	PASS
110	64th Ave W & 188th St SW	1	Arterial	D	AWSC	18.5	C	PASS
111	64th Ave W & 176th St SW	1	Arterial	D	AWSC	10.7	B	PASS
113	64th Ave W & 200th St SW	1	Arterial	D	AWSC	12.0	B	PASS
114	52nd Ave W & 204th St SW	1	Arterial	D	RAB	6.3	A	PASS
119	60th Ave W & 204th St SW	1	Arterial	D	AWSC	10.5	B	PASS
120	52nd Ave W & 164th St SW	0	Arterial	D	TWSC	41.9	E	PASS
122	168th St SW & 56th Ave W	1	Arterial	D	TWSC	32.4	D	PASS
131	44th Ave W & 172nd St SW	1	Arterial	D	TWSC	20.1	C	PASS
135	36th Ave W & 172nd St SW	1	Arterial	D	RAB	5.6	A	PASS
136	36th Ave W & Maple Rd	1	Arterial	D	Signal	10.1	B	PASS
149	40th Ave W & Maple Rd	1	Arterial	D	TWSC	10.0	A	PASS
150	188th St SW & 48th Ave W	1	Arterial	D	AWSC	27.3	D	PASS
154	172nd St SW & Spruce Way	1	Arterial	D	AWSC	9.4	A	PASS

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Lynnwood 2024 With TIP LOS

ID	Location	In City	Facility Type	LOS Std	With TIP (2024)			
					Control Type	Delay	LOS	Pass/Fail
155	196th St SW & 50th Ave W	1	State	E	TWSC	35.9	E	PASS
157	Spruce Way & Maple Rd	1	Arterial	D	AWSC	8.7	A	PASS
158	Spruce Way & 164th St SW	1	Arterial	D	TWSC	14.2	B	PASS
160	184th St SW & 33rd Ave W	1	Arterial	D	Signal	33.0	D	PASS
165	44th Ave W & I-5 on-ramp	1	State	E	N/A		A	PASS
169	208th St SW & 60th Ave W	1	Arterial	D	AWSC	13.8	B	PASS
171	194th St SW & 46th Ave W	1	City Center	E	TWSC	12.0	B	PASS
197	176th St SW & 52nd Ave W	1	Arterial	D	RAB	7.4	A	PASS
198	208th St SW & 56th Ave W	1	Arterial	D	TWSC	10.9	B	PASS
203	208th St SW & 66th Ave W	1	Arterial	D	TWSC	23.9	C	PASS
208	176th St & Olympic View Drive	1	Arterial	D	Signal	10.8	B	PASS
230	SR 99 & 204th St SW	1	State	E	Signal	14.5	B	PASS
292	52nd Ave W & 194th St SW	1	Arterial	D	TWSC	14.1	B	PASS
341	176th St SW & 56th Ave W	1	Arterial	D	TWSC	0.0	A	PASS
358	68th Ave W & 204th St SW	1	Arterial	D	RAB	6.4	A	PASS
377	36th Ave W & 194th St SW	1	City Center	E	Signal	11.7	B	PASS
378	64th Ave W & 185th St SW	1	Arterial	D	TWSC	13.3	B	PASS
406	60th Ave W & 186th St SW	1	Arterial	D	TWSC	10.3	B	PASS
408	SR 99 & 186th St SW	1	State	E	TWSC	538.4	F	PASS
480	46th Ave W & Transit Center	1	City Center	E	AWSC	16.8	C	PASS
498	196th St SW & 74th Ave W	1	State	E	TWSC	13.7	B	PASS
500	33rd Ave W & 182nd St SW	1	Arterial	D	Signal	22.1	C	PASS
501	33rd Ave W & Maple Rd	1	Arterial	D	Signal	23.8	C	PASS
510	46th Ave & HOV lanes	1	State	E			A	PASS
517	196th St SW & Red Lobster DW	1	City Center	E	TWSC	15.0	B	PASS
599	SR 99 & 202nd St SW	1	State	E	TWSC	19.3	C	PASS
615	200th St SW & 54th Ave W	1	Arterial	D	TWSC	12.8	B	PASS
858	204th St SW & 54th Ave W	1	Arterial	D	AWSC	8.1	A	PASS
859	208th St SW & 54th Ave W	1	Arterial	D	TWSC	12.5	B	PASS
891	Maple Rd & Ash Way	1	Arterial	D	Signal	14.1	B	PASS
894	AMP & 182nd St SW	1	Arterial	D	TWSC	14.2	B	PASS
943	AMB & 29th Ave W	1	Arterial	D	TWSC	12.2	B	PASS
944	AMB & 28th Ave W	1	Arterial	D	Signal	4.8	A	PASS
2001	194th St SW & 42nd Ave W	1	City Center	E	TWSC	10.8	B	PASS
2011	196th St SW & 42nd Ave W	1	City Center	E	Signal	7.3	A	PASS
2029	200th St SW & 42nd Ave W	1	City Center	E	Signal	5.3	A	PASS
2032	33rd Ave W & 194th St SW	1	City Center	E	Signal	14.2	B	PASS
3008	196th St SW & Fred Meyer DW	1	City Center	E	Signal	6.9	A	PASS
8286	Poplar Way & 204th St SW	0	Arterial	D	Signal	293.6	F	PASS
8337	Poplar Way & Larch Way	0	Arterial	D	Signal	35.1	E	PASS
9145	AMP & SR 525 off-ramp	1	State	E	Signal	19.5	C	PASS
9220	212th St SW & 60th Ave W	1	Arterial	D	TWSC	18.3	C	PASS
9302	AMP & Beech Rd	1	Arterial	D	N/A		A	PASS

September 12, 2019

To: David Mach, PE
Public Works Manager/City Engineer
City of Lynnwood
19100 44th Ave W
Lynnwood, WA 98036

From: Andrew Bratlien, PE
Senior Transportation Engineer

SUBJECT: LYNNWOOD 2019 TRANSPORTATION CONCURRENCY MODEL UPDATE

The purpose of this memo is to summarize the methods, assumptions, and results of the Lynnwood 2019 transportation concurrency model update.

EXISTING CONDITIONS

Data Collection

Intersection turning movement counts were collected at 135 sites in and around Lynnwood from 4:00 – 6:00 PM on non-holiday weekdays in February 2018. The PM peak hour of travel was identified for each location as the highest four consecutive 15-minute volume intervals in the two-hour peak period. For the purposes of operational analysis, the PM peak hour typically represents the worst case condition.

The modeled street network was reviewed and updated as necessary to reflect current street geometry, lane channelization, and intersection control in the City of Lynnwood and surrounding area. Street network characteristics were verified through satellite photography and discussion with City staff.

2018 Level of Service

Level of Service Definition

Level of service (LOS) is a qualitative description of the operating performance of an element of transportation infrastructure such as a roadway or an intersection. LOS is typically expressed as a letter score from LOS A, representing free flow conditions with minimal delays, to LOS F, representing breakdown flow with high delays. Intersection LOS is based on the average delay experienced by a vehicle traveling through an intersection. Delay at a signalized intersection can be caused by waiting for the signal or waiting for the queue ahead to clear the signal. Delay at roundabouts and stop-controlled intersections is caused by waiting for a gap in traffic or waiting for a queue to clear the intersection or roundabout.

Per City of Lynnwood policy, delay for signalized and stop-controlled intersections was calculated in Synchro 9 software using Highway Capacity Manual 2010 (HCM2010) methodology. Roundabout delay was calculated in Sidra 7 software using the Sidra capacity model, per WSDOT Sidra policy guidelines.

Intersection level of service delay thresholds are summarized in **Table 1**. For signalized and all-way stop controlled intersections, level of service thresholds are based upon average control delay for all entering vehicles. For minor-approach-only stop controlled intersections, delay is reported for the movement with the worst (highest) delay.

Table 1. Intersection Level of Service Thresholds

LOS	Signalized and Roundabout Delay (sec/veh)	Unsignalized Delay (sec/veh)
A	≤10	≤10
B	>10 – 20	>10 – 15
C	>20 – 35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 – 80	>35 – 50
F	>80	>50

Level of Service Policy

Lynnwood Municipal Code (LMC) 12.22.090 defines Level of Service Standards as shown in **Table 2**. State routes within city limits include SR 99 and SR 524 (196th St SW). Per LMC 12.22.090, concurrency failure occurs when 20 percent of signalized intersections citywide operate below their respective LOS standards.

Table 2. Minimum LOS Standards

Facility Type	Minimum LOS Standard
State Highways	LOS E/Mitigated ¹
City Center Arterials	LOS E
Non-City Center Arterials	LOS D
Local Streets	LOS C

¹Congestion should be mitigated (such as transit) when PM peak hour LOS falls below E.

2018 Level of Service Deficiencies

This analysis identified LOS deficiencies at 7 intersections citywide, including the signalized intersection of 52th Ave W and 212th St SW, as shown in **Table 3**.

Table 3. Existing (2018) Level of Service Deficiencies

ID	Location ¹	Control Type ²	Delay ³ (sec/veh)	LOS
35	33 rd Ave W & NW mall access	TWSC	43.5	E
44	212 th St SW & 66 th Ave W	AWSC	44.1	E
63	52 nd Ave W & 208 th St SW	TWSC	73.8	F
64	52 nd Ave W & 212 th St SW	Signal	61.0	E
408	SR 99 & 186 th St SW	TWSC	65.1	F
891	Maple Rd & Ash Way	TWSC	326	F
944	AMB & 28 th Ave W	TWSC	50.8	F

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

²TWSC = minor approach stop controlled; AWSC = all-way stop control; Signal = signalized

³For TWSC intersections, delay is reported for the worst (i.e. highest-delay) movement; for all other control types, average intersection delay is reported.

2025 CONDITIONS

Pipeline Development

Lynnwood staff developed a list of pipeline developments which had been permitted or entered into development agreements as of September 2019. Pipeline development also included expansion of the Lynnwood Transit Center to include 440 new park & ride spaces, consistent with the Lynnwood Link Extension project. Pipeline development represented a total of 2,186 new PM peak hour trips citywide.

External trip growth was calculated based on Puget Sound Regional Council Land Use Vision 2 2025 household and employment growth forecasts for zones external to the City of Lynnwood.

Two significant developments were identified for scenario analysis as part of the concurrency model update:

- Northline Village (site plan provided in **Attachment 1**): 1,080 new PM peak hour trips
- Trent Development, 19820 40th Ave W: 153 new PM peak hour trips

The following scenarios were analyzed:

1. 2025 without Northline Village
2. 2025 with 30% Northline Village Buildout
3. 2025 with 100% Northline Village Buildout
4. 2025 with 100% Northline Village Buildout and Trent Development

Transportation Improvement Projects

All 2025 scenarios assumed construction of the following transportation capacity improvement projects:

- **Beech Rd** realignment to intersect Alderwood Mall parkway at old Sears driveway
- **196th St SW (37th Ave W to 48th Ave W)** widening to include seven-lane section with Business Access & Transit (BAT) lane
- **200th St SW (40th Ave W to 48th Ave W)** widening to include seven-lane section with BAT lane

2025 Level of Service Deficiencies

Intersection LOS deficiencies for the 2018 and four 2025 scenarios are summarized in **Table 3**.

A minimum of 5 new intersection LOS deficiencies, including 2 new signalized intersection LOS deficiencies, are anticipated by 2025 in the “without Northline Village” scenario.

The 30 percent Northline Village scenario indicates a new LOS deficiency at the stop-controlled intersection of 66th Ave W and 208th St SW. No new signalized intersection LOS deficiencies are anticipated.

The 100 percent Northline Village scenario included a new signalized intersection at the 44th Ave W & 198th St SW, which is anticipated to operate well at LOS A. The signalized intersection at 196th St SW & 44th Ave W will degrade from LOS E to LOS F with full buildout of Northline Village.

The addition of 153 new PM peak hour trips associated with the Trent Development will cause no new intersection LOS deficiencies.

All scenarios indicate that fewer than 10 percent of signalized intersections will operate with LOS deficiencies by 2025. The City of Lynnwood transportation concurrency standard is satisfied.

Table 12. 2025 Level of Service Deficiencies

ID	Location ¹	Control Type ²	LOS Std	LOS (Delay ³)				
				2018	2025 w/o NLV ⁴	2025 +30% NLV ⁴	2025 +100% NLV ⁴	2025 +Trent
4	196th St SW & 44th Ave W	Signal	E	E (59.3)	D (52.0)	E (74.2)	F (100)	F (101)
35	33rd Ave W & NW mall access	TWSC	D	E (43.5)	F (105)	F (103)	F (103)	F (110)
44	212th St SW & 66th Ave W	AWSC	D	E (44.1)	F (91.4)	F (93.7)	F (94.9)	F (96.8)
60	AMP & 184th St	Signal	D	D (49.9)	E (58.9)	E (58.8)	E (58.3)	E (58.3)
63	52nd Ave W & 208th St SW	TWSC	D	F (73.8)	F (54.4)	F (55.6)	F (58.3)	F (58.3)
64	52nd Ave W & 212th St SW	Signal	D	E (61.0)	E (66.8)	E (67.0)	E (66.8)	E (67.3)
72	AMP & Maple Rd	Signal	D	D (49.7)	E (61.1)	E (62.3)	E (59.8)	E (61.0)
114	52nd Ave W & 204th St SW	TWSC	D	D (34.6)	E (44.9)	E (44.6)	E (44.2)	E (44.6)
197	176th St SW & 52nd Ave W	TWSC	D	D (31.4)	E (38.3)	E (38.3)	E (38.3)	E (38.3)
203	208th St SW & 66th Ave W	TWSC	D	C (22.6)	D (34.7)	E (36.0)	E (37.0)	E (38.2)
408	SR 99 & 186th St SW	TWSC	E	F (65.1)	F (517)	F (517)	F (561)	F (495)
891	Maple Rd & Ash Way	TWSC	D	F (326)	F (591)	F (591)	F (591)	F (591)
894	AMP & 182nd St SW	TWSC	D	B (14.5)	F (402)	F (398)	F (309)	F (313)
944	AMB & 28th Ave W	TWSC	D	F (50.8)	F (67.6)	F (77.9)	F (70.0)	F (77.9)
Total Intersection LOS Deficiencies				7	12	13	14	14
Signalized Intersection LOS Deficiencies				1 (1.5%)	3 (4.4%)	3 (4.4%)	4 (5.9%)	4 (5.9%)

¹AMB = Alderwood Mall Boulevard; AMP = Alderwood Mall Parkway

²TWSC = minor approach stop controlled; AWSC = all-way stop control; Signal = signalized

³For TWSC intersections, delay is reported for the worst (i.e. highest-delay) movement; for all other intersections, average delay is reported.

⁴Northline Village

CONCLUSION

This analysis indicates that the City of Lynnwood transportation network has adequate capacity to support the current development pipeline in addition to the City Center developments Northline Village and the Trent Development at 19820 40th Ave W without triggering the Lynnwood 20 percent signalized intersection LOS deficiency concurrency threshold.

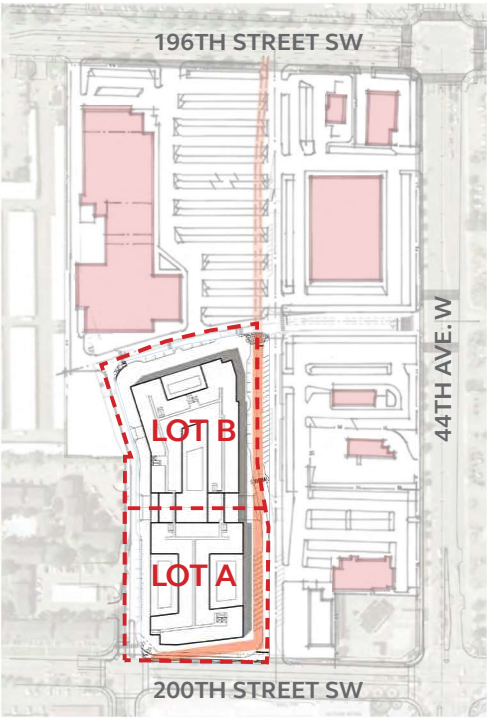
VI. PROGRAM AND USE - POTENTIAL DEVELOPMENT STAGES



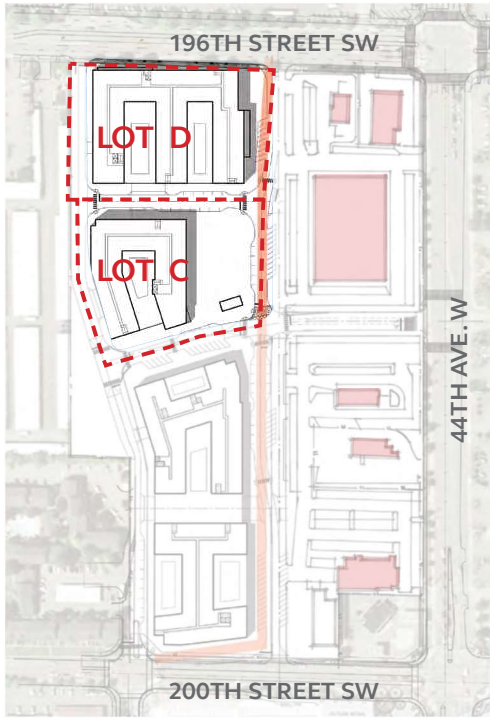
LEGEND

- EXISTING PARCEL LINE
- ANTICIPATED PARCEL LINE *

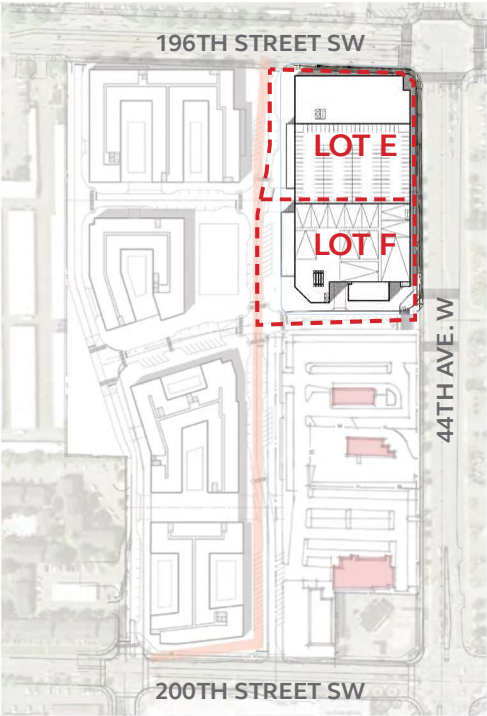
EXISTING PLAN



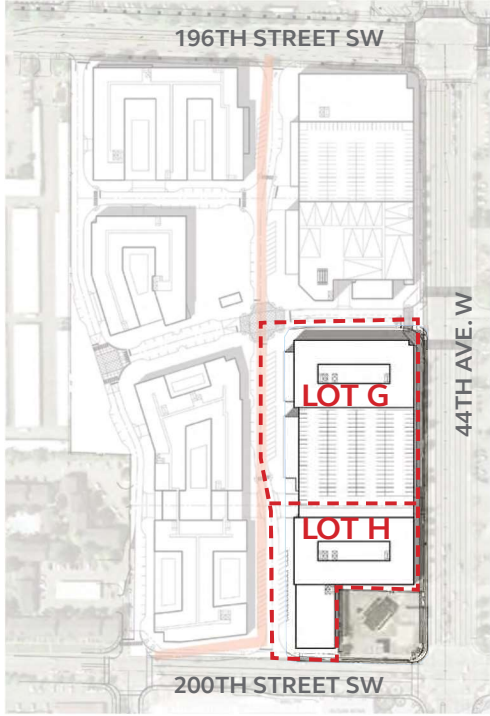
STAGE 1 PLAN *



STAGE 2 PLAN *



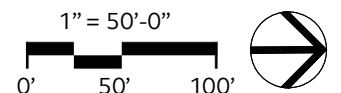
STAGE 3 PLAN *



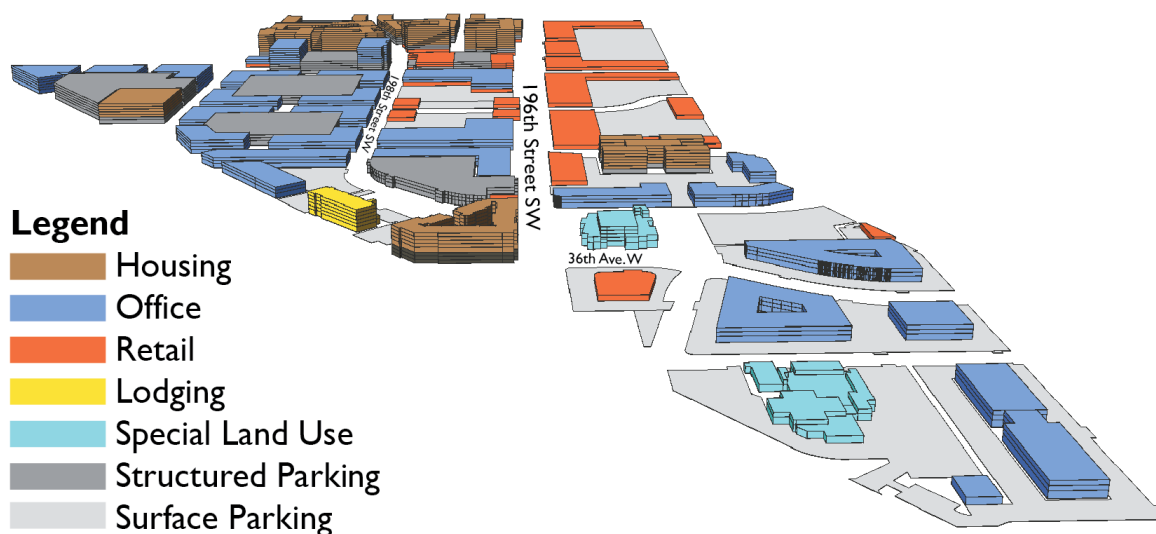
STAGE 4 PLAN *

* The Conceptual Guide Plan and Development Agreement will allow for the project to be phased in accordance with market demand which is anticipated to change upon the arrival of light rail. The following represents potential stages of development that will not only depend on market demand but also on the ability to acquire the Precision Lube and Tune parcel as well as Key Bank.

