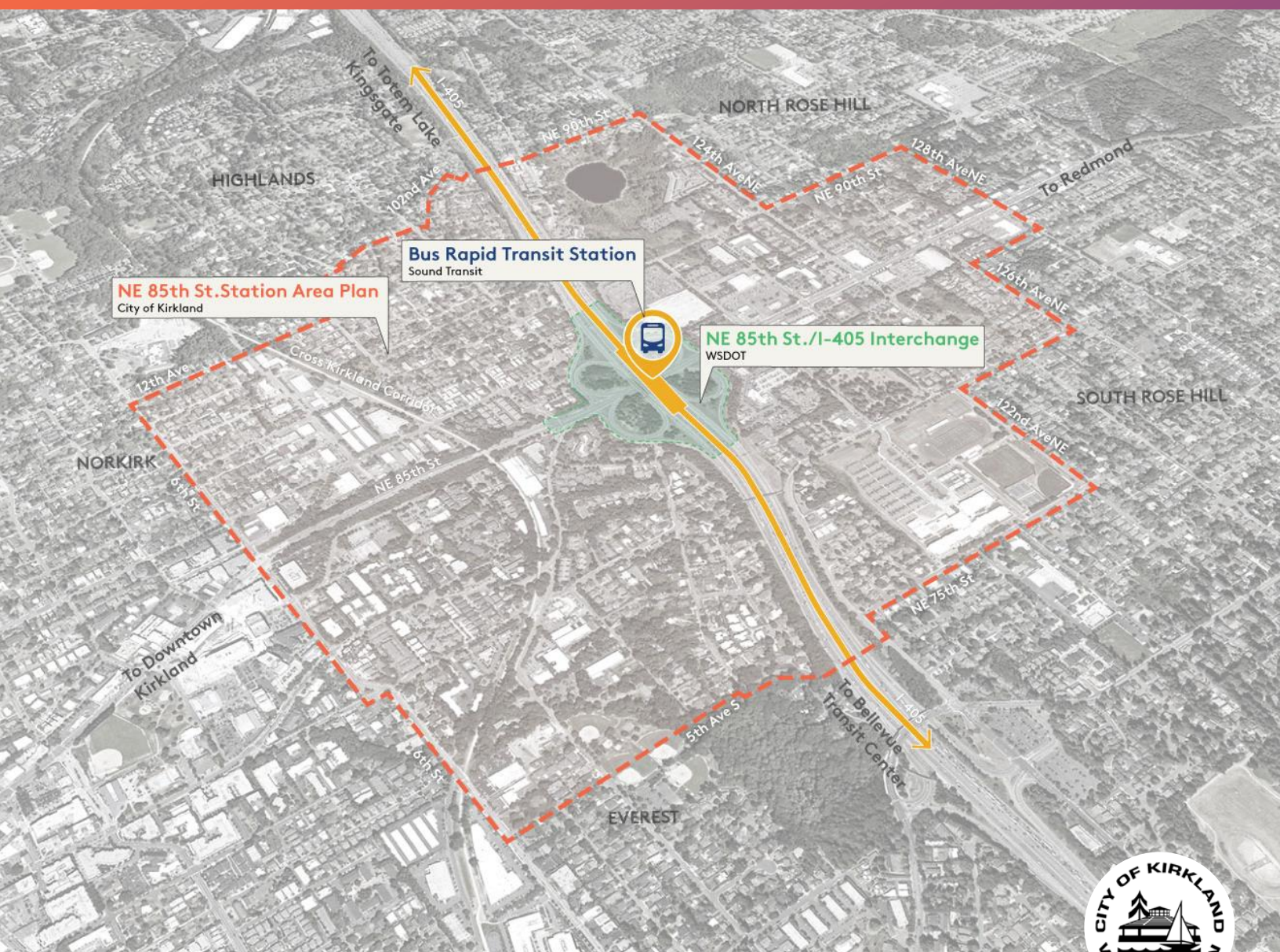


Kirkland NE 85th St Station Area Plan and Planned Action

Final Supplemental Environmental Impact Statement
December 2021





CITY OF KIRKLAND

Planning and Building Department
123 5th Avenue, Kirkland, WA 98033
www.kirklandwa.gov | 425.587.3600

December 30, 2021

Subject: Final Supplemental Environmental Impact Statement (FSEIS) for the Kirkland NE 85th St Station Area Plan, Form-Based Code, and Planned Action

Dear Reader:

The City of Kirkland is proposing to develop a Station Area Plan (SAP) in the area surrounding the future WSDOT/Sound Transit I-405/NE 85th Street Interchange and Inline Stride Bus Rapid Transit (BRT) Station. The BRT station, developed by Sound Transit, has been designed to connect Kirkland to the Link light rail at Bellevue and the Lynnwood Transit Center. The SAP will look at land use, urban design, open space, transportation, stormwater and utilities, and sustainability in the area approximately one-half mile from the BRT station. The SAP would be implemented with a Form-Based Code (which focuses on physical form rather than separation of land uses) to ensure quality design. In addition, the City intends to designate a Planned Action consistent with RCW 43.21C.440 and SEPA rules in WAC 197-11 to facilitate future growth by streamlining the environmental review process for development consistent with the SAP. See details at www.kirklandwa.gov/stationareaplan.

The FSEIS includes the following topics:

- Air Quality/Greenhouse Gas Emissions
- Surface Water and Stormwater
- Land Use Patterns and Socioeconomics
- Plans and Policies
- Aesthetics
- Transportation
- Public Services
- Utilities

The FSEIS evaluates the proposal and alternatives for each topic area. Alternatives include the SEPA-required No Action Alternative 1 (which anticipates development under current plans and regulations), a moderate intensity mixed use transit village in Action Alternative 2, and a high intensity mixed use transit hub in Action Alternative 3. In addition, the FSEIS addresses FSEIS Alternative A Current Trends and FSEIS Alternative B Transit Connected Growth. FSEIS Alternative B represents the preferred direction endorsed by the Kirkland City Council (Resolution R5503) These two alternatives have been referred to as “June Alternatives A and B” in previous project documentation.

Key issues facing decision makers include the type of land use and level of growth supporting transit-oriented development and the urban center; investments needed in transportation, parks, schools, and other facilities; stormwater and environmental quality; affordable housing demand; socioeconomics and displacement; and demand for public services and utilities.

Pursuant to SEPA laws and rules (RCW 43.21c and WAC 197-11), this SEIS focuses primarily on the identification of probable adverse environmental impacts of the proposal and alternatives. As well, the SEIS identifies whether the application of mitigation would reduce impacts. In some respects, the proposal and alternatives would improve conditions found today such as resulting in application of modern water quality standards as a result of redevelopment. They would also offer opportunities to increase affordable housing production over existing conditions. Consistent with regional growth strategies and compared to more development at the fringe of urban areas, focusing growth near transportation investments could offer reduced per capita greenhouse gas emissions.

The NE 85th St Station Area Planned Action SEIS supplements the City of Kirkland 2015 Comprehensive Plan Update and Totem Lake Planned Action Final Environmental Impact Statement (November 2015), which is adopted per WAC 197-11-630. The City has identified and adopted this document as being appropriate for this proposal after independent review, and it will accompany the proposal to the decision makers. The SEIS builds on this document and meets the City's environmental review needs for the current proposal.

This FSEIS completes the Draft Supplemental Environmental Impact Statement (DSEIS) issued January 5, 2021. In response to a comment period that closed February 19, 2021, this FSEIS provides responses to comments. It also evaluates FSEIS Alternatives A and B in the range of DSEIS alternatives.

The FSEIS is available at the City's website at: <https://www.kirklandwa.gov/stationareaplan>. This FSEIS is available for review in hard copy, by appointment, at Kirkland City Hall: 123 5th Avenue, Kirkland, WA 98033.

Please contact Allison Zike, Senior Planner, for more information at azike@kirklandwa.gov. Thank you for your interest in the NE 85TH Street Station Area Plan.

Sincerely,



Adam Weinstein, AICP, Planning & Building Director, SEPA Responsible Official

Fact Sheet

Project Title

Kirkland NE 85th St Station Area Plan, Form-Based Code, and Planned Action

Proposed Action and Alternatives

The City of Kirkland is proposing a Station Area Plan (SAP) in the area surrounding the future WSDOT/Sound Transit I-405/NE 85th Street Interchange and Inline Stride Bus Rapid Transit (BRT) Station. The Stride BRT station, developed by Sound Transit and Interchange developed by WSDOT, is designed to connect Kirkland to the Link light rail at the Bellevue and Lynnwood Transit Centers.

The purpose of the SAP is to advance the 2035 Comprehensive Plan vision and support a vibrant, equitable, and sustainable Transit-Oriented Community adjacent to this major regional transit investment and as part of the continued growth expected in Downtown Kirkland and the 85th Corridor. The SAP will:

- Address land use, urban design, open space, transportation, stormwater and utilities, and sustainability in the area approximately one-half mile from the BRT station.
- Study mobility and transportation connections within the station area as well as effective last-mile connections, making it easier to walk and bike to the station from the city's neighborhoods and destinations.
- Study various types of potential future development supportive of high-capacity transit including a mix of jobs, housing, and community uses.
- Examine opportunities to maximize public benefit from potential future development, including affordable housing, open space, and desired job types.

The SAP is anticipated to be integrated into the Comprehensive Plan and include area-specific policies. As a result of the SAP, other elements of the

Comprehensive Plan would be adjusted for consistency and compatibility. The SAP will also consider changes to future land use and zoning and other regulations in support of a Transit-Oriented Community. The SAP will study policies and development incentives to support diverse housing choices for a range of income levels. The SAP will address a horizon year of 2044, a new planning period consistent with the City's next periodic update beyond the current Comprehensive Plan horizon year of 2035.

In addition, the City intends to designate a Planned Action consistent with RCW 43.21C.440 and SEPA rules in WAC 197-11 to facilitate future growth by streamlining the environmental review process for development consistent with the SAP and mitigation identified in the Supplemental Environmental Impact Statement (SEIS).

The Draft SEIS (DSEIS) considered a range of alternatives that illustrate different Alternatives for how to implement the community's vision for a vibrant, equitable, and sustainable Transit-Oriented Community:

- **Alternative 1 No Action:** This alternative would reflect existing zoning and current plans. It would continue current anticipated growth to the year 2035: up to 2,782 households and 10,859 jobs.
- **Alternative 2:** This alternative would create a Station Area Plan and Form-Based Code allowing for additional housing and commercial/retail activity in buildings up to 150 feet in height closest to the station and along major street corridors and 25-85 feet elsewhere. Alternative 2 would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. For the year 2044, the anticipated total growth levels would be up to 8,509 households and 28,688 jobs. Non-motorized improvements would be implemented, and incentives would include moderate implementation of green streets, enhanced stormwater treatment, and development of green buildings. A Planned Action Ordinance would be prepared to facilitate growth consistent with the plan vision, regulations, and environmental mitigation measures.
- **Alternative 3:** This alternative would also create a Station Area Plan and Form-Based Code and would allow for further intensified development close to the station resulting in new jobs and housing in buildings up to 150-300 feet in height, transitioning to mid-rise and low-rise development of 25 to 85 feet further from the station. For the year 2044, the anticipated total growth levels would be up to 10,909 households and 34,988 jobs. Alternative 3 includes investment in additional bike / pedestrian routes, more intensive green streets, and a green-blue street including stormwater infrastructure within rights of way, as well as green building design. Similar to Alternative 2, a Planned Action Ordinance would be implemented under Alternative 3 to incentivize development that meets environmental performance standards as well as the plan vision and other local regulations.

The Final SEIS (FSEIS) considers two alternatives developed in response to DSEIS comments and tested in a fiscal analysis. These two alternatives have been referred to as “June Alternatives A and B” in previous project documentation.

- **FSEIS Alternative A Current Trends:** FSEIS Alternative A is similar to the No Action Alternative, but the growth targets were adjusted upward from DSEIS Alternative 1 because growth in the past six years has outpaced the assumptions in the 2015 Comprehensive Plan. The expected housing would equal 2,929 households and expected employment up to 12,317 jobs. Alternative A Current Trends maintains existing zoning heights of 25-75 feet throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing than DSEIS Alternative 1. Areas within the district currently zoned for single family or other low density residential area maintain their current zoning.
- **FSEIS Alternative B Transit Connected Growth – Preferred Direction:** FSEIS Alternative B Transit Connected Growth is based on the overall land use pattern established in DSEIS Alternative 2, which is aligned with the overall Station Area Plan growth framework in the Station Area Initial Concepts, and incorporates select elements shown in the commercial corridors of DSEIS Alternative 3. Alternative B Transit Connected Growth responds to the public comment received during the DSEIS comment period and the May 26, 2021 Council Listening Session. It only studies increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections, ranging up to 125-250 feet near I-405. To that end, several areas where height increases had been proposed as part of DSEIS Alternative 2 and 3 have been removed from consideration in Alternative B Transit Connected Growth. These include areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. Alternative B Transit Connected Growth results in slightly lower household growth numbers (8,152 households, 4% less) as DSEIS Alternative 2, and lower employment numbers (22,751 jobs, 21% less), showing more of a jobs-housing balance. The Southwest Quadrant of the Study Area has lower growth numbers than were projected in Alternative 2, closer to what was proposed for DSEIS Alternative 1 (No Action). In alignment with the Station Area Initial Concepts Growth Framework, Alternative B includes a few areas of greater capacity for change as compared to existing conditions including the SE Commercial Area comprising the Lee Johnson Site and adjoining areas, NE Commercial Area comprising the Costco Site and NE 85th Street west and east of I-405.

Proponent and Lead Agency

City of Kirkland

Location

The Study Area includes the area within approximately a half mile area centered on the future NE 85th Street/I-405 BRT “Stride” station location. At the maximum extents, the Study Area is bounded approximately by 12th Avenue and NE 97th Street to the north, 128th Avenue NE to the east, NE 75th and 5th Avenue S to the south, and 6th Street to the west. The Study Area includes portions of the North Rose Hill, South Rose Hill, Everest, Moss Bay, Norkirk, and Highlands neighborhoods.

Tentative Date of Implementation

Summer 2022 for SAP, Form Based Code, and Planned Action Ordinance implementation

Responsible Official

Adam Weinstein, AICP

Planning & Building Director

City of Kirkland

123 5th Avenue

Kirkland, WA 98033

(425) 587-3227 | aweinstein@kirklandwa.gov

Contact Person

Allison Zike, AICP

Senior Planner

City of Kirkland

123 5th Avenue

Kirkland, WA 98033

(425) 587-3259 | azike@kirklandwa.gov

Licenses or Permits Required

The Station Area Plan and Planned Action SEIS require a 60-day review by the

State of Washington Department of Commerce and other state agencies. Locally, the SAP and associated Comprehensive Plan amendments, Form-Based Code, and Planned Action Ordinance will be considered by the Planning Commission and their recommendations forwarded to the City Council who will deliberate and determine approval.

Authors and Principal Contributors to the SEIS

Under the direction of the Kirkland Planning and Building Department, the consultant team prepared the SEIS as follows:

- [Mithun](#): Station Area Plan Lead, Alternatives Development Lead
- [BERK Consulting](#): SEPA and Planned Action Lead, Alternatives Development, Land Use Patterns and Policies, Aesthetics, Public Services
- [ECONorthwest](#): Economic Analysis and Development Strategy in support of Alternatives
- [Fehr & Peers](#): Air Quality/Greenhouse Gas Emissions, Transportation
- [Hererra](#): Surface Water and Stormwater, Utilities

In addition, the FSEIS includes information from [RH2](#) for water and sewer system analyses and [RKI](#) for stormwater system evaluation of the FSEIS alternatives.

Date of Draft SEIS Issuance

Issuance date: January 5, 2021

A comment period was established from January 5 to February 5, 2021. The City extended the comment period by two weeks to February 19, 2021.

Date of Final SEIS Issuance

December 30, 2021

Date of Final Action

Second or third quarter of 2022

Documents Supplemented and Adopted

The NE 85th St Station Area Planned Action SEIS supplements the City of Kirkland 2015 Comprehensive Plan Update and Totem Lake Planned Action Final Environmental Impact Statement (November 2015), which is adopted per WAC 197-11-630. The City has identified and adopted this document as being appropriate for this proposal after independent review, and it will accompany the proposal to the decision maker. The SEIS builds on this document and meets the City's environmental review needs for the current proposal.

Location of Background Data

You may review the City of Kirkland's website for more information at <https://www.kirklandwa.gov/stationareaplan>. If you desire clarification or have questions, please contact Allison Zike at (425) 587-3259 or by azike@kirklandwa.gov.

Purchase/Availability of Final SEIS

The Final and Draft Supplemental EIS are posted on the City of Kirkland's website at <https://www.kirklandwa.gov/stationareaplan>. Compact disks or thumb drives are available for purchase at cost; see the Contact Person. This Final Supplemental EIS is available for review, by appointment, at Kirkland City Hall: 123 5th Avenue, Kirkland, WA 98033; see the Contact Person.

Distribution List

Federal and Tribal Agencies

Muckleshoot Tribal Council - Environmental Division, Tribal Archeologist
Muckleshoot Tribal Council - Environmental Division, Fisheries Division Habitat
U.S. Army Corps of Engineers - Seattle District

State and Regional Agencies

Washington State Department of Commerce – Growth Management Division
Washington State Department of Ecology - Environmental Review
Washington State Department of Archaeology & Historic Preservation
Department of Fish and Wildlife
Washington State Department of Natural Resources – SEPA Center
Washington State Department of Transportation – Local and Development
Services Manager
Puget Sound Clean Air Agency
Puget Sound Partnership
Puget Sound Regional Council - SEPA Review
WRIA8 Lake Washington - Cedar- Sammamish Watershed
A Regional Coalition for Housing (ARCH)

Adjacent Jurisdictions

City of Bellevue
City of Redmond

Services, Utilities, and Transit

Cascade Water Alliance – Director of Planning
Evergreen Health - Director of Construction and Administrative Director,
Government & Community Affairs Department
King County Dept. of Transportation - Employer Transportation Representative
King County Wastewater Treatment Division – SEPA Lead and Property Agent
Lake Washington School District No. 414: Budget Manager and Director of
Support Services
Puget Sound Energy
Seattle & King County Public Health - SEPA Coordinator
Seattle City Light - Department of Finance and Administration
Sound Transit

Community Organizations and Individuals

Eastside Audubon Society
Houghton Community Council
Interested Citizens
Parties of Record (DSEIS Commenters)
South Rose Hill/North Rose Hill/Highlands/Everest/Moss Bay/Norkirk Neighborhood
Association
Kirkland Association of Neighborhoods (KAN)

Media

Seattle Times

Contents

1	Summary	1-1
1.1	Purpose	1-1
1.2	Study Area	1-2
1.3	Planning Process and Public Comment Opportunities	1-4
1.4	Objectives and Alternatives	1-5
1.5	Key Issues and Alternatives	1-34
1.6	Summary of Impacts and Mitigation Measures	1-35
1.6.1	Air Quality/Greenhouse Gas Emissions	1-35
1.6.2	Surface Water and Stormwater	1-37
1.6.3	Land Use Patterns and Socioeconomics	1-42
1.6.4	Plans and Policies	1-45
1.6.5	Aesthetics	1-46
1.6.6	Transportation	1-49
1.6.7	Public Services	1-62
1.6.8	Utilities	1-65
2	Final SEIS Alternatives	2-1
2.1	Introduction and Purpose	2-1
2.1.1	Proposals	2-1
2.1.2	Alternatives	2-2
2.2	Description of the Study Area	2-4
2.3	Planning Process	2-7
2.4	Objectives	2-8
2.5	Alternatives	2-9
2.5.1	Alternative 1 No Action	2-9
2.5.2	Action Alternatives	2-12
2.5.3	Final SEIS Alternatives	2-28

2.5.4	Growth Comparisons	2-41
2.5.5	Key Elements by Alternative	2-46
2.6	Benefits and Disadvantages of Delaying the Proposed Action	2-48

3 Evaluation of Final SEIS Alternatives 3-1

3.1	Air Quality/Greenhouse Gas Emissions	3-2
3.1.1	Thresholds of Significance	3-2
3.1.2	Evaluation of Final SEIS Alternatives	3-2
3.1.3	Mitigation Measures	3-4
3.1.4	Significant Unavoidable Adverse Impacts	3-5
3.2	Surface Water and Stormwater	3-6
3.2.1	Thresholds of Significance	3-6
3.2.2	Evaluation of Final SEIS Alternatives	3-6
3.2.3	Mitigation Measures	3-8
3.2.4	Significant Unavoidable Adverse Impacts	3-10
3.3	Land Use Patterns and Socioeconomics	3-12
3.3.1	Thresholds of Significance	3-12
3.3.2	Evaluation of Final SEIS Alternatives	3-12
3.3.3	Mitigation Measures	3-18
3.3.4	Significant Unavoidable Adverse Impacts	3-21
3.4	Plans and Policies	3-23
3.4.1	Thresholds of Significance	3-23
3.4.2	Evaluation of Final SEIS Alternatives	3-23
3.4.3	Mitigation Measures	3-30
3.4.4	Significant Unavoidable Adverse Impacts	3-31
3.5	Aesthetics	3-32
3.5.1	Thresholds of Significance	3-32
3.5.2	Evaluation of Final SEIS Alternatives	3-32
3.5.3	Mitigation Measures	3-48
3.5.4	Significant Unavoidable Adverse Impacts	3-51
3.6	Transportation	3-52
3.6.1	Thresholds of Significance	3-52
3.6.2	Evaluation of Final SEIS Alternatives	3-53
3.6.3	Mitigation Measures	3-58
3.6.4	Significant Unavoidable Adverse Impacts	3-66
3.7	Public Services	3-68
3.7.1	Thresholds of Significance	3-68
3.7.2	Evaluation of Final SEIS Alternatives	3-68
3.7.3	Mitigation Measures	3-72
3.7.4	Significant Unavoidable Adverse Impacts	3-77

3.8	Utilities	3-78
3.8.1	Thresholds of Significance	3-78
3.8.2	Evaluation of Final SEIS Alternatives	3-78
3.8.3	Mitigation Measures	3-81
3.8.4	Significant Unavoidable Adverse Impacts	3-82

4 Clarifications & Corrections 4-1

4.1	Study Area	4-1
4.2	Station Opening	4-1
4.3	Surface Water and Stormwater	4-2
4.4	Transportation	4-2
4.5	Public Services	4-6
4.5.1	Table Corrections	4-6
4.5.2	Text Corrections	4-8

5 Responses to Comments 5-1

5.1	Comment Opportunities	5-1
5.2	Responses to Comments	5-4

6 Acronyms and References 6-1

6.1	Acronyms	6-1
6.2	References	6-2

7 Appendices 7-1

A	DSEIS Comment Summary	7-2
B	Fiscal Impacts and Community Benefits Analysis	7-3
C	Preliminary Planned Action Ordinance	7-4

Exhibits

Exhibit 1-1.	NE 85th Street Station Area Plan Study Area	1-2
Exhibit 1-2.	Neighborhoods	1-3
Exhibit 1-3.	NE 85th Street Station Area Planning Phases	1-5
Exhibit 1-4.	Zoning Map, Study Area	1-8
Exhibit 1-5.	Growth Concept for Action Alternatives	1-9
Exhibit 1-6.	Development Typology Descriptions	1-10
Exhibit 1-7.	Alternative 2 Land Use Change Areas	1-11

Exhibit 1-8. Alternative 2 Building Heights	1-12
Exhibit 1-9. Alternative 3 Land Use Change Areas	1-14
Exhibit 1-10. Alternative 3 Building Heights	1-15
Exhibit 1-11. Alternative A: Current Trends – Development Typologies	1-17
Exhibit 1-12. Alternative A: Current Trends – Heights	1-18
Exhibit 1-13. Alternative B: Transit Connected Growth: Form-Based Regulating Plan	1-19
Exhibit 1-14. Alternative B: Transit Connected Growth – Typologies	1-20
Exhibit 1-15. Alternative B: Transit Connected Growth- Heights	1-21
Exhibit 1-16. Alternative B Transit Connected Growth Character Subareas	1-22
Exhibit 1-17. Alternative B Transit Connected Growth Character Subareas – Descriptions	1-23
Exhibit 1-18. Regulating Districts and Active Frontages	1-24
Exhibit 1-19. Alternative Household and Job Comparisons by 2044	1-26
Exhibit 1-20. Traffic Operations Transportation Network Assumptions, DSEIS Alternatives 1-3	1-28
Exhibit 1-21. Multimodal Transportation Network Assumptions, DSEIS Alternative 1 No Action and FSEIS Alternative A	1-29
Exhibit 1-22. Multimodal Transportation Network Assumptions, DSEIS Alternative 2	1-30
Exhibit 1-23. Multimodal Transportation Network Assumptions, DSEIS Alternative 3	1-31
Exhibit 1-24. Recommended Station Area Multimodal Investments, FSEIS Alternative B	1-32
Exhibit 1-25. Lifetime GHG Emissions of the Study Area Studied Alternatives	1-36
Exhibit 1-26. Alternative B Form-Based Code Elements – Transition Principles	1-48
Exhibit 1-27. PM Peak Hour Vehicle Trips Generation using MXD+/BKR Model Mode Share Estimates	1-51
Exhibit 1-28. Summary of Impacts: All Alternatives	1-51
Exhibit 1-29. Alternative B and Bold Opportunities Map	1-54
Exhibit 1-30. Alternative 2 and 3: 2044 PM Peak Hour LOS and Delay, With and Without Mitigations	1-55
Exhibit 1-31. LOS Results for Evaluated Alternatives with Geometric Mitigations	1-56
Exhibit 1-32. Trip Reduction (VMT %) from Tier 1 Transportation Demand Management Strategies by Land Use	1-59
Exhibit 1-33. Transportation Demand Management Strategies Efficacy in Mitigating Intersection Impacts	1-60
Exhibit 1-34. Estimated Sewer Flows and Water Demand in Gallons per Day (gpd) by Alternative	1-67
Exhibit 2-1. NE 85th Street Station Area Plan Study Area	2-5
Exhibit 2-2. Neighborhoods	2-6
Exhibit 2-3. NE 85th Street Station Area Planning Phases	2-8