VI. PROGRAM AND USE - PROPOSED LOT PLAN IMPROVEMENTS PER PHASE



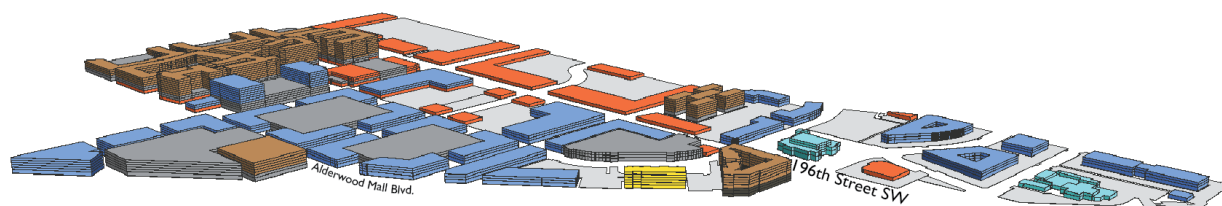
City Center Model - Viewing West Along 196th Street SW



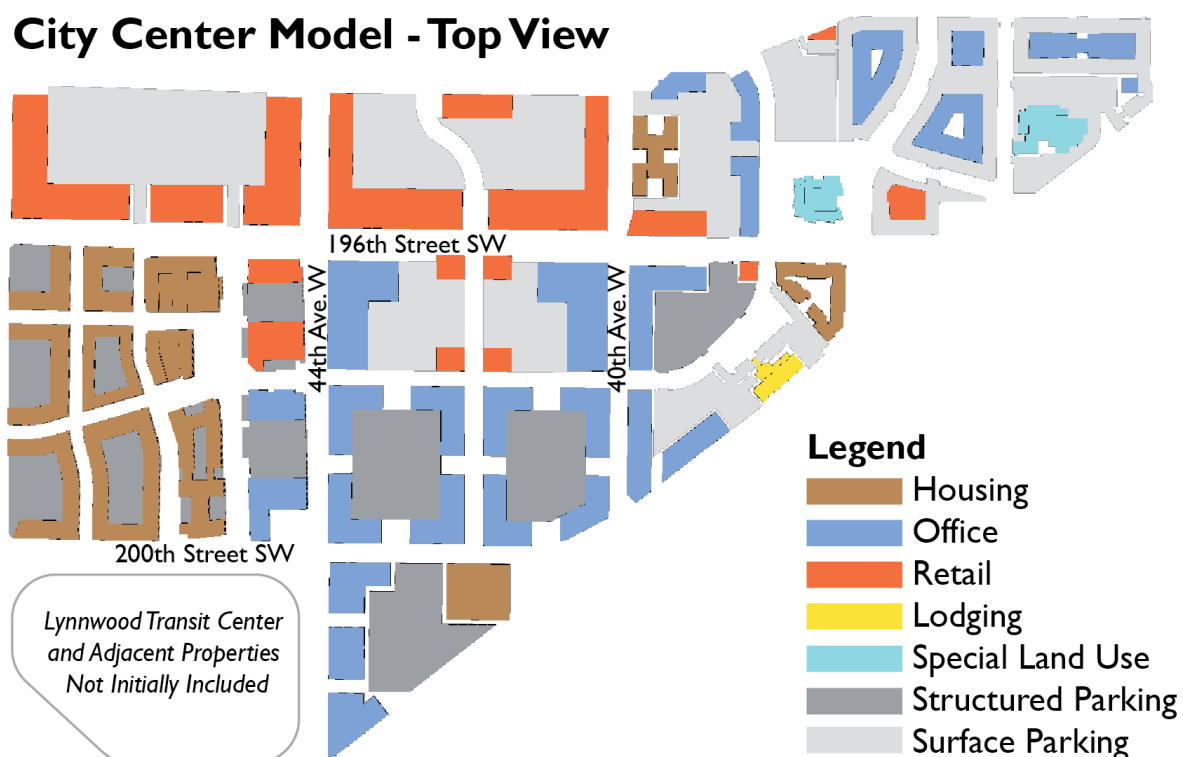
City Center Model - Viewing East Along 196th Street SW



City Center Model - Viewing Northwest from I-5



City Center Model - Top View



City Center Update and Development Standards Staff Report
Attachment 4: ULI National Study Visit Link

Urban Land Institute National Study Visit Report

- <https://www.lynnwoodwa.gov/files/content/public/government/departments/economic-development/city-center/urban-land-institute-national-study-visit.pdf>



*City Center Update and
Development Standards*
City Council
February 1, 2021

*David Kleitsch, Development & Business Services Director
Karl Almgren, City Center Program Manager*

D-108



Agenda:

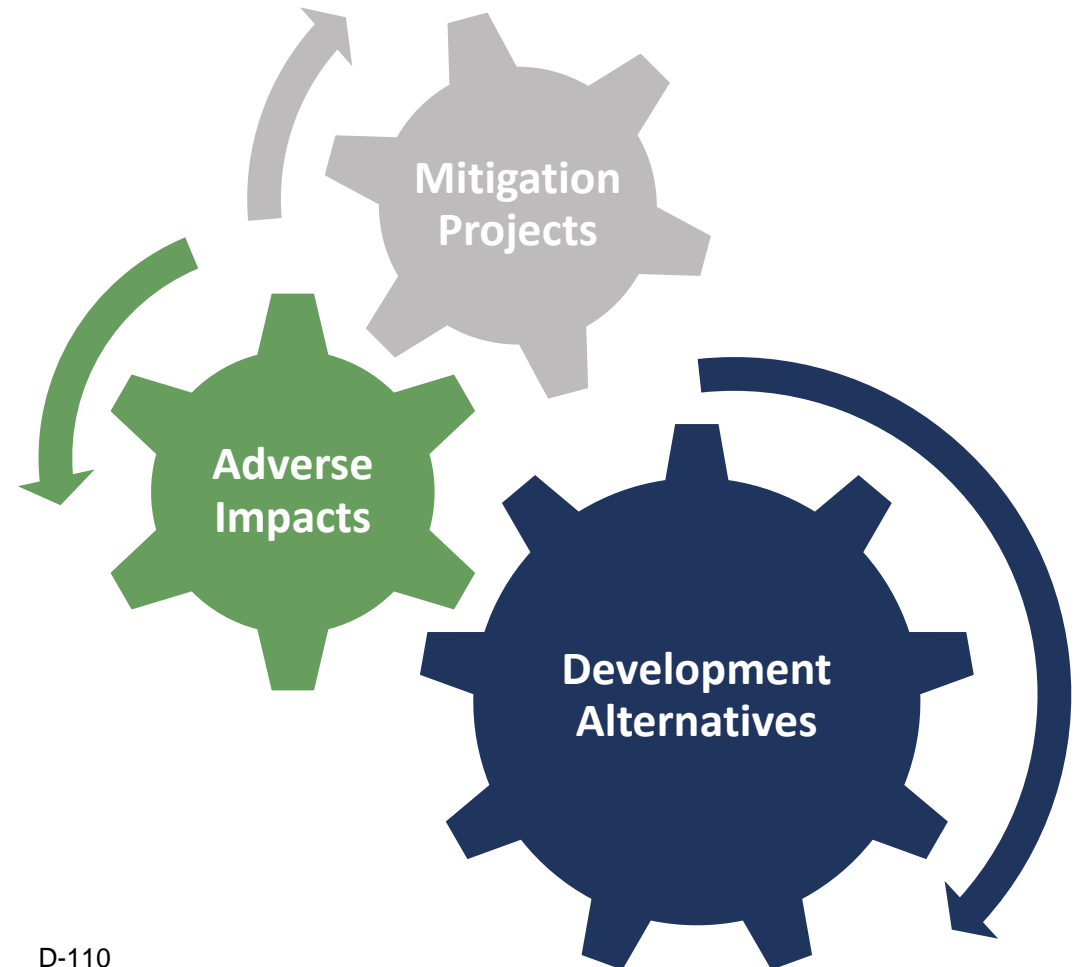
- Environmental Review
- Mitigation Projects
- Massing Study
- Development Scenarios
- Urban Land Institute's National Study Visit
- Next Steps



Environmental Review

Environmental Impact Statement (EIS)

- Comprehensive Review of Significant Unavoidable Adverse Environmental Impacts caused by Action or Policy
- Typically Based on a Development Alternatives
- Adverse Impacts Lead to Mitigation Projects

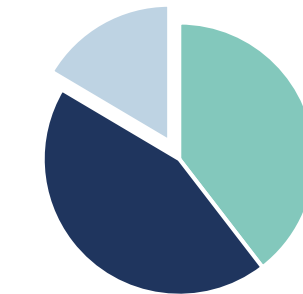


D-110

Environmental Review

City Center Development Alternatives (Alt.)

	Alt. A – Low Intensity	Alt. B “Preferred Alt.” - Medium Intensity	Alt. C - High Intensity
Residential Dwelling Units	2,000	3,000	4,000
Residential SF	2,400,000 SF	3,600,000 SF	4,800,000 SF
Office SF	2,000,000 SF	4,000,000 SF	6,000,000 SF
Retail SF	1,500,000 SF	1,500,000 SF	1,500,000 SF
Total SF	5,900,000 SF	<u>9,100,000 SF</u>	12,300,000 SF



D-111



Environmental Review

Planned Action Ordinance (PAO)

- Strategy to Implement City Center EIS
- Pre-Approval of SEPA Review
- Consistency for Development

City Center PAO

- Adopted in 2012
- Critical Element of Seeking Development and Investors
- Codified Cap of Development



City Center Sub-Area Plan

Mitigation Projects

Impacts Considered

- Natural Environment
- Land Use
- Population, Housing & Employment
- Aesthetics and Urban Design
- Public Services
- Parks and Open Space
- Utilities
- Transportation



Photo by [Nabeel Syed](#) on [Unsplash](#)



Mitigation Projects

Transportation Impacts

- Growth Leads to Growth
- Local vs. Regional Growth

Mitigation

- Projects to Minimize Impact



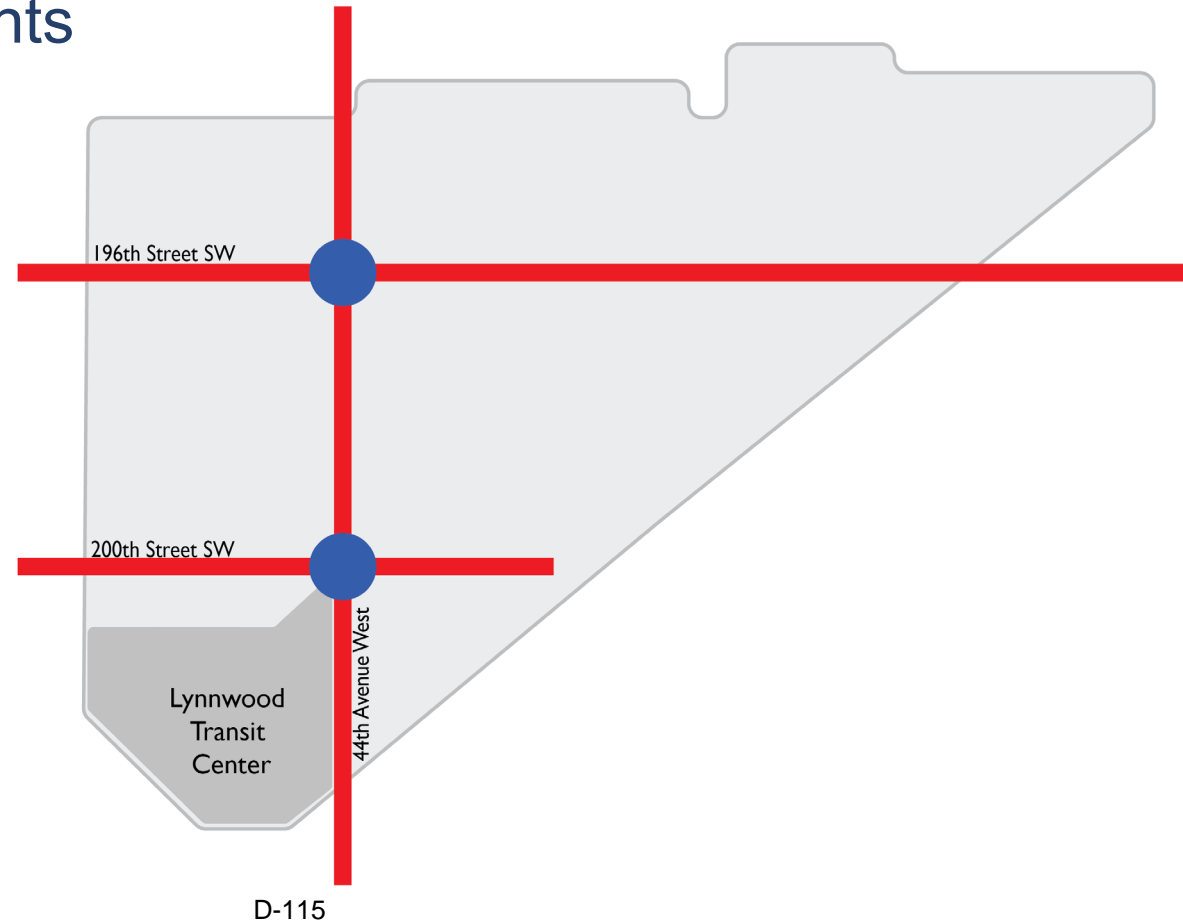
D-114



Mitigation Projects

Transportation Progressions

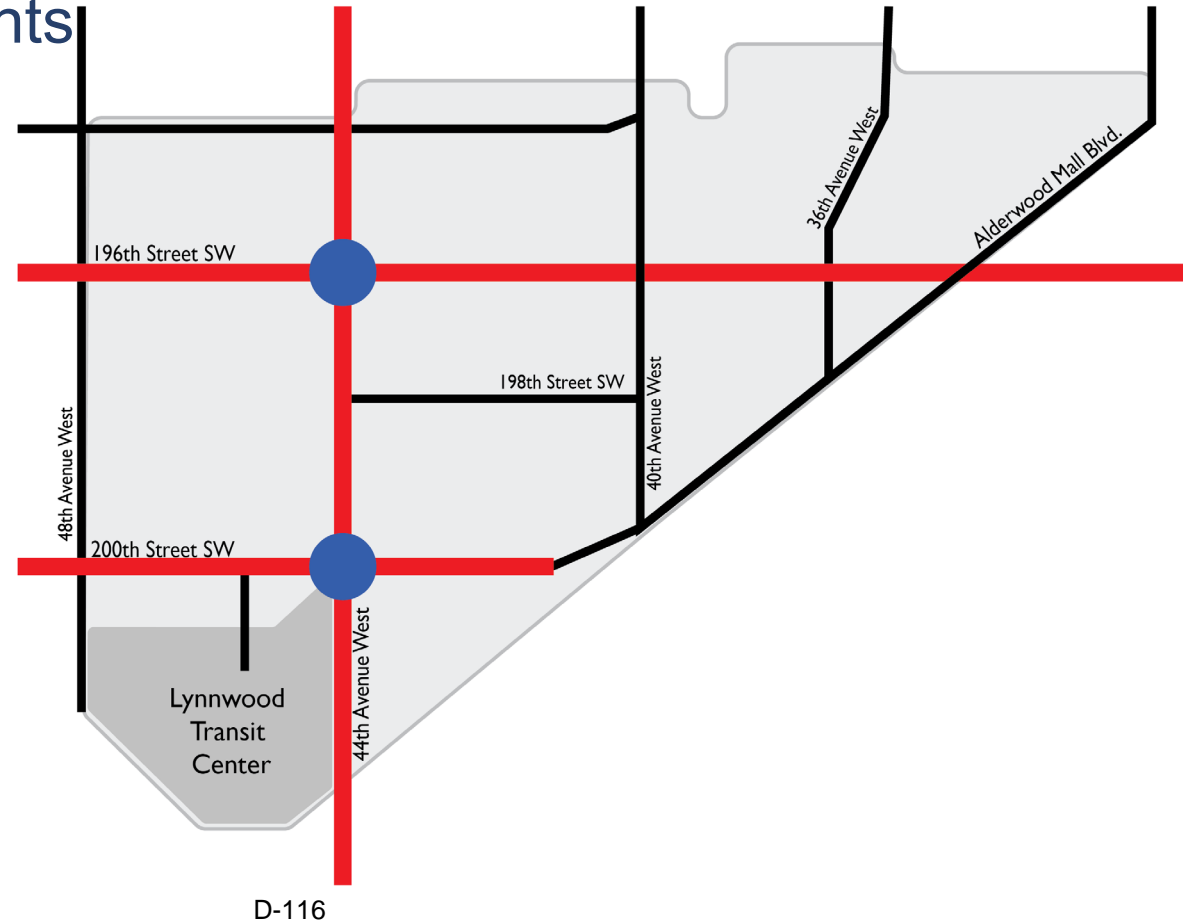
- Arterial & Signal Improvements



Mitigation Projects

Transportation Progressions

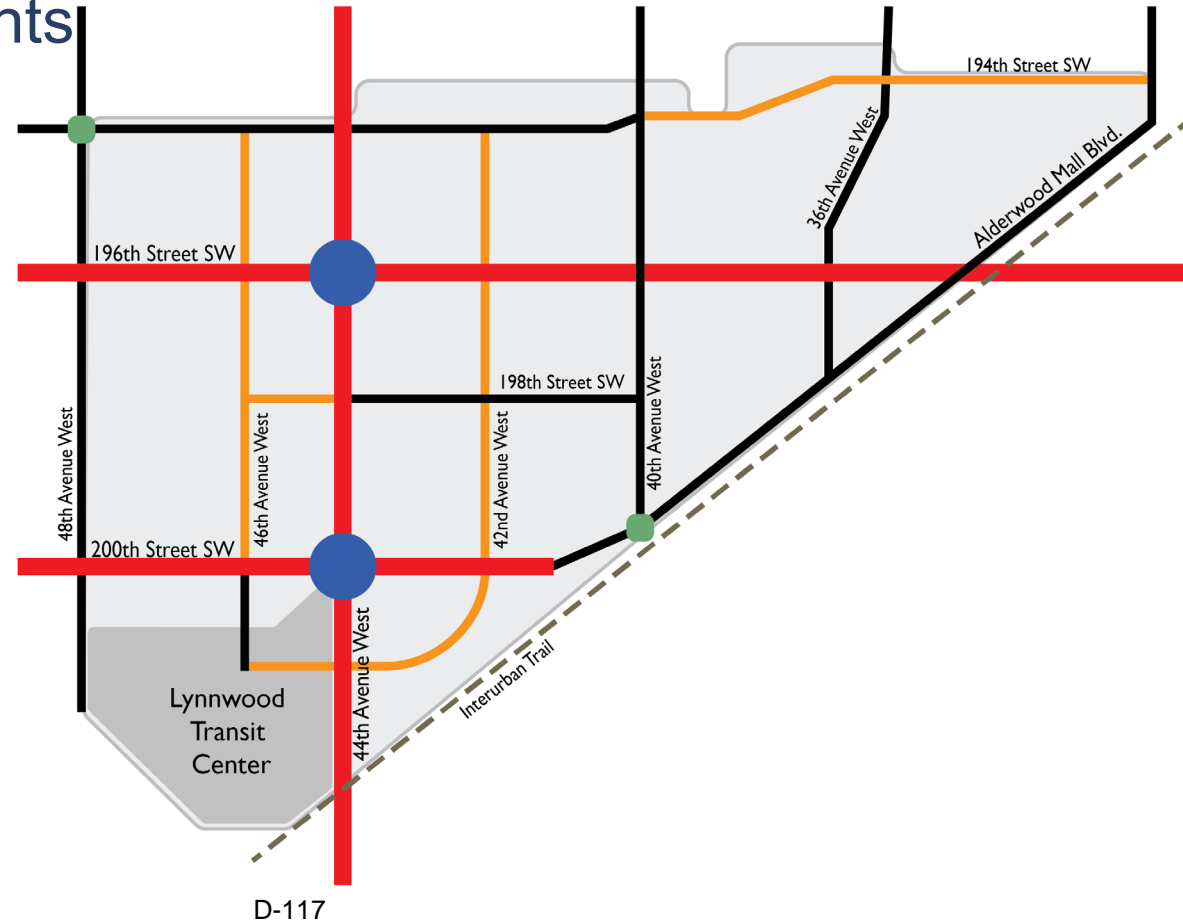
- Arterial & Signal Improvements
- Existing Connections