Exhibit 2-4. Zoning Map, Study Area.	2-10
Exhibit 2-5. Zoning Chart Study Area	2-11
Exhibit 2-6. No Action Alternative 1 Mobility Improvements	2-12
Exhibit 2-7. Growth Concept	2-13
Exhibit 2-8. Development Typologies – Action Alternatives	2-14
Exhibit 2-9. Development Typology Descriptions	2-15
Exhibit 2-10. Parking Rates by Alternative	2-16
Exhibit 2-11. Alternative 2 Land Use Change Areas	2-19
Exhibit 2-12. Alternative 2 Building Heights	2-20
Exhibit 2-13. Alternative 2 Mobility Concepts	2-21
Exhibit 2-14. Alternative 3 Land Use Change Areas	2-24
Exhibit 2-15. Alternative 3 Building Heights	2-25
Exhibit 2-16. Alternative 3 Mobility Concepts	2-27
Exhibit 2-17. Alternative A: Current Trends – Development Typologies	2-29
Exhibit 2-18. Alternative A: Current Trends – Heights	2-30
Exhibit 2-19. Alternative B: Transit Connected Growth- Preliminary Regulating Plan	2-32
Exhibit 2-20. Alternative B: Transit Connected Growth- Typologies	2-33
Exhibit 2-21. Alternative B: Transit Connected Growth- Heights	2-34
Exhibit 2-22. Alternative B Transit Connected Growth Character Subareas	2-35
Exhibit 2-23. Alternative B Transit Connected Growth Character Subareas – Descriptions	2-36
Exhibit 2-24. Regulating Districts and Active Frontages	2-37
Exhibit 2-25. Street Types Map	2-39
Exhibit 2-26. Street Types Description	2-40
Exhibit 2-27. Alternative Total Housing and Job Comparisons 2044	2-42
Exhibit 2-28. Employment and Household Totals by Alternative	2-42
Exhibit 2-29. Total Households 2019-2044	2-43
Exhibit 2-30. Total Jobs 2019-2044	2-43
Exhibit 2-31. Alternative Total Housing 2044 by Location surrounding I-405 Interchange	2-44
Exhibit 2-32. Total Housing by Alternative 2044: Detail	2-44
Exhibit 2-33. Alternative Total Employment 2044 by Location	2-45
Exhibit 2-34. Total Employment 2044 by Alternative: Detail	2-45
Exhibit 2-35. Comparison of Alternatives Key Elements	2-46
Exhibit 3-1. Lifetime GHG Emissions of the Study Area, Alternatives 1, 2, and 3	3-3
Exhibit 3-2. Combined Population and Jobs 2044	3-3
Exhibit 3-3. Households and Jobs by Alternative	3-13
Exhibit 3-4. Affordable Housing Increases by Alternative	3-15
Exhibit 3-5. Activity Units – Station Area	3-16
Exhibit 3-6. Neighborhood and Study Area Boundaries	3-27
Exhibit 3-7. Land Use Change Areas and Height – Alternative B Preferred	

Direction	3-36
Exhibit 3-8. Development Typology Examples – Alternative B	3-37
Exhibit 3-9. Maximum Development Envelope – Alternative B (Southwest View)	3-39
Exhibit 3-10. Maximum Development Envelope – Alternative B (Northwest View)	3-40
Exhibit 3-11. Maximum Development Envelope – Alternative 2 (NE 85 th Street Corridor View)	3-41
Exhibit 3-12. Southeast-Facing Fall Morning (10:00 am) Shading Conditions – Alternative B	3-45
Exhibit 3-13. Southeast-Facing Fall Afternoon (3:00 pm) Shading Conditions – Alternative B	3-46
Exhibit 3-14. West-Facing Fall Afternoon (3:00 pm) Shading Conditions – Alternative B	3-47
Exhibit 3-15. Transitional Development Guidelines – Alternative B	3-51
Exhibit 3-16. PM Peak Hour Vehicle Trip Generation using MXD+/BKR Model Mode Share Estimates	3-54
Exhibit 3-17. LOS and Delay Thresholds for Signalized and Unsignalized Intersections	3-55
Exhibit 3-18. LOS Results for Evaluated Alternatives (Without Mitigation)	3-56
Exhibit 3-19. Impacted Transit Ridership	3-56
Exhibit 3-20. LOS Results for Evaluated Alternatives with Geometric Mitigations	3-61
Exhibit 3-21. Trip Reduction (VMT %) from Tier 1 Transportation Demand Management Strategies by Land Use	3-64
Exhibit 3-22. Transportation Demand Management Strategies Efficacy in Mitigating Intersection Impacts	3-65
Exhibit 3-23. Police Staffing (FTE) Demand by Alternative	3-68
Exhibit 3-24. Fire Staffing (FTE) Demand by Alternative	3-69
Exhibit 3-25. Student Generation by Alternative Student Generation Rate	3-69
Exhibit 3-26. Park LOS Guidelines, Net Need, and Estimated Net Facility/Acre Costs, 2021\$	3-70
Exhibit 3-27. Park and Open Space Elements for Station Area	3-76
Exhibit 3-28. Station Area Projected Water Demand/Sewer Flows and ERUs	3-79
Exhibit 3-29. Planning-Level Fire Flow Requirements	3-80
Exhibit 5-1. Individuals and entities that submitted written comments	5-2
Exhibit 5-2. Individuals and entities that submitted written comments	5-4

1 Summary

1.1 Purpose

Sound Transit's ST3 Regional Transit System Plan is bringing a once-in-a-generation transit investment to Kirkland with a new Stride Bus Rapid Transit (BRT) station at 85th and I-405, currently scheduled to open by 2026.¹ The City of Kirkland is developing a Station Area Plan (SAP) to guide how development, open space, and mobility connections in neighborhoods near the station can leverage this regional investment to create the most value and quality of life for Kirkland, and provide the community with an opportunity to create the best future for this area. The City is proposing a Station Area Plan and associated Comprehensive Plan amendments, Form-Based Code, and Planned Action Ordinance to guide the area within a half-mile of the station. This Final Supplemental Environmental Impact Statement (FSEIS) addresses the Kirkland NE 85th St Station Area Plan, Form-Based Code, and Planned Action. The SEIS supplements the City of Kirkland 2015 Comprehensive Plan Update and Totem Lake Planned Action Final Environmental Impact Statement (November 2015).

The FSEIS is organized as follows:

- Chapter 1 Summary
- Chapter 2 Final SEIS Alternatives
- Chapter 3 Evaluation of Final SEIS Alternatives
- Chapter 4 Clarifications & Corrections
- Chapter 5 Responses to Comments
- Chapter 6 Acronyms and References
- Appendices

¹ Sound Transit and WSDOT are conducting their own SEPA review of the station, and the station itself is not addressed in this SEIS.

1.2 Study Area

The Study Area includes the area within approximately a half mile area centered on the future NE 85th Street/I-405 BRT “Stride” station location. At the maximum extents, the Study Area is bounded approximately by 12th Avenue and NE 97th Street to the north, 128th Avenue NE to the east, NE 75th and 5th Avenue S to the south, and 6th Street to the west. See Exhibit 1-1.

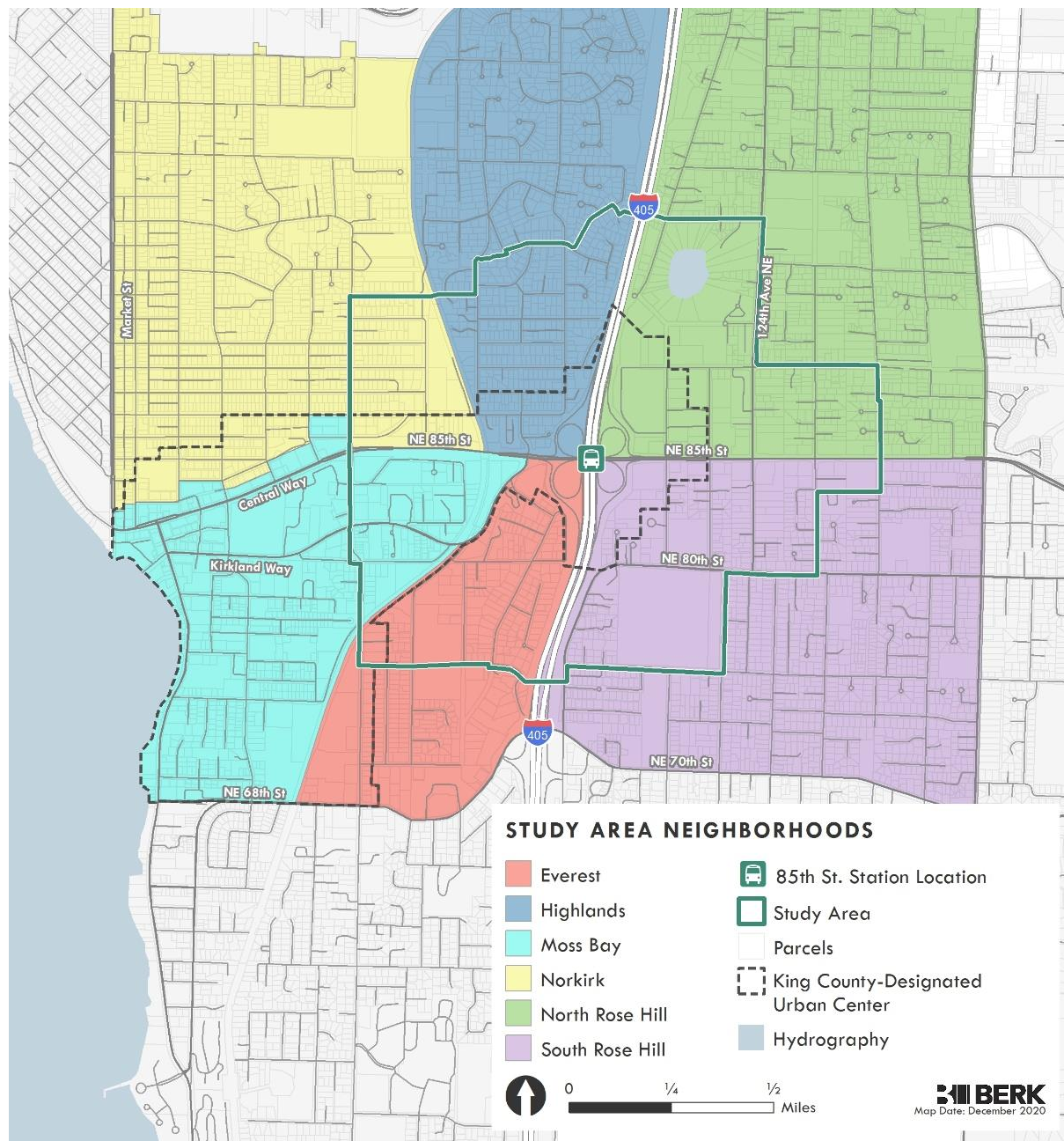
Exhibit 1-1. NE 85th Street Station Area Plan Study Area



Source: Mithun, 2020.

The Study Area includes portions of the North Rose Hill, South Rose Hill, Everest, Moss Bay, Norkirk, and Highlands neighborhoods. See Exhibit 1-2.

Exhibit 1-2. Neighborhoods



Sources: City of Kirkland, BERK, 2020.

1.3 Planning Process and Public Comment Opportunities

Kirkland is engaging the community and developing plan proposals through four phases:

- **Phase 1: Opportunities and Challenges** - collected information about existing conditions, land use opportunities, and challenges to better understand project possibilities and inform Phase 2.
- **Phase 2: Concepts and Alternatives** - gathered ideas to form alternatives; considered environmental, community, and equity impacts; and reviewed draft alternatives. This phase integrated requirements under the State Environmental Policy Act (SEPA) including scoping and issuance of a Draft SEIS (DSEIS).
 - › **Scoping:** The City established a 21-day comment period to solicit comments on the scope of the SEIS and alternatives. In addition to a standard written comment period, the City posted a story map and survey and held a community workshop. See Appendix A.
 - › **DSEIS Comment Period:** This included a multi-week comment period of about 45 days.
- **Phase 3: Fiscal Impacts and Community Benefits Analysis/June Alternatives:** The City considered DSEIS comments and developed a narrower range of alternatives (June Alternatives A and B) and developed a more detailed analysis of costs and revenues, needed capital improvements, and potential community benefits.
- **Phase 4: FSEIS** – June Alternatives A and B are evaluated in this FSEIS including the evolution of Form-Based Code elements associated with June Alternative B endorsed as a preferred alternative by the City Council in Resolution R5503. These alternatives are cited as FSEIS Alternative A and FSEIS Alternative B.
- **Phase 5: Draft Plan** - respond to input in prior phases by developing a draft Station Area Plan. The draft Station Area Plan will be supported by proposed amendments to the Comprehensive Plan, Kirkland Zoning Code, this FSEIS that responds to public comments, and a proposed planned action. A planned action is an ordinance that simplifies future environmental review requirements for major projects with development consistent with the adopted Station Area Plan.
- **Phase 6: Final Plan** - Planning Commission to confirm and City Council to adopt the final plan through formal public hearings and legislative meetings.

Each phase has included public and stakeholder engagement through interviews, surveys, or public meetings. Phases are illustrated in the flow chart in Exhibit 1-3.

Exhibit 1-3. NE 85th Street Station Area Planning Phases



Source: BERK, 2021.

1.4 Objectives and Alternatives

Objectives

SEPA requires the statement of objectives describing the purpose and need for the proposals. The following objectives have been established for the Kirkland NE 85th St Station Area Plan:

Leverage the WSDOT/Sound Transit I-405 and NE 85th St Interchange and Inline Stride BRT station regional transit investment to maximize transit-oriented development and create the most:

- opportunity for an inclusive, diverse, and welcoming community,
- value for the City of Kirkland,
- community benefits including affordable housing,
- and quality of life for people who live, work, and visit Kirkland.

The objectives also serve as criteria by which the alternatives can be evaluated.

Alternatives

The DSEIS considered a range of alternatives that illustrate different alternatives for how to implement the community's vision for a vibrant, equitable, and sustainable transit-oriented community:

- **Alternative 1 No Action:** This alternative would reflect existing zoning and current plans. It would continue current anticipated growth to the year 2035: up to a total of 2,782 households and 10,859 jobs in the study area.

- **Alternative 2:** This alternative would create a Station Area Plan and Form-Based Code allowing for added housing and commercial/retail activity in buildings up to 150 feet in height closest to the station and along major street corridors and 25-85 feet elsewhere. Alternative 2 would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. For the year 2044, the anticipated total growth levels would be up to 8,509 households and 28,688 jobs. Non-motorized improvements would be implemented, and incentives would include moderate implementation of green streets, and enhanced stormwater treatment, and development of green buildings. A Planned Action Ordinance would be prepared to facilitate growth consistent with the plan vision, regulations, and environmental mitigation measures.
- **Alternative 3:** This alternative would also create a Station Area Plan and Form-Based Code, and would allow for further intensified development close to the station offering jobs and housing in buildings up to 150-300 feet in height, transitioning to mid-rise and low rise development of 25 to 85 feet further from the station. For the year 2044, the anticipated total growth levels would be up to 10,909 households and 34,988 jobs. Alternative 3 includes investment in additional bike / pedestrian routes, more intensive green streets, and a green-blue street within rights of way, as well as green building design. Similar to Alternative 2, a Planned Action Ordinance would be implemented under Alternative 3 to incentivize development that meets environmental performance standards as well as the plan vision and other local regulations.

This FSEIS considers two alternatives developed in responses to DSEIS comments and tested in this FSEIS and a fiscal analysis. These alternatives were endorsed by City Council in June 2021 to narrow the range of alternatives to be studied in the Fiscal Impacts and Community Benefits Analysis, and have been referred to as “June Alternatives A and B” in previous project documentation.

- **FSEIS Alternative A Current Trends:** FSEIS Alternative A is similar to the No Action Alternative, but the growth targets were adjusted upward from DSEIS Alternative 1 because growth in the past six years has outpaced the assumptions in the 2015 Comprehensive Plan. The expected housing would equal 2,929 households and expected employment up to 12,317 jobs. Alternative A Current Trends maintains existing zoning heights of 25-75 feet throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing than DSEIS Alternative 1. Areas within the district currently zoned for single family or other low density residential area maintain their current zoning.
- **FSEIS Alternative B Transit Connected Growth – Preferred Direction:** Alternative B Transit Connected Growth is based on the overall land use pattern

established in DSEIS Alternative 2, which is aligned with the overall Station Area Plan growth framework in the Station Area Initial Concepts, and incorporates select elements shown in the commercial corridors of DSEIS Alternative 3. Alternative B Transit Connected Growth responds to the public comment received during the DSEIS comment period and the May 26, 2021 Council Listening Session. It only studies increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections, ranging up to 125-250 feet near I-405. To that end, several areas where height increases had been proposed as part of DSEIS Alternative 2 and 3 have been removed from consideration in Alternative B Transit Connected Growth. These include areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. Alternative B Transit Connected Growth results in slightly lower household growth numbers (8,152 households, 4% less) as DSEIS Alternative 2, and lower employment numbers (22,751 jobs, 21% less), showing more of a jobs-housing balance. The Southwest Quadrant of the Study Area has lower growth numbers than were projected in Alternative 2, closer to what was proposed for DSEIS Alternative 1 (No Action). In alignment with the Station Area Initial Concepts Growth Framework, Alternative B includes a few areas of greater capacity for change as compared to existing conditions including the SE Commercial Area or Lee Johnson Site, NE Commercial Area or Costco Site, and NE 85th Street west and east of I-405.

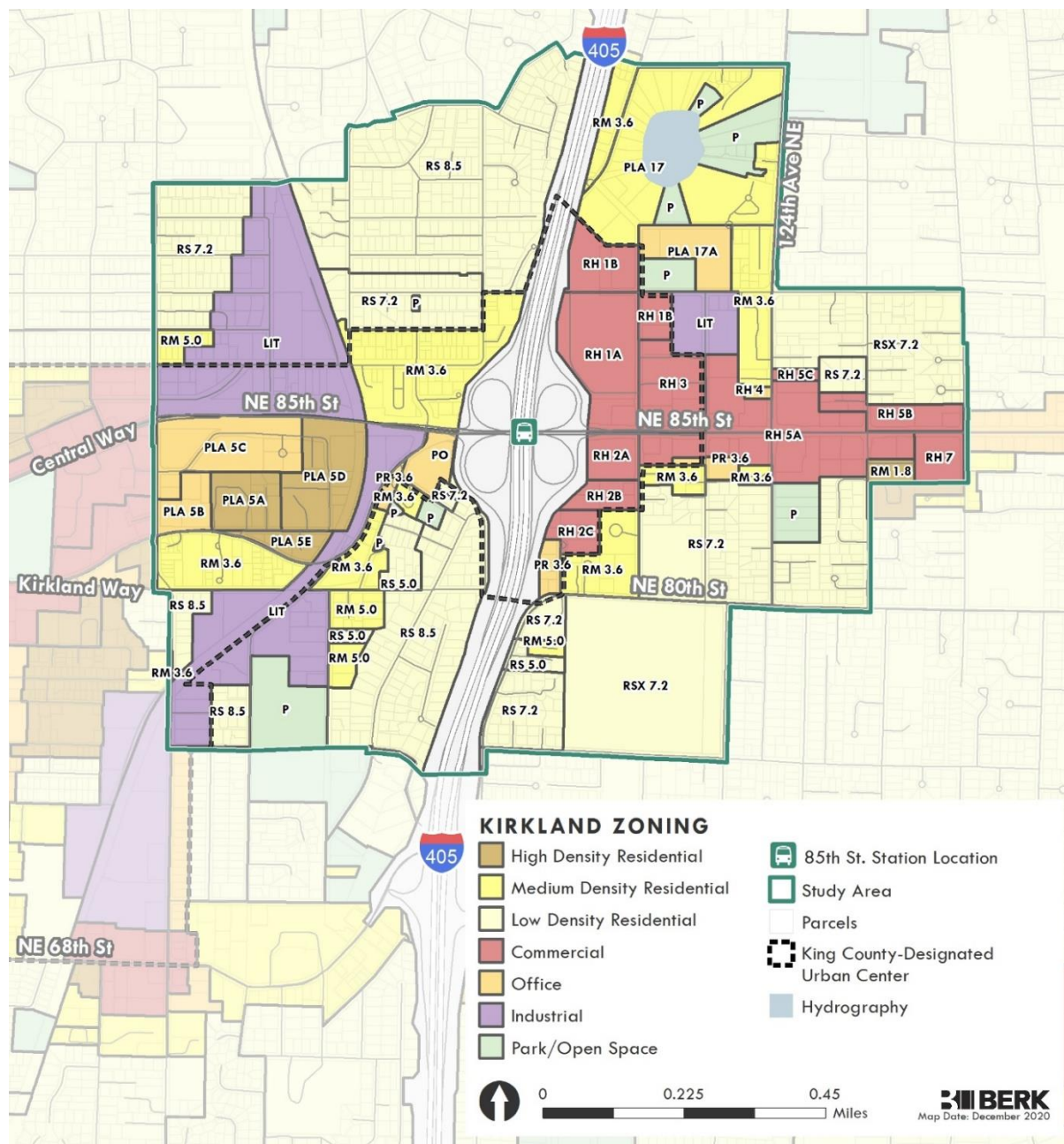
Land Use Patterns and Building Height

Alternative 1 No Action

Alternative 1 No Action is SEPA-required, and would retain the existing Comprehensive Plan policies, future land use designations and zoning districts, while aligning with goals of transit-oriented development, community benefits, and quality of life.

There is a predominance of Commercial/Mixed Use zoning east of the freeway (Rose Hill Commercial) and Medium and Low Density Residential to the west. There are additional areas of Central Business District and Industrial zoning to the west. See Exhibit 1-4.

Exhibit 1-4. Zoning Map, Study Area



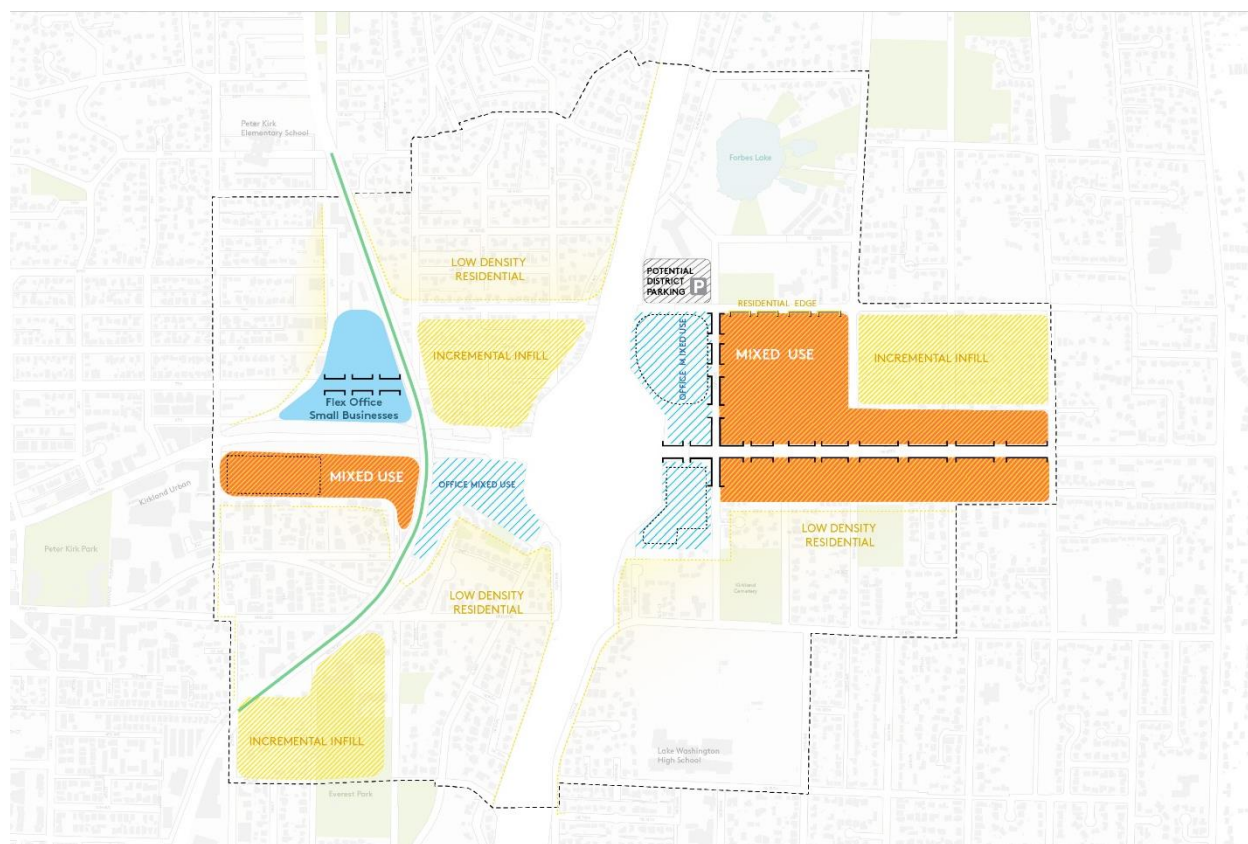
Sources: City of Kirkland, 2020; BERK, 2020.

Action Alternatives 2 and 3

The Action Alternatives are based on a concept intended to align with the SAP objectives and goals of maximizing transit-oriented development, community benefits including affordable housing, and quality of life. The concept establishes a land use pattern that would focus Office Mixed Use zoning abutting the interchange to the northeast and southeast, and to a lesser extent to the southwest quadrant.

Flex Office and Small Business uses, including light industrial, would be located in Norkirk west of the Cross Kirkland Corridor. Mixed Use Residential uses would be located to the east of the higher intensity office uses along NE 85th Street, and to the west abutting Kirkland Urban. See Exhibit 1-5.

Exhibit 1-5. Growth Concept for Action Alternatives



Source: Mithun, 2020.

Land use concept typologies are defined in Exhibit 1-6 and apply to Action Alternatives unless otherwise stated.

Exhibit 1-6. Development Typology Descriptions

Development Type	Description
Office High Intensity	Primarily office/commercial uses consisting of towers and mid-rise buildings.
Office Mid Intensity	Primarily office/commercial uses consisting of mid-rise buildings.
Office Low Intensity	Primarily office/commercial uses consisting of low-rise buildings.
Office Mixed Use High Intensity	Mix of office/commercial and retail uses consisting of towers and mid-rise buildings.
Office Mixed Use Mid Intensity	Mix of office/commercial and retail uses consisting of mid-rise buildings.
Residential High Intensity	Primarily residential uses consisting of towers and mid-rise buildings.
Residential Mid Intensity	Primarily residential uses consisting of mid-rise buildings.
Residential Mixed High Intensity	Mix of residential and retail uses consisting of towers mid-rise buildings.
Residential Mixed Mid Intensity	Mix of residential and retail uses consisting of towers mid-rise buildings.
Incremental Infill (Residential Infill in Alternative 3)	Primarily residential uses consisting of low-rise buildings, including duplexes, triplexes, townhouses, and small apartment buildings
Other Infill per existing zoning	<p>Where applied in conjunction with low density residential zoning infill would be consistent zoning allowances include KZC Chapter 113, Cottage, Carriage and Two/Three-Unit Homes.</p> <p>Where applied with medium density residential could include a variety of detached and attached residential units depending on underlying zone.</p> <p>Where overlying employment zones, there could be office and retail development or light industrial development consistent with underlying zoning.</p>
Industrial/Tech	Non-residential uses compatible with a light industrial/manufacturing district in a walkable, urban setting. Example uses would include light manufacturing, office, and storefront retail.

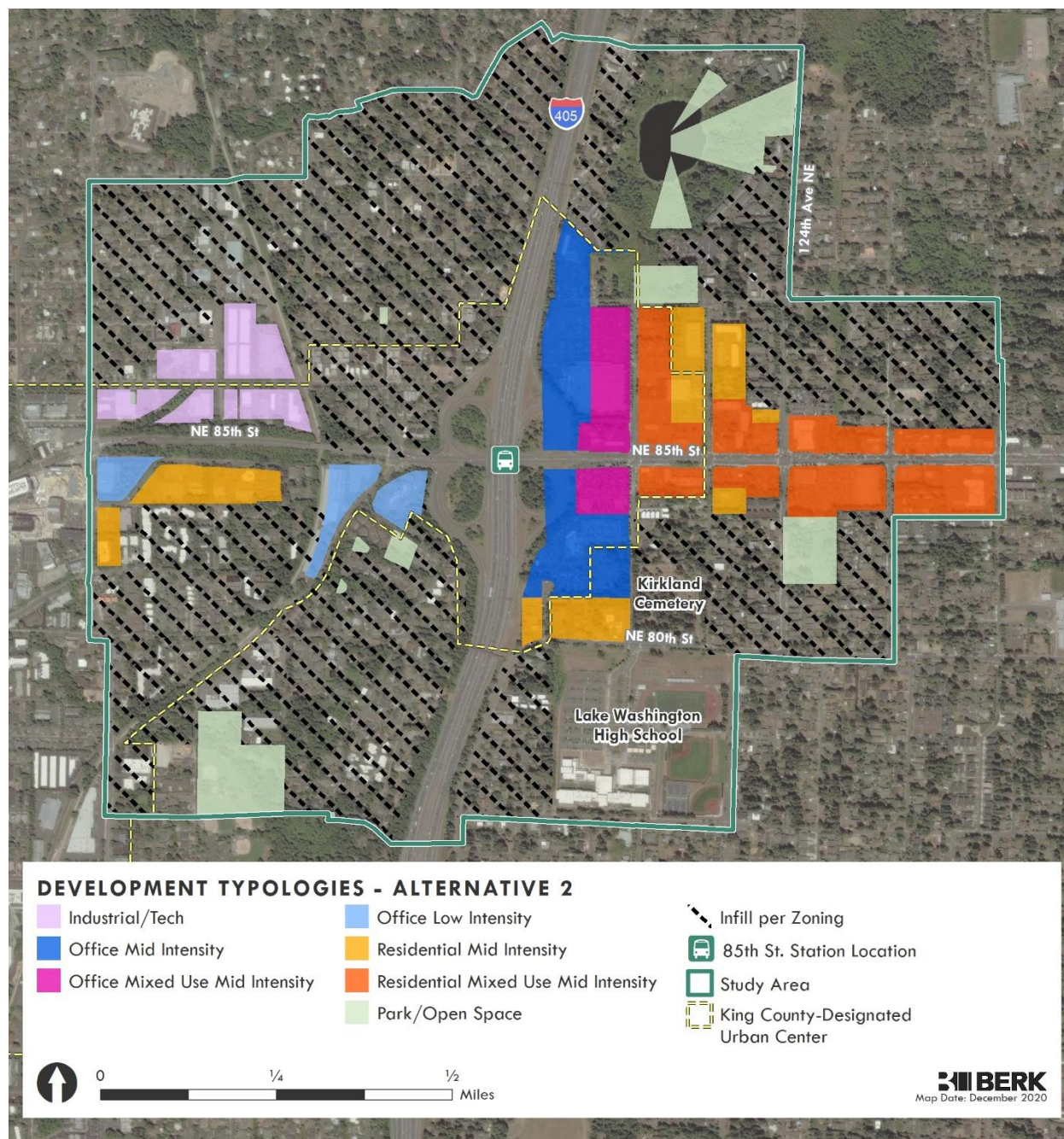
Note: For the purposes of these development types, low-rise includes structures up to 3 stories, mid-rise includes structures 4-12 stories and high-rise/towers includes structures above 12 stories.

Action Alternative 2

The proposed Alternative 2 land use plan illustrated in Exhibit 1-7 includes:

- Rose Hill NE 85th Corridor and Station Area: Mid-rise office/residential mixed use (up to 10 stories and 150 feet)
- Rose Hill/Moss Bay/Norkirk/Everest/ Highlands: Infill development in other areas in accordance with zoning (see Exhibit 1-4)

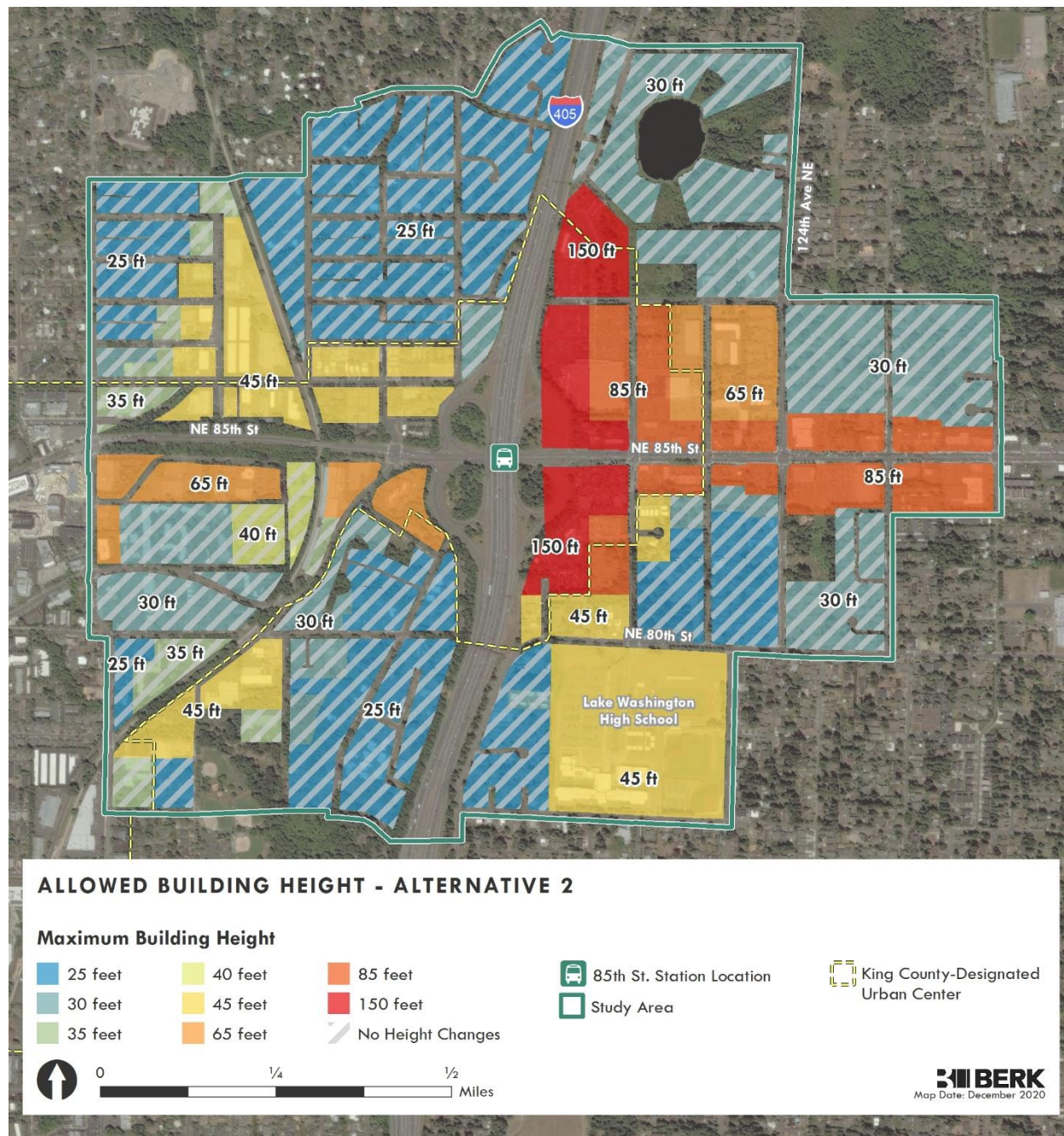
Exhibit 1-7. Alternative 2 Land Use Change Areas



Sources: Mithun, 2020; BERK, 2020.

Building heights would be about 10 stories or 150 feet closest to the station east of I-405, transitioning to 85 feet, 65 feet, and 45 feet as distance increases from the freeway eastward along NE 85th Street. To allow for capacity increases and effective use of current sites, the alternative considers adding a story in height at the Lake Washington High School. See Exhibit 1-8.

Exhibit 1-8. Alternative 2 Building Heights



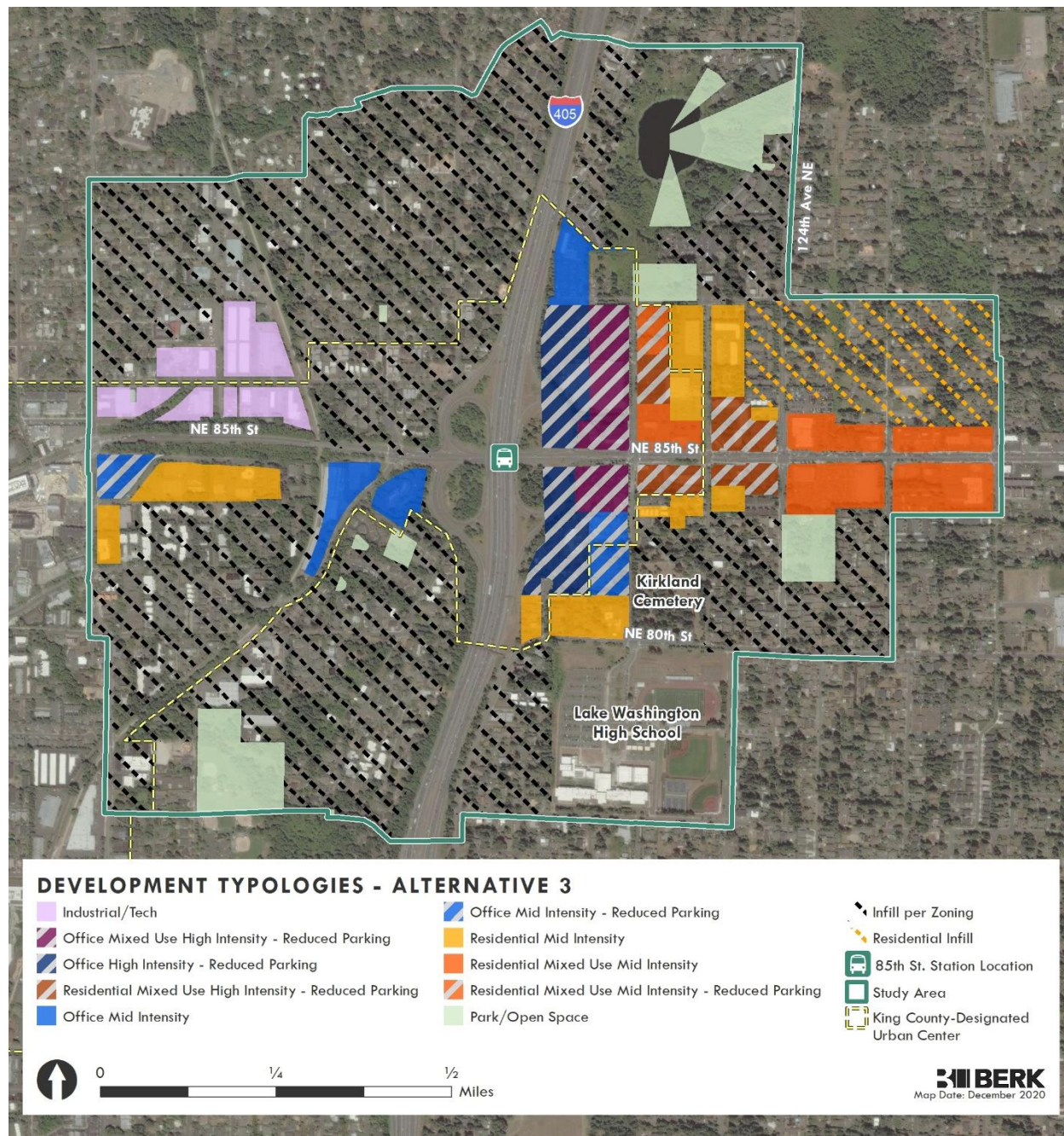
Source: Mithun, BERK, 2020.

Action Alternative 3

As illustrated in Exhibit 1-9 and Exhibit 1-10, the major elements of the Alternative 3 land use plan include:

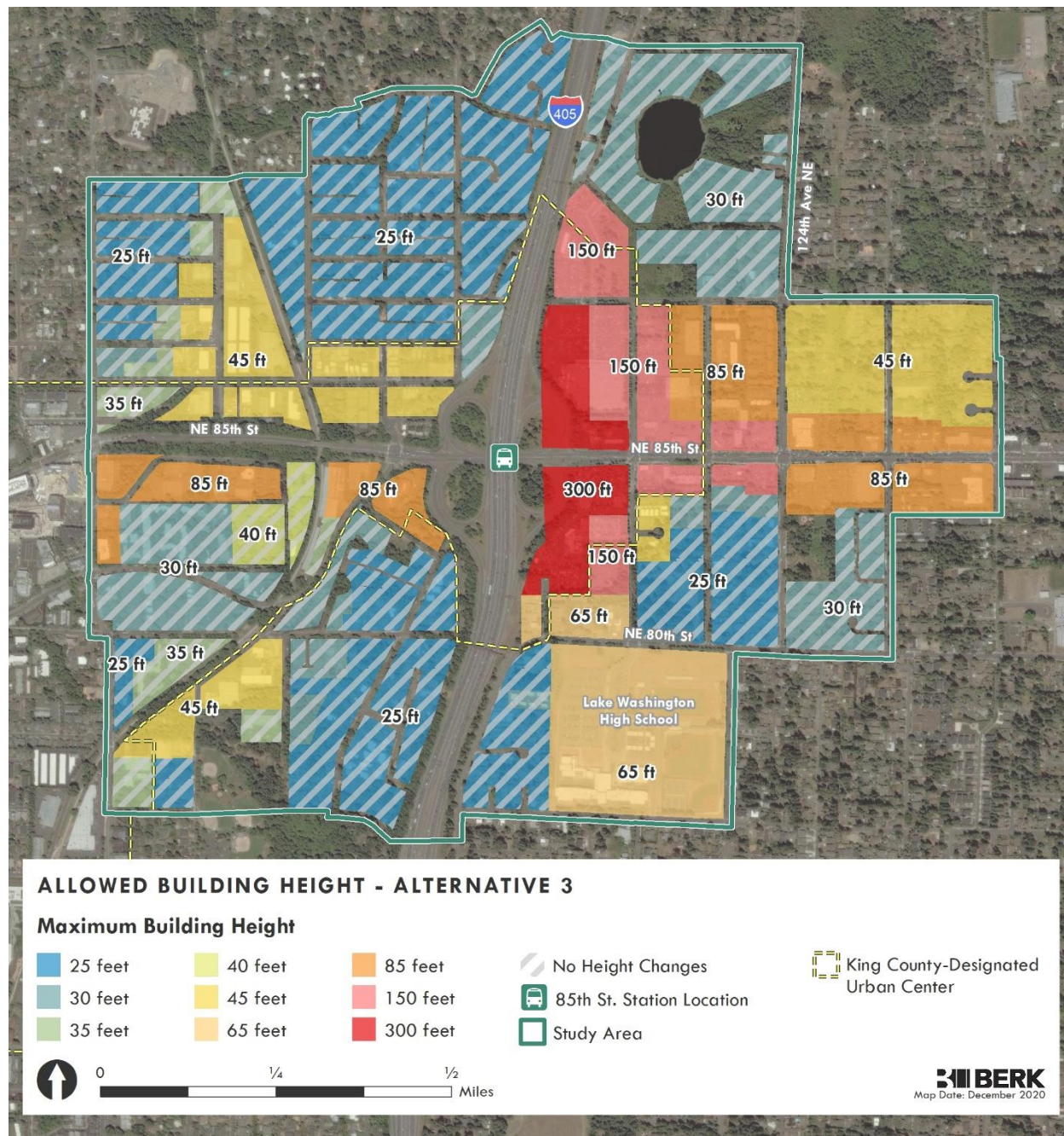
- Rose Hill NE 85th Corridor and Station Area: Taller buildings (up to 20 stories, 150-300 feet) with mid-rise office/residential mixed use (85-150 feet)
- Moss Bay/Norkirk/Everest/ Highlands: Mid-rise office residential mixed use (85-150 feet), Industrial/Tech in Norkirk
- School Capacity: To allow for capacity increases and effective use of current sites, Alternative 3 considers adding two more stories height above current zoning at the Lake Washington High School. Under this alternative, the City could also work with the Lake Washington School District and major employers on how to accommodate school capacity in urban formats or allow for specialty instruction for students.
- Other: Residential infill, including small-scale redevelopment, could result in more housing variety with low rise townhouses, small apartments, and other similar housing forms. Significant investment in open space and community gathering spaces.

Exhibit 1-9. Alternative 3 Land Use Change Areas



Sources: Mithun, BERK, 2020.

Exhibit 1-10. Alternative 3 Building Heights



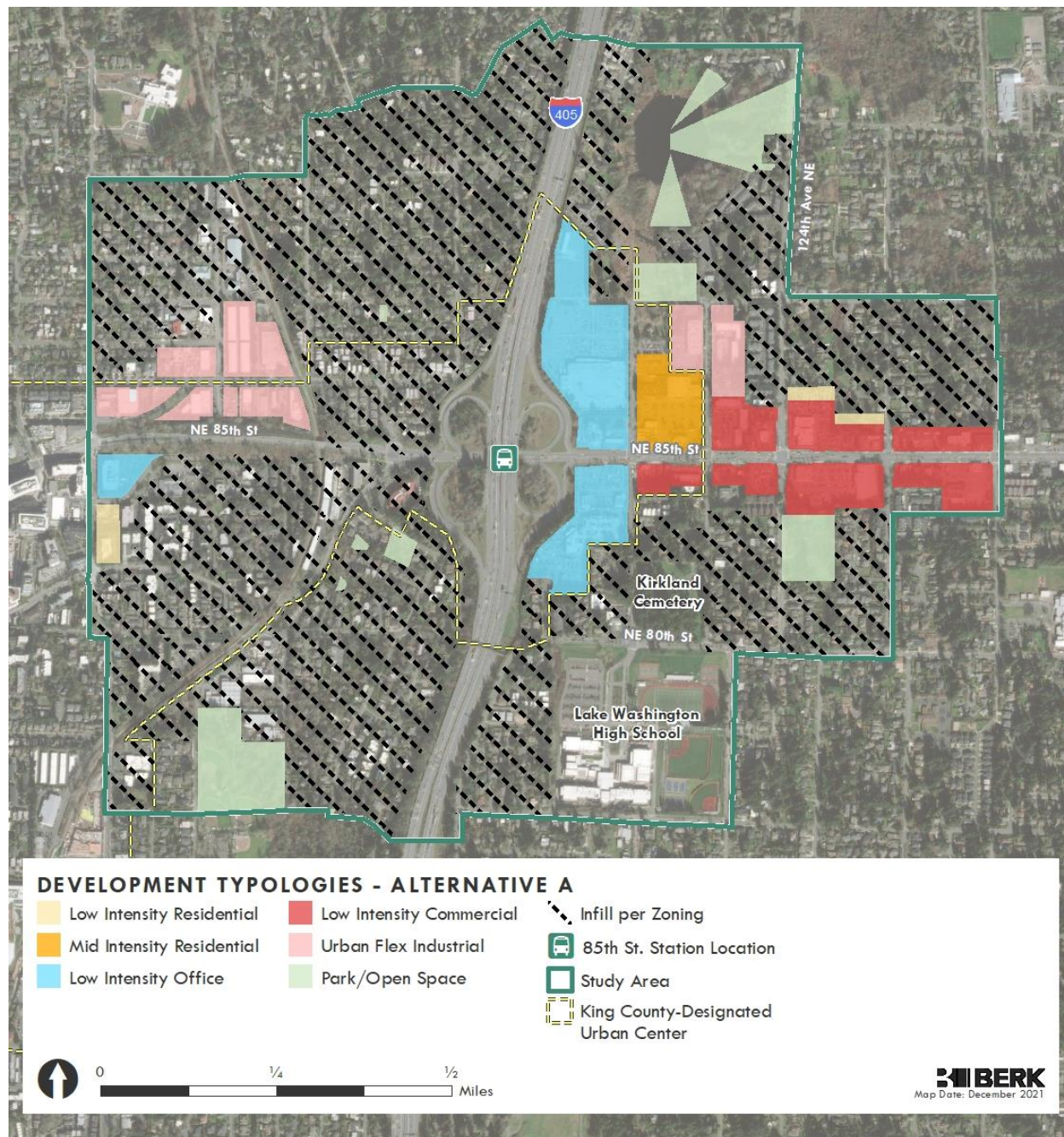
Sources: Mithun, BERK, 2020.

Final SEIS Alternatives

Alternative A Current Trends

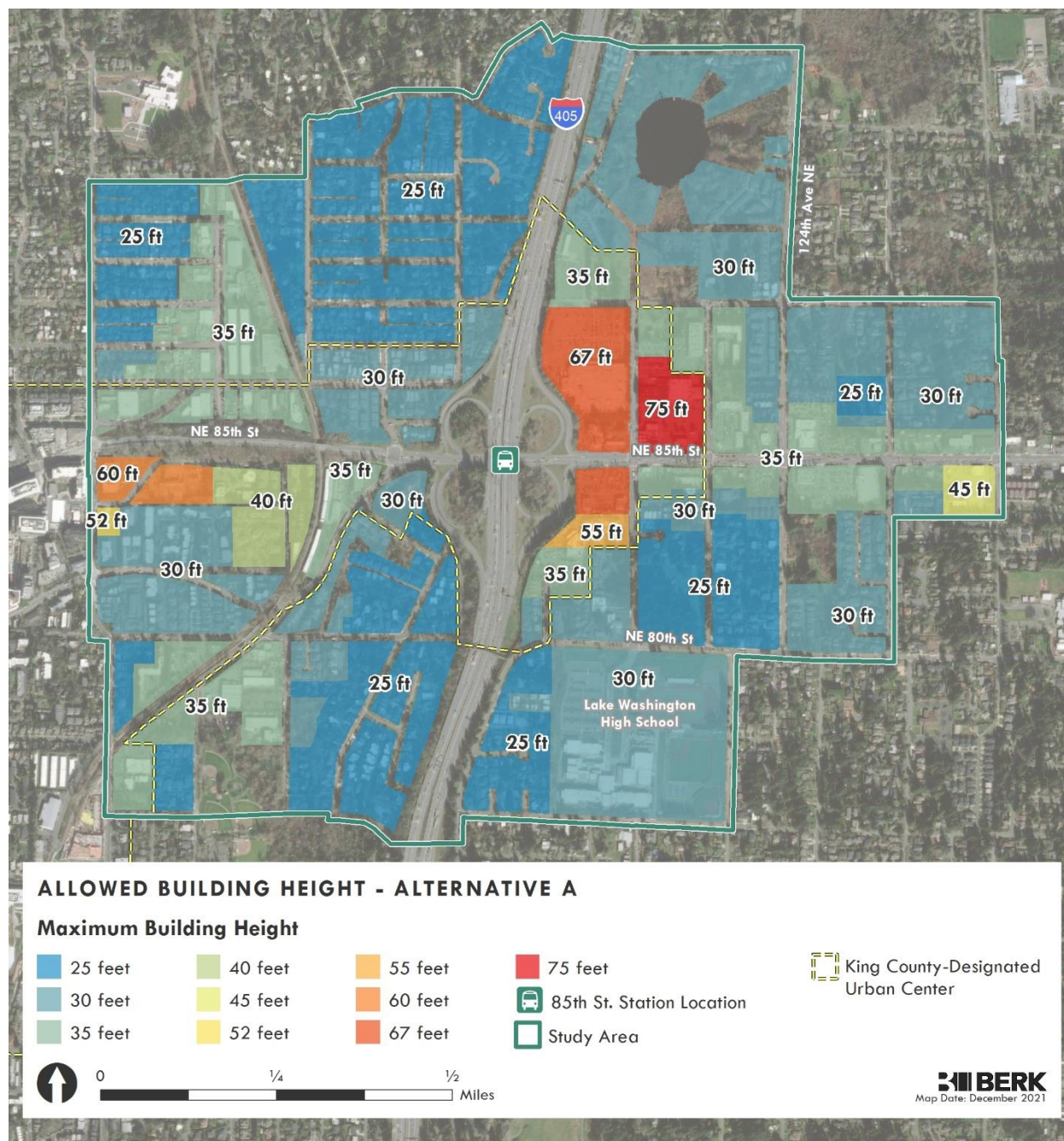
Alternative A Current Trends maintains existing zoning heights throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing than DSEIS Alternative 1. In Alternative A Current Trends, these additional jobs were studied in portions of the Study Area currently zoned for development up to 67' in height in zones RH-1A, RH-2A, and RH-2B, directly east of the interchange, north and south of NE 85th St. Areas within the district currently zoned for single family or other low density residential area would maintain their current zoning. See Exhibit 1-11 and Exhibit 1-12.

Exhibit 1-11. Alternative A: Current Trends – Development Typologies



Sources: Mithun, 2021.

Exhibit 1-12. Alternative A: Current Trends – Heights



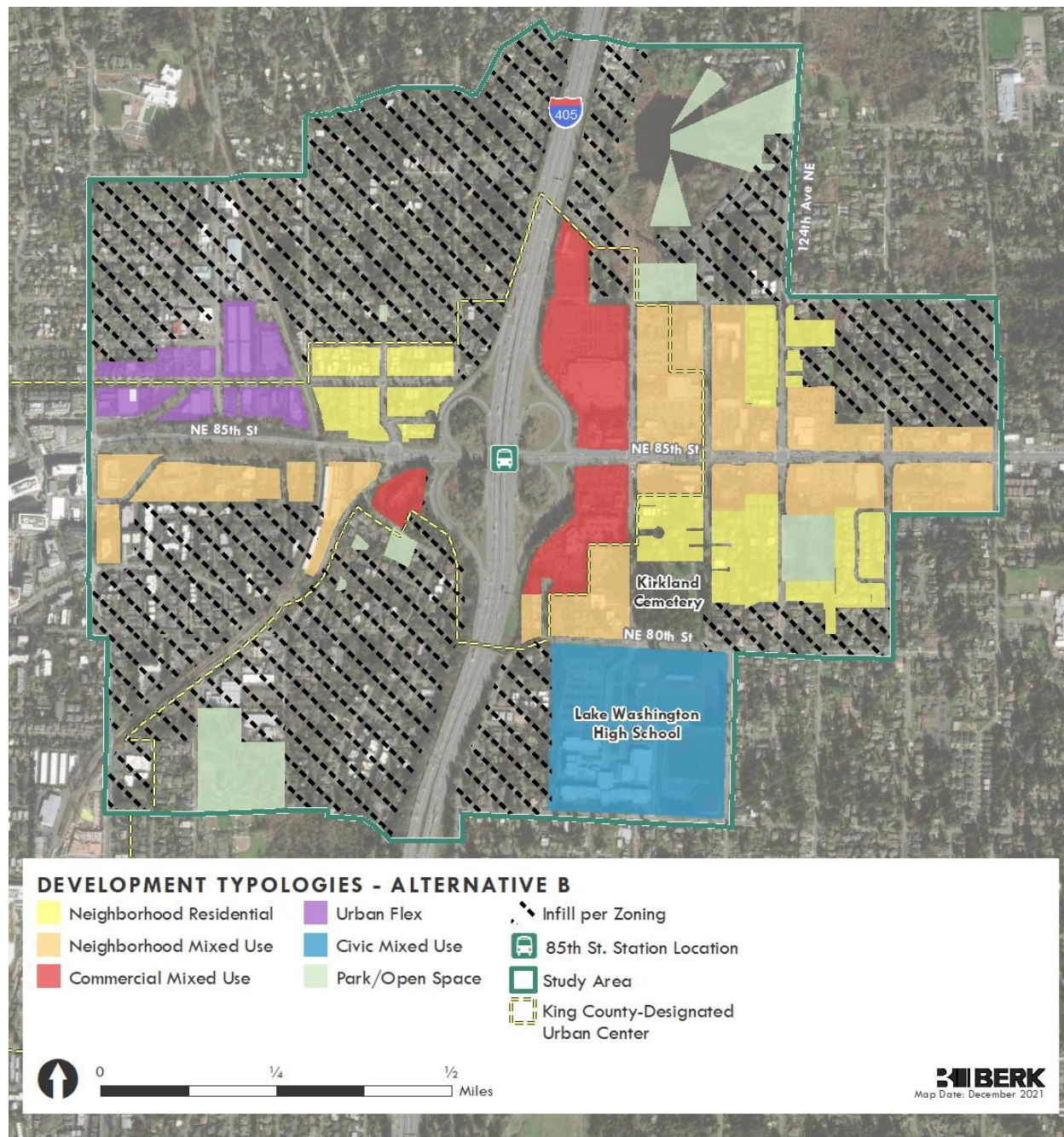
Sources: Mithun 2021.