Mitigation Projects

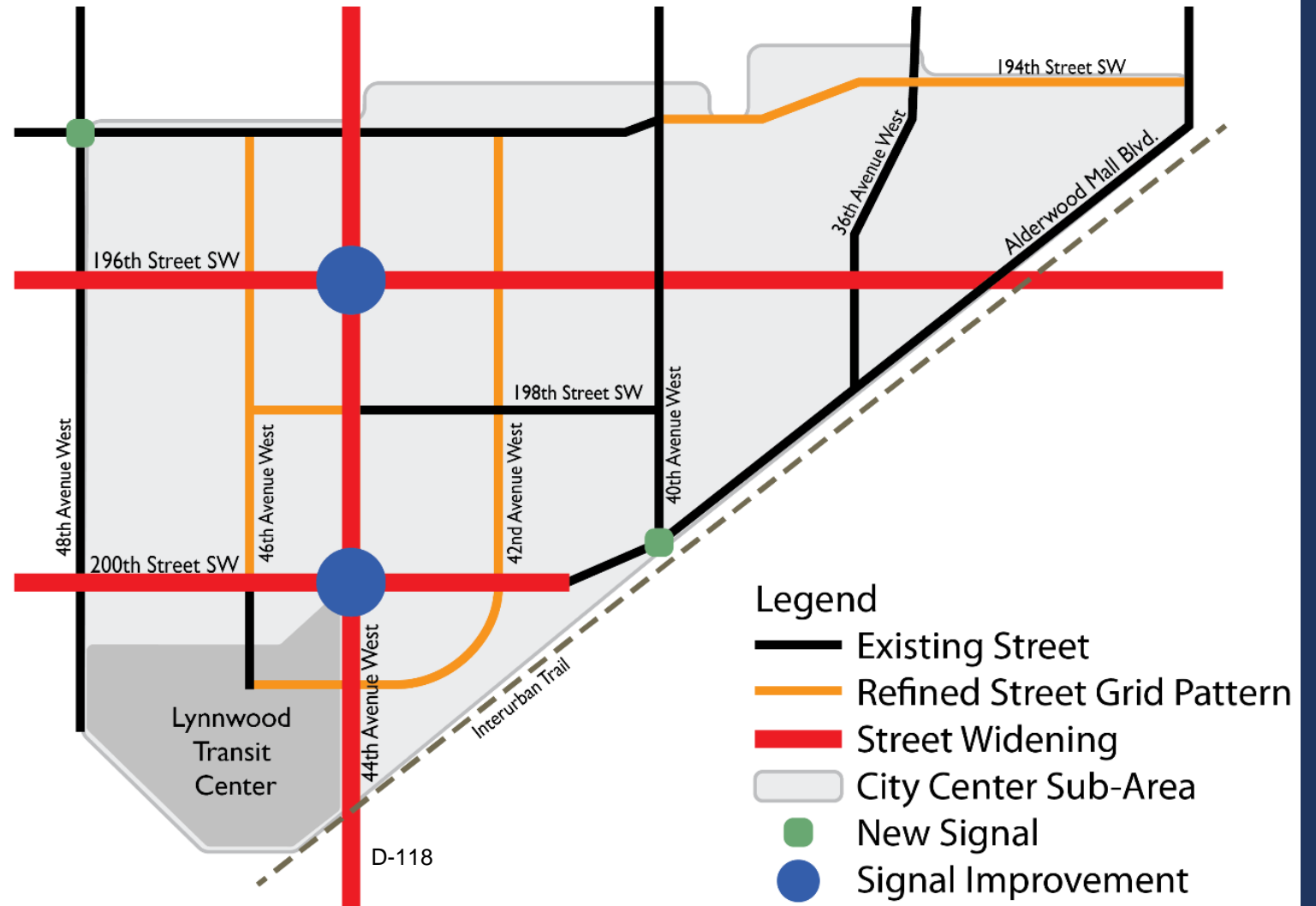
Transportation Progressions

- Arterial & Signal Improvements
- Existing Connections
- Refined Grid Streets
- Additional Signals
- Interurban Trail Bridge



Mitigation Projects

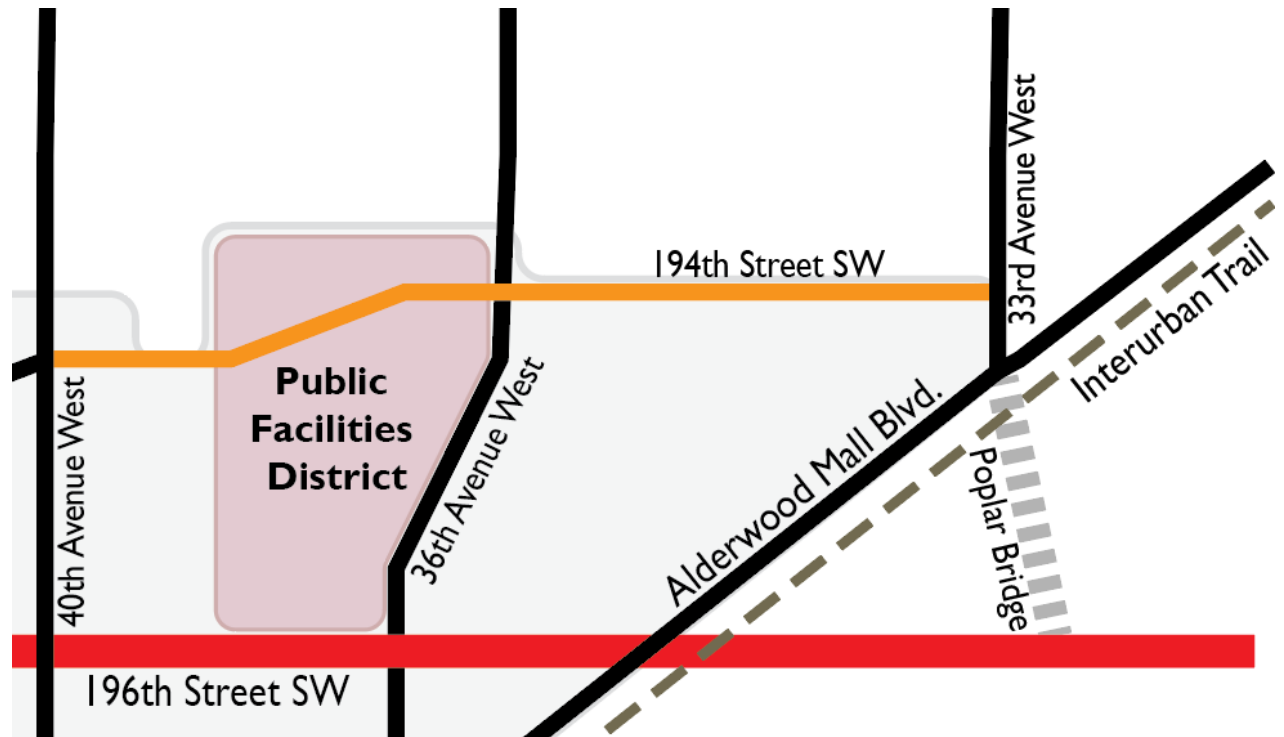
- Alternative B and C the same except for I-5 Interchange Completion at 44th Avenue West
- EIS Completed Prior to ST2 Approval in 2008



Mitigation Projects

194th Street SW

- Connection from 40th Avenue to 33rd Avenue West
- Utilizes Public Facilities District Property
- PFD Entering Master Planning
 - *How Does 194th Fit In Future Plans?*
- Tasked On Call Consultant to Review





Key Finding #1 – 194th Street SW

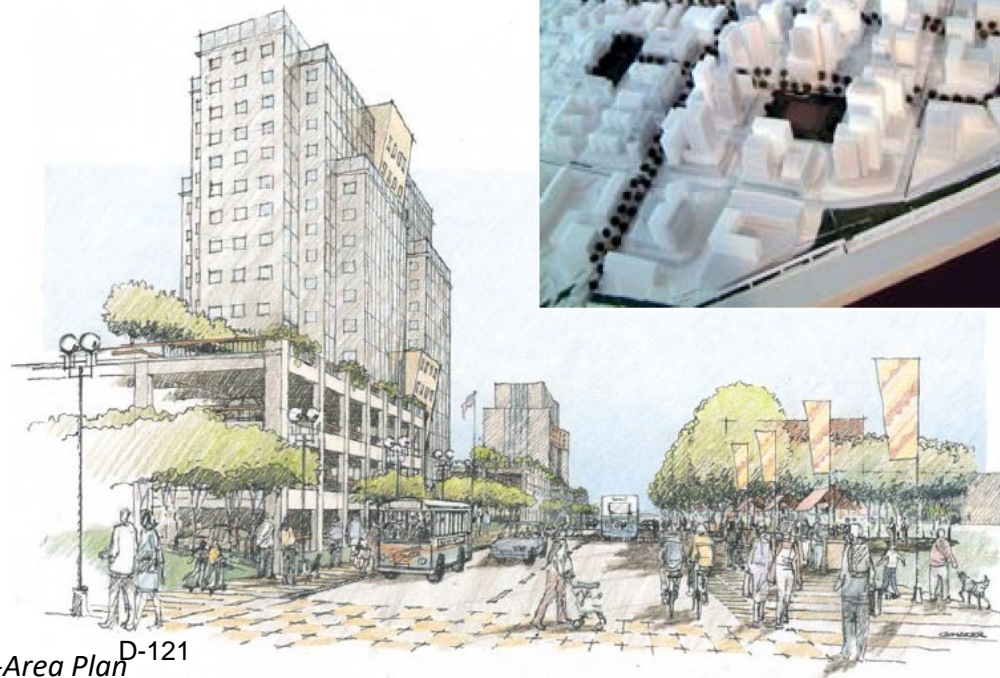
- Recommended to be Maintained as a Long-Range Project
- Re-Evaluated as City Center Area Develops
- Not Required by 2035



Massing Study

Massing Model

- Consultant Supported Analysis of Development Capacity
- Did 9.1M SF Provide a City Center Like This?



City Center Sub-Area Plan D-121

Massing Study

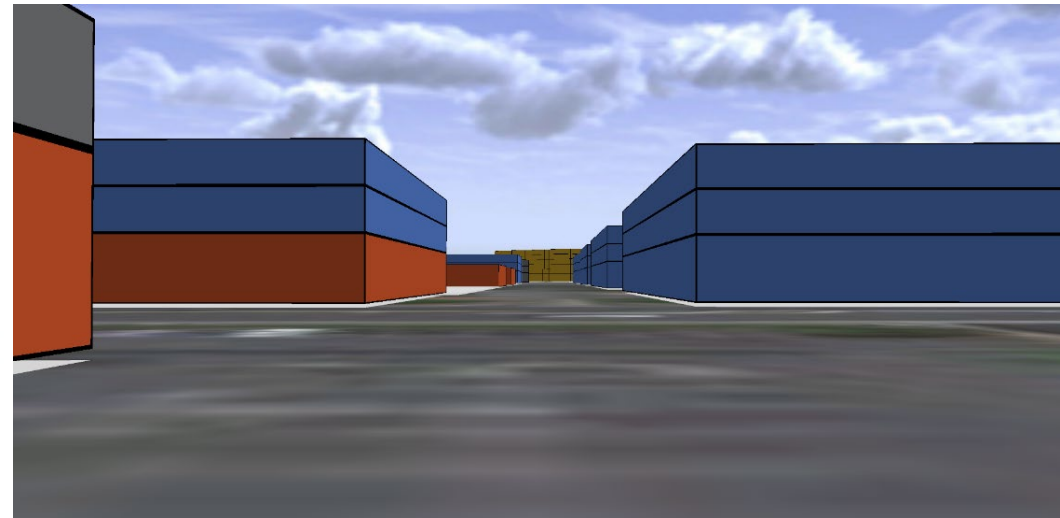
Massing Model Process

- Included Recent Development and Planned Development
- Included Special Land Uses
- Assumed Remaining City Center Would Be Redeveloped
- Concentrated Intensity Near Light Rail

Planning Exercise Only



Massing Study

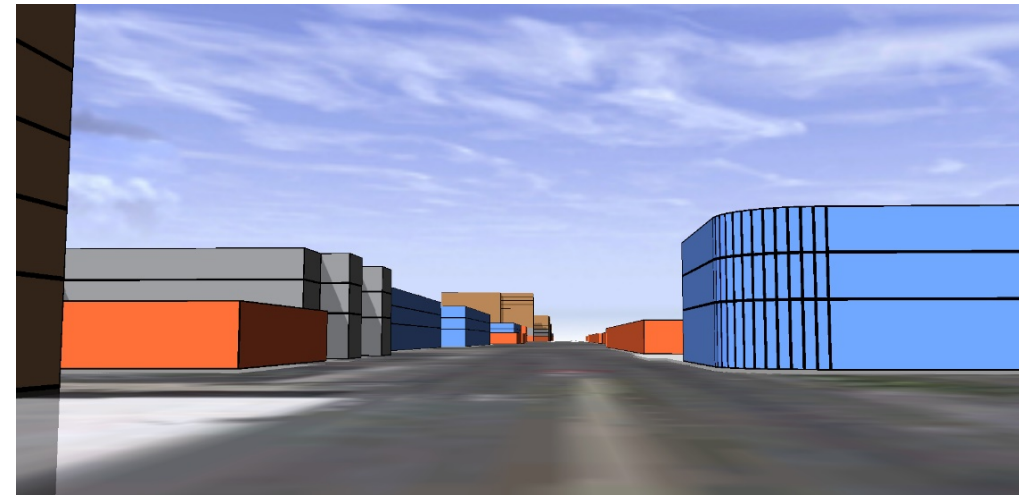




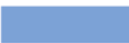




- Housing
- Office
- Retail
- Lodging

- Special Land Use
- Structured Parking
- Surface Parking

D-123

Massing Study

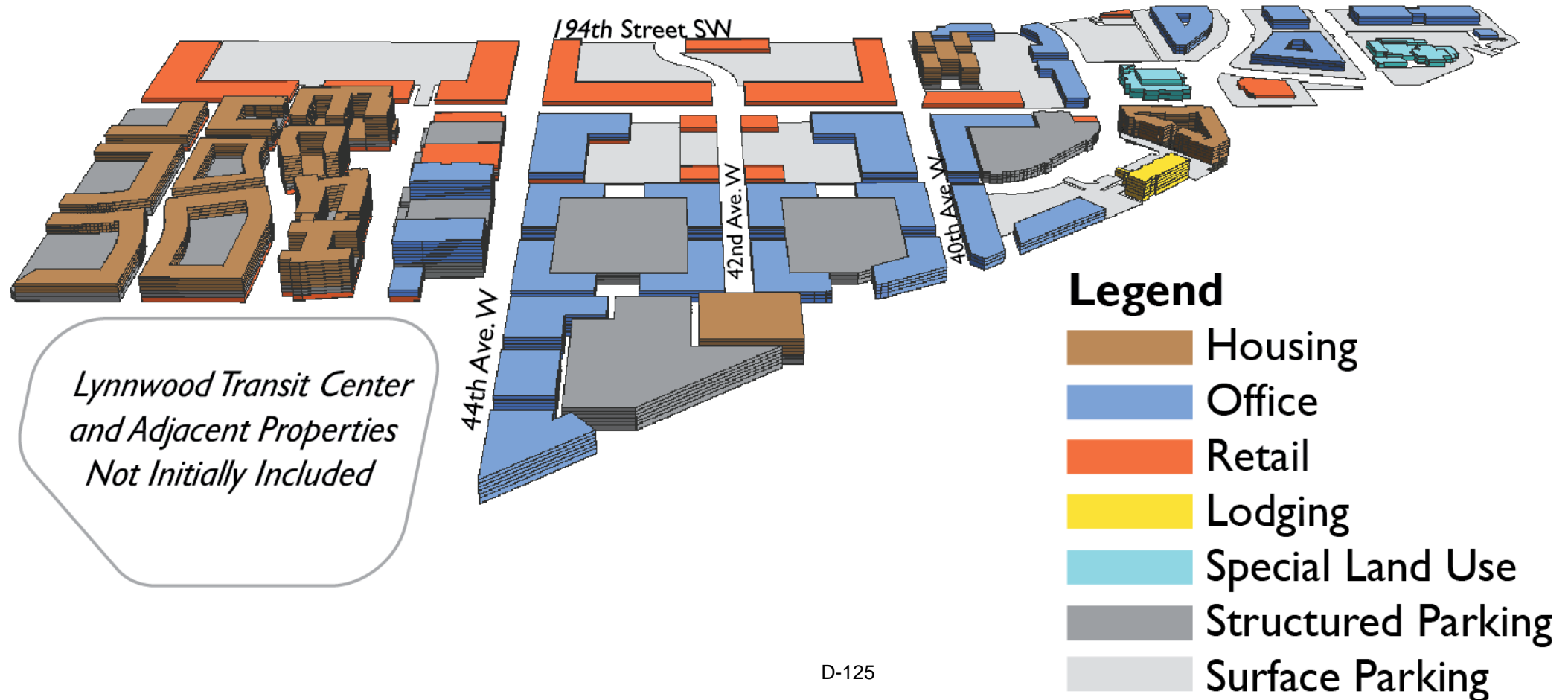


- | | | | |
|---|---------|---|--------------------|
|  | Housing |  | Special Land Use |
|  | Office |  | Structured Parking |
|  | Retail |  | Surface Parking |
|  | Lodging | | |

D-124

Massing Study

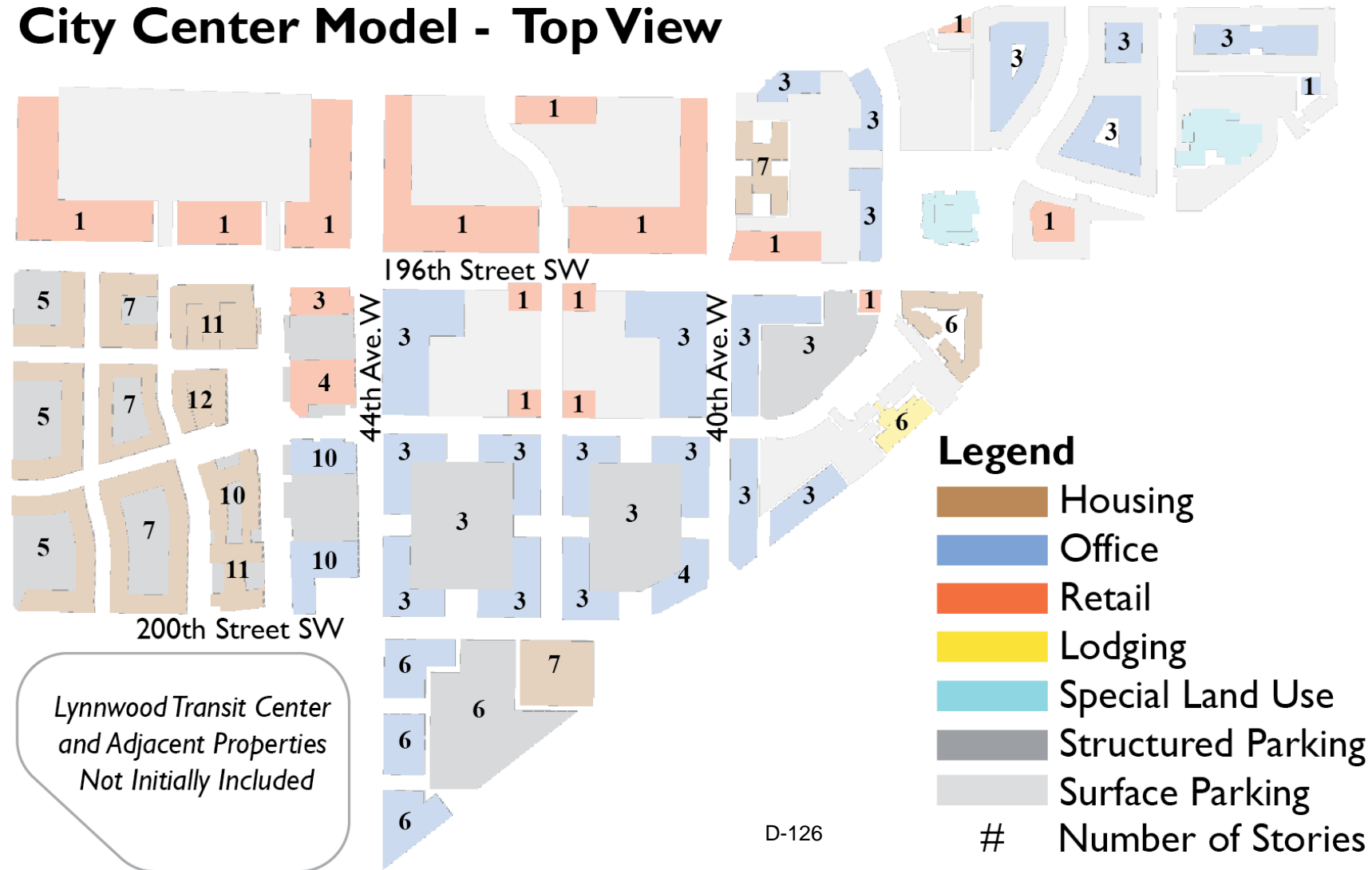
City Center Model - 3D View



D-125

Massing Study

City Center Model - Top View



D-126



Key Finding #2 – Massing Model

- Development Capacity Leads to Low- and Mid-Rise Construction Patterns
- If some Mid- and High-Rise Construction Occurs, Development Standards Would Prevent Remaining City Center Area from Redeveloping



Development Scenario

Planned Action Ordinance Capacity

- Kinect @ Lynnwood
- Lynnwood 40th (Under Review)
- Northline Village Agreement
- CityCenter Apartments
- Lynnwood Destinations
- Existing Development

	Alt. B “Preferred Alt.” - Medium Intensity
Residential DU	3,000 DUs
Residential SF	3,600,000 SF
Office SF	4,000,000 SF
Retail SF	1,500,000 SF
Total SF	9,100,000 SF



Development Scenario

Alternative B – Remaining Capacity of Planned Action Ordinance

	Alt. B “Preferred Alt.” - Medium Intensity	Remaining Capacity
Residential DU	3,000 DUs	0 DUs
Residential SF	3,600,000 SF	206,447 SF
Office SF	4,000,000 SF	2,330,280 SF
Retail SF	1,500,000 SF	157,456 SF
Total SF	9,100,000 SF	2,694,183 SF
<i>Includes Northline Village, Kinect @ Lynnwood, and projects under review</i>		



Key Finding #3 – Development Scenario

- Planned Action Ordinance (PAO) for Housing is Obsolete.
- Marketability for City Center Investments Decreased.