Alternative B Transit Connected Growth would create a Station Area Plan (SAP) and Form-Based Code (see elements below), and would allow for further intensified development close to the station offering jobs and housing in buildings up to 20 stories (150-250 feet) in height, transitioning to mid-rise and low rise development further from the station. The proposed regulating plan is illustrated in Exhibit 1-13. Typologies and heights similar in format to other alternatives are presented in Exhibit 1-14 and Exhibit 1-15 respectively.

Exhibit 1-13. Alternative B: Transit Connected Growth: Form-Based Regulating Plan

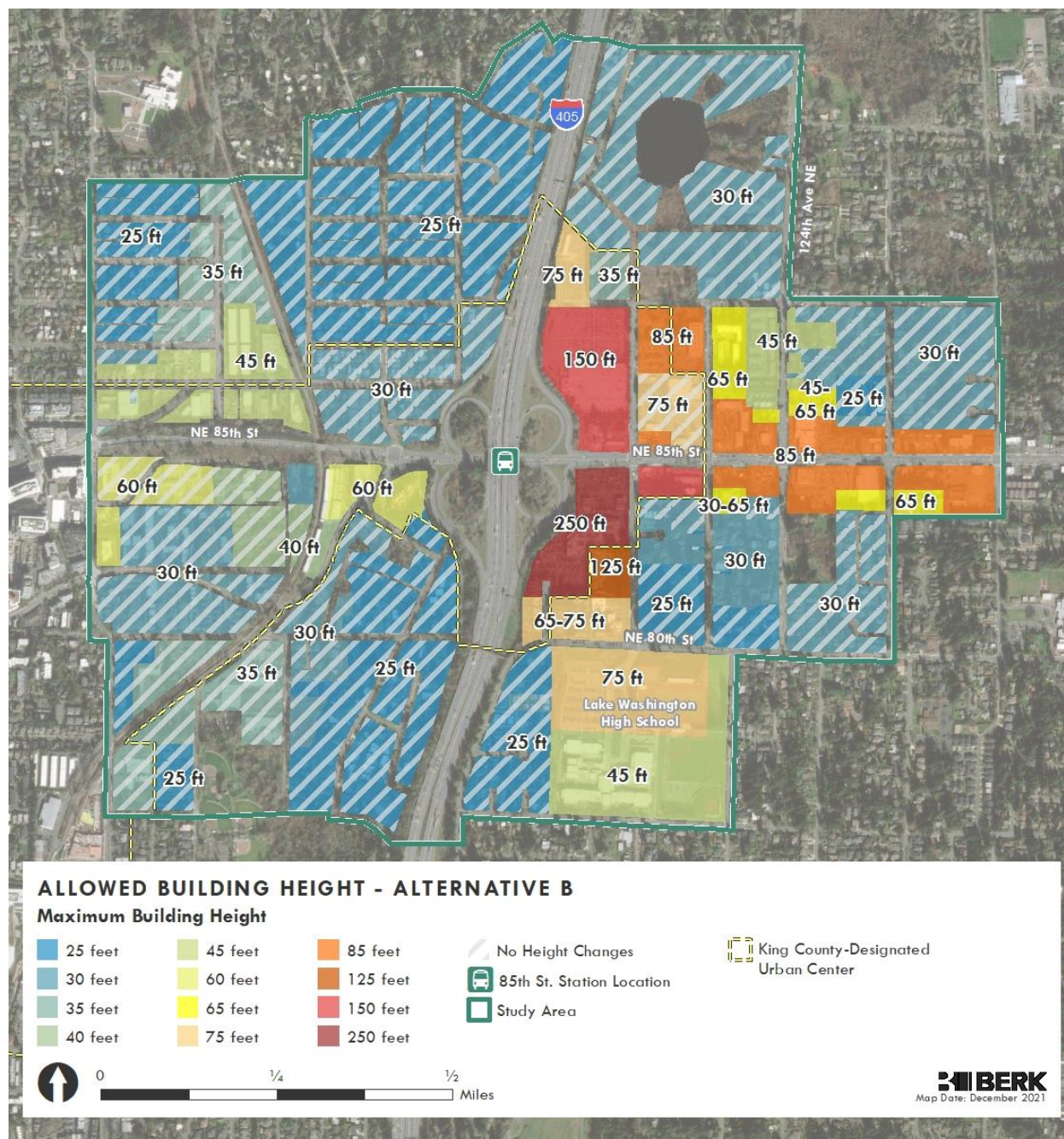


Exhibit 1-14. Alternative B: Transit Connected Growth – Typologies



Sources: Mithun, BERK 2021.

Exhibit 1-15. Alternative B: Transit Connected Growth- Heights



Sources: Mithun, BERK 2021.

Alternative B Transit Connected Growth only studies increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections. To that end, several areas where height increases had been proposed as part of DSEIS Alternatives 2 and 3 have been removed from consideration in Alternative B Transit Connected Growth. These include areas that are unlikely to redevelop due to market forces, are limited by

development feasibility, or are constrained by other factors.

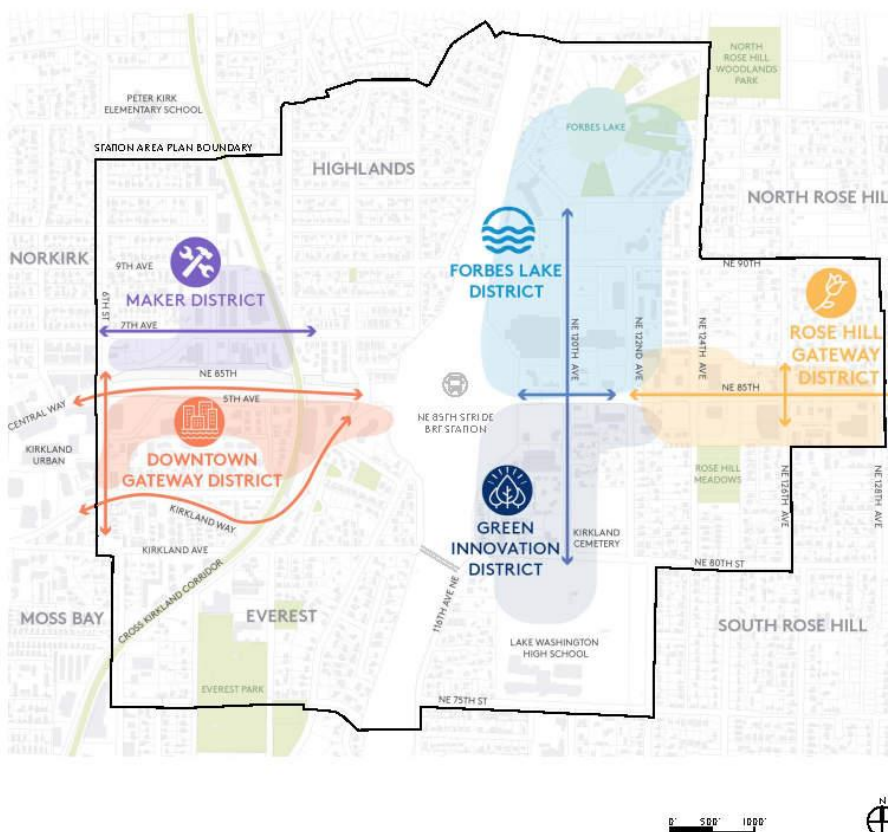
Key Form-Based Code elements include character subareas, identified based on key streets that organize the subarea and other connections shown in Exhibit 1-16 for a map and Exhibit 1-17 for descriptions. The Regulating Plan in Exhibit 1-18 illustrates maximum heights and provides a description of land use intent. This diagram also includes the framework concepts for future active frontages that will regulate the relationship of buildings to the street and illustrates important locations where the Form-Based Code will regulate the transition of taller or more intensive development types in relation to lower or less intensive development types.

Exhibit 1-16. Alternative B Transit Connected Growth Character Subareas

THE VISION

The Station Area is a thriving, new walkable district with high tech and family wage jobs, plentiful affordable housing, sustainable buildings, park amenities, and commercial and retail services linked by transit.

The vibrant, mixed-use environment is a model of innovation. With an outstanding quality of life and unmatched mobility choices, the Station Area is eco-friendly, a place to connect, and deeply rooted in the history of the land, the people, and the culture of this special crossroads in Kirkland. The highly visible integration of ecological systems within an urban setting set the Station Area apart while tying the unique sub-area districts together with existing open space and active living opportunities.



Source: Mithun

Source: Mithun 2021.

Exhibit 1-17. Alternative B Transit Connected Growth Character Subareas – Descriptions



MAKER DISTRICT

Pedestrian-oriented district building on Norkirk's character and excellent Cross Kirkland Corridor trail connections. 7th is a lively connection between the BRT drop off and old downtown. The traditional mixed industrial/commercial character of the area is recognized while encouraging more urban uses supporting "maker" activities, locally-owned small businesses, active lifestyle and recreation-related private and public uses.



DOWNTOWN GATEWAY DISTRICT

Gateway district to Downtown Kirkland via 6th St that emphasizes mid-rise residential and office uses along 6th and important bicycle and pedestrian connections along green pathways to and from the station and the Cross Kirkland Corridor.



FORBES LAKE DISTRICT

A walkable mixed-use district with opportunities for shops and office uses as well as mid-rise residential uses, organized around a green main street corridor with retail and active uses combined with small open spaces on 120th that connects to Forbes Lake. Biophilic design and visible water, energy, and biodiversity strategies tell the story this place.



GREEN INNOVATION DISTRICT

This vibrant, mixed use district is a model of innovation and place for community, students, and the workforce to connect. It transitions from shops and office uses to townhouses, small apartment buildings, and civic uses. Active transportation choices, connections to green space, and walkable South 120th offer a healthy lifestyle. Views abound.



ROSE HILL GATEWAY DISTRICT

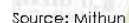
Corridor-based gateway with a mix of active ground floors and mid-rise residential along NE 85th that focuses on creating a strong sense of arrival from Redmond with streetscape design, public art, and urban design features.



Source: Mithun

Source: Mithun, 2021.

Exhibit 1-18. Regulating Districts and Active Frontages



Source: Mithun 2021.

Growth

The City of Kirkland plans for growth in its Comprehensive Plan consistent with the Growth Management Act (GMA). Currently, the City plans for a 2035 horizon and takes its fair share of growth based on growth target set in the Countywide Planning Policies. Regarding housing, the City reported that in 2013, Kirkland had 36,866 housing units, capacity for an additional 13,664 to 23,817 new units, and a 2035 Growth Target of 8,361 units. In 2013, the City had about 37,981 jobs, and capacity for 22,984 to 57,155 new jobs above a growth target of 22,435 new jobs (Table LU-3). Totem Lake Urban Center has the greatest share of growth capacity. King County designated Greater Downtown Kirkland as an Urban Center in the King County Countywide Planning Policies in 2019. The City has proposed it as a Regional Growth Center with the Puget Sound Regional Council.

Exhibit 1-19 compares housing and jobs across alternatives in the Station Area Study Area boundaries. Based on proposed land use, the DSEIS Alternatives set a bookend of growth:

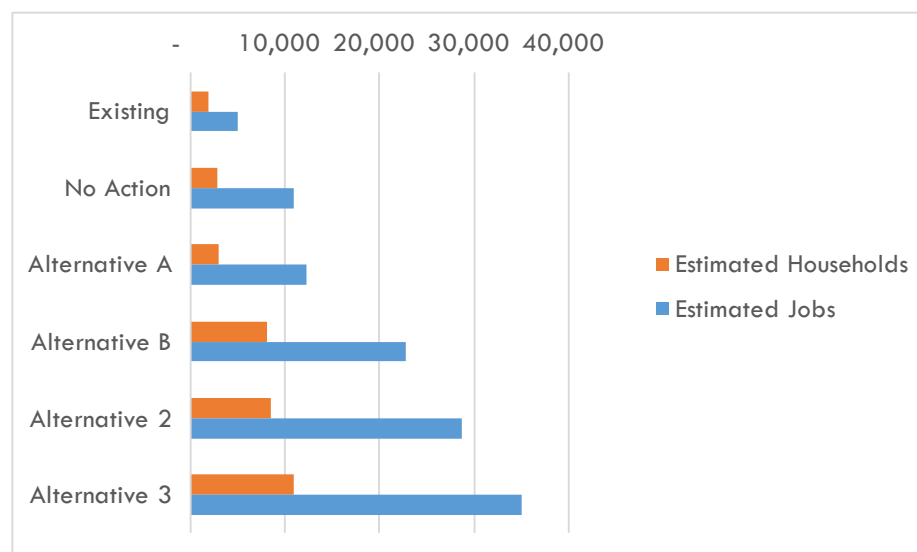
- Alternative 1 allows for the least housing and job growth of each alternative. It contributes to the adopted Comprehensive Plan capacity and would contain about 2,782 households and 10,859 jobs, slightly higher than the 2019 estimates of 1,909 households and 4,988 jobs.
- Alternative 3 allows for the most housing and job growth. Alternative 3 would add capacity for 9,000 new housing units and 30,000 jobs, a substantial addition to the city's capacity. For the year 2044, the anticipated total growth levels would be up to 10,909 households and 34,988 jobs.
- Alternative 2 allows for growth well above Alternative 1 but less than Alternative 3. Alternative 2 would provide for 6,600 new households, and 23,700 new jobs. For the year 2044, the anticipated total growth levels would be up to 8,509 households and 28,688 jobs.

The FSEIS Action Alternatives are in the range of the DSEIS Alternatives:

- Alternative A is similar to and slightly higher than the housing and job growth of Alternative 1 including 2,929 households and 12,317 jobs.
- Alternative B is similar to Alternative 2 and slightly lower in terms of the housing and job growth. It provides a total of 8,152 households (net increase of 6,243 from existing) and a total of 22,751 jobs (net increase of 17,763 from existing) by the horizon year of 2044.

Action Alternatives would create capacity for the City to advance its Comprehensive Plan beyond the current 2035 planning horizon, looking ahead to the next 2044 planning horizon, and associated regional growth projections, especially Alternatives B, 2, and 3.

Exhibit 1-19. Alternative Household and Job Comparisons by 2044



Sources: Mithun, 2021; BERK, 2021.

Transportation Investments

Transportation System Improvements: The DSEIS alternatives and FSEIS Alternative A reflect the same transportation network assumptions pertaining to traffic operations, as shown in Exhibit 1-20. These include:

- Transit queue jumps and an additional westbound left turn lane at NE 85th Street & 6th Street
- An additional southbound travel lane between NE 85th Street and 4th Avenue
- A roundabout at NE 85th Street & Kirkland Way/114th Avenue NE
- Redesigned I-405 interchange on NE 85th Street
- An additional eastbound travel lane on NE 85th Street between 120th Avenue NE and 122nd Avenue NE
- An additional eastbound left turn lane on NE 85th Street between 122nd Avenue NE and 124th Avenue NE (implemented in 2020)
- An additional southbound left turn lane on 132nd Avenue NE at NE 85th Street
- A four-way stop (all-way stop) at 114th Avenue NE & NE 87th Street (implemented in 2020)

In addition to the assumptions above, Alternative B considers two transportation scenarios for the southeast quadrant, which allowed development capacity up to 250 feet maximum height:

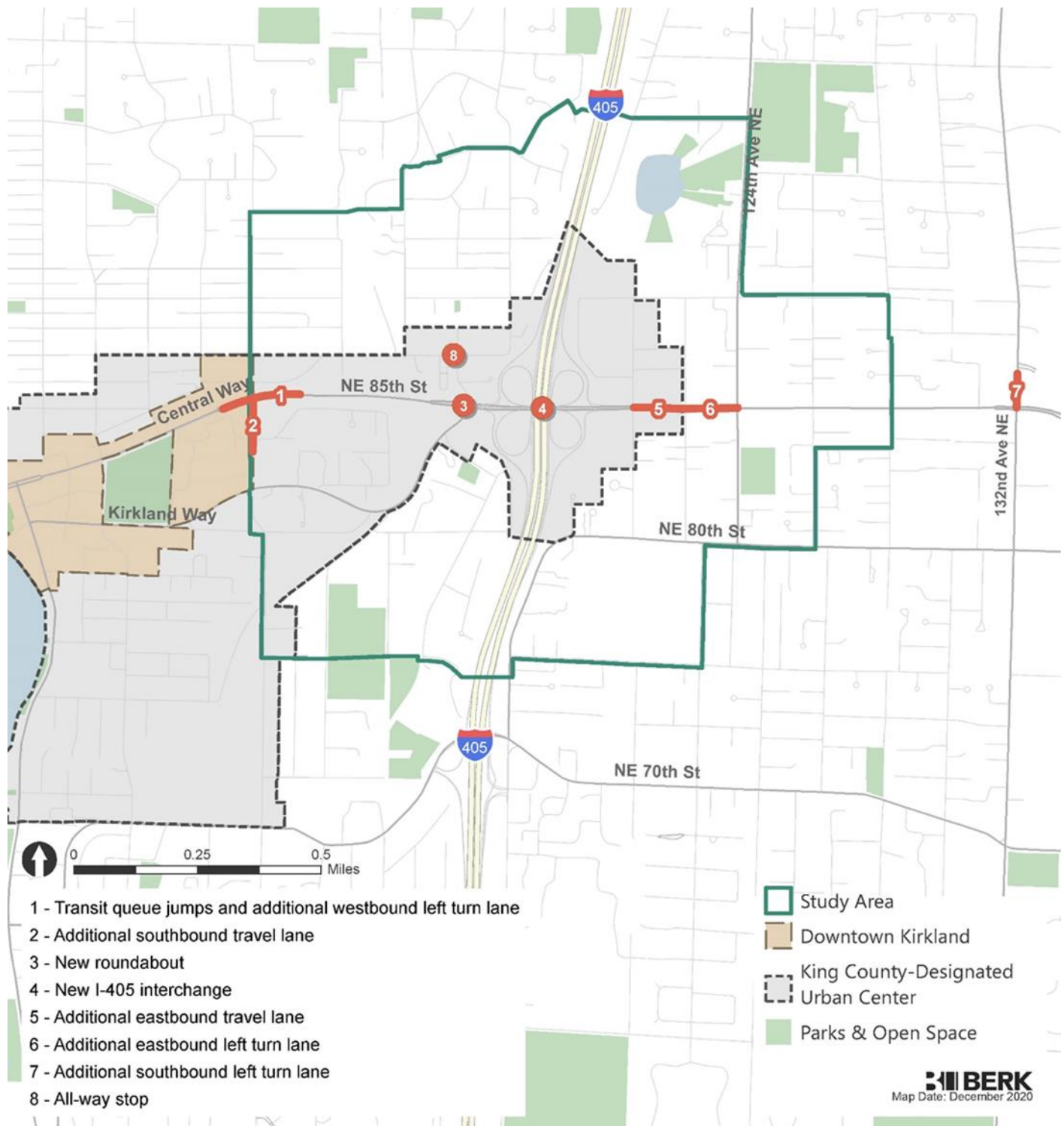
- The first assumes only one general access driveway² to the Lee Johnson site

via a signalized intersection at a mid-block location on 120th Avenue NE.

- The second scenario considers the same access as above, plus an additional south access to the site along 118th Avenue NE, which connects to 80th Street NE with new traffic control at the intersection in the form of a traffic signal, or potentially a roundabout.

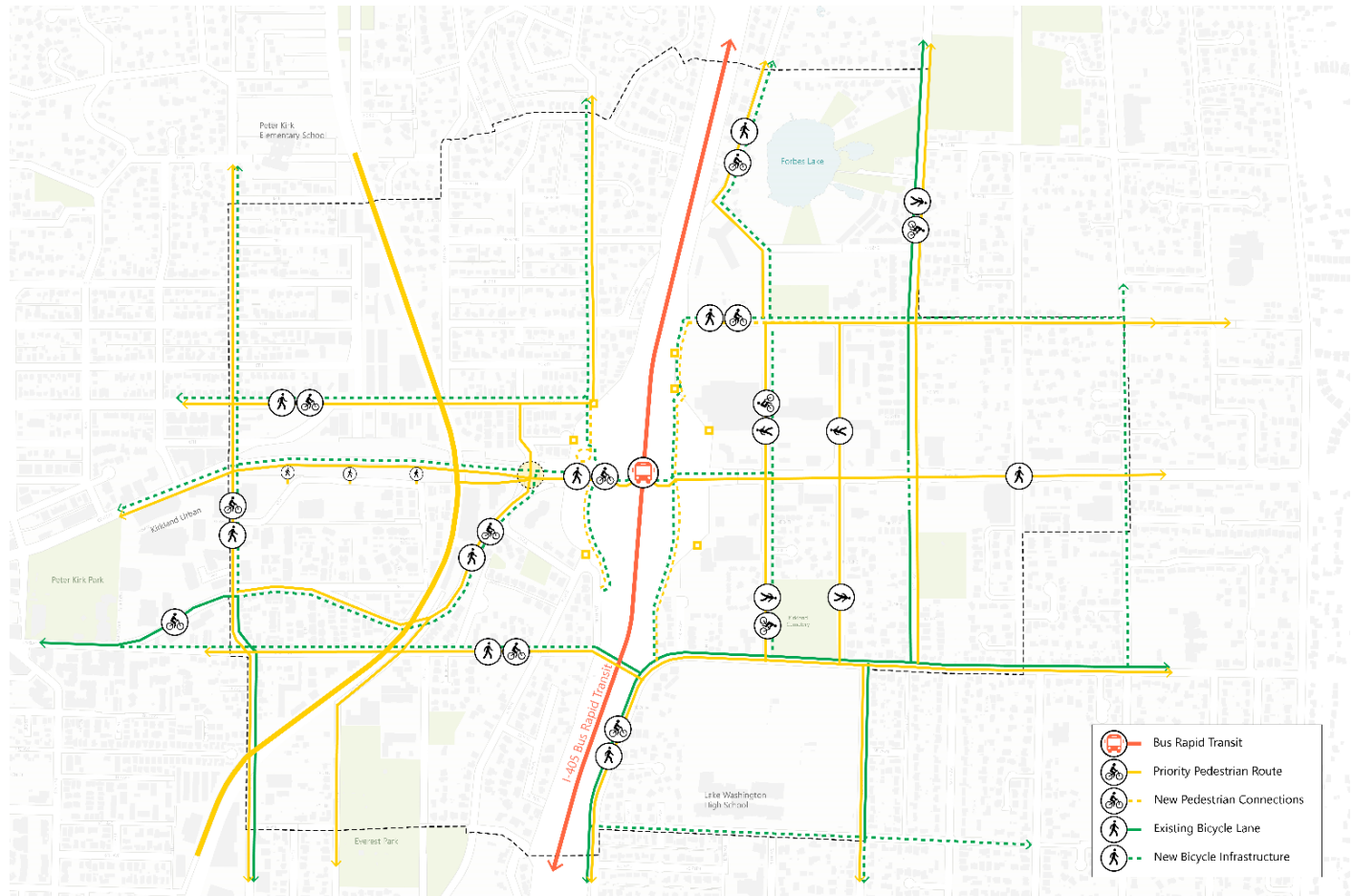
There are different transportation network assumptions for the future year alternatives related to bicycles, pedestrians, and parking, as shown in Exhibit 1-21, Exhibit 1-22, Exhibit 1-23, and Exhibit 1-24. Bicycle, pedestrian, and parking assumptions under Alternative A would include those identified for the No Action Alternative, and assumptions under Alternative B would be similar to those identified for Alternatives 2 and 3. Exhibit 1-24 shows the recommended station area multimodal investments under Alternative B. Alternative B also includes street type definitions based on street function and relationship to the expected development typologies as shown in Chapter 2.

Exhibit 1-20. Traffic Operations Transportation Network Assumptions, DSEIS Alternatives 1-3



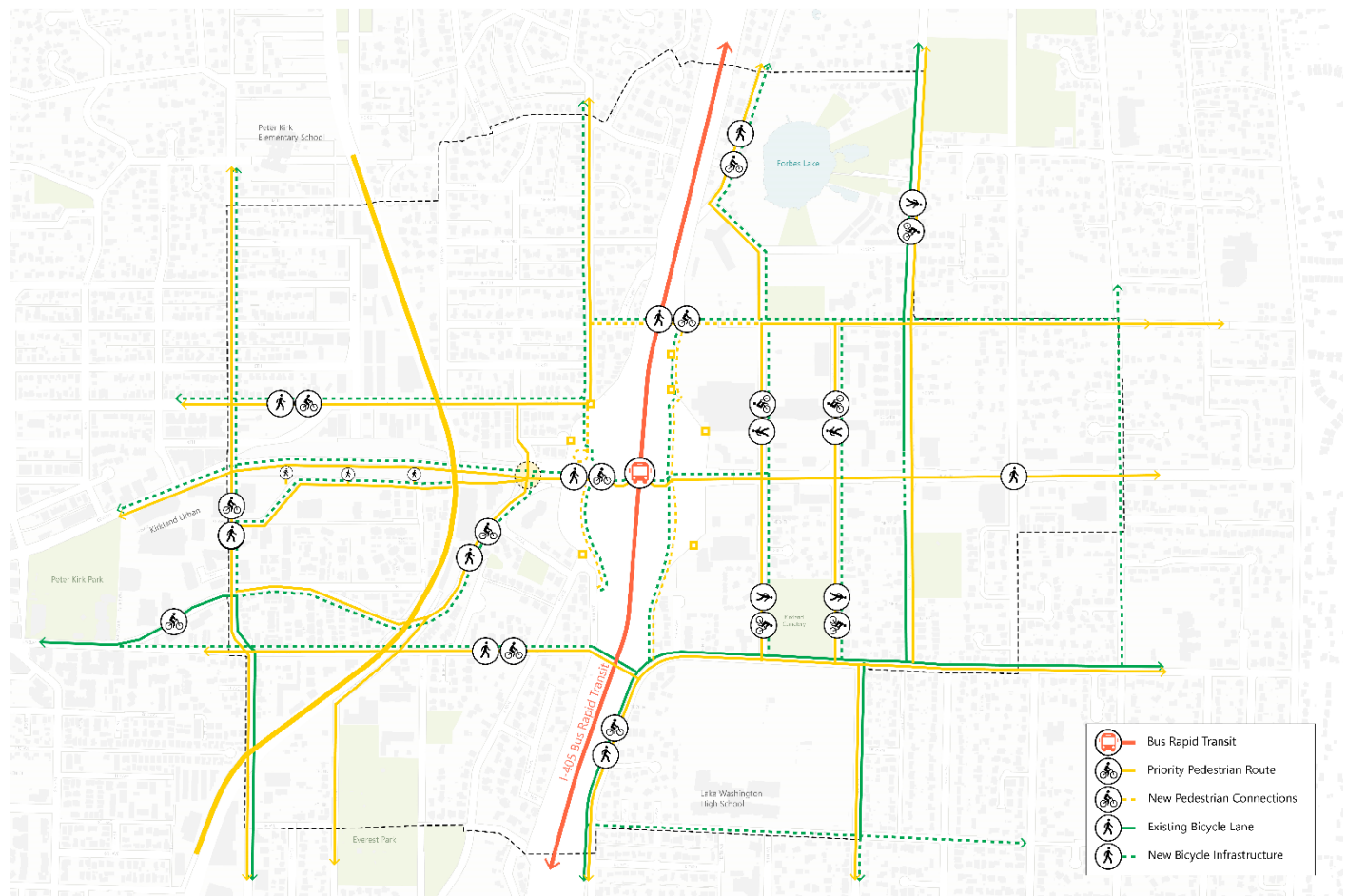
Sources: Fehr & Peers, 2020; BERK, 2020.

Exhibit 1-21. Multimodal Transportation Network Assumptions, DSEIS Alternative 1 No Action and FSEIS Alternative A



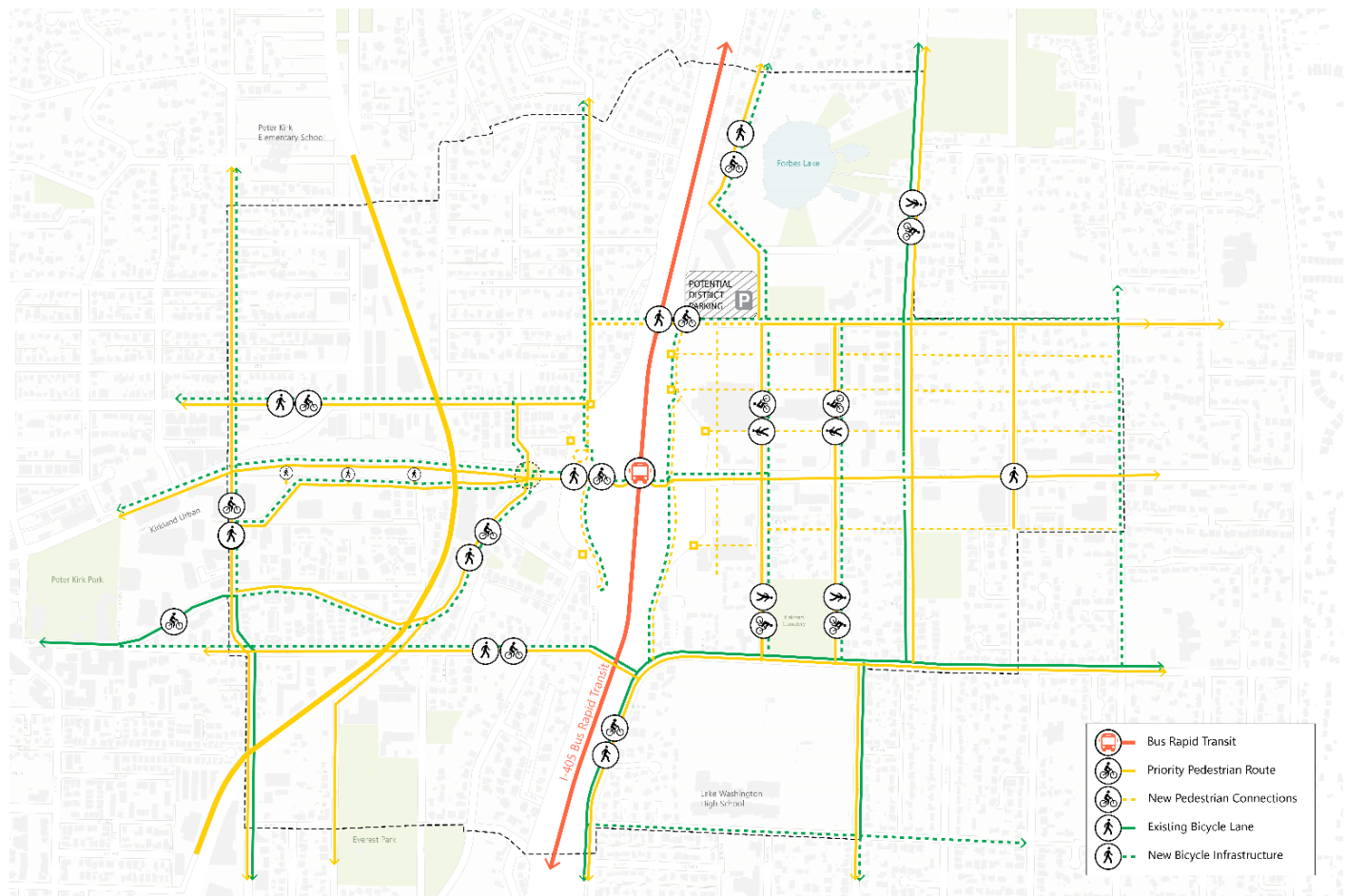
Sources: Mithun, 2020; Fehr & Peers, 2020.

Exhibit 1-22. Multimodal Transportation Network Assumptions, DSEIS Alternative 2



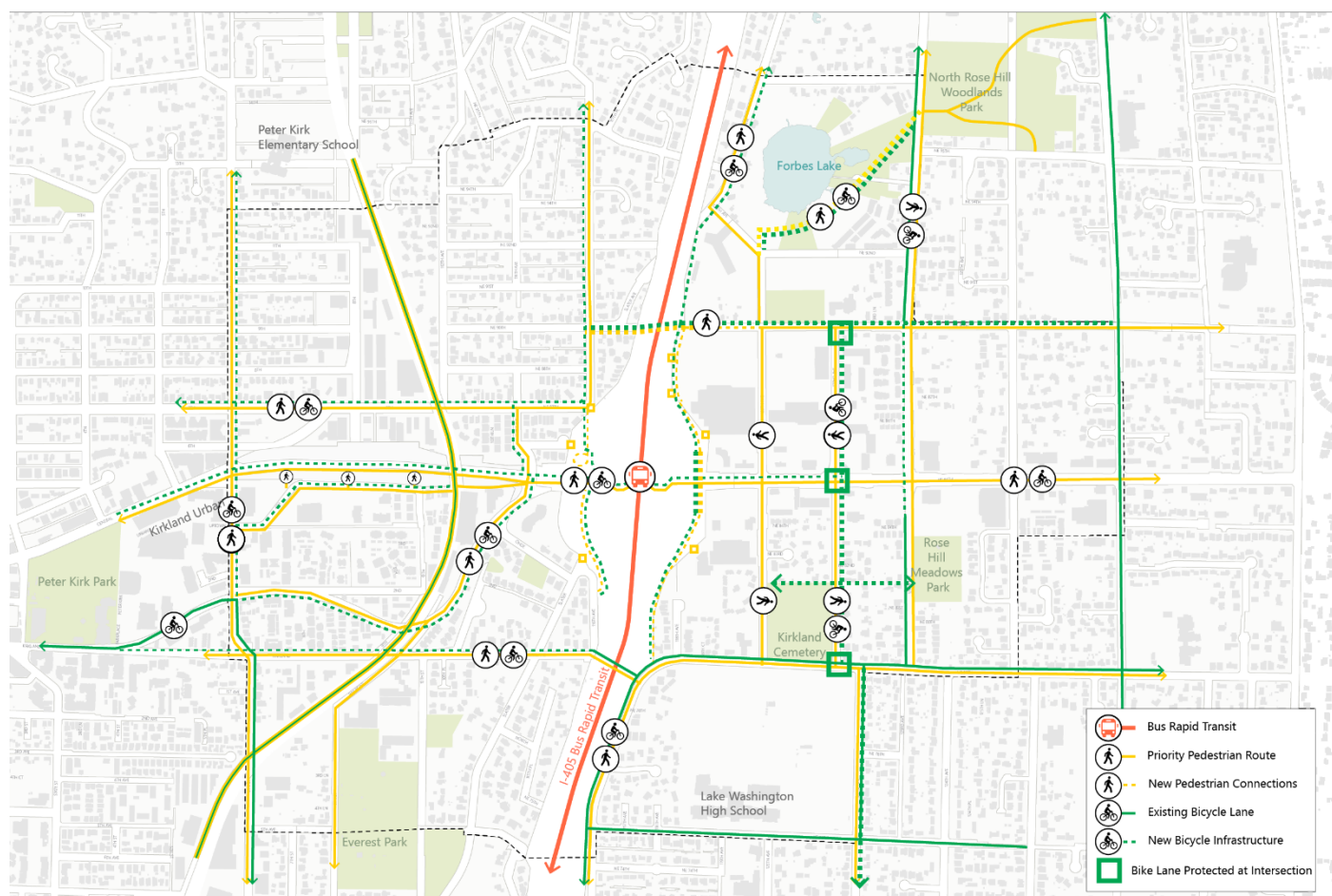
Sources: Mithun, 2020; Fehr & Peers, 2020.

Exhibit 1-23. Multimodal Transportation Network Assumptions, DSEIS Alternative 3



Sources: Mithun, 2020; Fehr & Peers, 2020.

Exhibit 1-24. Recommended Station Area Multimodal Investments, FSEIS Alternative B



Sources: Fehr & Peers 2021, Mithun 2021.

Parking: As the Study Area will benefit from proximity to planned high-capacity transit and regional bike trail access, there may be a lessened need for onsite parking. Alternative B, and DSEIS Alternatives 2 and 3 manage transportation demand through parking ratios, system facilities and management:

- **Ratios:** The GMA was also amended in 2020 to limit how high parking ratios can be for housing in a quarter mile of a transit stop with frequent service, applicable to accessory dwelling units and affordable, senior/disabled, and market rate housing. (RCW 36.70A.620 and 698) Thus, the Action Alternatives test alternative parking ratios.
- **District parking facility (DSEIS Alternative 3 only):** A district parking facility is conceptually located within Rose Hill commercial area that provides shared access to parking for commercial area users, visitors and residents in mixed use areas but would not be available for commuters.

Mitigation measures in Section 3.6 Transportation explore transportation demand management which could include shared parking, parking management,

unbundled parking, paid parking, or monitoring.

Parks, Open Space, and Environment

Key environmental elements under the Action Alternatives include:

- Minimize development near Forbes Lake; retain existing environmental and land use regulations.
- Stormwater improvements included as part of the WSDOT I-405 Interchange project and individual site/project development or redevelopment.
- Districtwide green building standards / incentives.
- Major increase of on-site tree canopy through green street midblock connections in Rose Hill and potentially within proposed open spaces.
- For Alternative 3 only, “Blue Street” reconstruction and streetscape improvements for 120th Ave NE to provide stormwater conveyance, attenuation (detention), and water quality treatment.

These green features are described further in Chapter 2.

The Action Alternatives would promote policies and regulations that could add parks and open space and support the natural environment and aesthetics, including:

- Neighborhood Parks and Pea Patches: There may be opportunities for park acquisition, or implementation of public or private pea patches in new developments (e.g., Pike Place Urban Garden).
- Neighborhood Linear Parks: As part of new streets or through block connections, linear parks and enhanced landscaping could contribute to the greenness of the area.
- Site Scale: At a site level the Form-Based Code would create standards for a pedestrian oriented public realm, and buildings could be required to meet a green factor (e.g., like Seattle or Denver). There could be requirements for public plazas and publicly accessible open space along with new mixed use and office developments.

These concepts are explored more in Section 3.7 Public Services.

Affordable Housing

With the increase in growth capacity, Action Alternatives would enhance affordable housing policies, incentives, and requirements to implement the Kirkland Housing Strategy Plan (City of Kirkland, 2018) and to address the increased demand for housing. Actions could include increased inclusionary

housing requirements, increased bonus densities, establishing commercial linkage fees, and participating in regional efforts to establish funding mechanisms to support affordable housing development including infrastructure and amenities. Under Alternative B and DSEIS Alternative 2 the level of density bonuses, incentives, or inclusion requirements would be less than for DSEIS Alternative 3 since they would be scaled to capacity or value increases. The range of policy and regulation Alternatives are reviewed in Section 3.3 Land Use Patterns and Socioeconomics and mitigation measures.

1.5 Key Issues and Alternatives

The key issues facing decision makers include:

- Approval of a Station Area Plan including a vision, goals and policies, land use concept including changes to map designations and infrastructure investments as well as consistency edits to the Comprehensive Plan.
- Approval of a Planned Action Ordinance to help incentivize growth while mitigating impacts.
- Approval of a Form-Based Code to provide for improvements to the public realm, relationship of buildings, and quality materials, emphasizing design over use.
- Identifying the desired land use pattern and growth levels to respond to and integrate the Stride BRT Station and provide for housing and job opportunities.
- Identifying the mix of infrastructure and transportation demand management investments to ensure multimodal transportation Alternatives and levels of service.
- Consideration of alternative open space and park investments suited to a transit-oriented urban neighborhood.
- Accommodating school facilities in an urban environment.
- Creating a mix of incentives and requirements to address equity and support large and small households and large and small businesses.

1.6 Summary of Impacts and Mitigation Measures

1.6.1 Air Quality/Greenhouse Gas Emissions

How did we analyze Air Quality/Greenhouse Gas Emissions?

For this evaluation, the King County SEPA Greenhouse Gas (GHG) Emissions Worksheet was used to estimate the GHG emissions associated with embodied and energy emissions. Using the existing land use in the Study Area, the total vehicle miles traveled (VMT) was calculated using Fehr & Peers' MXD+ trip generation tool.

What impacts did we identify?

Under all studied alternatives embodied emissions associated with redevelopment and the energy emissions generated would increase compared to existing conditions due to the intensified land use. Vehicle emission rates are expected to be lower in 2035 as vehicles become more fuel efficient due to more stringent regulations; therefore, each VMT will contribute fewer GHG emissions to the environment. However, the transportation emissions are expected to increase under each studied alternative.

What is different between the alternatives?

The alternatives would be considered to result in significant GHG emission impacts under the following conditions:

- DSEIS Alternative 1 No Action if it increased per capita emissions compared to existing conditions.
- DSEIS Alternatives 2 and 3, and Alternatives A and B if they increased per capita emissions compared to DSEIS Alternative 1 No Action.

Under the analysis, DSEIS Alternative 1 does not increase per capita emissions above existing conditions; it would be reduced on a per capita basis. DSEIS Alternatives 2 and 3 would reduce per capita emissions compared to Alternative 1 No Action. See Exhibit 1-25.

Exhibit 1-25. Lifetime GHG Emissions of the Study Area Studied Alternatives

Emissions (MTCO ₂ e)	Existing Conditions	Alternative 1 No Action	Alternative 2	Alternative 3
Embodied Emissions	227,100	371,800	778,300	922,900
Energy Emissions	4,032,700	7,967,300	13,687,000	15,111,400
Transportation Emissions	2,401,900	3,737,000	6,325,500	6,783,400
Total Emissions	6,661,700	12,076,100	20,790,800	22,817,700
Population + Jobs	9,175	16,640	45,010	55,710
Emissions per Capita	726	725.5	460	410

Sources: King County SEPA GHG Emissions Worksheet, 2019; Fehr & Peers, 2020.

The FSEIS Alternatives have population and jobs in the range of the DSEIS Alternatives and results are expected to be similar to DSEIS Alternative 1 for Alternative A (slightly higher due to additional pipeline growth) and DSEIS Alternative 2 for Alternative B (slightly lower due to the reduction in jobs and housing).

What are some solutions or mitigation for impacts?

Based on the evaluation above and in Section 3.1 Air Quality/Greenhouse Gas no significant impacts are expected under the studied alternatives. However, given the greater growth anticipated and to be consistent with City's Comprehensive Plan, Climate Protection Action Plan, Sustainability Master Plan, and SEIS scoping input, the following are offered as mitigation measures.

- Dense landscaping along roadways can reduce air pollutants and green infrastructure is a source of potential air emission mitigation at a microscale. The Action Alternatives would include green streets with optimal implementation of landscaping.
- DSEIS Alternatives 2 and 3, and Alternative B propose growth near I-405 that is office-focused with residential and mixed uses buffered by office uses to reduce the potential for localized air quality effects on vulnerable populations and improve land use compatibility adjacent to the freeway.
- The City's Comprehensive Plan Environment Chapter cites promotion of cleaner fuels, a reduction in vehicle miles of travel, and more reliance on renewable energy as three key transportation related actions to meet the City's GHG reduction targets.
- Kirkland's Climate Protection Action Plan (CPAP) 2013 and 2018 Gas Emission Report promote reduction in GHG.
- In the Form-Based Code, the City could include site by site green building standards or implement districtwide green building standards / incentives,

credentialing programs (e.g., Living Building Challenge, LEED, Passivhaus, Built Green, etc.), and district energy.

With mitigation, what is the ultimate outcome?

Based on the evaluation above and in Section 3.1 Air Quality/Greenhouse Gas, there are no significant unavoidable adverse impacts expected under the studied alternatives.

1.6.2 Surface Water and Stormwater

How did we analyze Surface Water and Stormwater?

The 2015 Comprehensive Plan Final EIS addressed current conditions, impacts, and mitigation measures on constructed drainage facilities and natural surface water bodies. The 2015 evaluation was reviewed and synthesized to include consideration of tree canopy, which was not explicitly addressed in the prior EIS. Impacts would be considered to rise to the level of significance when:

- **Stormwater.** Projects result in at least one of the following:
 - › Create impervious surfaces without stormwater management that increase the rate and volume of stormwater entering the City's separated storm sewer system, exceeding its conveyance capacity, and causing local flooding or degrading habitat in downstream receiving waters due to streambank erosion or changes in wetlands hydroperiod.
 - › Release untreated stormwater from pollution generating hard surfaces that leads to a decrease in water quality in local receiving waters.
 - › Release stormwater contaminated with silt or other pollutants during construction.
- **Surface Waters (including streams and wetlands).** If streams would receive substantial changes in flow volumes and velocities that affect water quality and habitat and cannot be mitigated. Surface water impacts are also of significance if wetlands or wetland buffers are filled or substantially reduced in function and these losses cannot be mitigated.
- **Tree Canopy.** If the project would cause a net loss in the City's overall current 38% tree canopy coverage.

What impacts did we identify?

Stormwater

Additional growth and development would likely increase the total amount of impervious surface in some parts of the Study Area under all alternatives, creating additional stormwater runoff that would require management and treatment. Existing development regulations would require this new development, however, to implement stormwater flow control and water quality treatment thus mitigating its impacts.

Redevelopment within the Study Area at higher densities would likely result in improved water quality and a reduction in peak run-off rates as older developments with outdated stormwater controls are replaced by new developments with modern stormwater controls. Low Impact Development (LID) practices are expected to improve water quality and the hydrologic regime of the run-off, in particular for the peak flows and durations from smaller storm events.

Wetlands and Streams

Development allowed under each alternative could result in impacts to Forbes Creek and the unnamed stream located in Moss Bay Basin, as well as wetlands along the eastern portion of the Study Area. Under all alternatives, the increase in impervious surfaces could reduce infiltration and therefore baseflow during drier periods. The required implementation of LID practices would mitigate for this impact to flow and minimize the impact to associated stream and wetland habitat. Redevelopment would improve stream and wetland habitat by implementing current stormwater controls including LID practices, requiring appropriate buffer widths, and retaining existing native vegetation.

Tree Canopy

Tree canopy will also continue to be analyzed under the current 8-year tree canopy study cycle under all alternatives.

What is different between the alternatives?

Stormwater

While all alternatives would implement LID practices, Alternatives B, 2, and 3 promote a multifunctional green street as a location for green infrastructure as private development occurs. Alternative 3 also promotes a blue-green street

concept for 120th Avenue NE that could include a “complete street” with vegetated green stormwater infrastructure, traffic calming, bike/pedestrian mobility, and/or place making design elements; proposed blue/green street infrastructure would result in little marginal benefit with high construction and maintenance costs in the proposed blue/green street locations. Under Alternatives B, 2, and 3, private green streets would be identified in the Station Area Plan and Form-Based Code regulating plan to enhance tree canopy and green infrastructure.

Wetlands and Streams

Changes to stream and wetland habitat would be minimal under the No Action Alternative and Alternative A and less than Alternatives B, 2, or 3 due to reduced development activity. Development activities under the No Action Alternative and Alternative A would be consistent with current land-use planning and environmental regulations and would not further encroach on stream or wetland buffers – fewer legacy stormwater systems would be upgraded to current standards, however, so water quality may improve more slowly under the No Action Alternative and Alternative A. Similarly, with less development activity there may be fewer opportunities to enhance habitat through mitigation projects.

Under Alternatives B, 2, and 3, the area west of 120th Avenue NE and north of NE 90th Street would allow mid-rise office buildings near the FORBES 17 wetland buffer and the buffer for Forbes Creek, mainly within the footprint of the existing development. Development adjacent to stream and wetland buffers has the potential to reduce buffer functions by increasing the amount of stormwater flowing into the buffer, thereby decreasing water quality functions, and increasing disturbance, which can reduce habitat quality. The use of stormwater quality and flow control practices (including LID practices) during development would ameliorate some of these adverse effects to water quality. If development resulted in temporary impacts to buffers during construction, habitat would be enhanced by planting native species and removing invasive species in restored areas.

Tree Canopy

Infill and development activities under the No Action Alternative and Alternative A would likely result in a relatively slow rate of both tree removal and subsequent planting. Canopy loss would be limited in scope but could be relatively drawn out as small numbers of trees are occasionally removed, replanted, and gradually reach maturity.

Greater and more rapid development under Alternatives B, 2, and 3 would likely

result in more abrupt loss of canopy. For example, tree canopy may be lost through infill development in residential areas and redevelopment of existing commercial areas and large parking lots with tree cover into mixed-use areas. Building height and proximity to potential planting areas in public rights of way (ROW) could also impact existing trees or restrict the choice of tree species for future plantings to those with a smaller or more columnar structure, potentially limiting tree canopy coverage.

Alternatives B, 2, and 3 estimate a maximum tree canopy loss of 66-68 acres within parcels identified for development and adjacent public ROW (the potential tree canopy impact areas).² However, development would be subject to tree retention codes and street tree requirements, and replanting would occur more rapidly under Alternatives B, 2, and 3. Public ROW would generally be used as a planting opportunity to offset canopy lost through development – any street trees removed because of adjacent property development would be replanted in the ROW to the full extent possible or in suitable locations in the city outside the Study Area. An estimated 25 acres of the maximum loss in tree canopy coverage under the Action Alternatives could be replanted in the Study Area, and incrementally more planting area could be added if new green streets are developed.³

What are some solutions or mitigation for impacts?

Existing City plans, policies, and development regulations address mitigation of impacts to stormwater, critical areas, and tree canopy:

- The City regulates surface water management in KMC Chapter 15.52 and provides standards for LID principles in KZC Chapter 114.
- The City regulates wetlands and requires buffers in accordance KZC Chapter 90.55.1, and uses the Washington State water typing system to categorize streams and other water bodies based on fish habitat and seasonal flows. Modifications to wetlands, streams, and associated buffers are prohibited except under certain circumstances (KZC Chapter 90.60 and 90.70).
- Policy E-2.1 of the Comprehensive Plan establishes an objective to achieve a healthy, resilient urban forest with citywide 40% tree canopy coverage.

² The potential impact area of Alternative 3 could affect slightly more trees and acres of canopy than the other alternatives. There are an estimated 1,032 trees and 67.36 acres of tree canopy cover in the potential impact area of Alternative 2, and an estimated 1,039 trees and 68.03 acres of canopy across all property ownership types in the potential impact area of Alternative 3. The potential impact area for Alternative B includes parcels identified for development as well as adjacent public rights of way. The potential loss of tree canopy to new development would be slightly less for Alternative B (66.23 acres) than for Alternative 2 (67.36 acres) due to no proposed redevelopment in the interchange area.

³ Although 25 acres are available to be planted, the trees planted in these areas will at maturity extend beyond the planting limits and result in canopy coverage greater than the planting area. Coverage area would depend upon the species planted and planting conditions.

- The 2013 Urban Forestry Strategic Management Plan outlines long-range management strategies towards a healthy, sustainable urban forest.
- A Tree Retention Plan for individual development projects must be developed under all alternatives, including inventory and survey of significant trees that may be impacted by the proposal (KZC Chapter 95). A forest management plan may be required for significantly wooded sites greater than 35,000 square feet. New tree canopy would be added with new street tree plantings, installation of required landscaping, and general project landscaping. The City is in the process of updating KZC 95 regulations, with adoption slated for early 2022.

Under the Action Alternatives, the City would require projects to implement enhanced stormwater treatment for all hard surfaces, requiring treatment within the Forbes Creek watershed above existing stormwater code requirements. All projects that drain to Forbes Lake within a designated Sensitive Lake Water Quality Treatment Area that trigger water quality treatment would apply area-specific water quality treatment requirements from Section 1.2.8.1 of the King County Surface Water Design Manual. The Action Alternatives may also implement measures from the Water & Sustainability Alternatives Matrix to provide additional mitigation (see DSEIS Appendix B).

Tree loss should be minimized where possible through the development of a Tree Protection Plan that is required under existing regulations, with an emphasis to retain and protect high-value, significant trees.

Other potential mitigation measures could include:

- Per Appendix B-3, the only proposed stormwater project within the Study Area consists of replacing 520 feet of 36-inch piped stream along 120th Ave NE with a smoother pipe material. This will increase capacity through the stormwater main line, helping in all scenarios.
- It may be necessary to replace some lost tree canopy coverage outside of the Study Area. Recommended locations for tree plantings outside the Study Area include residential neighborhoods, public open space, parks, and stormwater retention facilities.
- The City could use unconventional potential planting opportunities within impervious surfaces using suspended pavement systems (Silva cell) to maximize replanting within the Study Area.
- Where replanting within the Study Area is not possible, an in-lieu-fee Alternative may provide flexibility to fund and support best management practices outlined in the City of Kirkland Urban Forestry Strategic Management Plan.

With mitigation, what is the ultimate outcome?

No significant unavoidable adverse impacts are expected to stormwater and surface water.

There may be indirect impacts to stream and wetland buffers due to increased development adjacent to buffers. No additional impacts to streams or wetlands are anticipated in any alternatives.

Based on Citywide data from historic canopy assessments, the Study Area would see near-term canopy loss under all alternatives as larger trees are removed to make way for redevelopment. The rate of near-term canopy loss likely accelerates based on the intensity of allowed development. The tree canopy would be restored over time as replacement trees reach maturity; however, all alternatives may result in significant unavoidable temporary impact to city-wide tree canopy coverage over the next 10-20 years.

1.6.3 Land Use Patterns and Socioeconomics

How did we analyze Land Use Patterns and Socioeconomics?

The evaluation of land use includes a review of current land use and planned land use spatial data, as well as demographic data from regional, state, and federal sources.

What impacts did we identify?

Land use and socioeconomic impacts would be considered to rise to a significant level if there are:

- Differences in activity levels at boundaries of uses of different intensities likely to result in incompatibilities.
- Intensities of expected growth likely to have an impact on direct displacement of a marginalized population (low-income people, people of color).
- Inadequate physical capacity to accommodate growth and displaced residents and businesses.
- Developments at intensities that would not support transit investments.

Land Use Growth and Activity Levels: The studied alternatives allow for mixed use growth that is more intense than the largely low rise development that exists

today. All alternatives allow a range of housing types in low, medium, and high density districts. All alternatives allow for commercial office, retail, and industrial development.