Next Steps

Development Scenario:

- Staff recommends reviewing a revised scenario that redistributes and increases capacity
- Priorities:
 - Maintain 4M SF Office and 1.5M SF of Retail
 - Allocate Additional Housing Capacity
 - Increase to 12.3M SF in Alt. C
 - Review Housing DU to SF Ratio
 - Allocate SF for Institutional, Religious Assembly, and Lodging
 - Model for 2035 and 2044



Amenities in City Center



D-132



Urban Land Institute Nation Study Visit

Park Access and City Center Implementation

- Study Visit, February 2020
- Panel of Experts
 - Parks and Recreation
 - Economic Development
 - Landscape Architecture & Urban Design
 - Planning and Development



Urban Land Institute Nation Study Visit

Supporting Park Access and City Center Implementation

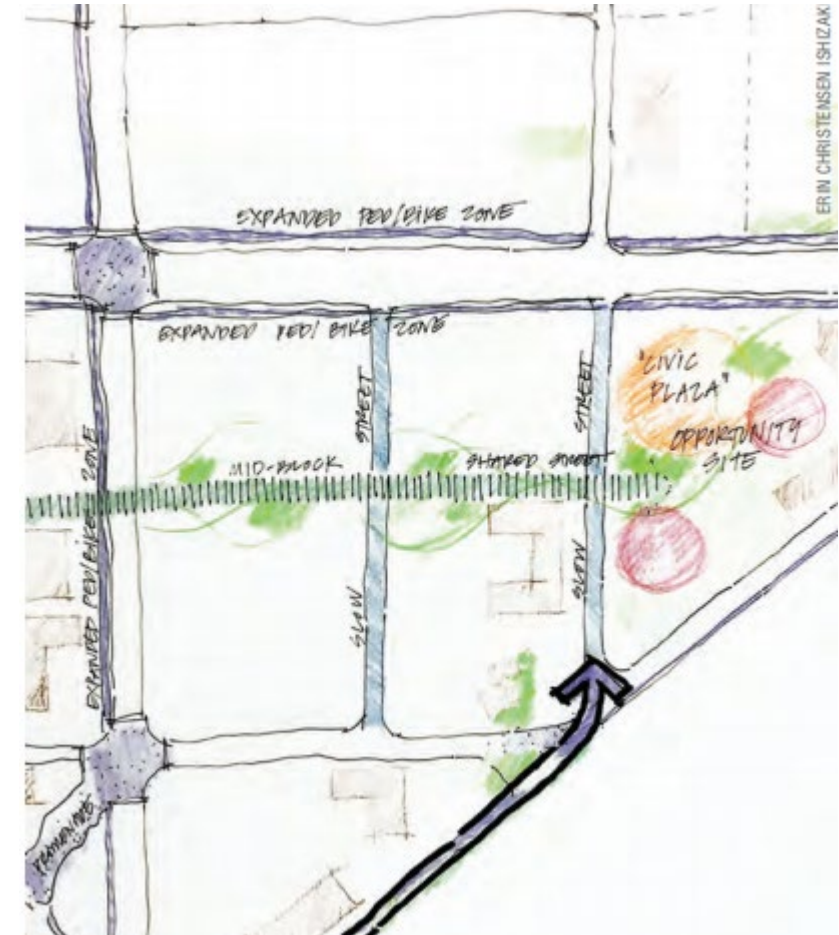
- Study Question Topics –
 - Catalyzing Civic Activity and Promote Investment
 - Tools, Partnerships and Leverage to Build Public Amenities
 - Connectivity and Streetscape Interventions



Urban Land Institute Nation Study Visit

Study Visit Process

- Walking Tour of City Center
- Interviews of Stakeholders
 - Board and Commission Members
 - Local Developers
 - Business Owners
 - Local Partner Agencies
 - City Staff
- Closed Work Party for Recommendations





Key Finding #4 – ULI Study Visit

- Provide Amenities Residents Want, to Support Attracting Residents and Investors to the City Center
- Residents are seeking ways to engage their neighborhood through walking or biking



Next Steps

ULI Study Visit

- City Staff will brief the Parks & Recreation Board on February 3rd
- Bring Back to Council at Later Date to Discuss Recommendations and Pursue a Work Plan



CITY COUNCIL ITEM E

CITY OF LYNNWOOD City Council

TITLE: Legislative Priorities- Specific Bills to Review

DEPARTMENT CONTACT: Council President George Hurst

SUMMARY:

A council discussion of bills before the State Legislature that are a priority for City Directors and a review of bills sponsored by the 32nd and 21st legislative district.

POLICY QUESTION(S) FOR COUNCIL CONSIDERATION:

Should the City Council support or oppose bills being considered by the State Legislature.

BACKGROUND:

A draft of general legislative priorities has been presented to the Council. A request by Council Member Frizzell and Council President Hurst requested information on specific legislative bills being proposed in the current state session that are of interest to the city.

PREVIOUS COUNCIL ACTIONS:

Discussion during January 19, 2021 work session.

DOCUMENT ATTACHMENTS

Description:	Type:
1070 HBA	Backup Material
1128 HBA	Backup Material
5043 SBA	Backup Material
5134 SBR	Backup Material
HB 1348	Backup Material
HB 1349	Backup Material

Finance Committee

HB 1070

Brief Description: Modifying allowed uses of local tax revenue for affordable housing and related services to include the acquisition and construction of affordable housing and facilities.

Sponsors: Representatives Ryu, Macri, Walen, Chopp, Santos, Fitzgibbon, Ramel, Wylie, Ramos, Bateman, Tharinger, Simmons, Kloba, Peterson, Gregerson, Goodman, Sells, Bronoske, Valdez, Callan, Hackney, Cody, Ormsby, Riccelli, Springer, Fey, Davis, Pollet and Harris-Talley.

Brief Summary of Bill

- Expands the allowable uses of a portion of revenues from the local sales and use tax for housing and related services to include acquiring affordable housing.
- Clarifies that affordable housing includes emergency, transitional, and supportive housing for purposes of the local sales and use tax for housing and related services.
- Expands the allowable uses of a portion of revenues from the state-shared lodging tax to include housing and facilities for homeless youth for counties with a population of at least 1,500,000.

Hearing Date: 1/25/21

Staff: Nick Tucker (786-7383).

Background:

Retail Sales and Use Tax.

Retail sales taxes are imposed on retail sales of most articles of tangible personal property,

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

digital products, and some services. A retail sale is a sale to the final consumer or end user of the property, digital product, or service. If retail sales taxes were not collected when the user acquired the property, digital products, or services, then use tax applies to the value of property, digital product, or service when used in this state. The state, all counties, and all cities levy retail sales and use taxes. The state sales and use tax rate is 6.5 percent; local sales and use tax rates vary from 0.5 percent to 3.9 percent, depending on the location.

Local Sales and Use Tax for Housing and Related Services.

A city or county legislative authority may impose a 0.1 percent sales and use tax in order to fund housing and related services. The tax may be imposed by councilmanic action or by voter approval. A county with a population of greater than 1.5 million may impose the tax by councilmanic action only if the county plans to spend at least 30 percent of the moneys collected that are attributable to taxable activities or events within any city with a population of greater than 60,000 located in that county within the city's boundaries.

A minimum of 60 percent of revenues collected must be used:

- for constructing affordable housing, affordable housing units, facilities providing housing-related services, or mental and behavioral health-related services; or
- to fund the operations and maintenance costs of newly constructed affordable housing, facilities providing housing-related services, or evaluation and treatment centers.

The affordable housing and facilities providing housing-related programs must serve any of the following individuals with income below 60 percent of area median income: individuals with mental illness; veterans; senior citizens; homeless families with children; unaccompanied homeless youth; persons with disabilities; or domestic violence victims. The remainder of the money collected must be used for the operation, delivery, or evaluation of mental and behavioral health treatment programs and services or housing-related services.

State-Shared Lodging Tax.

A city or county legislative authority may impose a 0.2 percent special excise on the sale or charge made for the furnishing of lodging. The tax may be imposed by councilmanic authority. The tax is credited against the state sales tax rate. The state-shared lodging tax is also referred to as the "hotel/motel tax" or the "transient rental tax." Certain requirements of the tax may prevent some cities from imposing the tax.

Generally, proceeds from the tax must be used for tourism promotion, acquisition of tourism-related facilities, or the operation of tourism-related facilities.

Beginning January 1, 2021, for counties with a population of at least 1,500,000, proceeds from the tax must be used as follows:

- at least 37.5 percent for art museums, cultural museums, heritage museums, the arts, and the performing arts;
- at least 37.5 percent for contracts, loans, or grants to nonprofit organizations or public housing authorities for affordable workforce housing within 0.5 miles of a transit station or

for services for homeless youth, or to repay revenue bonds used to finance projects authorized by a community preservation and development authority that promote sustainable workplace opportunities near a community impacted by the construction or operation of tourism-related facilities; and

- the remainder for capital or operating programs that promote tourism and attract tourists to the county.

For purposes of the use of funds by counties with a population of at least 1,500,000, the income threshold for "affordable workforce housing" is between 30 and 80 percent of the county median income, adjusted for household size.

Summary of Bill:

Local Sales and Use Tax for Housing and Related Services.

The acquisition of affordable housing is added to the allowable use of at least 60 percent of the funds raised from the local sales and use tax for housing and related services. Affordable housing includes emergency, transitional, and supportive housing.

State-Shared Lodging Tax.

Housing or facilities for homeless youth is added to the allowable use of at least 37.5 percent of the funds raised from the state-shared lodging tax by a county with a population of at least 1,500,000.

For purposes of the use of funds by counties with a population of at least 1,500,000, the income threshold for "affordable workforce housing" is at or below 80 percent of the county median income, adjusted for household size.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill contains an emergency clause and takes effect immediately.

Local Government Committee

HB 1128

Brief Description: Concerning housing benefit districts.

Sponsors: Representatives Ryu, Hackney, Wylie, Bateman, Berg, Simmons, Ramel, Gregerson, Valdez, Duerr, Lekanoff, Macri, Pollet and Harris-Talley.

Brief Summary of Bill

- Authorizes the establishment of housing benefit districts and sets out requirements and authorities related to their governance, powers, and finances.

Hearing Date: 1/19/21

Staff: Elizabeth Allison (786-7129).

Background:

Special Purpose Districts.

Special purpose districts are local units of government other than a county, city, or town that are created by the legislature to perform specific limited functions. Examples include public hospital districts, public utility districts, water-sewer districts, and cemetery districts. Special purpose districts can be authorized to impose and collect taxes.

Housing Action Plan.

A city planning under the Growth Management Act may adopt a housing action plan (Plan) to encourage construction of affordable and market rate housing in a greater variety of housing types and at prices that are accessible to a greater variety of incomes. The Plan should quantify existing and projected housing needs for all income levels, including extremely low-income households; develop strategies to increase the supply of housing and a variety of housing types;

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

analyze population and employment trends, with documentation of projections; consider strategies to minimize displacement of low-income residents resulting from redevelopment; review and evaluate the current housing elements adopted in required comprehensive plans; and provide for participation and input from community members, community groups, local builders, local realtors, nonprofit housing advocates, and local religious groups; and include a schedule of programs and actions to implement the recommendations of the housing action plan.

Housing Finance Commission.

The Housing Finance Commission (Commission) is a public body that assists in making affordable housing available throughout the state. It issues revenue bonds and participates in federal, state, and local housing programs to make additional funds available to help provide low to moderate income housing throughout the state without the use of public funds or lending the state's credit. The Commission also establishes eligibility standards for eligible persons, considering income, family size, cost, condition, and energy efficiency of available housing.

Summary of Bill:

The legislative authority of a county or city is authorized to establish a housing benefit district (District) for the purpose of acquiring, land banking, predevelopment contracting, selling, improving, funding, and leasing land for the creation of affordable low- and middle-income housing and community development projects within the District consistent with any existing state, regional, or county housing plans and the Washington Housing Policy Act. A District is a municipal corporation with taxing authority and may include two or more cities or counties or a combination of both.

-

Governing Body.

The governing body of the District consists of the members of the legislative authority proposing to establish the District, acting ex-officio and independently.

For Districts with more than one participating jurisdiction, the District must be governed under an interlocal agreement with a governing body composed of at least five members, including:

- at least one elected official from the legislative authority of each participating jurisdiction; and
- any remaining members appointed by the legislative authority of the participating jurisdictions in a manner determined in the interlocal agreement with expertise in the following areas:
 - public or private real estate finance;
 - affordable housing development;
 - neighborhood and community planning;
 - design and architecture;
 - transit-oriented development; or
 - economic development. Section 3(3)(a).

Alternatively, the governing body of the metropolitan planning organization serving the District

may serve as the governing body, but only if the District boundaries are identical to the boundaries of the metropolitan planning organization.

The treasurer of the participating jurisdiction proposing to establish the District is the ex-officio treasurer of the District, unless the interlocal agreement states otherwise.

Housing Action Plan.

Before forming a District, the participating jurisdictions must adopt a housing action plan as described in the Growth Management Act that includes at least two actions to increase its residential building capacity and results in development within the station area producing the following mix of affordable housing:

- 5 percent affordable to extremely low-income households;
- 10 percent affordable to very low-income households;
- 19 percent affordable to low-income households;
- 33 percent affordable to middle-income households; and
- 33 percent available at market rate.

A station area is an area within one-half mile of a major transit stop that is zoned to have an average minimum density of 15 dwelling units or more per gross acre.

A city or county that establishes a District within an encompassing county with a population of at least 750,000 is required to adopt a station area plan. The plan must be consistent with accommodating 65 percent of future population growth and must be approved by the Housing Benefit District Advisory Board before any proposition for tax is submitted to the voters. A District is eligible to apply to the Department of Commerce for a grant up to \$100,000 for planning assistance.

Finances.

To carry out its objectives, a District is authorized to impose sales and use taxes and property taxes.

Upon voter approval, a District may impose a sales and use tax at a rate not to exceed .2 percent of the selling price in the case of a sales tax, or .2 percent of the value of the article used in the case of a use tax. For Districts consisting of a single participating jurisdiction with a population over 750,000, or Districts with at least two participating jurisdictions with a combined population over 250,000, the rate of tax may be up to .5 percent. A District may also impose a sales and use tax without majority approval not to exceed a rate of .1 percent. This tax is in addition to any other taxes authorized by law.

Beginning with taxes levied for collection in calendar year 2022, a District can impose a regular property tax up to \$1 per \$1,000 of the assessed value of property in the District. The tax may be imposed each year for six consecutive years when specifically authorized by a majority of voters in the District.

A District is also authorized to issue and retire general obligation and revenue bonds to carry out its objectives, including:

- the retirement of voter-approved general obligation bonds, issued for capital purposes only, by levying bond retirement ad valorem property tax levies in excess of the one percent limitation upon voter approval;
- general obligation bonds without voter approval equal to 1.5 percent of the value of taxable property within the District; and
- general obligation bonds for capital purposes only and the retirement of those bonds by excess property tax levies imposed upon voter approval.

The revenue from taxes imposed or bonds issued must be used exclusively to implement or reimburse jurisdictions for implementing the specific objectives of the District, including:

- station area planning strategies, including creating new or updating existing plans, identifying a community vision, assessing the current regulatory environment and identify possible barriers to affordable housing development, assessing displacement risk for current low-income residents and underrepresented racial and ethnic minorities, creating a displacement mitigation plan, promoting equitable homeownership opportunities for underrepresented racial and ethnic minorities, and assessing alternate pathways to ownership models such as community land trusts and limited or shared equity cooperatives;
- land acquisition, based on station area plans and working with local jurisdictions and both nonprofit and for-profit developers to acquire, assemble, lease, land bank parcels, or sell, in cases where the station area plan clearly demonstrates that it is not financially feasible to lease all development parcels, with the net proceeds directed to subsidies for affordable housing and to promote community land trusts and infrastructure costs; and
- infrastructure development, such as area-wide environmental plans, sewers, and sidewalks.

Housing Benefit District Advisory Board.

A seven-member Housing Benefit District Advisory Board (Board) is established. The members, including the chair, are appointed by the Governor to provide oversight and technical assistance to Districts. Members must consist of the following voting members:

- one member with public or private real estate finance experience;
- one member with affordable housing development experience;
- one member with market rate housing development experience;
- one member with experience in neighborhood and community planning;
- one member with design and architecture experience;
- one member with experience in transit-oriented development; and
- one member with economic development experience.

When appointing members, the Governor must strive to reflect the racial and ethnic makeup of state residents overall to ensure the inclusion of members of racial and ethnic groups disproportionately experiencing severe and moderate housing cost-burden.

Other than the chair, members serve four-year terms, except for three of the initial appointees,

who will serve two-year terms.

The Board must review and approve the station area plans submitted by Districts to confirm compliance with regional growth strategies. The Housing Finance Commission is required to provide administrative and staff support to the Board.

Appropriation: None.

Fiscal Note: Requested on 1/12/2021

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.

SENATE BILL REPORT

SB 5043

As of January 19, 2021

Title: An act relating to the provision of housing for school district employees.

Brief Description: Providing housing to school district employees.

Sponsors: Senators Salomon, Rolfes, Conway, Das, Hasegawa, Hunt, Kuderer, Lovelett, Saldaña, Wellman and Wilson, C..

Brief History:

Committee Activity: Early Learning & K-12 Education: 1/20/21.

Brief Summary of Bill

- Allows any school district to build teachers' cottages or other single or multifamily housing for school district employees when directed by a vote of the qualified electors of the district to do so.
- Eliminates a board of supervisors that approves certain school property plans.
- Exempts all leasehold interests in facilities owned or used by a school district which provides housing for school district employees from leasehold excise tax.

SENATE COMMITTEE ON EARLY LEARNING & K-12 EDUCATION

Staff: Benjamin Omdal (786-7442)

Background: Teacher Cottages. Current state law requires school board directors of second-class school districts to build schoolhouses and teachers' cottages when directed by a vote of the district to do so, and may purchase real property for any school district purpose. It also allows second-class districts to provide suitable dwellings and accommodations for teachers, supervisors, and necessary assistants.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

Any school district that has a student enrollment in its public schools of 2000 or more students is a first-class school district. School districts with fewer than 2000 students are second-class school districts.

Board of Supervisors that Approves School Property Plans. Second-class districts or a combination of districts must submit certain plans regarding school property to be approved by a board of supervisors that has certain members.

Leasehold Excise Tax. Leasehold excise tax is assessed on the use of public property by a private party and is in lieu of property tax. The tax rate is 0.1284 of the rent paid for the property. Approximately 53 percent of the tax is directed to the state general fund and 47 percent of the tax is returned to the county and city in which the leased property is located.

Current state law exempts certain leasehold interests from the leasehold excise tax including all leasehold interests in facilities owned or used by a school, college, or university which leasehold provides housing for students and which is otherwise exempt from certain taxation.

Summary of Bill: Housing for School District Employees. The board of directors of any school district may build teachers' cottages or other single or multifamily housing for school district employees, when directed by a vote of the qualified electors of the school district to do so.

The board of directors may find the provision of housing for school district employees to be necessary or proper to recruit or retain qualified school district employees or otherwise carry out the functions of the district. Upon such finding, the provision of such housing is in furtherance of the district's fundamental governmental purpose.

Rental or other income from housing, including sale, may be deposited into the school district's general fund to be used for general maintenance, utility, insurance costs, and any other costs associated with the lease or rental of such property and for other district purposes including costs related to operating and maintaining school facilities.

Any school district may enter into an agreement with any municipality, taxing district, or municipal corporation regarding conveying or leasing any lands, properties, or facilities for the development of single or multifamily housing for school district employees or to provide for the joint use, or to participate in the financing as may be fixed by agreement between the respective legislative bodies.

Board of Supervisors that Approves School Property Plans. The statute creating the board of supervisors to approve certain plans regarding school property is repealed.

Leasehold Excise Tax. All leasehold interests in facilities owned or used by a school

district in which the leasehold provides housing for students or school district employees is exempt from leasehold excise tax. This exemption expires January 1, 2032.

Appropriation: None.

Fiscal Note: Requested on January 14, 2021.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

SENATE BILL REPORT

SB 5134

As of January 14, 2021

Title: An act relating to enhancing public trust and confidence in law enforcement and strengthening law enforcement accountability for general authority Washington peace officers, excluding department of fish and wildlife officers, by: Excluding police accountability topics from being subject to bargaining in those law enforcement union contracts, precluding use of arbitration for those law enforcement officer disciplinary appeals, and specifying mandatory grounds for discharge from employment for those general authority Washington peace officers.

Brief Description: Enhancing public trust and confidence in law enforcement and strengthening law enforcement accountability for general authority Washington peace officers, excluding department of fish and wildlife officers.

Sponsors: Senators Salomon, Darneille, Das, Hunt, Pedersen and Wilson, C..

Brief History:

Committee Activity: Labor, Commerce & Tribal Affairs: 1/14/21.

Brief Summary of Bill

- Prohibits collective bargaining agreements covering law enforcement officers from including certain provisions related to discipline and oversight.
- Prohibits the use of arbitration for appeals of the discipline of law enforcement officers for misconduct and requires appeals of the discipline to go through a civil service commission, hearing examiner, or administrative law judge.
- Prohibits, on an appeal of the discipline of an officer, the reduction of the discipline imposed by the employer unless the discipline was arbitrary, capricious, or based on an illegal reason.
- Establishes a list of specific misconduct that must result in the discharge

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

of the law enforcement officer.

SENATE COMMITTEE ON LABOR, COMMERCE & TRIBAL AFFAIRS

Staff: Jarrett Sacks (786-7448)

Background: Law Enforcement Collective Bargaining. The Public Employees' Collective Bargaining Act (PECBA) provides for collective bargaining of wages, hours, and working conditions with employees of cities, counties, and other political subdivisions. Police have the authority to collectively bargain under PECBA, as do the officers of the Washington State Patrol and the Department of Fish and Wildlife. PECBA is administered by the Public Employment Relations Commission (PERC). Under PECBA, grievance procedures and discipline are mandatory subjects of bargaining and the parties may agree to binding arbitration to resolve grievances.

Many police agencies in Washington are represented for the purposes of collective bargaining and have collective bargaining agreements that call for binding arbitration to resolve grievances. Grievance procedures vary depending on the agreement, but may include an agreed-upon list of arbitrators. The parties may also request a list of arbitrators from PERC, the American Arbitration Association, or the Federal Mediation and Conciliation Service.

Civil Service Commissions. State law requires most cities and counties to provide civil service for city police and county sheriffs. If a city or county must provide for civil service, state law requires the creation of a civil service commission. State law requires a civil service commission to:

- make rules for the operation of the civil service system that are consistent with state law;
- give practical tests to determine the capacity of a person to perform the duties of the position sought;
- conduct investigations and prepare reports;
- hear and make determinations on appeals or complaints;
- develop and provide competitive tests to determine candidate qualifications and prepare eligibility lists based on test results;
- certify to the appointing authority the individuals ranked highest on the eligibility list; and
- keep records and approve payrolls.

State civil service laws related to city police do not apply to cities and towns that provide for civil service that substantially accomplishes the purpose of state civil service laws.

Summary of Bill: Law Enforcement Collective Bargaining Agreements. Collective

bargaining agreements (CBAs) covering law enforcement officers are prohibited from:

- requiring a waiting period before a law enforcement officer is interviewed by their employer about a use of force incident or other significant incident involving alleged misconduct— CBAs are also prohibited from allowing an officer to watch video recordings of the incident, review written statements, or talk to other officers about the incident prior to an interview and CBAs must allow for the immediate interview of an officer alleged to have been involved in, or witness to, a use of force incident;
- precluding the investigation of a complaint or the imposition of discipline by the employer based on a time limit for filing a complaint or concluding an investigation;
- limiting the manner in which complaints of misconduct are initiated, investigated, litigated, or otherwise resolved by the employer;
- preventing the employer from pursuing other incidents or types of misconduct revealed during an investigation;
- limiting retention, disclosure, use, or review of body camera and in-car video footage by the employer;
- limiting secondary employment management, oversight, and policies established by the employer;
- limiting internal review boards or early intervention systems established by the employer or local jurisdiction;
- limiting the authority, composition, or responsibilities of civilian oversight entities established by the employer, local jurisdiction, or other governing body;
- limiting the use or authority of civilian supervisors and investigators by the employer or applicable civilian oversight entity receiving complaints and conducting investigations;
- limiting full subpoena authority for civilian oversight bodies, or otherwise limit civilian oversight and review;
- limiting public access to, retention of, or disclosure of information and records regarding incidents, complaints, investigations, findings, disciplinary decisions, litigation, appeals, or decertification involving law enforcement officers;
- limiting a chief's or sheriff's authority to remove a law enforcement officer from duty or place an officer on leave;
- limiting the procedures or timelines for the retention or destruction of law enforcement officer misconduct and employment records;
- allowing sealing, removal, redaction, or destruction of information in law enforcement officer misconduct and employment records;
- allowing law enforcement officers or their union representatives to raise previously undisclosed information at disciplinary appeal hearings where that information was known and not disclosed by the officer or union representative during the underlying investigation;
- requiring a specific standard of review or burden of proof greater than a preponderance of evidence in order to find misconduct or to impose or uphold discipline;
- allowing the use of arbitration to decide disciplinary appeals;
- including any provision addressing the process or information regarding imposition of

discipline, hearings, appeals, or decertification for misconduct for law enforcement officers;

- limiting the employer or civilian oversight entity regarding who investigates complaints of criminal misconduct by a law enforcement officer;
- prohibiting the employer from releasing misconduct and employment information about a law enforcement officer to prospective employers, or obtaining the information from prior employers of prospective officers;
- limiting the composition, appointment requirements, policies, procedures, or rules of a civil service commission or a public safety civil service commission;
- allowing or requiring that discipline be consistent with past practice or be comparable to past discipline sanctions; or
- limiting the authority of the employer to take into account misconduct history in assignment to, reassignment from, and transfer to and from, speciality assignments as field training officers.

Appeal of Disciplinary Decisions. Discipline of law enforcement officers for misconduct are not subject to arbitration. Appeals of disciplinary decisions for misconduct are subject to a civil service commission. The employer may choose to use an administrative law judge (ALJ) or hearing examiner in lieu of a civil service commission to hear disciplinary appeals.

Any civil service commissioner, ALJ, or hearing examiner who hears appeals must:

- be selected on the basis of merit;
- have the necessary subject matter expertise;
- not have a conflict of interest;
- not have worked for a law enforcement agency in the ten years preceding their appointment; and
- be on contract or staff for the civil service commission or jurisdiction, rather than selected on a case-by-case basis.

A party may appeal a decision of a civil service commission, ALJ, or hearing examiner regarding discipline for misconduct to superior court only if the decision violates an explicit, well-defined, and dominant public policy established by case law.

The civil service commission, ALJ, or hearing examiner must uphold the discipline imposed and may not reduce the discipline unless they find it was arbitrary, capricious, or based on an illegal reason.

For appeals of discipline of misconduct:

- hearings, except for deliberations, must be open to the public;
- all requests by the officer or their union must be made within ten days of receiving notification of discipline, the appeals must be heard within 90 days of the imposition of discipline, and a decision must be entered within 30 days of the close of the hearing;

- past disciplinary decisions made by the same law enforcement agency for the same or similar conduct are not grounds for reducing or overturning discipline imposed;
- any procedural error or other contractual violation regarding the imposition of discipline must be weighed against the nature of the misconduct found to have been committed in determining the appropriate remedy;
- the written decision must be made available to the parties and the public and is subject to disclosure under the Public Records Act; and
- the decision must be final and binding without further appeal.

Discipline and Discharge for Misconduct. An employer may not consider past discipline practices as an extenuating circumstance and may not impose discipline other than discharge based on past practice for similar misconduct.

The following specific misconduct must result in discharge of the law enforcement officer:

- use of excessive force or being present and aware of another officer's use of excessive force, and able to intervene, and failing to intervene or report another officer's use of excessive force;
- knowingly hiding material evidence, failing to report exonerating information, or making materially misleading, deceptive, untrue, or fraudulent statements during an investigation, in documents or reports, or while testifying under oath;
- theft of misappropriation of funds or property, use of the position of law enforcement officer for personal gain through fraud or misrepresentation;
- serious or repeated harassment or discrimination based on a legally protected class under the Washington Law Against Discrimination;
- commission or conviction of a felony offense;
- acting with deliberate indifference to a substantial risk of harm to a person in custody;
- engaging in sexual contact with a person who has been detained, who is in custody, or where a reasonable person would believe they were facing the possibility of being detained or taken into custody; or
- violating any of the duties of law enforcement officers relating to an individual's immigration or citizenship status established under current state law.

The state, cities, towns, counties, and other municipalities or political subdivisions must establish procedures for receiving and investigating complaints of misconduct and imposing discipline on law enforcement officers. The process for adopting the procedures must include the opportunity for public review and comment and review and comment by civilian oversight officials if a jurisdiction has them.

Law enforcement officer means any full-time, fully compensated and elected, appointed, or employed officer of a general authority Washington law enforcement agency who is commissioned to enforce the criminal laws of the state of Washington generally. Law enforcement officer does not include peace officers employed by the Department of Fish and Wildlife.

Appropriation: None.

Fiscal Note: Requested on January 10, 2021.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony: PRO: The bill sends appeals to a civil service commission and entities that do not have conflicts of interest while still allowing for due process and appeals. The bill addresses many police reform issues that have come up through the years. The bill helps hold police accountable while preserving collective bargaining. Collective bargaining stands in the way of reforms the citizens and cities have passed. The current system conceals discipline from public scrutiny. Extensive research shows that the inclusion of certain collective bargaining terms cause the issues that erode public trust.

CON: The bill attacks the fundamental tenets of collective bargaining. The bill only acknowledges individual problem cases and not systemic issues. The bill leaves the responsibility at the feet of workers instead of management who also perpetuate systemic issues. Management does not get it right all the time and the bill prevents holding them accountable. Washington is already a leader in police reform under current labor laws. This bill tips the scale to the employer and erodes hard-earned protections. The bill has the Legislature getting far too into the details of collective bargaining agreements between management and workers.

OTHER: Some of the bill goes too far instead of trying to strike a balance with bargaining. The bill may overwhelm civil service commissions. Sheriffs and police chiefs are opposed to the provisions that require discharging the officer for certain acts listed in the bill.

Persons Testifying: PRO: Senator Jesse Salomon, Prime Sponsor; Candice Bock, Association of Washington Cities; Leslie Reed, citizen; Amy Sundberg, citizen; Judge Anne Levinson (retired); Breean Beggs, Spokane City Council, President; Paige Fernandez, American Civil Liberties Union, National Policing Policy Advisor; Fred Thomas, parent of Leonard Thomas; Devon S. Connor-Green, Black Lives Matter Seattle-King County; David Parsons, UAW 4121, President; Shannon Cheng, citizen.

CON: Leanne Kunze, Washington Federation of State Employees/AFSCME Council 28; Spike Unruh, Washington State Patrol Troopers Association; Teresa Taylor, Washington Council of Police & Sheriffs; Marco Montebianco, Washington State Fraternal Order of Police; Dennis Lawson, Washington State Council of Fire Fighters; Shaunie Wheeler James, Teamsters Joint Council; Larry Brown, Washington State Labor Council, AFL-CIO; John Searcy, Teamsters Local 117.

OTHER: James McMahan, Washington Association of Sheriffs & Police Chiefs.

Persons Signed In To Testify But Not Testifying:

OTHER: Dario de la Rosa, Public Employment Relations Commission.

HOUSE BILL 1348

State of Washington

67th Legislature

2021 Regular Session

By Representatives Davis, Schmick, Frame, Leavitt, Simmons, Valdez, Fitzgibbon, Orwall, Ortiz-Self, Slatter, Caldier, Stonier, Peterson, Ramel, Goodman, Taylor, Sutherland, Ryu, Hackney, Lovick, Barkis, Pollet, Macri, Callan, Santos, Ormsby, Tharinger, Riccelli, Lekanoff, Harris-Talley, and Harris

Read first time 01/22/21. Referred to Committee on Health Care & Wellness.

1 AN ACT Relating to the provision of medical assistance to
2 incarcerated persons; amending RCW 74.09.670; creating a new section;
3 and providing a contingent effective date.

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

5 NEW SECTION. **Sec. 1.** (1) The legislature finds that:

6 (a) Having access to same day and next day physical and
7 behavioral health services is imperative to facilitate successful
8 reentry for individuals releasing from jails;

9 (b) The overwhelming majority of individuals in jails are
10 incarcerated for less than 30 days;

11 (c) Suspending medicaid for individuals on short-term jail stays
12 causes significant delays in medicaid reinstatement upon release; and

13 (d) Delays in medicaid reinstatement impede access to physical
14 and behavioral health appointments and prescription medications upon
15 release.

16 (2) The legislature intends to facilitate successful jail reentry
17 by not suspending medicaid for individuals who are incarcerated for
18 less than 30 days.

19 **Sec. 2.** RCW 74.09.670 and 2016 c 154 s 2 are each amended to
20 read as follows:

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1 The authority ~~((is directed to))~~ must suspend, rather than
2 terminate, medical assistance benefits ~~((by July 1, 2017,))~~ for
3 persons who are incarcerated in a correctional institution, as
4 defined in RCW 9.94.049, for 30 days or more and for persons
5 committed to a state hospital. ((This must include the ability for a
6 person)) A person's incarceration status may not affect the person's
7 enrollment in medical assistance prior to 30 days of incarceration in
8 a correctional institution. After 30 days in a correctional
9 institution, an incarcerated person must be allowed to apply for
10 medical assistance in suspense status during incarceration((,)) and
11 the ability to apply may not depend upon knowledge of the release
12 date of the person. ~~((The authority must provide a progress report~~
13 ~~describing program design and a detailed fiscal estimate to the~~
14 ~~governor and relevant committees of the legislature by December 1,~~
15 ~~2016.))~~

16 NEW SECTION. **Sec. 3.** (1) The health care authority is
17 authorized to seek any necessary state plan amendments or waivers
18 from the federal department of health and human services that are
19 necessary to implement section 2 of this act.

20 (2) This act takes effect upon the director of the health care
21 authority receiving notice that the federal department of health and
22 human services has approved all necessary state plan amendments or
23 waivers to implement section 2 of this act.

24 (3) Upon receiving approval from the federal department of health
25 and human services as described in subsection (2) of this section,
26 the director of the health care authority shall provide written
27 notice of receiving approval to the chief clerk of the house of
28 representatives, the secretary of the senate, the office of the code
29 reviser, and others as deemed appropriate by the director.

--- END ---

HOUSE BILL 1349

State of Washington

67th Legislature

2021 Regular Session

By Representatives Davis, Caldier, Frame, Leavitt, Simmons, Paul, Fitzgibbon, Orwall, Shewmake, Ortiz-Self, Slatter, Peterson, Senn, Ramel, Taylor, Ryu, Duerr, Barkis, Pollet, Chopp, Macri, Callan, Ormsby, and Harris

Read first time 01/22/21. Referred to Committee on Health Care & Wellness.

1 AN ACT Relating to peer specialists; amending RCW 18.130.040;
2 reenacting and amending RCW 18.130.040, 18.130.175, and 43.43.842;
3 adding new sections to chapter 71.24 RCW; adding a new chapter to
4 Title 18 RCW; creating a new section; providing an effective date;
5 and providing an expiration date.

6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

7 NEW SECTION. **Sec. 1.** The definitions in this section apply
8 throughout this chapter unless the context clearly requires
9 otherwise.

10 (1) "Advisory committee" means the Washington state licensed peer
11 specialist advisory committee established under section 3 of this
12 act.

13 (2) "Approved supervisor" means:

14 (a) Until July 1, 2024, a behavioral health provider, as defined
15 in RCW 71.24.025 with at least two years of experience working in a
16 behavioral health practice that employs peer specialists as part of
17 treatment teams; or

18 (b) A licensed peer specialist who has completed:

19 (i) At least 1,500 hours of work as a fully licensed peer
20 specialist engaged in the practice of peer support services, with at

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1 least 500 hours attained through the joint supervision of peers in
2 conjunction with another approved supervisor; and

3 (ii) The training developed by the health care authority under
4 section 11 of this act.

5 (3) "Department" means the department of health.

6 (4) "Licensed peer specialist" means a person licensed under this
7 chapter to engage in the practice of peer support services.

8 (5) "Licensed peer specialist trainee" means an individual
9 working toward the supervised experience and written examination
10 requirements to become a licensed peer specialist under this chapter.

11 (6) "Practice of peer support services" means the provision of
12 interventions by either a person in recovery from a mental health
13 condition or substance use disorder, or both, or the parent or legal
14 guardian of a youth who is receiving or has received behavioral
15 health services. The client receiving the interventions receives them
16 from a person with a similar lived experience as either a person in
17 recovery from a mental health condition or substance use disorder, or
18 both, or the parent or legal guardian of a youth who is receiving or
19 has received behavioral health services. The person provides the
20 interventions through the use of shared experiences to assist a
21 client in the acquisition and exercise of skills needed to support
22 the client's recovery. Interventions may include activities that
23 assist clients in accessing or engaging in treatment and in symptom
24 management; promote social connection, recovery, and self-advocacy;
25 provide guidance in the development of natural community supports and
26 basic daily living skills; and support clients in engagement,
27 motivation, and maintenance related to achieving and maintaining
28 health and wellness goals.

29 (7) "Secretary" means the secretary of health.

30 NEW SECTION. **Sec. 2.** In addition to any other authority, the
31 secretary has the authority to:

32 (1) Adopt rules under chapter 34.05 RCW necessary to implement
33 this chapter;

34 (2) Establish all licensing, examination, and renewal fees in
35 accordance with RCW 43.70.110 and 43.70.250;

36 (3) Establish forms and procedures necessary to administer this
37 chapter;

1 (4) Issue licenses to applicants who have met the education,
2 training, and examination requirements for obtaining a license and to
3 deny a license to applicants who do not meet the requirements;

4 (5) Hire clerical, administrative, investigative, and other staff
5 as needed to implement this chapter to serve as examiners for any
6 practical examinations;

7 (6) Coordinate with the health care authority to confirm an
8 applicants' successful completion of the licensed peer specialist
9 education course offered by the health care authority under section
10 11 of this act and successful passage of the associated oral
11 examination as proof of eligibility to take a qualifying written
12 examination for applicants for obtaining a license;

13 (7) Establish practice parameters consistent with the definition
14 of the practice of peer support services;

15 (8) Develop a written examination. The initial written
16 examination shall be adapted from that used by the health care
17 authority as of the effective date of this section and modified
18 pursuant to input and comments from the advisory committee;

19 (9) Prepare, grade, and administer, or supervise the grading and
20 administration of written examinations for obtaining a license;

21 (10) Determine which states have licensing requirements
22 equivalent to those of this state, and issue licenses to applicants
23 credentialed in those states without examination;

24 (11) Define and approve any supervised experience requirements
25 for licensure;

26 (12) Adopt rules implementing a continuing competency program;
27 and

28 (13) Establish by rule the procedures for an appeal of an
29 examination failure.

30 NEW SECTION. **Sec. 3.** (1) The Washington state licensed peer
31 specialist advisory committee is established.

32 (2)(a) The advisory committee shall consist of 11 members. Nine
33 members must be licensed peer specialists. Those nine members shall
34 be inclusive of mental health peers, substance use disorder peers,
35 community-based peers, peers who work in clinical settings, youth
36 peers, adult peers, and peer supervisors. One member must represent
37 community behavioral health agencies. One member must represent the
38 public at large and may not be a credentialed behavioral health
39 provider. The advisory committee shall be reflective of the community

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1 who receives peer services, including people who are Black,
2 indigenous, people of color, and individuals who identify as LGBTQ.
3 All members of the advisory committee must be residents of Washington
4 state. Members may not hold an office in a professional association
5 for peer specialists or be employed by the state.

6 (b) The members shall be appointed by the secretary to serve
7 three-year terms which may be renewed. Initial members shall be
8 appointed to staggered terms which may be less than three years.
9 Initial membership may vary from the requirements in (a) of this
10 subsection to account for the lack of an available credential for
11 licensed peer specialists at the time the advisory committee is
12 established. The advisory committee shall select a chair and vice
13 chair.

14 (3) The department must adopt recommendations as submitted by the
15 advisory committee on topics related to the administration of this
16 chapter, including:

17 (a) Advice and recommendations regarding the establishment or
18 implementation of rules related to this chapter;

19 (b) Advice, recommendations, and consultation regarding case
20 disposition guidelines and priorities related to unprofessional
21 conduct cases regarding licensed peer specialists;

22 (c) Assistance, recommendations, and consultation of individual
23 committee members as needed in the review, analysis, and disposition
24 of reports of unprofessional conduct and service recipient
25 complaints;

26 (d) Assistance and recommendations to enhance consumer education;

27 (e) Assistance and recommendations regarding any continuing
28 education and continuing competency programs administered under the
29 provisions of this chapter; and

30 (f) Advice and guidance regarding criteria for licensure based on
31 prior experience as a peer specialist attained before July 1, 2022,
32 as described in section 5(2) of this act.

33 (4) Committee members are immune from suit in an action, civil or
34 criminal, based on the department's disciplinary proceedings or other
35 official acts performed in good faith.

36 (5) Committee members shall be compensated in accordance with RCW
37 43.03.240, including travel expenses in carrying out his or her
38 authorized duties in accordance with RCW 43.03.050 and 43.03.060.

1 NEW SECTION. **Sec. 4.** Nothing in this chapter may be construed
2 to prohibit or restrict:

3 (1) An individual who holds a credential issued by this state,
4 other than as a licensed peer specialist or licensed peer specialist
5 trainee, to engage in the practice of an occupation or profession
6 without obtaining an additional credential from the state. The
7 individual may not use the title licensed peer specialist unless the
8 individual holds a credential under this chapter; or

9 (2) The practice of peer support services by a person who is
10 employed by the government of the United States while engaged in the
11 performance of duties prescribed by the laws of the United States.