Capacity for Growth and Displacement: Under all alternatives most of the change in land use and growth would occur in Census Tract 53033022604, the Rose Hill area east of I-405. This Census Tract has a low opportunity index, and a quarter of the current residents are persons of color. There is a relatively low potential for displacement of small and ethnic businesses. All alternatives provide capacity for growth; to the extent there are limited displacements, there is capacity under all alternatives to contain space to accommodate households and businesses of different sizes.

What is different between the alternatives?

Growth and Change in Intensity: All alternatives allow for increased growth in the Study Area, with No Action and Alternative A the least and Alternative 3 the most. All Alternatives would maintain a pattern of greater mixed use or employment intensity near NE 85th Street and I405, though Alternatives B, 2 and 3 create a more distinct difference in intensity of uses in the northeast and southeast quadrants of the interchange where there are more abrupt changes in intensity from these uses to medium and lower density residential. Action Alternatives would create a SAP and Form-Based Code, though Alternative B advances Form-Based Code concepts and would include transitional height and landscape standards.

Employment Uses along I-405 and Air Quality Buffer: At a programmatic level, the Alternatives B, 2, and 3 consider business oriented and residential mixed uses similar to allowances found today in the No Action Alternative and Alternative A along NE 85th Street. Compared to the No Action Alternative and Alternative A, Alternatives B, 2, and 3 provide a transition or buffer of greater employment uses along I-405 in the northeast and southeast; residential uses would be located beyond these office-focused areas further from I-405. This would help avoid residential uses along the freeway with exposure to air quality emissions.

Support of Transit Investments: All alternatives would increase activity units in the Station Area, with Alternatives B, 2, and 3 exceeding the activity unit density required for PSRC regional center designation criteria of 45 per acre population and jobs combined. The Station Area is only a portion of a larger proposed Regional Growth Center.

What are some solutions or mitigation for impacts?

The mitigation measures include existing and expanded policies and regulations addressing compatible land uses, affordable housing, and displacement:

- Apply zoning and design guidelines.
- Implement the Kirkland Housing Strategy to establish a TOD district with amenities and range of housing styles.
- Creating density bonuses that prioritize affordable housing.
- Establish Commercial Linkage Fees.
- Establishing minimum requirements for family-size units, so a range of households can live in the Study Area.
- Requirements that development provide a minimum number of activity units in terms of jobs and population to achieve its desired transit-oriented development, as well as establish an expected amount of affordable housing.
- Commercial space standards for both small and large businesses in new developments to retain area businesses in new urban formats. Building flexible tenant spaces that can accommodate small businesses can make the spaces more affordable.

With mitigation, what is the ultimate outcome?

Under all alternatives, additional growth would occur in the Study Area, leading to a generalized increase in building height and bulk and development intensity over time, as well as the gradual conversion of low-intensity uses to higher-intensity development patterns. This transition would be unavoidable, but it is not significant and adverse since this is an expected characteristic of a designated Urban Center in the Countywide Planning Policies.

In addition, future growth is likely to create localized land use compatibility issues as development occurs. The potential impacts related to these changes may differ in intensity and location in each of the alternatives. However, with the combination of existing and new development regulations, zoning requirements, and design guidelines, no significant unavoidable adverse impacts are anticipated.

As the area develops, there may be displacement of existing jobs as most of the areas of intensification are in commercial or mixed use areas; however, there is sufficient employment space under any alternative to relocate the businesses and thus no significant unavoidable adverse impacts are anticipated.

All alternatives could see some risk of displacement of existing residents or businesses; this risk would be higher under Alternatives B, 2, and 3 but so would the capacity for relocation in new housing units. Alternatives B, 2, and 3 would increase substantially the capacity for housing that could better meet demand. Increasing affordable housing programs and incentives for providing units affordable to diverse income groups and for investment in affordable housing development could offset affordability pressures. Measures to encourage small businesses in the Form-Based Code would also help avoid displacement and create a more vibrant urban hub. The capacity of alternatives together with mitigation measures encouraging and requiring affordable housing and a variety of employment space would avoid significant adverse impacts.

1.6.4 Plans and Policies

How did we analyze plans and policies?

This SEIS analyzes pertinent plans, policies, and regulations that guide or inform the proposal. These include the GMA, Vision 2050, the County Countywide Planning Policies (CPPs), and the City's Comprehensive Plan, including applicable neighborhood plans. The alternatives were reviewed for consistency with each of these plans and policies. A finding of inconsistency or contradiction with plans and policies would be considered to result in a significant adverse impact.

What impacts did we identify?

All alternatives are generally consistent with plans and policies. In a few cases, policies in the Rose Hill Neighborhood Plan speak to considerations that have not been fully addressed in the Station Area Planning process. Future development of the SAP, development regulations, and design guidelines should include review of these selected policies, as noted in the mitigation measures, to determine applicability and potential need for comprehensive plan amendments.

What is different between the alternatives?

The plans and policies analysis found that the proposal considered in Alternatives B, 2, and 3 would be consistent with the guidance and requirements of the GMA, PSRC Vision 2050, King County CPPs, and Kirkland Comprehensive Plan. In general, Alternatives B, 2, and 3 would result in greater capacity, amenities, and services to support the future station area compared to the No Action Alternative

and Alternative A.

What are some solutions or mitigation for impacts?

The following mitigation measures address potential policy inconsistencies:

Incorporated Plan Features

- All alternatives would accommodate the City's 2015-2035 growth targets for housing and employment identified in the Comprehensive Plan, as well as general guidance supporting transit-oriented development in the vicinity of the new BRT station at the I-405/NE 85th St interchange.

Regulations and Commitments

- As required by GMA, the City must submit proposed Comprehensive Plan amendments and updated regulations for review and comment by the State prior to final adoption.

Other Proposed Mitigation Measures

- The relationship of the SAP to neighborhood plans should be specifically articulated in the Comprehensive Plan.
- Rose Hill Neighborhood Plan policies RH-24, RH-27, RH-29, and RH-30 should be reviewed to determine the need for amendments to the Comprehensive Plan or potential inclusion in future development regulations/design standards.
- The City will consider the need for design standards and other measures to ensure that residential character is retained as infill development occurs.

With mitigation, what is the ultimate outcome?

With mitigation the proposal would be consistent with state, regional, and local policy guidance, and requirements.

1.6.5 Aesthetics

How did we analyze Aesthetics?

This SEIS evaluates the scale and visual quality of development that would potentially occur under each of the alternatives, including the effects of proposed building height increases on community character, views, and shading conditions. The SEIS documents existing conditions in the Study Area, including current development typologies, allowed building heights, and overall visual and

architectural character. The alternatives were reviewed for potential effects on the visual environment associated with future development.

The aesthetics analysis assess impact related to visual character, views, shading conditions, and light and glare.

What impacts did we identify?

Under all alternatives, construction of regional transit infrastructure in Kirkland would continue, including the NE 85th Street BRT Station, and additional population and employment growth would occur in the Study Area, primarily focused on the existing Rose Hill Business District. Additional growth in the Study Area would gradually increase development intensity over time, which would result in a transition to a more urban visual character with taller, more massive buildings that have the potential to affect views and shading conditions in the Study Area. Additional development and associated vehicular traffic would also increase the level of light and glare in the Study Area.

What is different between the alternatives?

The Action Alternatives would allow substantially more development and taller building heights than existing conditions or the No Action Alternative or Alternative A, increasing the intensity of development and creating a more urban visual environment. These larger buildings would also potentially increase ground-level shading conditions and alter the pedestrian experience. In general, Alternative 3 would have greater potential for adverse impacts than Alternative 2 because it would allow taller buildings heights and an overall greater level of development in the Study Area. Alternative B combines elements of Alternatives 1, 2, and 3 with greater intensity in the Southeast and Northeast Quadrants and along NE 85th Street, and lesser height and intensity west of I-405.

None of the alternatives are anticipated to have significant adverse effects on protected public views.

What are some solutions or mitigation for impacts?

Adverse effects could be minimized through application of design standards included in the proposed Form-Based Code, and the Action Alternatives would also include plans for the construction of additional streetscape improvements and bicycle/pedestrian connections.

In addition to the City's existing design standards and development regulations,

recommended design standards include the following:

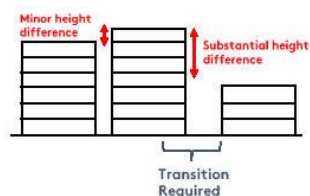
- Additional ground-level setback, upper-story setback, or building height transition standards for sites abutting low-density residential properties. The Form-Based Code proposals developed with Alternative B includes principles for step backs and landscaping. See Exhibit 1-26.
- Limits on the size and footprint of tower-style development including regulating the relationship of building massing to site open space.
- Limits on building site coverage.
- Transitional bulk, height, orientation, or landscaping standards at boundaries of higher and lower intensity typologies. Transitional standards would apply with Alternative B at boundaries of markedly different heights and uses. See Exhibit 1-26.
- Privacy standards to control window placement and require additional setbacks where mixed-use or commercial development faces lower-density residential uses; and
- Use of mid-block connections to break up building massing and improve the pedestrian environment. See the Exhibit 1-18 for green streets including in mid-block locations associated with Alternative B.

Exhibit 1-26. Alternative B Form-Based Code Elements – Transition Principles

Transition rules will apply along the lot lines of any adjacent parcels where the difference in proposed building height and adjacent maximum allowed height is greater than a specified number of feet*. New development would be required to include a combination of the following strategies:

- Site Setbacks
- Upper Level Stepbacks
- Landscape Buffers
- Maximum Façade Length

*Parameters will be reviewed as part of the Form-based Code development in 2022



Ground Level Set Backs

Allowed build-to-line is set back from the lot line, creating more space between building and adjacent parcels or right of way



Upper Level Step Backs

Upper floors must be set back from allowed lower-level building envelope. May be applied multiple times for a single building at different levels to create a "stepped" effect



Landscape Buffers

Landscape d open area that is intended to provide visual screening as well as open space separating a building from adjacent parcels. Can also include pedestrian or bike connections or other amenities

Source: Mithun 2021.

With mitigation, what is the ultimate outcome?

Under all Alternatives, additional growth and infill development would occur in the station area, gradually increasing the level of development intensity and altering the existing architectural and visual character. These changes would occur under all alternatives, though the changes would be most pronounced under Alternative 3, with Alternative B generally similar to Alternatives 1 and 2 in areas west of I-405 and similar to Alternatives 2 and 3 east of I-405. With implementation of the mitigation measures described above and in Section 3.5 Aesthetics, including adoption of the proposed Form-Based Code, the visual character of the station may experience positive effects, and no significant unavoidable adverse aesthetic impacts are anticipated.

1.6.6 Transportation

How did we analyze Transportation?

The Bellevue-Kirkland-Redmond (BKR) travel demand model was used to develop 2035 traffic volume forecasts for Alternative 1 No Action; they are based on the land use forecast and transportation infrastructures adopted in the 2035 Comprehensive Plan. These forecasts account for the current zoning of the Study Area and the background growth assumed for the rest of the city and region, consistent with adopted local and regional plans. MXD+, a trip generation tool that accounts for the variation in land use type and density, was applied to estimate the vehicle trips that would occur under Alternatives A, B, 2, and 3. Alternatives A, B, 2, and 3 are tested on a regional 2035 transportation network (since the travel demand model only exists out to 2035 Comprehensive Plan date) while the land use and transportation network in the Study Area reflects growth that could occur through the 2044 horizon year, making it a conservative transportation analysis for the subarea because it compresses growth trends into a shorter timeframe than anticipated.

The following conditions would be considered to result in significant impacts for the two Action Alternatives:

Auto and Freight

- Vehicle level of service (LOS) operates at LOS E or below at a study intersection that operated acceptably under Alternative 1 No Action or has a substantial increase in delay at a study intersection already expected to

operate at or below LOS E under Alternative 1 No Action.⁴

- Queues from a downstream intersection expected to spill back to a study intersection that would not experience queues under Alternative 1 No Action or long queues not anticipated under Alternative 1 No Action that would require waiting at an intersection for several cycles before proceeding.

Transit

- Projected transit ridership would result in passenger loads exceeding King County Metro/Sound Transit guidelines on a route serving the Study Area that would operate acceptably under Alternative 1 No Action or increases the passenger load by at least 5% on a route that already exceeds the guidelines.
- Action Alternatives would preclude the transit upgrades identified in the Transit Implementation Plan.

Bike/Pedestrian

- Add bicycle or pedestrian demand to locations that lack facilities meeting City standards beyond the level anticipated under Alternative 1 No Action.

Parking

- Result in on-street parking demand exceeding supply beyond the level anticipated under Alternative 1 No Action.

Safety

- Increases the collision rate at a study intersection compared to Alternative 1 No Action.

What impacts did we identify? What is different between the alternatives?

Under all alternatives, PM Peak Hour trips would increase, though greatest under the Action Alternatives. See Exhibit 1-27.

⁴ Per the City's TIA Guidelines, which are intended for individual developments, intersections operating at LOS E or F may be defined as impacts depending on the project's proportional share of traffic. Because the scale of the action alternatives is much larger than an individual development, as shown in Exhibit 3-21, the action alternatives would exceed the 5% and 15% proportional share thresholds found in the TIA Guidelines. Therefore, the applicable threshold for significance for this EIS is LOS E.

Exhibit 1-27. PM Peak Hour Vehicle Trips Generation using MXD+/BKR Model Mode Share Estimates

Alternative	PM Peak Hour Vehicle Trips	Net Change in Trip Generation Compared to No Action Alternative
Existing	4,559	—
2035 No Action	10,320	—
2044 Alternative A	11,140	820
2044 Alternative B	16,140	5,820
2044 Alternative 2	17,601	7,286
2044 Alternative 3	19,473	9,158

Source: Fehr & Peers, 2021.

A summary of modal impacts is presented in Exhibit 1-28. Based on the expected growth in trips, there would be added queues and congestion on area roadways and intersections affecting auto modes and safety with the greatest impacts under Alternative 3 and the least under Alternative 1, with Alternatives A and B in the middle of the range. Alternative B and Alternative 2 affect nearly the same number of intersections as Alternative 3 though delay would often be less under Alternative B and Alternative 2 than for Alternative 3 (see results under Mitigation Measures). There would be greater need for transit to accommodate increased passenger loads. The alternatives provide for new bicycle and pedestrian connections with the greatest improvements anticipated under Alternative 3. Because future development is expected to facilitate additional demand and meet the City design standards related to bicycle and pedestrian facility accommodations, no significant adverse impacts to pedestrian or bicycle travel are identified.

Exhibit 1-28. Summary of Impacts: All Alternatives

Type of Impact	Alternative 1 No Action	FSEIS Alternative A	FSEIS Alternative B	Alternative 2	Alternative 3
Auto & Freight	LOS impacts at 2 intersections and queuing impacts	LOS impacts at 2 intersections and queuing impacts	LOS impacts at 6 intersections and queuing impacts	LOS impacts at 7 intersections and queuing impacts	LOS impacts at 8 intersections and queuing impacts
Transit	Study Area Impact for I-405 BRT North	Study Area Impact for I-405 BRT North	Study Area Impact for I-405 BRT North	Study Area Impact for Route 250 and I-405 BRT North	Study Area Impact for Route 250 and I-405 BRT North
Pedestrian & Bicycle	None	None	None	None	None
Parking	None	None	Study Area Impact	Study Area Impact	Study Area Impact
Safety	Study Area Impact	Study Area Impact	Study Area Impact	Study Area Impact	Study Area Impact

Source: Fehr & Peers, 2021.

What are some solutions or mitigation for impacts?

Incorporated Plan Features

All alternatives support the BRT station. Action Alternatives including Alternative B assume the adoption of a subarea plan and Form-Based Code to guide the type of investment in multimodal transportation investments. The NE 85th Street SAP assumes a few changes that would encourage reduced vehicle travel in the Study Area, including:

- Improvements to the bicycle and pedestrian networks through new and/or wider sidewalks, bike lanes, cycle tracks, trails, and street connections.
- Revised parking code that reduces the amount of parking new developments must provide and requires parking monitoring.

Regulations and Commitments

The City of Kirkland has requirements on TDM programs and strategies:

- Washington State Commute Trip Reduction (CTR) law focuses on employers with 100 or more employees whose shifts begin during the typical AM commute. This law requires employers to develop commute trip reduction plans and work toward meeting their mode share targets through internal programs and monitoring. As more businesses subject to CTR locate in the Study Area, it is expected that decreases in single-occupancy vehicle (SOV) commute rates would result.
- Transportation Management Plans (TMPs) are required for property owners of newly constructed commercial buildings at the direction of the City. TMPs are designed to encourage new developments to reduce automobile trips and their traffic impacts on city facilities. TMP programs are generally geared toward large housing and commercial development; however, they could apply to smaller developments as well. However, the TMP program is underfunded and needs an ongoing funding mechanism to be able to effectively manage future TMPs.

The TDM programs discussed here would be implemented regardless of which land use alternative is selected and can have a substantial effect on travel behavior—something which is not fully captured by the travel demand modeling process. With a robust TDM program in place, it is expected that actual trip generation in the Study Area would be lower than that analyzed in the impacts section of this SEIS.

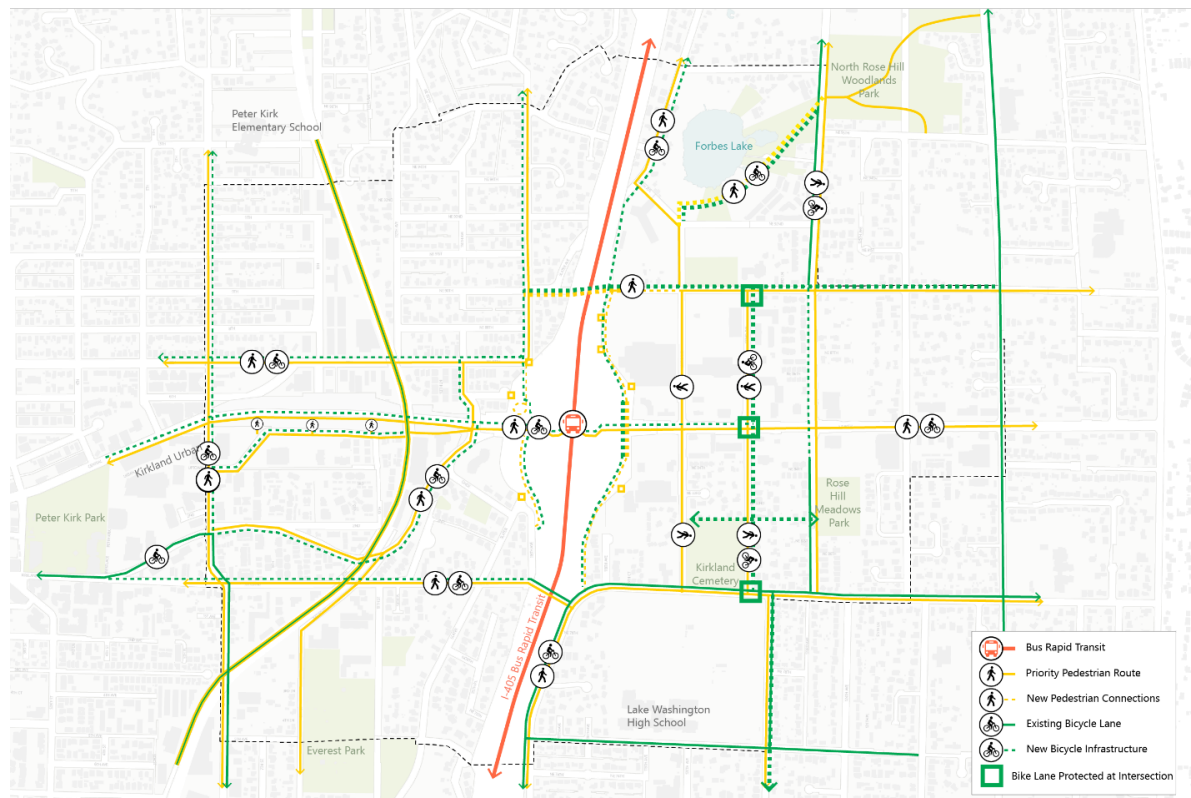
Other Proposed Mitigation Measures

Intersection Specific Improvements

Development under both FSEIS Alternative A and Alternative B would result in traffic impacts requiring modifications to the roadway network. One potential approach to reduce the auto and freight intersection impacts is to make capital improvements to increase the capacity of intersections and roadways in the Study Area. This section describes potential improvements to the study intersections that are operating at or below LOS E under the Action Alternatives:

- **NE 85th Street east of 122nd Avenue NE:** Add an additional eastbound through lane.
- Adjust signal settings by optimizing cycle lengths and/or splits and using protected left turns at locations with high volumes.
- Extend the length of turn pockets where feasible to help reduce spillback into the through lanes.
- **NE 90th Street & 120th Avenue NE:** Add a traffic signal and a westbound left turn lane.
- **NE 80th Street & 120th Avenue NE:** Add a southbound left turn lane.
- **NE 90th Street & 124th Avenue NE:** Add a northbound and southbound lane on 124th Avenue NE, restripe the eastbound lanes to be an eastbound through/left lane and a right turn pocket, and change the signal settings to a split phase.
- **NE 85th Street & 124th Avenue NE:** Add a southbound left turn lane.

Exhibit 1-29. Alternative B and Bold Opportunities Map



Sources: Fehr & Peers 2021, Mithun 2021.

Exhibit 1-30 shows how much these improvements help to reduce delay under Alternatives 2 and 3. However, these intersections would still have substantially more delay than Alternative 1 No Action, so other programmatic or policy measures would be required to fully mitigate the impacts. The improvements were tested from a traffic operations perspective, but additional analysis would be necessary to refine the details of these improvements, including design feasibility and necessary right-of-way.

Another measure the City could consider implementing is additional intelligent transportation systems (ITS) elements into the corridor beyond the currently interconnected signal system that functions based on a traffic responsive timing pattern. Additional treatments could include implementing performance monitoring software and a more advanced adaptive traffic signal timing system.

Additionally, it is worth noting that the analysis in the SEIS provides a conservative estimate of the growth in traffic volumes within the Study Area. Due to the forecasted increase in delay and queuing along NE 85th Street, it is likely that drivers who are not stopping within the Study Area would choose alternate routes. This could include trips within the City of Kirkland or trips for travelers from other areas that are entering and exiting I-405 via the NE 85th Street interchange.

Exhibit 1-30. Alternative 2 and 3: 2044 PM Peak Hour LOS and Delay, With and Without Mitigations

ID	Intersection	Traffic Control	Alternative 1 No Action	Alternative 2 LOS/Delay in seconds [^]		Alternative 3 LOS/Delay in seconds [^]	
				No Mitigation	With Intersection Improvements	No Mitigation	With Intersection Improvements
1	NE 85th St & 6th St	Signal	F / 86*	F / 119[^]	n/a	F / 138[^]	n/a
2	NE 87th St & 114th Ave NE	All-way stop	C / 16 [^]	C / 18	n/a	C / 18	n/a
3	NE 85th St & Kirkland Way / 114th Ave NE	Roundabout*	B / 12 [^]	B / 15*	n/a	D / 38*	n/a
4	NE 90th St & 120th Ave NE	All-way stop	D / 30	F / >150	F / 122	F / >150	F / >150
5	NE 85th St & 120th Ave NE	Signal	D / 46	F / 114	n/a	F / >150	n/a
6	NE 80th St & 120th Ave NE	Signal	B / 14	C / 32	C / 21	F / 95	C / 33
7	NE 85th St & 122nd Ave NE	Signal	A / 6 ^{^^}	E / 61	n/a	F / 102	n/a
8	NE 90th St & 124th Ave NE	Signal	E / 58	F / >150	F / 83	F / >150	E / 73
9	NE 85th St & 124th Ave NE	Signal	D / 42	F / >150	F / >150	F / >150	F / >150
10	NE 85th St & 132nd Ave NE	Signal	C / 31	F / 127	E / 65	F / >150	F / 150

n/a no intersection improvements

[^] Delays greater than 150 seconds (two and a half minutes) are not shown, as drivers are likely to seek out alternate routes instead of waiting at an intersection with extremely long delays.

* Roundabout analysis completed in SIDRA. WSDOT does not recommend the use of LOS as a comparative tool for SIDRA roundabout analysis. Three of the four approaches exceed WSDOT volume-to-capacity ratio threshold of 0.85 and two of these are overcapacity ($v/c > 1$).

Source: Fehr & Peers, 2020.

Alternative B would result in additional traffic impacts requiring modifications to the roadway network. Other potential intersection specific improvements that would be needed under Alternative B include:

- **NE 85th Street & 120th Avenue NE:** Given high delays measured at this intersection under Alternative B during both the AM and PM peak hours, several potential mitigation scenarios were analyzed. Potential geometric mitigation alternatives include adding a turn lane, removing the western crosswalk of NE 85th Street, restriping, and revising the signal phasing.
- **NE 83rd Street & 120th Avenue NE:** With the allowed development in the southeast quadrant at a maximum height of 250 feet anticipated under Alternative B, this intersection would need to be signalized. If this intersection serves as the only primary entrance (and a southern entrance via 118th Avenue NE is not provided), this intersection requires additional geometric modification. Various configurations would include restriping for left turns and extending the northbound left turn lane.
- **NE 80th Street & 118th Avenue NE:** Based on delay analysis, this intersection would require mitigation under Alternative B regardless of whether 118th Avenue NE serves as a primary access point. Mitigation would include a traffic

signal, or potentially a roundabout, and may require additional treatments to ensure safe sight distance.

- **NE 80th Street & 120th Avenue NE:** If the Lee Johnson site has only one primary entrance (via 83rd Street & 120th Avenue NE), this intersection would require geometric mitigation (a southbound left turn pocket) to maintain the City's LOS standard.

See more detail about these modifications in Appendix B-1 and Exhibit 1-31. No additional geometric modifications have been identified to address impacts at NE 85th Street & 6th Street.

Exhibit 1-31. LOS Results for Evaluated Alternatives with Geometric Mitigations

ID	Intersection	LOS Standard	Peak Hour	2019 Existing	2044 Alternative A	2044 Alternative B: 2 Driveways	2044 Alternative B: 1 Driveway	2044 Alternative B: 1 Driveway (Mitigated)
1	NE 90th Street & 124th Avenue NE	D	PM	C / 21	F / 83	F / 158	F / 158	D / 52
2	NE 85th Street & 6th Street	E	PM	D / 41	F/109[^]	F / 145[^]	F / 145[^]	same
3	NE 85th Street & 120th Avenue NE	D	AM PM	C / 22 C / 21	C / 24 D / 39	F / 114 F / 113	F / 114 F / 113	F / 104 F / 88 (Mit. Option 1) F / 126 F / 96 (Mit. Option 2)
4	NE 85th Street & 124th Avenue NE	D	AM PM	C / 29 D / 35	C / 33 D / 41	D / 39 D / 45	D / 39 D / 45	same
5	NE 83rd Street & 120th Avenue NE	D	PM	B / 11	B / 13	B / 18*	B / 20**	D / 37
6	NE 80th Street & 118th Avenue NE	D	PM	B / 15	C / 20	A / 8***	F / 94	A / 5*
7	NE 80th Street & 120th Avenue NE	F	PM	B / 11	B / 14	B / 13	F / 222	D / 52
8	NE 70th Street & 116th Avenue NE	E	PM	C / 28	D / 35	E / 75	E / 75	same

Source: Fehr & Peers, 2021.