12 NEW SECTION. **Sec. 5.** (1) Beginning July 1, 2022, except as
13 provided in subsection (2) of this section, the secretary shall issue
14 a license to engage in the practice of peer support services to any
15 applicant who demonstrates to the satisfaction of the secretary that
16 the applicant meets the following requirements:

17 (a) Submission of an attestation to the department that the
18 applicant self-identifies as:

19 (i) A person with one or more years of recovery from a mental
20 health condition, substance use disorder, or both; or

21 (ii) The parent or legal guardian of a youth who is receiving or
22 has received behavioral health services;

23 (b) Successful completion of the education course developed and
24 offered by the health care authority under section 11 of this act;

25 (c) Successful passage of an oral examination administered by the
26 health care authority upon completion of the education course offered
27 by the health care authority under section 11 of this act;

28 (d) Successful passage of a written examination approved by the
29 department;

30 (e) Successful completion of an experience requirement of at
31 least 1,000 supervised hours as a licensed peer specialist trainee
32 engaged in the volunteer or paid practice of peer support services,
33 in accordance with the standards in section 6 of this act; and

34 (f) Payment of the appropriate fee required under this chapter.

35 (2) The secretary, with the recommendation of the advisory
36 committee, shall establish criteria for the issuance of a license to
37 engage in the practice of peer support services based on prior
38 experience as a peer specialist attained before July 1, 2022. The
39 criteria shall establish equivalency standards necessary to be deemed

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1 to have met the requirements of subsection (1) of this section. An
2 applicant under this subsection shall have until July 1, 2023, to
3 complete any standards in which the applicant is determined to be
4 deficient.

5 (3) A license to engage in the practice of peer support services
6 is valid for two years. A license may be renewed upon demonstrating
7 to the department that the licensed peer specialist has successfully
8 completed 30 hours of continuing education approved by the
9 department. As part of the continuing education requirement, every
10 six years the applicant must submit proof of successful completion of
11 at least three hours of suicide prevention training and three hours
12 of ethics coursework.

13 (4) Beginning July 1, 2023, no person may engage in the practice
14 of peer support services unless the person is licensed under this
15 chapter or an exemption applies.

16 NEW SECTION. **Sec. 6.** (1) The secretary shall issue a license to
17 engage in the practice of peer support services as a licensed peer
18 specialist trainee to any applicant who demonstrates to the
19 satisfaction of the secretary that the applicant meets the
20 requirements of section 5 (1)(a), (b), (c), and (3) of this act and
21 is working toward the supervised experience and written examination
22 requirements to become a licensed peer specialist under this chapter.

23 (2) An applicant seeking to become a licensed peer specialist
24 trainee under this section shall submit to the secretary for approval
25 a declaration, in accordance with rules adopted by the department,
26 that the licensed peer specialist trainee is actively pursuing the
27 supervised experience requirements of section 5(1)(d) of this act.
28 This declaration must be updated with the trainee's annual renewal.

29 (3) A licensed peer specialist trainee licensed under this
30 section may practice only under the supervision of an approved
31 supervisor. Supervision may be provided through distance supervision.
32 Supervision may be provided by an approved supervisor who is employed
33 by the same employer that employs the licensed peer specialist
34 trainee or by an arrangement made with a third-party approved
35 supervisor to provide supervision, or a combination of both types of
36 approved supervisors.

37 (4) A licensed peer specialist trainee license is valid for one
38 year and may only be renewed four times.

1 NEW SECTION. **Sec. 7.** (1) The date and location of written
2 examinations must be established by the secretary. Applicants who
3 have been found by the secretary to meet other requirements for
4 obtaining a license must be scheduled for the next examination
5 following the filing of the application. The secretary shall
6 establish by rule the examination application deadline.

7 (2) The secretary or the secretary's designees shall administer
8 written examinations to each applicant, by means determined most
9 effective, on subjects appropriate to the scope of practice, as
10 applicable. The examinations must be limited to the purpose of
11 determining whether the applicant possesses the minimum skill and
12 knowledge necessary to practice competently.

13 (3) The examination materials, all grading of the materials, and
14 the grading of any practical work must be preserved for a period of
15 not less than one year after the secretary has made and published the
16 decisions. All examinations must be conducted under fair and wholly
17 impartial methods.

18 (4) Any applicant failing to make the required grade in the first
19 written examination may take up to two subsequent written
20 examinations as the applicant desires upon prepaying a fee determined
21 by the secretary under RCW 43.70.250 for each subsequent written
22 examination. Upon failing four written examinations, the secretary
23 may invalidate the original application and require remedial
24 education before the person may take future written examinations.

25 (5) The secretary may approve a written examination prepared or
26 administered by a private organization that licenses and renews
27 licenses for peer counselors, or an association of licensing
28 agencies, for use by an applicant in meeting the credentialing
29 requirements.

30 NEW SECTION. **Sec. 8.** The secretary shall establish, by rule,
31 the requirements and fees for renewal of a license issued pursuant to
32 this chapter. Failure to renew the license invalidates the license
33 and all privileges granted by the license. If a license has lapsed
34 for a period longer than three years, the person shall demonstrate
35 competence to the satisfaction of the secretary by completing
36 continuing competency requirements or meeting other standards
37 determined by the secretary.

1 NEW SECTION. **Sec. 9.** A person licensed under this chapter must
2 provide clients at the commencement of any program of treatment with
3 accurate disclosure information concerning the practice, in
4 accordance with rules adopted by the department, including the right
5 of clients to refuse treatment, the responsibility of clients to
6 choose the provider and treatment modality which best suits their
7 needs, and the extent of confidentiality provided by this chapter.
8 The disclosure information must also include the license holder's
9 professional education and training and such other information as
10 required by rule. The disclosure must be acknowledged in writing by
11 the client and licensed peer specialist.

12 NEW SECTION. **Sec. 10.** The uniform disciplinary act, chapter
13 18.130 RCW, governs unlicensed practice of peer support services, the
14 issuance and denial of licenses, and the discipline of licensed peer
15 specialists and licensed peer specialist trainees under this chapter.

16 NEW SECTION. **Sec. 11.** A new section is added to chapter 71.24
17 RCW to read as follows:

18 (1)(a) By January 1, 2022, the authority must develop a course of
19 instruction to become a licensed peer specialist under chapter 18.---
20 RCW (the new chapter created in section 18 of this act). The course
21 must be approximately 80 hours in duration and based upon the
22 curriculum offered by the authority in its peer specialist training
23 as of the effective date of this section, as well as additional
24 instruction in the principles of recovery coaching and suicide
25 prevention. The education course must be taught by licensed peer
26 specialists. The education course must be offered by the authority
27 with sufficient frequency to accommodate the demand for training and
28 the needs of the workforce. Upon completion of the education course,
29 the student must pass an oral examination administered by the course
30 trainer.

31 (b) The authority shall coordinate with the department to develop
32 a process for the authority to confirm to the department that a
33 student has successfully completed the licensed peer specialist
34 education course offered under this subsection and successfully
35 passed the associated oral examination and is eligible to take a
36 qualifying written examination for applicants to become licensed peer
37 specialists under chapter 18.--- RCW (the new chapter created in
38 section 18 of this act);

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1 (2) By January 1, 2022, the authority must develop a training
2 course for licensed peer specialists providing supervision to
3 licensed peer specialist trainees under section 6 of this act.

4 (3)(a) By July 1, 2022, the authority shall develop a 40-hour
5 specialized training course in peer crisis response services for peer
6 specialists licensed under chapter 18.--- RCW (the new chapter
7 created in section 18 of this act) who are working as peer crisis
8 responders. The training shall incorporate best practices for
9 responding to 988 behavioral health crisis line calls, as well as
10 processes for co-response with law enforcement when necessary.

11 (b) Beginning July 1, 2023, any entity that uses licensed peer
12 specialists as peer crisis responders, may only use licensed peer
13 specialists who have completed the training course established by (a)
14 of this subsection. A behavioral health agency that uses licensed
15 peer specialists to work as peer crisis responders must maintain the
16 records of the completion of the training course for those licensed
17 peer specialists who provide these services and make the records
18 available to the state agency for auditing or licensing purposes.

19 (4) For the purposes of this section, the term "peer crisis
20 responder" means a peer specialist licensed under chapter 18.--- RCW
21 (the new chapter created in section 18 of this act) who has completed
22 the training under subsection (3) of this section whose job involves
23 responding to behavioral health emergencies, including those
24 dispatched through a 988 crisis hotline or the 911 system.

25 NEW SECTION. **Sec. 12.** A new section is added to chapter 71.24
26 RCW to read as follows:

27 Behavioral health agencies must reduce the caseload for approved
28 supervisors who are providing supervision to licensed peer specialist
29 trainees seeking licensure under chapter 18.--- RCW (the new chapter
30 created in section 18 of this act), in accordance with standards
31 established by the Washington state licensed peer specialist advisory
32 committee.

33 NEW SECTION. **Sec. 13.** By January 1, 2022, the office of the
34 insurance commissioner shall make recommendations to health carriers
35 regarding appropriate use of licensed peer specialists, network
36 adequacy for licensed peer specialists, and steps to incorporate
37 licensed peer specialists into commercial provider networks.

1 **Sec. 14.** RCW 18.130.040 and 2019 c 444 s 11, 2019 c 308 s 18,
2 and 2019 c 55 s 7 are each reenacted and amended to read as follows:

3 (1) This chapter applies only to the secretary and the boards and
4 commissions having jurisdiction in relation to the professions
5 licensed under the chapters specified in this section. This chapter
6 does not apply to any business or profession not licensed under the
7 chapters specified in this section.

8 (2)(a) The secretary has authority under this chapter in relation
9 to the following professions:

10 (i) Dispensing opticians licensed and designated apprentices
11 under chapter 18.34 RCW;

12 (ii) Midwives licensed under chapter 18.50 RCW;

13 (iii) Ocularists licensed under chapter 18.55 RCW;

14 (iv) Massage therapists and businesses licensed under chapter
15 18.108 RCW;

16 (v) Dental hygienists licensed under chapter 18.29 RCW;

17 (vi) Acupuncturists or acupuncture and Eastern medicine
18 practitioners licensed under chapter 18.06 RCW;

19 (vii) Radiologic technologists certified and X-ray technicians
20 registered under chapter 18.84 RCW;

21 (viii) Respiratory care practitioners licensed under chapter
22 18.89 RCW;

23 (ix) Hypnotherapists and agency affiliated counselors registered
24 and advisors and counselors certified under chapter 18.19 RCW;

25 (x) Persons licensed as mental health counselors, mental health
26 counselor associates, marriage and family therapists, marriage and
27 family therapist associates, social workers, social work associates—
28 advanced, and social work associates—independent clinical under
29 chapter 18.225 RCW;

30 (xi) Persons registered as nursing pool operators under chapter
31 18.52C RCW;

32 (xii) Nursing assistants registered or certified or medication
33 assistants endorsed under chapter 18.88A RCW;

34 (xiii) Dietitians and nutritionists certified under chapter
35 18.138 RCW;

36 (xiv) Substance use disorder professionals, substance use
37 disorder professional trainees, or co-occurring disorder specialists
38 certified under chapter 18.205 RCW;

39 (xv) Sex offender treatment providers and certified affiliate sex
40 offender treatment providers certified under chapter 18.155 RCW;

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1 (xvi) Persons licensed and certified under chapter 18.73 RCW or
2 RCW 18.71.205;

3 (xvii) Orthotists and prosthetists licensed under chapter 18.200
4 RCW;

5 (xviii) Surgical technologists registered under chapter 18.215
6 RCW;

7 (xix) Recreational therapists under chapter 18.230 RCW;

8 (xx) Animal massage therapists certified under chapter 18.240
9 RCW;

10 (xxi) Athletic trainers licensed under chapter 18.250 RCW;

11 (xxii) Home care aides certified under chapter 18.88B RCW;

12 (xxiii) Genetic counselors licensed under chapter 18.290 RCW;

13 (xxiv) Reflexologists certified under chapter 18.108 RCW;

14 (xxv) Medical assistants-certified, medical assistants-
15 hemodialysis technician, medical assistants-phlebotomist, forensic
16 phlebotomist, and medical assistants-registered certified and
17 registered under chapter 18.360 RCW; (~~and~~)

18 (xxvi) Behavior analysts, assistant behavior analysts, and
19 behavior technicians under chapter 18.380 RCW; and

20 (xxvii) Licensed peer specialists and licensed peer specialist
21 trainees under chapter 18.--- RCW (the new chapter created in section
22 18 of this act).

23 (b) The boards and commissions having authority under this
24 chapter are as follows:

25 (i) The podiatric medical board as established in chapter 18.22
26 RCW;

27 (ii) The chiropractic quality assurance commission as established
28 in chapter 18.25 RCW;

29 (iii) The dental quality assurance commission as established in
30 chapter 18.32 RCW governing licenses issued under chapter 18.32 RCW,
31 licenses and registrations issued under chapter 18.260 RCW, and
32 certifications issued under chapter 18.350 RCW;

33 (iv) The board of hearing and speech as established in chapter
34 18.35 RCW;

35 (v) The board of examiners for nursing home administrators as
36 established in chapter 18.52 RCW;

37 (vi) The optometry board as established in chapter 18.54 RCW
38 governing licenses issued under chapter 18.53 RCW;

(vii) The board of osteopathic medicine and surgery as established in chapter 18.57 RCW governing licenses issued under chapters 18.57 and 18.57A RCW;

(viii) The pharmacy quality assurance commission as established in chapter 18.64 RCW governing licenses issued under chapters 18.64 and 18.64A RCW;

(ix) The Washington medical commission as established in chapter 18.71 RCW governing licenses and registrations issued under chapters 18.71 and 18.71A RCW;

(x) The board of physical therapy as established in chapter 18.74 RCW;

(xi) The board of occupational therapy practice as established in chapter 18.59 RCW;

(xii) The nursing care quality assurance commission as established in chapter 18.79 RCW governing licenses and registrations issued under that chapter;

(xiii) The examining board of psychology and its disciplinary committee as established in chapter 18.83 RCW;

(xiv) The veterinary board of governors as established in chapter 18.92 RCW;

(xv) The board of naturopathy established in chapter 18.36A RCW; and

(xvi) The board of denturists established in chapter 18.30 RCW.

(3) In addition to the authority to discipline license holders, the disciplining authority has the authority to grant or deny licenses. The disciplining authority may also grant a license subject to conditions.

(4) All disciplining authorities shall adopt procedures to ensure substantially consistent application of this chapter, the uniform disciplinary act, among the disciplining authorities listed in subsection (2) of this section.

Sec. 15. RCW 18.130.040 and 2020 c 80 s 23 are each amended to read as follows:

(1) This chapter applies only to the secretary and the boards and commissions having jurisdiction in relation to the professions licensed under the chapters specified in this section. This chapter does not apply to any business or profession not licensed under the chapters specified in this section.

1 (2) (a) The secretary has authority under this chapter in relation
2 to the following professions:

3 (i) Dispensing opticians licensed and designated apprentices
4 under chapter 18.34 RCW;

5 (ii) Midwives licensed under chapter 18.50 RCW;

6 (iii) Ocularists licensed under chapter 18.55 RCW;

7 (iv) Massage therapists and businesses licensed under chapter
8 18.108 RCW;

9 (v) Dental hygienists licensed under chapter 18.29 RCW;

10 (vi) Acupuncturists or acupuncture and Eastern medicine
11 practitioners licensed under chapter 18.06 RCW;

12 (vii) Radiologic technologists certified and X-ray technicians
13 registered under chapter 18.84 RCW;

14 (viii) Respiratory care practitioners licensed under chapter
15 18.89 RCW;

16 (ix) Hypnotherapists and agency affiliated counselors registered
17 and advisors and counselors certified under chapter 18.19 RCW;

18 (x) Persons licensed as mental health counselors, mental health
19 counselor associates, marriage and family therapists, marriage and
20 family therapist associates, social workers, social work associates—
21 advanced, and social work associates—independent clinical under
22 chapter 18.225 RCW;

23 (xi) Persons registered as nursing pool operators under chapter
24 18.52C RCW;

25 (xii) Nursing assistants registered or certified or medication
26 assistants endorsed under chapter 18.88A RCW;

27 (xiii) Dietitians and nutritionists certified under chapter
28 18.138 RCW;

29 (xiv) Substance use disorder professionals, substance use
30 disorder professional trainees, or co-occurring disorder specialists
31 certified under chapter 18.205 RCW;

32 (xv) Sex offender treatment providers and certified affiliate sex
33 offender treatment providers certified under chapter 18.155 RCW;

34 (xvi) Persons licensed and certified under chapter 18.73 RCW or
35 RCW 18.71.205;

36 (xvii) Orthotists and prosthetists licensed under chapter 18.200
37 RCW;

38 (xviii) Surgical technologists registered under chapter 18.215
39 RCW;

40 (xix) Recreational therapists under chapter 18.230 RCW; E-34

(xx) Animal massage therapists certified under chapter 18.240 RCW;

(xxi) Athletic trainers licensed under chapter 18.250 RCW;

(xxii) Home care aides certified under chapter 18.88B RCW;

(xxiii) Genetic counselors licensed under chapter 18.290 RCW;

(xxiv) Reflexologists certified under chapter 18.108 RCW;

(xxv) Medical assistants-certified, medical assistants-hemodialysis technician, medical assistants-phlebotomist, forensic phlebotomist, and medical assistants-registered certified and registered under chapter 18.360 RCW; (~~and~~)

(xxvi) Behavior analysts, assistant behavior analysts, and behavior technicians under chapter 18.380 RCW; and

(xxvii) Licensed peer specialists and licensed peer specialist trainees under chapter 18.--- RCW (the new chapter created in section 18 of this act).

(b) The boards and commissions having authority under this chapter are as follows:

(i) The podiatric medical board as established in chapter 18.22 RCW;

(ii) The chiropractic quality assurance commission as established in chapter 18.25 RCW;

(iii) The dental quality assurance commission as established in chapter 18.32 RCW governing licenses issued under chapter 18.32 RCW, licenses and registrations issued under chapter 18.260 RCW, and certifications issued under chapter 18.350 RCW;

(iv) The board of hearing and speech as established in chapter 18.35 RCW;

(v) The board of examiners for nursing home administrators as established in chapter 18.52 RCW;

(vi) The optometry board as established in chapter 18.54 RCW governing licenses issued under chapter 18.53 RCW;

(vii) The board of osteopathic medicine and surgery as established in chapter 18.57 RCW governing licenses issued under chapter 18.57 RCW;

(viii) The pharmacy quality assurance commission as established in chapter 18.64 RCW governing licenses issued under chapters 18.64 and 18.64A RCW;

(ix) The Washington medical commission as established in chapter 18.71 RCW governing licenses and registrations issued under chapters 18.71 and 18.71A RCW;

(x) The board of physical therapy as established in chapter 18.74 RCW;

(xi) The board of occupational therapy practice as established in chapter 18.59 RCW;

(xii) The nursing care quality assurance commission as established in chapter 18.79 RCW governing licenses and registrations issued under that chapter;

(xiii) The examining board of psychology and its disciplinary committee as established in chapter 18.83 RCW;

(xiv) The veterinary board of governors as established in chapter 18.92 RCW;

(xv) The board of naturopathy established in chapter 18.36A RCW; and

(xvi) The board of denturists established in chapter 18.30 RCW.

(3) In addition to the authority to discipline license holders, the disciplining authority has the authority to grant or deny licenses. The disciplining authority may also grant a license subject to conditions.

(4) All disciplining authorities shall adopt procedures to ensure substantially consistent application of this chapter, the uniform disciplinary act, among the disciplining authorities listed in subsection (2) of this section.

Sec. 16. RCW 18.130.175 and 2019 c 446 s 43 and 2019 c 444 s 21 are each reenacted and amended to read as follows:

(1) In lieu of disciplinary action under RCW 18.130.160 and if the disciplining authority determines that the unprofessional conduct may be the result of substance abuse, the disciplining authority may refer the license holder to a voluntary substance abuse monitoring program approved by the disciplining authority.

The cost of the treatment shall be the responsibility of the license holder, but the responsibility does not preclude payment by an employer, existing insurance coverage, or other sources. Primary alcoholism or other drug addiction treatment shall be provided by approved treatment programs under RCW 70.96A.020 or by any other provider approved by the entity or the commission. However, nothing shall prohibit the disciplining authority from approving additional services and programs as an adjunct to primary alcoholism or other drug addiction treatment. The disciplining authority may also approve the use of out-of-state programs. Referral of the license holder to

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1 the program shall be done only with the consent of the license
2 holder. Referral to the program may also include probationary
3 conditions for a designated period of time. If the license holder
4 does not consent to be referred to the program or does not
5 successfully complete the program, the disciplining authority may
6 take appropriate action under RCW 18.130.160 which includes
7 suspension of the license unless or until the disciplining authority,
8 in consultation with the director of the voluntary substance abuse
9 monitoring program, determines the license holder is able to practice
10 safely. The secretary shall adopt uniform rules for the evaluation by
11 the disciplining authority of a relapse or program violation on the
12 part of a license holder in the substance abuse monitoring program.
13 The evaluation shall encourage program participation with additional
14 conditions, in lieu of disciplinary action, when the disciplining
15 authority determines that the license holder is able to continue to
16 practice with reasonable skill and safety.

17 (2) In addition to approving substance abuse monitoring programs
18 that may receive referrals from the disciplining authority, the
19 disciplining authority may establish by rule requirements for
20 participation of license holders who are not being investigated or
21 monitored by the disciplining authority for substance abuse. License
22 holders voluntarily participating in the approved programs without
23 being referred by the disciplining authority shall not be subject to
24 disciplinary action under RCW 18.130.160 for their substance abuse,
25 and shall not have their participation made known to the disciplining
26 authority, if they meet the requirements of this section and the
27 program in which they are participating.

28 (3) The license holder shall sign a waiver allowing the program
29 to release information to the disciplining authority if the licensee
30 does not comply with the requirements of this section or is unable to
31 practice with reasonable skill or safety. The substance abuse program
32 shall report to the disciplining authority any license holder who
33 fails to comply with the requirements of this section or the program
34 or who, in the opinion of the program, is unable to practice with
35 reasonable skill or safety. License holders shall report to the
36 disciplining authority if they fail to comply with this section or do
37 not complete the program's requirements. License holders may, upon
38 the agreement of the program and disciplining authority, reenter the
39 program if they have previously failed to comply with this section.

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1 (4) The treatment and pretreatment records of license holders
2 referred to or voluntarily participating in approved programs shall
3 be confidential, shall be exempt from chapter 42.56 RCW, and shall
4 not be subject to discovery by subpoena or admissible as evidence
5 except for monitoring records reported to the disciplining authority
6 for cause as defined in subsection (3) of this section. Monitoring
7 records relating to license holders referred to the program by the
8 disciplining authority or relating to license holders reported to the
9 disciplining authority by the program for cause, shall be released to
10 the disciplining authority at the request of the disciplining
11 authority. Records held by the disciplining authority under this
12 section shall be exempt from chapter 42.56 RCW and shall not be
13 subject to discovery by subpoena except by the license holder.

14 (5) "Substance abuse," as used in this section, means the
15 impairment, as determined by the disciplining authority, of a license
16 holder's professional services by an addiction to, a dependency on,
17 or the use of alcohol, legend drugs, or controlled substances.

18 (6) This section does not affect an employer's right or ability
19 to make employment-related decisions regarding a license holder. This
20 section does not restrict the authority of the disciplining authority
21 to take disciplinary action for any other unprofessional conduct.

22 (7) A person who, in good faith, reports information or takes
23 action in connection with this section is immune from civil liability
24 for reporting information or taking the action.

25 (a) The immunity from civil liability provided by this section
26 shall be liberally construed to accomplish the purposes of this
27 section and the persons entitled to immunity shall include:

- 28 (i) An approved monitoring treatment program;
29 (ii) The professional association operating the program;
30 (iii) Members, employees, or agents of the program or
31 association;
32 (iv) Persons reporting a license holder as being possibly
33 impaired or providing information about the license holder's
34 impairment; and

35 (v) Professionals supervising or monitoring the course of the
36 impaired license holder's treatment or rehabilitation.

37 (b) The courts are strongly encouraged to impose sanctions on
38 clients and their attorneys whose allegations under this subsection
39 are not made in good faith and are without either reasonable
40 objective, substantive grounds, or both.

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(c) The immunity provided in this section is in addition to any other immunity provided by law.

(8) In the case of a person who is applying to be a substance use disorder professional or substance use disorder professional trainee certified under chapter 18.205 RCW, an agency affiliated counselor registered under chapter 18.19 RCW, or a peer specialist or peer specialist trainee licensed under chapter 18.--- RCW (the new chapter created in section 18 of this act), if the person is:

(a) Less than one year in recovery from a substance use disorder, the duration of time that the person may be required to participate in the voluntary substance abuse monitoring program may not exceed the amount of time necessary for the person to achieve one year in recovery; or

(b) At least one year in recovery from a substance use disorder, the person may not be required to participate in the substance abuse monitoring program.

~~(9) ((In the case of a person who is applying to be an agency affiliated counselor registered under chapter 18.19 RCW and practices or intends to practice as a peer counselor in an agency, as defined in RCW 18.19.020, if the person is:~~

~~(a) Less than one year in recovery from a substance use disorder, the duration of time that the person may be required to participate in the voluntary substance abuse monitoring program may not exceed the amount of time necessary for the person to achieve one year in recovery; or~~

~~(b) At least one year in recovery from a substance use disorder, the person may not be required to participate in the substance abuse monitoring program))~~ The provisions of subsection (8) of this section apply to any person employed as a peer specialist as of July 1, 2022, participating in a program under this section as of July 1, 2022, and applying to become a licensed peer specialist under section 5 of this act, regardless of when the person's participation in a program began. To this extent, subsection (8) of this section applies retroactively, but in all other respects it applies prospectively.

Sec. 17. RCW 43.43.842 and 2019 c 446 s 44 and 2019 c 444 s 22 are each reenacted and amended to read as follows:

(1)(a) The secretary of social and health services and the secretary of health shall adopt additional requirements for the licensure or relicensure of agencies, facilities, and ^{E-39} licensed

1 individuals who provide care and treatment to vulnerable adults,
2 including nursing pools registered under chapter 18.52C RCW. These
3 additional requirements shall ensure that any person associated with
4 a licensed agency or facility having unsupervised access with a
5 vulnerable adult shall not be the respondent in an active protective
6 order under RCW 74.34.130, nor have been: (i) Convicted of a crime
7 against children or other persons as defined in RCW 43.43.830, except
8 as provided in this section; (ii) convicted of crimes relating to
9 financial exploitation as defined in RCW 43.43.830, except as
10 provided in this section; or (iii) found in any disciplinary board
11 final decision to have abused a vulnerable adult (~~(under)~~) as defined
12 in RCW 43.43.830.

13 (b) A person associated with a licensed agency or facility who
14 has unsupervised access with a vulnerable adult shall make the
15 disclosures specified in RCW 43.43.834(2). The person shall make the
16 disclosures in writing, sign, and swear to the contents under penalty
17 of perjury. The person shall, in the disclosures, specify all crimes
18 against children or other persons, all crimes relating to financial
19 exploitation, and all crimes relating to drugs as defined in RCW
20 43.43.830, committed by the person.

21 (2) The rules adopted under this section shall permit the
22 licensee to consider the criminal history of an applicant for
23 employment in a licensed facility when the applicant has one or more
24 convictions for a past offense and:

25 (a) The offense was simple assault, assault in the fourth degree,
26 or the same offense as it may be renamed, and three or more years
27 have passed between the most recent conviction and the date of
28 application for employment;

29 (b) The offense was prostitution, or the same offense as it may
30 be renamed, and three or more years have passed between the most
31 recent conviction and the date of application for employment;

32 (c) The offense was theft in the third degree, or the same
33 offense as it may be renamed, and three or more years have passed
34 between the most recent conviction and the date of application for
35 employment;

36 (d) The offense was theft in the second degree, or the same
37 offense as it may be renamed, and five or more years have passed
38 between the most recent conviction and the date of application for
39 employment;

1 (e) The offense was forgery, or the same offense as it may be
2 renamed, and five or more years have passed between the most recent
3 conviction and the date of application for employment;

4 (f) The department of social and health services reviewed the
5 employee's otherwise disqualifying criminal history through the
6 department of social and health services' background assessment
7 review team process conducted in 2002, and determined that such
8 employee could remain in a position covered by this section; or

9 (g) The otherwise disqualifying conviction or disposition has
10 been the subject of a pardon, annulment, or other equivalent
11 procedure.

12 The offenses set forth in (a) through (g) of this subsection do
13 not automatically disqualify an applicant from employment by a
14 licensee. Nothing in this section may be construed to require the
15 employment of any person against a licensee's judgment.

16 (3) The rules adopted pursuant to subsection (2) of this section
17 may not allow a licensee to automatically deny an applicant with a
18 conviction for an offense set forth in subsection (2) of this section
19 for a position as a substance use disorder professional or substance
20 use disorder professional trainee certified under chapter 18.205 RCW,
21 as an agency affiliated counselor registered under chapter 18.19 RCW
22 practicing as a peer counselor in an agency or facility, or as a peer
23 specialist or peer specialist trainee licensed under chapter 18.---
24 RCW (the new chapter created in section 18 of this act), if:

25 (a) At least one year has passed between the applicant's most
26 recent conviction for an offense set forth in subsection (2) of this
27 section and the date of application for employment;

28 (b) The offense was committed as a result of the applicant's
29 substance use or untreated mental health symptoms; and

30 (c) The applicant is at least one year in recovery from a
31 substance use disorder, whether through abstinence or stability on
32 medication-assisted therapy, or in recovery from a mental health
33 disorder.

34 ~~((The rules adopted pursuant to subsection (2) of this~~
35 ~~section may not allow a licensee to automatically deny an applicant~~
36 ~~with a conviction for an offense set forth in subsection (2) of this~~
37 ~~section for a position as an agency affiliated counselor registered~~
38 ~~under chapter 18.19 RCW practicing as a peer counselor in an agency~~
39 ~~or facility if:~~

1 ~~(a) At least one year has passed between the applicant's most~~
2 ~~recent conviction for an offense set forth in subsection (2) of this~~
3 ~~section and the date of application for employment;~~

4 ~~(b) The offense was committed as a result of the person's~~
5 ~~substance use or untreated mental health symptoms; and~~

6 ~~(c) The applicant is at least one year in recovery from a~~
7 ~~substance use disorder, whether through abstinence or stability on~~
8 ~~medication-assisted therapy, or in recovery from mental health~~
9 ~~challenges.~~

10 ~~(5))~~ In consultation with law enforcement personnel, the
11 secretary of social and health services and the secretary of health
12 shall investigate, or cause to be investigated, the conviction record
13 and the protection proceeding record information under this chapter
14 of the staff of each agency or facility under their respective
15 jurisdictions seeking licensure or relicensure. An individual
16 responding to a criminal background inquiry request from his or her
17 employer or potential employer shall disclose the information about
18 his or her criminal history under penalty of perjury. The secretaries
19 shall use the information solely for the purpose of determining
20 eligibility for licensure or relicensure. Criminal justice agencies
21 shall provide the secretaries such information as they may have and
22 that the secretaries may require for such purpose.

23 NEW SECTION. **Sec. 18.** Sections 1 through 10 of the act
24 constitute a new chapter in Title 18 RCW.

25 NEW SECTION. **Sec. 19.** Section 14 of this act expires July 1,
26 2022.

27 NEW SECTION. **Sec. 20.** Section 15 of this act takes effect July
28 1, 2022.

--- END ---

CITY COUNCIL ITEM F

CITY OF LYNNWOOD City Council

TITLE: Break

DEPARTMENT CONTACT: George Hurst, Council President

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM G

CITY OF LYNNWOOD City Council

TITLE: Council Summit Agenda and Format

DEPARTMENT CONTACT: Jim Smith, Council Vice President

SUMMARY:

This provides city council with the opportunity to discuss priorities for topics to cover during the council summit, scheduled for February 20th at 8:30 am.

DOCUMENT ATTACHMENTS

Description:

[Draft Summit Agenda for 2.20.21](#)

Type:

Backup Material

Council Summit 2021

Zoom Meeting February 20, 2021 8:30-2:00

8:30

Call to order

President Hurst

8:35

Council Rules and Procedures

Vice President Smith

- Address internal procedures that could improve
 - Effectiveness and efficiency of Council
 - Council-Staff working relationships
 - Effectiveness of Committees
 - How to improve communication
 - How to evaluate performance
- Review current Council Rules in order to clarify and improve
 - How to maintain Council courtesies
 - Protocol RE talking to Department Heads
 - Clarification of how to get items onto the agenda and handling non-agenda items
- How can we keep our Council meetings within the three hour time frame?
 - More efficient interviews or eliminate commission interviews? (We receive applications)
 - Written Council liaison reports twice yearly?
- Streamline to four Council meetings per month
 - Third Wednesdays only quarterly and dedicated to finance?
 - Fifth Monday Work Sessions

10:00

Visioning: Community

President Hurst

- Community Engagement: bring members together to learn, connect and collaborate through various platforms including Council a Facebook Page
- How do we rebuild after Covid and expand a sense of neighborhoods as well as a common community in Lynnwood?
- Focus first on our local families rather than the Corporation called City of Lynnwood
- Is Intergovernmental affairs now a Council responsibility?

11-30-12:00	Break
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12:00

President Hurst

Housing

- What will happen when the eviction moratorium ends?
- Housing Policy- What will be the best first actions to move away from apartment construction and promote construction of a diverse housing stock in Lynnwood? The missing middle
- Displaced Low-income tenants

If time allows

Commissions and Boards

Vice President Smith

Review and simplify

- Consider five person commissions
- Work on having all Lynnwood members when appropriate

2:00 Close

President Hurst

For information only:

Work Sessions Topics to Be Scheduled

- Eliminate Finance Committee (entire Council should be involved, especially during budget)
- Budget amendments depending on how COVID is going
- Business license fees & Head tax review
- What policies are needed to help businesses survive and rebound from Covid?
- Discuss bringing Legal in-house
- Meet with Judge Moore and discuss Judge options
- Discuss Race and Social Justice Coordinator
- Funding for residential streets in need of repair
- Marijuana Retail Store Ban
- City Center Plan-review and evaluation
- Address the current and increasing traffic congestion around the mall and light rail station - an autonomous mini transit for Lynnwood City Center
- Business round tables

CITY COUNCIL ITEM H

CITY OF LYNNWOOD Executive

TITLE: Mayor Comments and Questions

DEPARTMENT CONTACT: Mayor Smith

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM I

CITY OF LYNNWOOD City Council

TITLE: Council President and Council Comments

DEPARTMENT CONTACT: George Hurst, Council President

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM J

CITY OF LYNNWOOD Executive

TITLE: Executive Session, If Needed

DEPARTMENT CONTACT: Leah Jensen

DOCUMENT ATTACHMENTS

Description:

Type:

No Attachments Available

CITY COUNCIL ITEM M-1

CITY OF LYNNWOOD Public Works

TITLE: Interlocal Agreement - City of Edmonds - 76th Avenue W Overlay Project

DEPARTMENT CONTACT: David Mach, City Engineer, and Amie Hanson, Civil Engineer

SUMMARY:

The purpose of this agenda item is to enter into an Interlocal Agreement with City of Edmonds for the 76th Avenue W Overlay Project. This agreement will facilitate the construction of a pavement overlay project along 76th Avenue W from 196th Street SW to Olympic View Drive in 2022.

ACTION:

Authorize the Mayor to enter into and execute on behalf of the City, an Interlocal Agreement with City of Edmonds to construct the 76th Avenue W Overlay Project.

BACKGROUND:

City of Edmonds has identified this segment of 76th as a priority segment for their paving program and plans to construct a new overlay project during 2022. The boundary for City and Edmonds and City of Lynnwood is along 76th, with both cities having maintenance responsibilities for this street. The proposed project area is nearly equally within the Cities' boundaries (see ILA Attachment 1).

This project creates an opportunity for Lynnwood to improve pavement condition of this street before it degrades further and requires more significant and costly repair. With a project across the entire street width, both municipalities are leveraging resources for a larger project with more competitive pricing than if split between the two cities. A shared project ensures a consistent street quality and Lynnwood community members will benefit from improvements made across the entire street width. Three Lynnwood curb ramps will be updated to meet current ADA requirements as part of this project.

City of Lynnwood will reimburse City of Edmonds for activities occurring within the City of Lynnwood boundary, including construction, design, and soft costs such as construction engineering, inspection, and management. Lynnwood's share of this project is currently estimated to be \$1,000,000 (planning level estimate).

FUNDING:

The project costs are consistent with the adopted 2021-2022 biennial budget.

City of Lynnwood Funds used:

- Fund 150, Transportation Benefit District

KEY FEATURES AND VISION ALIGNMENT:

The Lynnwood Community Vision states that the City is to "be a welcoming city that builds a healthy and sustainable environment."

The 76th Ave Overlay project supports that vision and results in an important improvement to the City's infrastructure that links City of Lynnwood programs, policies, comprehensive plans, mission, and ultimately the Community Vision. This project provides improved streets along with accessible pedestrian ramps.

which support the goals of being a welcoming city that builds a healthy and sustainable environment; investing in efficient, local and regional transportation systems; and being responsive to the wants and needs of our citizens.

DOCUMENT ATTACHMENTS

Description:	Type:
Interlocal Agreement with City of Edmonds - 76th Overlay Project	Backup Material
ILA Attachment 1 - Lynnwood Project Area	Backup Material

**INTERLOCAL AGREEMENT
CITY OF EDMONDS AND CITY OF
76th AVE OVERLAY PROJECT**

THIS INTERLOCAL AGREEMENT (“Agreement”) is entered into by and between the City of Edmonds, Washington (“Edmonds”) and the City of Lynnwood, Washington (“Lynnwood”) (individually, a “Party” and collectively, the “Parties”) as of the date entered below.

RECITALS

WHEREAS, Chapter 39.34 RCW authorizes two or more political subdivisions or units of local government of the State of Washington to cooperate on a basis of mutual advantage to provide for services and facilities; and

WHEREAS, Edmonds is currently planning a capital improvement project known as the 76th Ave W Overlay Project (the “Project”); and

WHEREAS, the Parties each own approximately half of 76th Ave W, as described on Attachment 1, attached hereto and incorporated by this reference; and

WHEREAS, Edmonds plans to overlay its half of 76th Ave W from 196th St SW to Olympic View Drive as part of the Project (the “Edmonds Project Area”); and

WHEREAS, Lynnwood wishes to overlay its half of 76th Ave W from 196th St SW to Olympic View Drive as shown on Attachment 1 (the “Lynnwood Project Area”); and

WHEREAS, combining both cities’ overlays into one construction contract can create a mutual cost benefit by taking advantage of economy of scale; and

WHEREAS, Lynnwood concurred with Edmonds’ federal grant application and scope of work combining the Edmonds Project Area and Lynnwood Project Area into one project, and

WHEREAS, Edmonds received the federal grant to fund a significant portion of Edmonds Project Area, and

WHEREAS, Edmonds must design and construct the Project within timelines specified by the Puget Sound Regional Council and ensure grant funds are spent in a timely manner; and

WHEREAS, the Parties desire to enter into this Agreement for the purpose of defining their respective rights, obligations, costs and liabilities regarding this undertaking; and

WHEREAS, the City Council of the City of Edmonds has taken appropriate action to approve Edmonds’ entry into this Agreement; and

WHEREAS, the City Council of the City of Lynnwood has taken appropriate action to approve Lynnwood’s entry into this Agreement, if necessary;

NOW, THEREFORE, in consideration of the terms, conditions and covenants contained herein, Edmonds and Lynnwood agree as follows:

TERMS

Section 1. Requirements of the Interlocal Cooperation Act, Chapter 39.34 RCW.

A. Purpose. The purpose of this Agreement is to establish a formal arrangement under which Lynnwood will pay Edmonds to incorporate overlay work on its half of 76th Ave W into the Project and to construct said work in conjunction with Edmonds' construction of the Project. The terms, conditions and covenants of this Agreement shall accordingly be interpreted to advance this purpose. This Agreement further seeks to allocate and define the Parties' respective rights, obligations, costs and liabilities concerning the establishment, operation and maintenance of this undertaking.

B. No Separate Entity. The Parties agree that no separate legal or administrative entity is necessary to carry out this Agreement.

C. Ownership of Property. Except as expressly provided to the contrary in this Agreement, any real or personal property used or acquired by either Party in connection with the performance of this Agreement will remain the sole property of such Party, and the other Party shall have no interest therein.

D. Administrators. Each Party to this Agreement shall designate an individual ("Administrator"), which may be designated by title or position, to oversee and administer that Party's participation in this Agreement. The Parties' initial Administrators shall be:

Edmonds' Administrator:
City Engineer
121 5th Ave
Edmonds, WA 98020

Lynnwood's Administrator:
Deputy Public Works Director
19100 44th Avenue W.
P.O. Box 5008
Lynnwood, WA 98046-5008

Either Party may change its Administrator at any time by delivering written notice of such Party's new Administrator to the other Party.

Section 2. Term. This Agreement shall be effective upon filing with the Snohomish County Auditor in accordance with Section 17 below. Unless terminated in accordance with Section 3, this Agreement shall remain in effect until the sooner of the following events: (a) Lynnwood's written acceptance of and payment for Edmonds' overlay work provided to Lynnwood pursuant to this Agreement; or (b) December 31, 2023, when it shall expire automatically. The Parties may at their option renew this Agreement for a mutually agreed upon term by a writing signed by both Parties.

Section 3. Termination. The terms of the federal grant providing partial funding for the Project require the scope of work in the federal grant application, which includes both the Edmonds Project Area and Lynnwood Project Area, to be fully constructed with one construction contract. The failure by Edmonds to construct the entire scope of work in the federal grant application may result in the City being required to return or pay back federal funds received for the Project. Therefore, Lynnwood agrees to remain bound by the terms of this Agreement and shall take no action without the consent of Edmonds to terminate this Agreement. In the event that Lynnwood desires to terminate this Agreement, and Edmonds consents to the terms of such termination, neither such termination nor the

expiration of this Agreement shall alter Lynnwood's payment obligations under Section 6 for services already rendered, as well as for the normal and reasonable costs incurred by the contractor in terminating and closing out Lynnwood's portion of the work, and shall not alter the Parties' respective obligations under Section 10 of this Agreement.

Section 4. Obligations of Lynnwood. Lynnwood agrees to:

A. Reimburse Edmonds for design, construction engineering, inspection, management and construction costs incurred in the Lynnwood Project Area.

B. Provide periodic payments to Edmonds, pursuant to Section 6 of this Agreement, for design, construction engineering, inspection, management and construction costs as follows: a) at the documented hours invoiced to Edmonds by its retained design consultant and construction management firm for time spent on Lynnwood Project Area, plus b) the documented hours for Edmonds' employees at the employee's direct hourly rate of pay and overhead rate for time spent on Lynnwood Project Area.

C. Review the scope of work, consultant hours and fees provided by the design consultant and construction management firm retained by Edmonds. Lynnwood will coordinate all corrections, concerns and changes to the scope of work, consultant hours and fees through Edmonds Project Manager.