Notes:

* Signalized without any geometric improvements

** Signalized with EBL, NBL, SBR turn pockets

*** Signalized with EBL, SBR turn pockets

[^] Intersection reconfiguration with transit queue jump and dedicated WBR turn pocket.

These improvements will help to reduce delay under Alternatives B. However, these intersections would still have substantially more delay than the No Action Alternative or Alternative A, so other programmatic or policy measures would be

required to fully mitigate the impacts. The improvements were tested from a traffic operations perspective. The City or responsible agency would refine the details of these improvements, including design feasibility and necessary right-of-way.

The lack of east-west travel routes across I-405 also causes vehicle trips to be concentrated along NE 85th Street. This means that local trips within the City of Kirkland mix with a significant amount of regional traffic that is accessing I-405. Creating additional east-west vehicle connections across the freeway (not proposed or recommended) and increasing the network density would spread out the trips and reduce the congestion along NE 85th Street.

Additional Transportation Demand Management and Parking Strategies

Research by the California Air Pollution Control Officers Association (CAPCOA), which is composed of air quality management districts in that state, has shown that implementation of TDM programs can substantially reduce vehicle trip generation, which in turn reduces congestion for transit, freight, and autos.

A comprehensive set of TDM strategies were considered by City staff. Tier 1 strategies are most likely to be implemented both because they are within the City's control and consistent with the City's vision for the Study Area. These include the following:

- Unbundle parking to separate parking costs from total property cost.
- Revise parking code to reduce the parking minimums or implement parking maximums.
- On-street parking strategies to create and/or manage public parking supply.
- Provide shared off-street parking with new developments.
- Require new development to charge for off-street parking.
- Require robust monitoring and management of parking and the TDM measures to reduce spillover parking.
- Encourage or require transit pass subsidies from developers/property owners.
- Expand upon Kirkland's Green Trip program and encourage alternative commuting modes.
- Provide an Emergency Ride Home program for employers.
- Require bike facilities such as storage and showers in new development.
- Encourage carpooling with a Ridematch Program.

Tier 2 strategies could also be pursued but would either be led by developers or would require additional partnerships beyond sole City control. These strategies include:

- Provide shared off-street parking with new developments.

- Provide private shuttle service or gondolas as a first mile/last mile solution to make the 85th Street Station more accessible from Downtown Kirkland, the 6th Street Google campus, Kirkland Urban, and other destinations.
- Encourage or require transit pass provision programs for residents of multifamily properties.
- Partner with Transportation Network Companies (TNCs) such as Uber or Lyft to provide pooled ridesharing alternatives.
- Launch a bikeshare or other micromobility system in Kirkland.

The traffic analysis estimated the efficacy of Tier 1 strategies and the resulting trip reductions were incorporated into the traffic operations analysis to understand how the strategies would affect operations at the intersection level.

Exhibit 1-32 summarizes the range of estimated efficacy for each of the Tier 1 strategies. Combined, these strategies have an estimated overall efficacy of 9-38%, with 13% recommended for typical planning applications. Exhibit 1-33 shows the combined efficacy of geometric and TDM strategies in mitigating transportation impacts under Alternative A and Alternative B. TDM serves to reduce delays, although the intersections of NE 85th Street with 6th Street and 120th Avenue NE would have delays exceeding City standards.

Exhibit 1-32. Trip Reduction (VMT %) from Tier 1 Transportation Demand Management Strategies by Land Use

TDM Strategy	Office	Residential	Retail	Other
Parking				
Increased Off-Street Fees	6% to 11%	6% to 11%	6% to 11%	
Increased On-Street Fees	1% to 5%	1% to 5%	1% to 5%	
Unbundled Parking	—	—	—	
Pay-as-you-Go Parking Rates				
Parking Supply	up to 4%	4% to 4%	up to 4%	
Transit				
Subsidies	up to 2%	—	—	
Transit Frequency				
Transit Coverage				
Private Point-to-Point Shuttles				
Last Mile Shuttle				
Commute Programs				
Commuter Incentives				
Commute Marketing Programs	2% to 16%	3% to 21%	up to 3%	
Emergency Ride Home	up to 1%	—	—	
TNC Partnerships				
Bike and Walk				
Secure Parking	—	up to 1%	—	
Shower & Lockers	—	—	—	
End of Trip Repair Stations	—	up to 1%	—	
Pedestrian-Oriented Design				
Bikeshare System & Subsidies				
Ride				
Carpool/Vanpool Incentives				
Ridematch Program	up to 6%	up to 6%	up to 6%	up to 6%
Carshare				
Carshare Subside				
Total of all Measures*	9% to 38%	13% to 40%	7% to 22%	—

* Total trip reduction is not a simple sum of all the strategies since many of the strategies are complementary.
Source: Fehr & Peers, 2021.

Exhibit 1-33. Transportation Demand Management Strategies Efficacy in Mitigating Intersection Impacts

ID	Intersection	LOS Standard	Peak Hour	2019 Existing	2044 Alternative A	2044 Alternative B: 2 Driveways	2044 Alternative B: 1 Driveway	2044 Alternative B: 1 Driveway (TDM + Geometric Mitigations)
1	NE 90th Street & 124th Avenue NE	D	PM	C / 21	F / 83	F / 158	F / 158	D / 46
2	NE 85th Street & 6th Street	E	PM	D / 41	F/109 [^]	F / 145 [^]	F / 145 [^]	F / 139 [^]
3	NE 85th Street & 120th Avenue NE	D	AM PM	C / 22 C / 21	C / 24 D / 39	F/ 114 F/ 113	F/ 114 ^{^^} F/ 113	F / 85 ^{^^} E/ 80
7	NE 80th Street & 120th Avenue NE	F	PM	B / 11	B / 14	B / 13	F / 222	B / 13

Source: Fehr & Peers, 2021.

Notes:

[^] Intersection reconfiguration with transit queue jump and dedicated WBR turn pocket

^{^^} Assumes Alternative 1 geometric mitigations

Level of Service Policy

The City could approach mitigation through revision of its LOS policy—in particular, creating a separate LOS standard that would apply at designated intersections in the Study Area (and potentially other areas of the City outside the Study Area) to be consistent with the transportation characteristics of urban areas. Multiple cities in the Puget Sound designate varying LOS standards based on neighborhood or corridor context.

Transit Improvements

Significant impacts to transit were identified in the Study Area for Route 250 and the I-405 Stride BRT North under both Alternatives B, 2, and 3. These impacts are due to forecasted ridership exceeding load factors established by King County Metro and Sound Transit. To address this impact, the City of Kirkland could coordinate with King County Metro and Sound Transit to adjust their service levels through their regular service revisions as transit demand increases in the Study Area.

The City of Kirkland could also require that all new transit stops are designed to minimize delay and maximize comfort by providing convenient loading and access at all bus doors and necessary sidewalk width to accommodate future stop amenities such as benches, transit shelters, and trash receptacles.

An alternative form of transit could include a gondola to ease access given topography changes across the Study Area:

- The City of Kirkland has commissioned a study of a gondola connection between the upcoming I-405/NE 85th St BRT station and the intersection of 6th Street and Central Way. A 2018 study assumed 1,000 passengers per hour per direction (pphpd). The gondola could itself have a maximum capacity of 3,600 pphpd. Such a gondola could help connect riders to the BRT station; depending on its design and alignment it could affect current road channelization and use but may also offer some relief in travel time and reduce single-occupancy vehicles in parts of the study area. Should the City decide to construct a gondola, that project would undergo its own environmental review related to transportation, views, and potentially other topics.

Safety Improvements

Significant impacts to safety were identified in the Study Area due to higher vehicle volumes and the resulting queueing throughout the Study Area and on the I-405 off ramps. The Intersection-Specific Improvements and TDM strategies described above will help reduce delays, which would help improve safety. Additional safety improvements include:

- Provide continuous pedestrian scale streetlighting along corridors within transit-oriented development areas.
- Design streets to promote slower vehicle travel speeds and awareness for the most vulnerable users of the street system, pedestrians, and cyclists, during all times of the day by implementing treatments, such as those identified in the *NACTO Urban Street Design Guide*.
- Ensure all new uncontrolled crosswalks are constructed with treatments that bring awareness to drivers regarding yielding to cross pedestrians, including applying the *USDOT FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*.

The City should also monitor safety through its crash reporting system and Vision Zero program and consider additional improvements at the study intersections as needed.

Land Use Mix and Amount

As recommended in the DSEIS, this FSEIS studies a Preferred Alternative with a different amount and mix of the studied office, retail, and residential land uses. In combination with TDM and capital improvements, an alternative land use mix and level could help realize City transportation LOS standards. The City considered Alternative 2 but reduced office growth levels and considered its desired balance with residential and retail uses. Bringing office growth lower and closer in balance with residential uses would increase the internal capture of trips

and reduce the net increase in trips on the system as evaluated in this FSEIS.

With mitigation, what is the ultimate outcome?

This section identifies significant adverse impacts for auto and freight, transit, parking, and safety under the Action Alternatives.

The auto, freight, and safety impacts are anticipated to be reduced by implementing a range of possible mitigation strategies such as those above. In addition to geometric transportation capacity improvements, the City could manage demand using policies, programs, and investments aimed at shifting travel to non-SOV modes. However, even with some combination of these potential mitigation measures, queueing would likely still be an issue throughout the Study Area and on the I-405 off ramps, which would also influence safety. Therefore, significant unavoidable adverse impacts are expected for auto, freight, and safety.

With some combination of the potential mitigation measures outlined in the previous chapter, the magnitude of the transit impacts could be mitigated to a less-than-significant level. Therefore, no significant and unavoidable adverse impacts to transit are expected.

The parking impacts are anticipated to be brought to a less-than-significant level by implementing a range of possible mitigation strategies such as those discussed above. While there may be short-term impacts as travelers initially rely predominantly on auto travel (causing on-street parking demand to exceed supply), it is expected that over the long term with these mitigation strategies and continued expansion of non-auto travel alternatives, travel behavior would change such that the on-street parking situation would reach a new equilibrium. Therefore, no significant unavoidable adverse impacts to parking are expected.

1.6.7 Public Services

How did we analyze Public Services?

To analyze public services this SEIS compared existing conditions with projected growth to identify future needs for public services (police, fire and emergency services, schools, and parks) associated with each of the proposed alternatives.

Current effective levels of service for police as well as fire and emergency services were used to project future need for additional police officers and firefighters due to growth. The analysis also considered the proximity of police and

fire protection facilities/apparatuses to the Study Area.

Demand for school services were analyzed in terms of the schools within or surrounding the Study Area that would likely receive additional school age children generated by growth in the Study Area. Demand for parks and recreation facilities were analyzed by the projected future need for additional park investment dollars due to growth based on the City's adopted parks and recreation LOS standard. The analysis also looked at the accessibility of parks in or near the Study Area.

Impacts on public services and utilities would be considered to result in significant impacts under one or more of the following conditions:

- Negatively affect the response times for police and/or fire and emergency medical services.
- Increase demand for special emergency services beyond current operational capabilities of service providers.
- Reduce access to park and open space facilities.
- Result in increases in students and lack of facilities.

What impacts did we identify?

Under all alternatives, additional population and employment growth would generate a need for additional police, fire and emergency, school, and park services.

Growth in the Study Area will generate more calls for police services. KPD would need to hire more police officers to maintain the City's current effective LOS under all alternatives over the planning period.

Similarly, growth in the study area would affect fire/EMS calls for service and need for staffing and equipment to meet City LOS policies.

Growth in the Study Area will also generate more school age children within the Study Area. Based on Lake Washington School District's adopted student generation rates, projected population growth within the Study Area will include between 132 to 1,350 students through the planning period, depending on the alternative. School capacity would need to increase by 153 students under Alternative A and by 936 under Alternative B.

The City's parks and recreation LOS standard is based on an investment per capita standard (at the time of the DSEIS, this equaled \$4,094 per resident and is now \$6,569). To adequately serve future growth, the City would need to invest around \$30-\$160.0 million through the planning period, depending on the alternative (in this example Alternative A is the low end and Alternative B is the

upper end with the new fee per capita; Alternatives 2 and 3 would be higher and Alternative 1 slightly lower). All alternatives would require acquisition and development of new acres of neighborhood and community parks, some of which are likely infeasible in the Study Area.

What is different between the alternatives?

The Action Alternatives would allow for significantly more population and employment growth than existing conditions or the No Action Alternative. As the City's current or policy-based LOS standards are based on population, demand for public services would be highest under Alternative 3 and will be lowest under the No Action Alternative, with Alternatives A and B in the middle of the range.

Growth in the Study Area will generate more calls for fire and emergency services. Fire staff estimate the Department's current and projected future staffing capacity would be sufficient to handle additional incidents in the Study Area under the No Action Alternative and Alternative A. Additional fire staff and equipment at Station 26 would be needed under Alternative B when the volume of annual incidents in the Study Area increased above 500 per year.

What are some solutions or mitigation for impacts?

For all services, the SAP could promote public/private partnerships to provide facilities in the station area and address potential service needs created by new development.

Safety and Emergency Services: Planning for future growth is a way to mitigate the impacts generated by the projected population and employment growth. KPD and KFD could hire additional staff to prepare for the additional growth. The City collects fire impact fees on new development, which are used to fund additional staffing, equipment, and facility needs.

Parks: The 2015 Park PROS Plan identified a potential park acquisition area within the Study Area, which would improve access to neighborhood parkland to Study Area residents. The City collects park impact fees on new development, which are used to build or acquire new park facilities. The Station Area Plan could advance parks and open space at a neighborhood scale and at a site scale. The City could also consider a policy change to how park LOS is defined that moves toward equitable park access within walking distance and away from a per-acre approach, leverage public assets and partnerships, and identify community park alternatives outside the Study Area (such as TIF financing, re-design of existing facilities, and/or acquisition of Taylor Fields).

Schools: Future capital planning for the Lake Washington School District beyond the year 2026 is currently underway. The District's Facility Advisory Committee has proposed recommendations for future capital facility planning including additions to schools within and abutting the Study Area. The alternatives also raise heights at the Lake Washington High School to allow for additional school capacity in the future. The Form-Based Code could also offer incentives for developments to incorporate space for schools in new developments. The City collects school impact fees on new development to partially offset impacts to schools.

It is important to note that population and employment growth will occur incrementally over the planning period. The City and School District can evaluate levels of service and funding sources to balance with expected growth; if funding falls short, there may need to be an adjustment to levels of service or growth as part of regular planning under the GMA. Under all alternatives, the City will need to obtain more direction from Lake Washington School District on what school capacity the District will need to accommodate more students and require that development addresses these needs. With implementation of mitigation measures and regular periodic review of plans, no significant unavoidable adverse impacts to public services are anticipated.

With mitigation, what is the ultimate outcome?

Future population and employment growth will increase the demand for public services including police, fire, schools, and parks. This growth would occur incrementally over the 20-year planning period through 2044 and would be addressed in regular capital planning. Each service provider in conjunction with the City could evaluate levels of service and funding sources to balance with expected growth; if funding falls short, there may need to be an adjustment to levels of service or growth as part of regular planning under the Growth Management Act. With implementation of mitigation measures and regular periodic review of plans, no significant unavoidable adverse impacts to public services are anticipated.

1.6.8 Utilities

How did we analyze Utilities?

Current city utility plans for sewer and water were reviewed. Based on the City's levels of service, the demand for sewer and water per capita were identified. Water and sewer impacts would be considered to rise to the level of significance when the project's water or sewer demand exceed the capacity of the utility to

supply, and the LOS is decreased. The FEIS considers a base scenario with growth projections based on the 2035 Comp Plan including the Rose Hill Mixed Use Site (which closely aligns with Alternative A), and Alternative B with growth in water demands and sanitary sewer flows projected to be approximately triple the amount as that projected in the base scenario.

Sewer

Sewer service in the Study Area is provided by the City of Kirkland Wastewater Division. All the City's wastewater discharges to the King County Department of Natural Resources and Parks, Wastewater Treatment Division (KCWTD). The following rates from the 2018 General Sewer Plan were used to estimate increased sanitary sewer flows:

- 76 gallons per capita per day (gpcd) for each new resident.
- 20 gpcd for each new employee.

Water

Potable water in the Study Area is provided by the City of Kirkland Water Utility supplied by Seattle Public Utilities (SPU) through the Cascade Water Alliance (Cascade). The City of Kirkland Water Utility also provides the water storage and conveyance capacity to meet the needs for fire flow. The following rates were used to estimate increased water demand:

- 103 gpcd for each new resident (per the 2015 Comprehensive Plan EIS).
- 36.7 gpcd for each new employee.⁵

What impacts did we identify?

Sewer

Population and employment growth under all alternatives would add to sewer flows and increase demand for sewer service (Exhibit 1-34).

⁵ There is no value provided for the water demand for each new employee within the City of Kirkland water utility in either the 2015 Comprehensive Plan EIS or the City's Comprehensive Water System Plan. A portion of the City is served by the Northshore Utility District, which reports an Average Daily Consumption per employee of 36.7 gpcd in its 2009 Water System Plan.

Exhibit 1-34. Estimated Sewer Flows and Water Demand in Gallons per Day (gpd) by Alternative

	Existing	No Action	Alternative 2	Alternative 3
Sewer Flow	423,000 gpd	662,000 gpd	1,815,000 gpd	2,274,000 gpd
Water Demand	620,800 gpd	1,001,000 gpd	2,735,000 gpd	3,418,200 gpd

Note: Assumes 1.83 persons per household in multi-family units and 2.73 per persons per household in single family units per the 2015 Comprehensive Plan EIS. Existing residential units in the Study Area are assumed to be 56% multi-family (apartment and condominium) and 44% single family homes based on parcel records and transportation model baseline information. Sources: Comprehensive Water System Plan, 2014; General Sewer Plan, 2018; Herrera, 2020.

Sewer system improvements to meet future growth identified in the General Sewer Plan must be provided under all alternatives – the majority of proposed sanitary pipeline replacement projects listed in the Plan are located within the Kirkland basin (the basin to the west of the I-405 Interchange). The project list is based on the City's assessment of existing deficiencies, safety concerns, maintenance requirements, and capacity requirements. Under all alternatives these deficiencies will be exacerbated.

Water

Population and employment growth under all alternatives would increase demand for water service thus decreasing supply capacity (Exhibit 1-34). Water distribution improvements for system deficiencies identified in the Comprehensive Water System Plan must be provided and fire flow requirements must be met by the City under all alternatives. Within the Study Area, the 510 pressure zone experiences high water velocities due to the undersized water main and represents a vulnerability due to decreased available fire flow. Operating the system at high velocities is more likely to damage the system with high pressure surges. The City has identified replacement of the undersized main serving the 510 pressure zone as a recommended capital improvement project.

Some areas of the City's system are over 40 years old, and water mains are expected to have a life expectancy of only 50 years. Portions of the system may need to be replaced within the next ten years. Under all alternatives these deficiencies will be exacerbated.

What is different between the alternatives?

The level of population and employment growth is highest under the Action Alternatives and lowest under the No Action Alternative.⁶ Demand for added wastewater treatment or water supply is accordingly variable (Exhibit 1-34).

⁶ New residential growth under all alternatives is assumed to be multi-family.

Increased demand under the No Action Alternative and Alternative A is consistent with utility planning described in the City's General Sewer Plan and Comprehensive Water Plan and would be mitigated by implementation of the planned capital facility upgrades. Estimated demand under the Action Alternatives exceeds the overall 20-year planned sewer and water system capacity described in each plan. The sewer and water system plans would thus need to be updated, and capital facilities planned to mitigate the impacts and meet new demand for sewer service, domestic water, and fire flows.

Notable water and sewer improvements needed under the FSEIS Alternatives include a water main under I-405 as required by WSDOT due to construction of the BRT station (needed under either Alternative A or Alternative B) as well as a sewer capacity project that crosses under I-405 to connect the King County transmission line under Cross Kirkland Corridor (needed under Alternative B).

What are some solutions or mitigation for impacts?

The City's adopted regulations, policies, and plans and state laws help address potential impacts to sewer service and water demand:

- RCW 19.27.097 provides that an applicant for a building permit must provide evidence of an adequate supply of potable water. The authority to make this determination is the local agency that issues building permits, (i.e., the City of Kirkland).
- Adequate connection requirements for sewer and water service installation are codified in KMC Chapter 15.12 and 15.14, respectively.
- Utilities can be extended to address area-specific needs and potentially distribute costs using local improvement districts (KMC Chapter 18.08), sewer extension charges (KMC Chapter 15.38.030), and/or latecomer agreements (RCW 35.91).

Other potential mitigation measures could include:

- Update the General Sewer Plan and Comprehensive Water Plan including the capital facilities plan.
- Finance and build necessary capital facilities to meet new demand for sewer service, domestic water, and fire flows, which may result in appropriate general facility charges for new development.
- A downstream analysis of the wastewater system and hydraulic model analysis would need to be undertaken to estimate the costs associated with proposed changes. Until such time as the study is completed, the City could condition individual developments to provide analysis of their contribution to projected flows that are anticipated and require development to provide

infrastructure to remedy increased demand or rectify deficiencies.

With mitigation, what is the ultimate outcome?

Under all the alternatives the population served by the utilities will increase. This will result in increased consumption of water from the regional supply and increased sewage production requiring treatment and discharge into local waters. With the mitigation identified, no significant unavoidable adverse impacts are expected for water or sewer.

2 Final SEIS Alternatives

2.1 Introduction and Purpose

This Chapter describes the proposals and alternatives examined in this Final Supplemental Environmental Impact Statement (FSEIS).

2.1.1 Proposals

Sound Transit's ST3 Regional Transit System Plan is bringing a once-in-a-generation transit investment to Kirkland with a new Stride Bus Rapid Transit (BRT) station at 85th and I-405, currently scheduled to open by 2026.⁷ The City of Kirkland is developing a Station Area Plan to guide how development, open space, and mobility connections in neighborhoods near the station can leverage this regional investment to create the most value and quality of life for Kirkland, and provide the community with an opportunity to envision the future for this area. The City is proposing a Station Area Plan, Form-Based Code, and Planned Action Ordinance to guide the area within a half-mile of the station.

The **Station Area Plan** (SAP) will encourage an equitable and sustainable transit-oriented community as part of the significant growth expected in Greater Downtown Kirkland over the long-term through 2044.⁸ It will build on recent efforts such as the Kirkland 2035 Comprehensive Plan, the Greater Downtown Kirkland Urban Center, and other city-wide initiatives addressing housing, mobility, and sustainability.

The concepts in the SAP will be supported with a **Form-Based Code** meant to emphasize physical form more than traditional land use zoning. While traditional

⁷ Sound Transit and WSDOT are conducting their own SEPA review of the station, and the station itself is not addressed in this SEIS.

⁸ The SAP will address a horizon year of 2044, a new planning period consistent with the City's next periodic update beyond the current Comprehensive Plan horizon year of 2035.

zoning uses the separation of land uses as an organizing principle, a Form-Based Code focuses on building form as it relates to streetscapes and adjacent uses, and relies on design guidelines to foster and protect community character. The Form-Based Code would address: the physical relationship between buildings and streets; ground floor pedestrian character; building heights, stories, and roofs; transitions between areas of different development intensities and building heights; parking location and form; and public realm areas including common space, landscaping, and site amenities.

The **Planned Action Ordinance** will facilitate growth that is consistent with the SAP and Form-Based Code by completing the environmental review upfront and establishing environmental performance standards that each development would meet. Planned actions consistent with the ordinance requirements would not require a new threshold determination and could rely on the Planned Action SEIS and streamline their permit review. It will contain mitigation measures that apply to planned actions drawn from the FSEIS.

2.1.2 Alternatives

This SEIS considers the proposals and alternatives that can create a gateway and mixed use district that is livable, equitable, and sustainable as it expands housing and job opportunities.

The Draft Supplemental Environmental Impact Statement (DSEIS) alternatives included:

- **Alternative 1 No Action:** This alternative would reflect existing zoning and current plans. It would continue current anticipated growth to the year 2035 up to 2,782 households and 10,859 jobs.
- **Alternative 2:** This alternative would create a Station Area Plan and Form-Based Code allowing for added housing and commercial/retail activity in buildings up to 150 feet in height closest to the station and along major street corridors and 25-85 feet elsewhere. Alternative 2 would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. For the year 2044, the anticipated total growth levels would be up to 8,509 households and 28,688 jobs. Non-motorized improvements would be implemented, and incentives would enhance stormwater treatment and attract the development of green buildings. A Planned Action Ordinance would be prepared to facilitate growth consistent with the plan vision, regulations, and environmental mitigation measures.
- **Alternative 3:** This alternative would also create a Station Area Plan and Form-Based Code, and would allow for further intensified development close to the station offering jobs and housing in buildings up to 150-300 feet in height,

transitioning to mid-rise and low rise development of 25 to 85 feet further from the station. For the year 2044, the anticipated total growth levels would be up to 10,909 households and 34,988 jobs. Alternative 3 includes investment in additional bike / pedestrian routes and more intensive green stormwater infrastructure within rights of way. Similar to Alternative 2, a Planned Action Ordinance would be implemented under Alternative 3 to incentivize development that meets environmental performance standards as well as the plan vision and other local regulations.

This FSEIS considers two alternatives developed in responses to DSEIS comments and tested in a fiscal analysis.