D. Respond promptly to information requests submitted by Edmonds or its agents regarding the Project work.

E. Provide timely review of designs prepared by Edmonds' consultant, and complete final design approval by the timelines established by Edmonds to meet its construction bidding schedule.

F. Obtain Bid Award Concurrence from the Lynnwood City Council within twenty-one (21) days of the bid opening.

G. Attend Edmonds' weekly construction coordination meetings.

H. Coordinate all corrections, concerns, issues, changes and contractor correspondence through the Edmonds Project Manager.

Section 5. Obligations of Edmonds. Edmonds agrees to:

A. Incorporate the overlay of Lynnwood's Project Area into Project documents.

B. Assume full responsibility for the design and construction of the Project, including the portion of the Project constructed in the Lynnwood Project Area, and including but not limited to securing all necessary consultants, contractors and subcontractors, awarding a bid for the Project, processing any and all change orders, conducting inspections, and obtaining all permits required for the Project work. The Project, including the portion of the Project constructed in the Lynnwood Project Area, shall be performed and constructed in accordance with all state and local laws, regulations, policies, and standards. All construction contracts shall be procured through a formal competitive bidding process consistent with applicable state law. Edmonds shall be solely and exclusively responsible for ensuring the compliance of the Project's bidding process with all applicable requirements of state and local laws and regulations.

C. Submit to Lynnwood for review the scope of work, consultant hours and fees provided by the design consultant and construction management firm retained by Edmonds. Edmonds will obtain Lynnwood's concurrence on the design and construction management contracts prior to work being performed under either contract.

D. Submit plans, specifications, and estimates to Lynnwood for review and approval prior to granting permission to advertise for construction bids. Lynnwood's concurrence with these documents will be obtained prior to advertisement.

E. Respond promptly to information request submitted by Lynnwood or its agents regarding the Project work.

F. Provide Lynnwood personnel reasonable access to the Project's construction area for purposes of inspecting and monitoring the progress of the work.

G. Submit to Lynnwood written invoices for payment in accordance with Section 6. Include copies of invoices from consultants and contractor, clearly indicating the Lynnwood portion of the invoices.

Section 6. Payment Schedule. The Parties agree to the following billing and payment schedule:

A. For design costs, construction contract costs, and construction engineering, inspection, and management costs incurred by Edmonds for the portion of the Project constructed in the Lynnwood Project Area, Edmonds shall within sixty (60) days of its receipt of invoices for said costs submit an invoice to Lynnwood for its share of said costs. Said invoice shall contain a reasonably detailed explanation of the methodology utilized by Edmonds in calculating the Lynnwood share of each expense. Construction contracts shall provide for separate bid schedules, or other means to clearly identify the Lynnwood portion of the project costs. Design contracts and consultant invoices shall identify all tasks and design work performed associated with Lynnwood Project Area.

B. Within thirty (30) days of receiving any undisputed invoice pursuant to subsection 6.A, Lynnwood shall tender payment to Edmonds in the form of a check, money order or other certified funds for the invoiced amount for work approved by Lynnwood, which approval shall not be unreasonably withheld.

C. In the event that the Parties disagree regarding Lynnwood's share of any cost incurred by Edmonds regarding the Project, the Parties may agree to submit the question for resolution by a mediator or arbitrator acceptable to both Parties.

Section 7. Construction Claims and Disputes. If construction claims for additional payment are made by the construction contractor and/or disputes result regarding work in the Lynnwood Project Area, Edmonds shall endeavor to resolve the claims/disputes. Provided however, Edmonds shall obtain Lynnwood approval prior to resolving the claims/disputes. Lynnwood will participate in resolving claims/disputes as necessary. Financial responsibility for approved construction claims/disputes arising from the Lynnwood Project Area shall be the sole responsibility of Lynnwood.

Section 8. Construction Project Acceptance. Upon satisfactory completion of Lynnwood Project Area, resolution of all claims for additional payment, completion of all contract closeout documents and agreement between Edmonds and the contractor, Edmonds shall recommend final acceptance to the Lynnwood Deputy Public Works Director. Approval by the Lynnwood City Council shall be the responsibility of Lynnwood staff.

Section 9. Ownership and Disposition of Property. The Project work within the Lynnwood Project Area pursuant to this Agreement shall become and remain the exclusive property of Lynnwood upon completion. All other work constructed under the Project shall become and remain the exclusive property of Edmonds upon completion. Each Party is and will remain responsible for the operation and maintenance of its portion of 76th Ave W.

Section 10. Release, Indemnification and Hold Harmless Agreement.

- A. Each Party to this Agreement shall be responsible for its own negligent and/or wrongful acts or omissions, and those of its own agents, employees, representatives, contractors or subcontractors, to the fullest extent required by the laws of the State of Washington. Each Party agrees to protect, indemnify and save the other Party harmless from and against any and all such liability for injury or damage to the other Party or the other Party's property, and also from and against all claims, demands and causes of action of every kind and character arising directly or indirectly, or in any way incident to, in connection with, or arising out of work performed under the terms hereof, caused by its own fault or that of its agents, employees, representatives, contractors or subcontractors.
- B. Edmonds specifically promises to indemnify Lynnwood against claims or suits brought under Title 51 RCW by its own employees, contractors or subcontractors, and waives any immunity that Edmonds may have under that title with respect to, but only to, the limited extent necessary to indemnify Lynnwood. Lynnwood specifically promises to indemnify Edmonds against claims or suits brought under Title 51 RCW by its own employees, contractors or subcontractors, and waives any immunity that Lynnwood may have under that title with respect to, but only to, the limited extent necessary to indemnify Edmonds.

Section 11. Insurance. Each Party shall maintain its own insurance and/or self-insurance for its liabilities from damage to property and/or injuries to persons arising out of its activities associated with this Agreement as it deems reasonably appropriate and prudent. The maintenance of, or lack thereof of insurance and/or self-insurance shall not limit the liability of the indemnifying Party to the indemnified Party.

Section 12. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Washington. Any action arising out of this Agreement shall be brought in Snohomish County Superior Court.

Section 13. No Employment Relationship Created. The Parties agree that nothing in this Agreement shall be construed to create an employment relationship between Lynnwood and any employee, agent, representative or contractor of Edmonds, or between Edmonds and any employee, agent, representative or contractor of Lynnwood.

Section 14. No Third Party Rights. This Agreement is intended for the sole and exclusive benefit of the Parties hereto and no third party rights are created by this Agreement.

Section 15. Notices. All notices that are given by any Party pursuant to this Agreement shall be in writing and shall be delivered either in-person, by United States mail, or by electronic mail (email) to the applicable Administrator designated by the Party under Section 1.D above.

Notice delivered in person shall be deemed given when accepted by the recipient. Notice by United States mail shall be deemed given as of the date the same is deposited in the United States mail, postage prepaid, and addressed to the Administrator, at the addresses set forth in Section 1.D above. Notice delivered by email shall be deemed given as of the date and time sent; provided that: (1) the sender does not receive any failure of delivery notice; and (2) any notice by email sent on a day other than a business day shall be deemed effective on the first business day after being sent.

Section 16. Dispute Resolution.

- A. Settlement Meeting. It is the Parties' intent to work cooperatively and to resolve disputes in an efficient and cost-effective manner. If any dispute arises between the Parties relating to this Agreement, then the Parties' respective Administrators, or the Administrators' designees, shall meet and seek to resolve the dispute, in good faith, within ten business (10) days after a Party's request for such a meeting. In addition to the Administrators or designees, each Party shall send any other persons with technical or other information relating to the dispute to the meeting.
- B. Mediation. If the Parties cannot resolve the issue within ten (10) days then they shall mediate the matter using a mediator from Judicial Dispute Resolution, LLC or any other mediation service mutually agreed to by the Parties, or as appointed by the court if the Parties cannot agree (collectively "JDR") within seven (7) days of their failure to agree pursuant to Section 14.A above. The Parties shall evenly split any fees charged by JDR, regardless of the outcome of the mediation. Each Party shall bear its own attorneys' fees in connection with the mediation.
- C. Notice of Default. If the Parties are unable to resolve their dispute through mediation, either Party may serve a written Notice of Default on the other Party. The Notice of Default shall describe the nature of the dispute and the noticing Party's requested resolution. Twenty (20) business days after service of a Notice of Default, either Party may file suit, seek any available legal remedy, or agree to alternative dispute resolution methods. At all times prior to resolution of the dispute, the Parties shall continue to perform any undisputed obligations and make any undisputed required payments under this Agreement in the same manner and under the same terms as existed prior to the dispute.

Section 17. Duty to File Agreement with County Auditor. Edmonds shall, after this Agreement is executed by both Parties, file this Agreement with the Snohomish County Auditor.

Section 18. Integration/Modification. This document constitutes the entire embodiment of the Agreement between the Parties and, unless modified in writing by an amendment to this Agreement, shall be implemented as described above. This Agreement may only be modified or amended by a written amendment executed by the Parties.

Section 19. Non-Waiver. Waiver by any Party of any of the provisions contained within this Agreement, including but not limited to any performance deadline, shall not be construed as a waiver of any other provision.

DATED this ____ day of _____, 2021.

CITY OF LYNNWOOD

CITY OF EDMONDS

By: _____
NICOLA SMITH, Mayor

By: _____
MIKE NELSON, Mayor

ATTEST/AUTHENTICATED:

ATTEST/AUTHENTICATED:

Karen Fitzthum, Acting City Clerk

Scott Passey, City Clerk

Approved as to form only:

Approved as to form only:

City of Lynnwood, Office of the City Attorney

City of Edmonds, Office of the City Attorney

ATTACHMENT 1 - LYNNWOOD PROJECT AREA



CITY COUNCIL ITEM M-2

CITY OF LYNNWOOD Public Works

TITLE: Change Order Approval: Water Meter Replacement Project

DEPARTMENT CONTACT: Les Rubstello

SUMMARY:

In early 2020 the City of Lynnwood hired TRANE through the Washington Department of Enterprise Services energy savings program to install new radio-read water meters throughout the City. Initially, the contract was for TRANE to replace meters in only six of the eight water meter routes. This change order adds in the cost for installation in the last two routes, completing the City.

POLICY QUESTION(S) FOR COUNCIL CONSIDERATION:

ACTION:

Authorize the Mayor to approve the Funding Authorization Amendment to the previously approved Interagency Agreement with DES, for an amount of \$292,305.65 including tax, and approve a purchase agreement with Ferguson Waterworks for that additional meters for \$690,721.21 including tax.

BACKGROUND:

The original plan for the replacement of water meters in Lynnwood was to contract with Trane to replace six of the eight routes and have City crews replace the other two routes over time. (For both efforts, the City purchased the meters direct from the supplier at State contract prices to avoid any markup.) This would have spread out the capital investment over a 2-3 year period. However, as our Utility Operations team started to plan for this work, it became clear that they did not have enough experienced staff to complete such a large project.

Operations did budget to purchase the meters for the last two routes in the 2021-22 biennium, so a change order with Trane would only be for the installation labor, which turned out to be a very reasonable \$292,305.

The original contract with Trane was for \$2,710,598.16 and this change order will bring it to 3,002,903.81. The purchases of the meters for the first six routes totaled \$2,566,224.67 and adding the last two routes will bring that cost to \$3,256,945.88.

The project is underway and over 2500 of the total 8700 meters have already been replaced. The project, including all eight routes, should be complete in June of this year.

PREVIOUS COUNCIL ACTIONS:

The original Trane contract, through DES, was approved in February of 2020.

FUNDING:

The Trane change order will be funded through Fund 412, Utility Capital, and the meters will be purchased from Fund 411, Utility Operations. All costs are included in the 2021-22 budget.

ADMINISTRATION RECOMMENDATION:

DOCUMENT ATTACHMENTS

Description:	Type:
Water Meter DES Funding Authorizaion	Contract
Water Meter DES Backup Calculations	Contract



STATE OF WASHINGTON
DEPARTMENT OF ENTERPRISE SERVICES

*1500 Jefferson St. SE, Olympia, WA 98501
PO Box 41476, Olympia, WA 98504-1476*

January 21, 2021

TO: Lester O. Rubstello, P.E., City of Lynnwood

FROM: Rachel Whitezel, Contracts Specialist, (360) 407-8029

RE Agreement No. 2020-719 A (1), Amendment No. 1
Contract No. 2020-719 G (1-1), Change Order No. 1
City of Lynnwood Water Meters

IAA No. K6139

Trane U.S. Inc.

SUBJECT: Funding Approval

The Dept. of Enterprise Services (DES), Energy Program, requires funding approval for the above referenced contract documents. The amount required is as follows (see page 2 for funding detail):

ESCO Professional Services Total	\$ 48,261.98
ESCO Construction Total	\$ <u>244,043.67</u>
Total Funding	\$ 292,305.65

In accordance with the provisions of RCW 43.88, the signature affixed below certifies to the DES Energy Program that the above identified funds are appropriated, allotted or that funding will be obtained from other sources available to the using client/agency. The using/client agency bears the liability for any issues related to the funding for this project

By _____ Date _____
Name / Title

Please sign and return this form to E&AS. If you have any questions, please call me.

Agreement No. 2020-719 A (1), Amendment No. 1
Contract No. 2020-719 G (1-1), Change Order No. 1

Funding Approval Detail

ESCO Professional Services

Design and Implementation of Energy Conservation Measures	\$	43,676.00
<u>Sales Tax (10.5%)</u>	<u>\$</u>	<u>4,585.98</u>
Total	\$	48,261.98

ESCO Construction

ESCO Contract Amount	\$	220,854.00
<u>Sales Tax (10.5%)</u>	<u>\$</u>	<u>23,189.67</u>
Total	\$	244,043.67

2020719Aamd1Gco1fundrw

CONTRACT CHANGE ORDER (CO)

LIST OF APPROVED FAs and/or COPS

TO: Trane U.S., Inc.

CONTRACTOR

The following mutually agreed to and Owner approved Change Order Proposal(s) and/or Field Authorization(s) are hereby incorporated by reference into the contract.

See Attached COP No. 1.

SUMMARY OF COST/TIME CHANGES

CONTRACT SUM:

- ☐ NO CHANGE
☒ INCREASE
☐ DECREASE



OF

Two-Hundred Twenty-Thousand Eight-Hundred Fifty-Four and 00/100 Dollars
(Washington State sales tax not included)

\$

220,854.00

CONTRACT TIME:

- ☐ NO CHANGE
☒ INCREASE
☐ DECREASE



OF

60

CALENDAR DAYS

The foregoing amount covers everything required in connection with the change. All other provisions of the contract remain in full force and effect.

AUTHORIZATION

CONTRACT SUMMARY (Internal Use Only)

☐ NO CHANGE

ORIGINAL CONTRACT SUM \$ 1,776,029.00
PREVIOUS ADDITIONS \$ -
PREVIOUS DEDUCTIONS \$ -

PREVIOUS TOTAL \$ 1,776,029.00
CHANGE AMOUNT \$ 220,854.00
NEW TOTAL \$ 1,996,883.00

PERCENT CHANGE FROM ORIGINAL CONTRACT AMOUNT 12.44%

NEW CONTRACT COMPLETION DATE 4/5/2021

TOTAL CONTRACT CALENDAR DAYS 360

The Department of Enterprise Services hereby accepts the foregoing Field Authorization(s) and/or Change Order Proposal(s). This formal acceptance constitutes a Change Order to the contract only when authorizing signature is affixed. Invoices incorporating this Change Order constitute acceptance by the Contractor as total reimbursement due in connection with this Change Order.

AUTHORIZING SIGNATURE

DATE

M-2-5

DES Energy Program COP-FA Coversheet

Client Name	Lynnwood
Project Number	2020-719 G (1-1)
COP/FA Number	1
Project Title	City of Lynnwood AMI
Date	10/23/2020

Construction				
Direct Costs				
Zone 2 - (1,046) Meters				
5/8" - 3/4" Meters	978	\$		88,020
1" Meters	31	\$		2,790
1.5" Meters	9	\$		3,411
2" Meters	20	\$		7,580
3" Meters	7	\$		6,503
4" Meters	1	\$		1,122
Zone 5 - (1,079) Meters				
5/8" - 3/4" Meters	1045	\$		94,050
1" Meters	27	\$		2,430
1.5" Meters	2	\$		758
2" Meters	4	\$		1,516
3" Meters	1	\$		929
Deduct Meters Installed by Lynnwood	196	\$		(52,132)
SMART Points Only	196	\$		8,820
Site Supervision (40 Days x 8 hours / day \$165.22)		\$		52,870
Bond	1.00%	\$		2,187
Subtotal		\$		220,854
Sales Tax	10.50%	\$		23,190
Construction Subtotal		\$		244,044

Professional Services	Percent		
Design	2.0%	\$	3,360
CM	6.0%	\$	10,079
OH&P	18.0%	\$	30,237
Subtotal		\$	43,676
Sales Tax	10.50%	\$	4,586
PS Subtotal		\$	48,262

Total Cost of Change

\$ 292,305

Use contingency funds <input type="checkbox"/>	Use additional owner funds <input checked="" type="checkbox"/>
--	--

Acknowledgement of Total Cost of Change			Date
Client	<i>Robert Rubtello</i>		12/1/20
ESCO	<i>Lucy A. [Signature]</i>		12/2/2020
Energy Project Manager	<i>Kristen [Signature]</i>		1.12.21

GDB 12/2/2020

M-2-6



Washington State Department of
Enterprise Services
FACILITIES DIVISION

ENGINEERING & ARCHITECTURAL SERVICES (E&AS)

**ENERGY CONTRACT CHANGE ORDER
PROPOSAL (COP)**

Lynnwood

CLIENT

AMI Project

PROJECT TITLE

CONTRACT 2020-719 G
NO. (1-1)

COP No. 1

TO: Trane

(ESCO) PROPOSAL REQUEST DATE:

You are directed to prepare a cost proposal for the work described below and/or detailed on the attachments referred to:

The City of Lynnwood originally planned to install meters for billing routes (2) and (5). However, the City of Lynnwood has requested Trane to provide an installation value so that they can determine if the City or Trane should perform the work.

This change order proposal incorporates additional scope and cost to:
add billing zones (2) and (5) into our contract, which totals 2,125 meters. This change order is for only installing the meters, which will be provided by Lynnwood.

REASON FOR CHANGE: ☐ DESIGN ERRORS ☐ DESIGN OMISSIONS ☒ AGENCY ☐ LATENT CONDITIONS ☐ CODE REQUIREMENTS ☐ VALUE ENGINEERING

EXPLANATION:

DATE PROPOSAL REQUIRED:

(14 days from Request Date, unless other date agreed to)

CHANGE ORIGINATED BY:

PROPOSAL REQUESTED BY:

TO: Trane

(ESCO)

TO:

PM (E&AS)

WE AGREE TO PERFORM ALL CHANGE IN THE WORK DESCRIBED IN THE PROPOSAL REQUEST FOR:

CONTRACT SUM:

☐ NO CHANGE

☒ INCREASE

☐ DECREASE

OF

Two-Hundred Twenty-Thousand Eighty-Hundred Fifty-Four Dollars

\$ 220,854

(WASHINGTON STATE SALES TAX NOT INCLUDED)

In accordance with the General Conditions, Cost Estimate Detail Sheet(s) are attached hereto.

CONTRACT TIME:

The increase in calendar days is required to perform this additional scope of installing 2,125 meters as

☐ NO CHANGE

☒ INCREASE

☐ DECREASE

OF

60

CALENDAR DAYS

1.12.21

The foregoing amount covers everything required in connection with the change. All other provisions of the contract remain in full force and effect.

We understand that this proposal does not constitute authorization to proceed with the specified changes in the work until incorporation of this COP into a Change Order by the Department of Enterprise Services.

ESCO

BY

SIGNATURE

DATE 12/2/2020

TO: The Department of Enterprise Services' Authorizing Signator

We have carefully examined this proposal and find the cost to be reasonable. Therefore, we recommend acceptance.

ESCO

DATE

DATE

Brian Thomas

E&AS COST VERIFICATION

E&AS PROJECT MANAGER

1/20/2021

GDB 12/3/2020

1.12.21
DATE

Subcontractor Cost Breakdown

Client Name
Project Number
COP/FA Number
Project Title
Name of Subcontractor

Lynnwood
2019 - 175 G
City of Lynnwood AMI

DATE 10/23/2020

Short Description	Material Cost			Labor Cost			Cost
	Quantity	Cost per unit	Subtotal	Labor Hours	Hourly Rate	Subtotal	
Meter Installation	2125	\$	-	1,742.6	\$ 120.00	\$ 209,109	\$ 209,109
Deduct Meters Already Installed			\$ -				\$ -
5/8" to 3/4"	-89			(66.8)	\$ 120.00	\$ (8,010)	\$ (8,010)
1"	-38			(28.5)	\$ 120.00	\$ (3,420)	\$ (3,420)
1.5"	-35			(110.5)	\$ 120.00	\$ (13,265)	\$ (13,265)
2"	-10			(31.6)	\$ 120.00	\$ (3,790)	\$ (3,790)
3"	-17			(131.6)	\$ 120.00	\$ (15,793)	\$ (15,793)
4"	-7			(65.5)	\$ 120.00	\$ (7,854)	\$ (7,854)
Smart Points Only	196			73.5	\$ 120.00	\$ 8,820	\$ 8,820
Subtotal						\$ 165,797	\$ 165,797
Miscellaneous Costs (describe and enter estimated amount)							\$ -
Miscellaneous Costs (describe and enter estimated amount)							\$ -
Miscellaneous Costs (describe and enter estimated amount)							\$ -
Miscellaneous Costs (describe and enter estimated amount)							\$ -
Total Cost							\$ 165,797