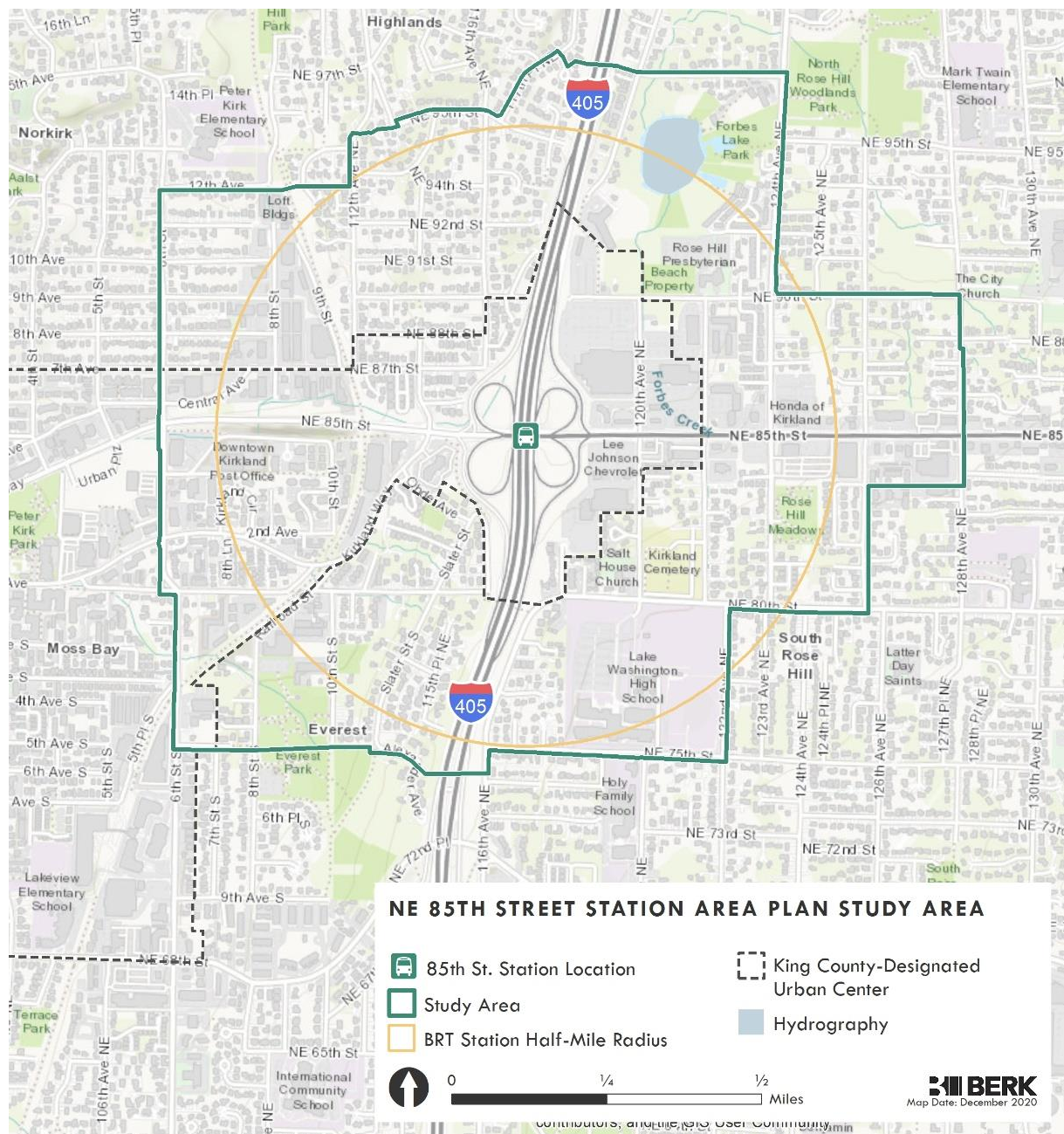
- **FSEIS Alternative A Current Trends:** FSEIS Alternative A is similar to the No Action Alternative, but the growth targets were adjusted upward from DSEIS Alternative 1 because growth in the past six years has outpaced the assumptions in the 2015 Comprehensive Plan. The expected housing would equal 2,929 households and expected employment up to 12,317 jobs. Alternative A Current Trends maintains existing zoning heights of 25-75 feet throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing than DSEIS Alternative 1. Areas within the district currently zoned for single family or other low density residential area maintain their current zoning.
- **FSEIS Alternative B Transit Connected Growth – Preferred Direction:** Alternative B Transit Connected Growth is based on the overall land use pattern established in DSEIS Alternative 2, which is aligned with the overall Station Area Plan growth framework in the Station Area Initial Concepts, and incorporates select elements shown in the commercial corridors of DSEIS Alternative 3. Alternative B Transit Connected Growth responds to the public comment received during the DSEIS comment period and the May 26, 2021 Council Listening Session. It only studies increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections, ranging up to 125-250 feet near I-405. To that end, several areas where height increases had been proposed as part of DSEIS Alternative 2 and 3 have been removed from consideration in Alternative B Transit Connected Growth. These include areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. Alternative B Transit Connected Growth results in slightly lower household growth numbers (8,152 households, 4% less) as DSEIS Alternative 2, and lower employment numbers (22,751 jobs, 21% less), showing more of a jobs-housing balance. The Southwest Quadrant of the Study Area has lower growth numbers than were projected in Alternative 2, closer to what was proposed for DSEIS Alternative 1 (No Action). In alignment with the Station Area Initial Concepts Growth Framework,

Alternative B includes a few areas of greater capacity for change as compared to existing conditions including the SE Commercial Area comprising the Lee Johnson Site and adjoining areas, NE Commercial Area comprising the Costco Site, and NE 85th Street west and east of I-405.

2.2 Description of the Study Area

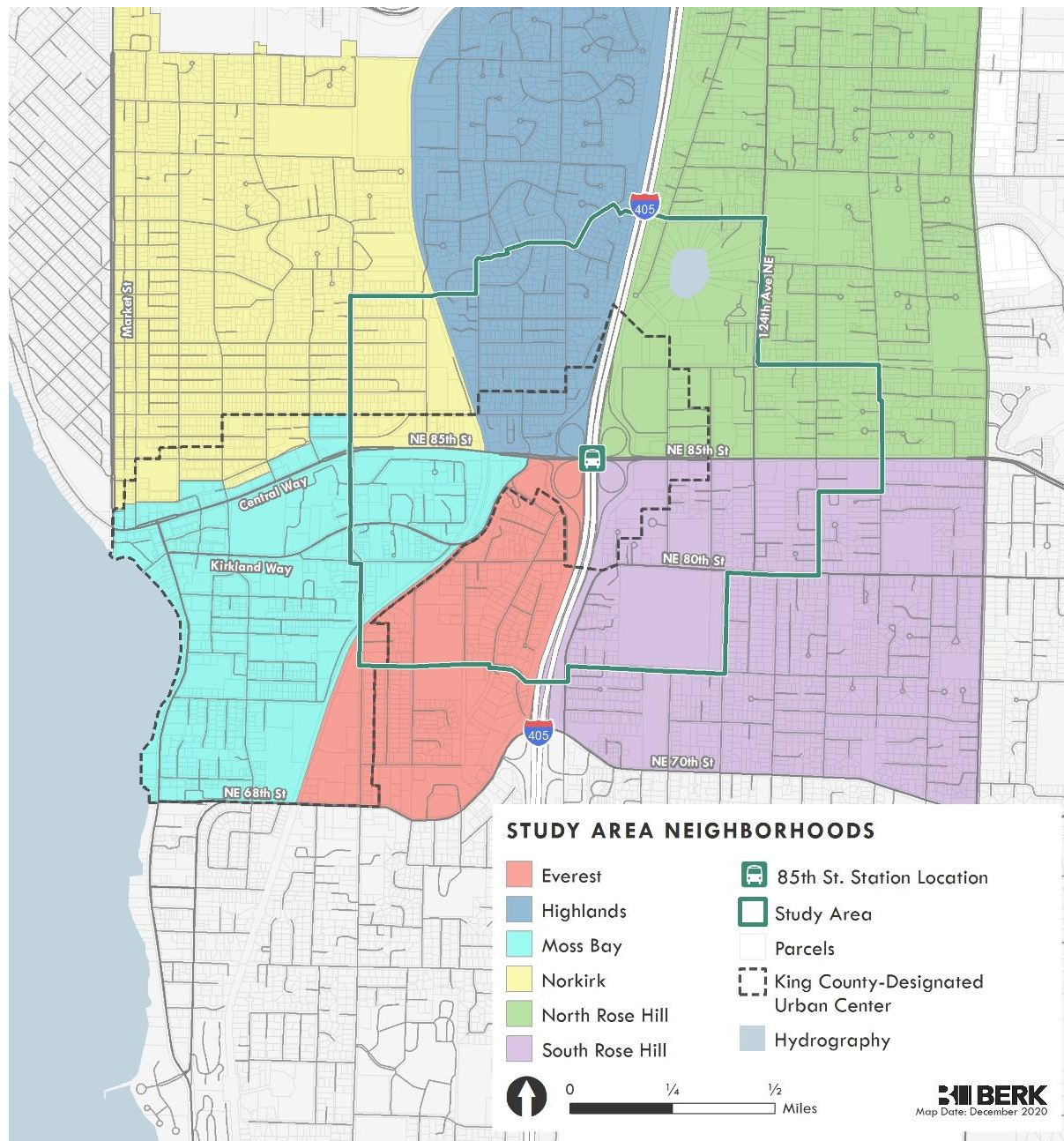
The Study Area includes the area within approximately a half mile area centered on the future NE 85th Street/I-405 BRT “Stride” station location. At the maximum extents, the Study Area is bounded approximately by 12th Avenue and NE 97th Street to the north, 128th Avenue NE to the east, NE 75th and 5th Avenue S to the south, and 6th Street to the west. See Exhibit 2-1. The Study Area includes portions of the North Rose Hill, South Rose Hill, Everett, Moss Bay, Norkirk, and Highlands neighborhoods. See Exhibit 2-2.

Exhibit 2-1. NE 85th Street Station Area Plan Study Area



Source: Mithun, 2020.

Exhibit 2-2. Neighborhoods



Sources: City of Kirkland, BERK, 2020.

2.3 Planning Process

Kirkland is engaging the community and developing plan proposals through four phases:

- **Phase 1: Opportunities and Challenges** - collected information about existing conditions, land use opportunities, and challenges to better understand project possibilities and inform Phase 2.
- **Phase 2: Concepts and Alternatives** - gathered ideas to form alternatives; considered environmental, community, and equity impacts; and reviewed draft alternatives. This phase integrated requirements under the State Environmental Policy Act (SEPA) including scoping and issuance of a DSEIS.
 - › **Scoping:** The City established a 21-day comment period to solicit comments on the scope of the SEIS and alternatives. In addition to a standard written comment period, the City posted a story map and survey and held a community workshop. See Appendix A.
 - › **DSEIS Comment Period:** This included a multi-week comment period of about 45 days.
- **Phase 3: Fiscal Impacts and Community Benefits Analysis/June Alternatives:** The City considered DSEIS comments and developed a narrower range of alternatives (June Alternatives A and B) and developed a more detailed analysis of costs and revenues, needed capital improvements, and potential community benefits.
- **Phase 4: FSEIS** – June Alternatives A and B are evaluated in this FSEIS including the evolution of Form-Based Code elements associated with June Alternative B endorsed as a preferred alternative by the City Council in Resolution R5503. These alternatives are cited as FSEIS Alternative A and FSEIS Alternative B.
- **Phase 5: Draft Plan** - respond to input in prior phases by developing a draft Station Area Plan. The draft Station Area Plan will be supported by proposed amendments to the Comprehensive Plan, Kirkland Zoning Code, this FSEIS that responds to public comments, and a proposed planned action. A planned action is an ordinance that simplifies future environmental review requirements for major projects with development consistent with the adopted Station Area Plan.
- **Phase 6: Final Plan** - the Planning Commission will confirm and City Council to adopt the final plan through formal public hearings and legislative meetings.

Each phase included public and stakeholder engagement through interviews, surveys, or public meetings. Phases are illustrated in the flow chart in Exhibit 2-3.

Exhibit 2-3. NE 85th Street Station Area Planning Phases



Source: BERK, 2021.

2.4 Objectives

SEPA requires the statement of objectives describing the purpose and need for the proposals. The following objectives have been established for the Kirkland NE 85th St Station Area Plan:

Leverage the WSDOT/Sound Transit I-405 and NE 85th St Interchange and Inline Stride BRT station regional transit investment to maximize transit-oriented development and create the most:

- opportunity for an inclusive, diverse, and welcoming community
- value for the City of Kirkland,
- community benefits including affordable housing,
- and quality of life for people who live, work, and visit Kirkland.

The objectives also serve as criteria by which the alternatives can be evaluated.

2.5 Alternatives

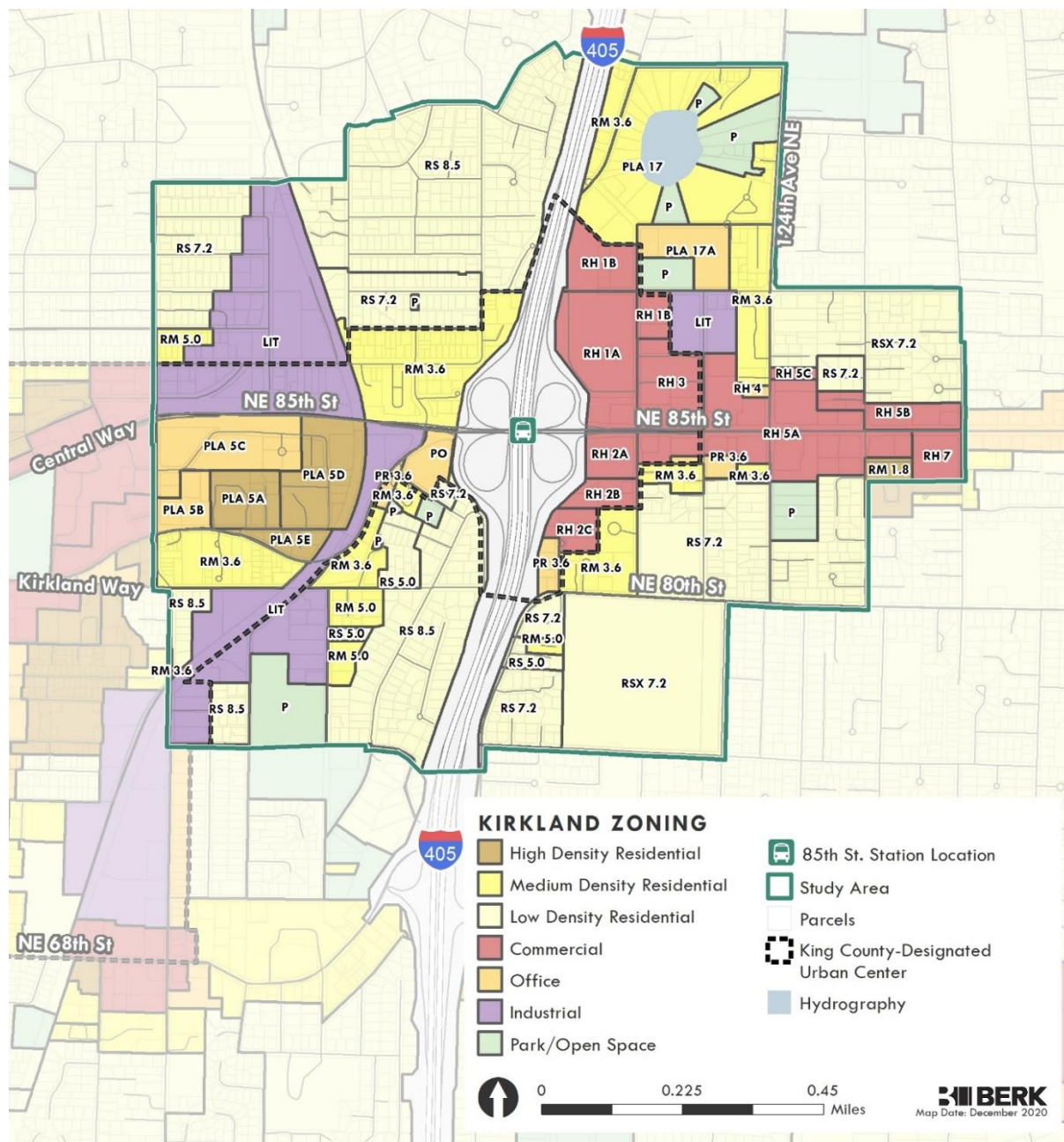
2.5.1 Alternative 1 No Action

Summary: The No Action Alternative is consistent with existing plans, would allow for limited residential development throughout the district, and in Rose Hill it would allow for substantial retail employment and modest office development up to 6 stories. Mobility changes beyond Sound Transit's planned BRT station and WSDOT's planned interchange would be limited, and environmental strategies would primarily consist of minor streetscape improvements as part of existing design guidelines.

Plans and Land Use: Alternative 1 No Action is SEPA-required, and would retain the existing Comprehensive Plan policies, future land use designations and zoning districts, while aligning with the goals of transit-oriented development, community benefits, and quality of life.

There is a predominance of Commercial/Mixed Use zoning east of the freeway (Rose Hill Commercial) and Medium and Low Density Residential to the west. There are additional areas of Central Business District and Industrial zoning to the west. See Exhibit 2-4 and Exhibit 2-5.

Exhibit 2-4. Zoning Map, Study Area.



Sources: City of Kirkland, 2020; BERK, 2020.

Exhibit 2-5. Zoning Chart Study Area

Zone Category	Individual Zones in Study Area
Commercial	RH 5C
	RH 5B
	RH 3
	RH 1A
	RH 1B
	RH 2A; RH 2B; RH 2C
	CBD 5A
	CBD 5
	CBD 6
Low Density Residential	RS 5.0; RS 7.2; RS 8.5; RS 12.5; RSX 5.0; RSX 7.2;
Medium Density Residential	RM 3.6; RM 5.0; PLA 17
High Density Residential	RM 1.8; RM 2.4; PLA 5A; PLA 5D; PLA 5E
Industrial	LIT
Office	PLA 17A; PR 3.6; PLA 5B; PO; PLA 5C
Office	RH 4
Park/Open Space	P

Source: City of Kirkland, 2020.

Growth: Based on current plans and zoning, the Study Area is anticipated to grow from nearly 2,000 households in 2019 to 2,800 households in 2035. Jobs would increase from about 5,000 jobs to 11,000 jobs between 2019 and 2035.

Land Use:

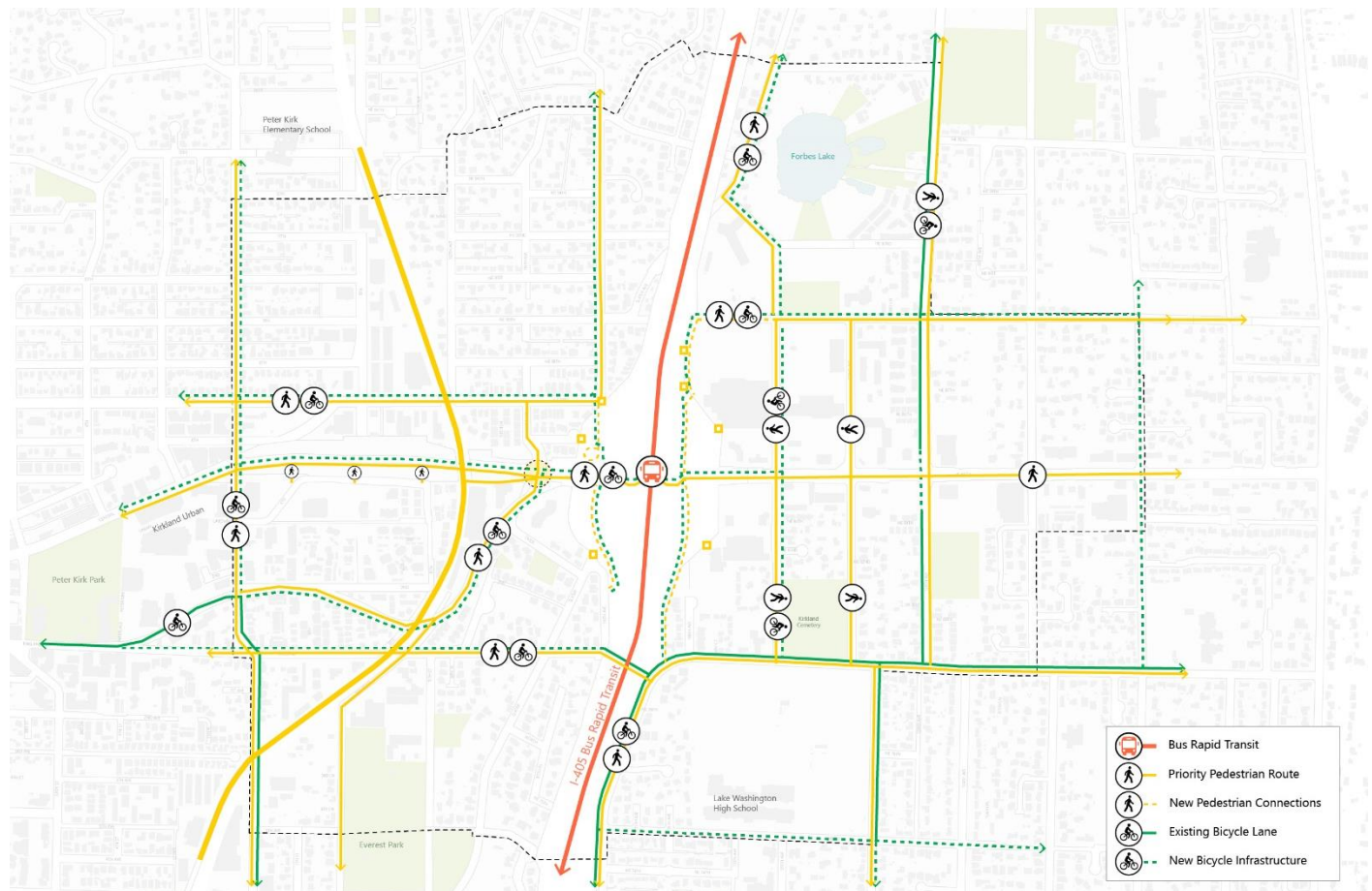
- Rose Hill Business District: Primarily retail development with limited office/residential above
- Rose Hill/Moss Bay/Norkirk/Everest/Highlands: Infill housing and jobs based on adopted land use/zoning

Mobility and Transportation elements would include:

- Transit: WSDOT/ST I-405 and NE 85th St Interchange and Stride BRT Station project which integrates with local transit on NE 85th Street
- Bike/Pedestrian: Minor streetscape improvements associated with development frontages and planned projects
- Parking: Current requirements for new development

Key mobility elements under the No Action Alternative are illustrated below.

Exhibit 2-6. No Action Alternative 1 Mobility Improvements



Sources: Mithun, 2020; Fehr & Peers, 2020.

Environmental elements would include the following:

- Minimize development near Forbes Lake by retaining existing environmental and land use regulations
- Stormwater improvements included as part of the WSDOT I-405 Interchange project and individual site/project development or redevelopment per the Stormwater Manual, KZC Chapter 15.52, Surface Water Management
- Compliance with KZC Chapter 95, Tree Management and Required Landscaping

2.5.2 Action Alternatives

The Action Alternatives are based on a concept intended to align with the SAP objectives and goals of maximizing transit-oriented development, community benefits including affordable housing, and quality of life. The concept establishes a land use pattern that would focus Office Mixed Use zoning abutting the

Flex Office and Small Business uses, including light industrial, would be located in Norkirk west of the Cross Kirkland Corridor. Mixed Use Residential uses would be located to the east of the higher intensity office uses along NE 85th Street, and to the west abutting Kirkland Urban. See Exhibit 2-7.

The map illustrates the Lake Washington Urban Center with the following features:

- Land Use Designations:**
 - LOW DENSITY RESIDENTIAL:** Yellow shaded areas.
 - INCREMENTAL INFILL:** Yellow hatched areas.
 - MIXED USE:** Orange solid and orange hatched areas.
 - OFFICE MIXED USE:** Blue hatched areas.
 - POTENTIAL DISTRICT PARKING:** Blue hatched area with a 'P' icon.
 - OFFICE IN RESIDUAL:** Blue hatched area.
 - RESIDENTIAL EDGE:** Yellow hatched area.
 - LOW DENSITY RESIDENTIAL:** Yellow shaded area.
 - INCREMENTAL INFILL:** Yellow hatched area.
 - LOW DENSITY RESIDENTIAL:** Yellow shaded area.
 - INCREMENTAL INFILL:** Yellow hatched area.
- Infrastructure:**
 - Flex Office Small Businesses:** Blue solid area.
 - Green Line:** A green line running through the center of the map.
 - Peter Kirk Elementary School:** Located in the top left.
 - Peter Kirk Park:** Located in the bottom left.
 - Forbes Lake:** A blue lake in the top right.
 - Lake Washington High School:** Located in the bottom right.
 - Everest Park:** Located in the bottom center.
 - Kirkland Urban:** Located in the middle left.
- Boundaries:** Dashed black lines outline the urban center and various sub-zones.

The building types that could locate in the growth concepts include a range of building stories and intensities. See Exhibit 2-8. A table describing the typologies is shown in Exhibit 2-9.

Exhibit 2-8. Development Typologies – Action Alternatives

Office High Intensity*



Office Mid Intensity*



Office Low Intensity



Office Mixed Use High Intensity*



Office Mixed Use Mid Intensity*



Residential High Intensity*



Residential Mixed Use High Intensity*



Residential Mid Intensity*



Residential Mixed Use Mid Intensity*



Incremental Infill



Industrial Tech



*studied with conventional and lower parking ratios

Source: Mithun, 2020.

Exhibit 2-9. Development Typology Descriptions

Development Type	Description
Office High Intensity	Primarily office/commercial uses consisting of towers and mid-rise buildings.
Office Mid Intensity	Primarily office/commercial uses consisting of mid-rise buildings.
Office Low Intensity	Primarily office/commercial uses consisting of low-rise buildings.
Office Mixed Use High Intensity	Mix of office/commercial and retail uses consisting of towers and mid-rise buildings.
Office Mixed Use Mid Intensity	Mix of office/commercial and retail uses consisting of mid-rise buildings.
Residential High Intensity	Primarily residential uses consisting of towers and mid-rise buildings.
Residential Mid Intensity	Primarily residential uses consisting of mid-rise buildings.
Residential Mixed High Intensity	Mix of residential and retail uses consisting of towers mid-rise buildings.
Residential Mixed Mid Intensity	Mix of residential and retail uses consisting of towers mid-rise buildings.
Incremental Infill (Residential Infill in Alternative 3)	Primarily residential uses consisting of low-rise buildings, including duplexes, triplexes, townhouses, and small apartment buildings
Other Infill per existing zoning	Where applied in conjunction with low density residential zoning infill would be consistent zoning allowances include KZC Chapter 113, Cottage, Carriage and Two/Three-Unit Homes. Where applied with medium density residential could include a variety of detached and attached residential units depending on underlying zone. Where overlying employment zones, there could be office and retail development or light industrial development consistent with underlying zoning.
Industrial/Tech	Non-residential uses compatible with a light industrial/manufacturing district in a walkable, urban setting. Example uses would include light manufacturing, office, and storefront retail.

Note: For the purposes of these development types, low-rise includes structures up to 3 stories, mid-rise includes structures 4-12 stories and high-rise/towers includes structures above 12 stories.

Affordable Housing Policies and Regulations: With the increase in growth capacity, Action Alternatives would enhance affordable housing policies, incentives, and requirements to implement the Kirkland Housing Strategy Plan (City of Kirkland, 2018) and to address the increased demand for housing. Actions could include increased inclusionary housing requirements, increased bonus densities, establishing commercial linkage fees, and participating in regional efforts to establish funding mechanisms to support affordable housing development including infrastructure and amenities. Under Alternative 2 the level of density bonuses, incentives, or inclusion requirements would be less than for Alternative 3 since it would be scaled to capacity or value increases. The range of policy and regulation Alternatives are reviewed in Section 3.3 Land Use Patterns and Socioeconomics and mitigation measures.

Transportation: The Action Alternatives would both include the planned Sound Transit BRT station served by a network of transit lines and improved bicycle and pedestrian facilities, as well as the planned WSDOT interchange improvements. Each alternative varies the non-motorized improvements and mobility is discussed below.

Parking Ratios: As the Study Area will benefit from proximity to planned high-capacity transit and regional bike trail access, there may be a lessened need for onsite parking. the GMA was also amended in 2020 to limit how high parking ratios can be for housing in a quarter mile of a transit stop with frequent service, applicable to accessory dwelling units and affordable, senior/disabled, and market rate housing. (RCW 36.70A.620 and 698) Thus, the Action Alternatives test alternative parking ratios. See Exhibit 2-10.

Exhibit 2-10. Parking Rates by Alternative

Parking Ratio	Existing Zoning/No Action Alternative	Action Alternatives
Medium and High Density Residential	Varies by bedrooms 1.2-1.8 per bedroom	1-per studio and 1-bedroom 1.6 per 2-bedroom and 1.8 per 3-bedroom (current rate)
Office parking ratio (per 1,000 sf)	3.33	2-5*
Retail parking ratio (per 1,000 sf)	3.33	2-3
Restaurant parking ratio (per 1,000 sf)	10	4-10
Traditional Industrial parking ratio (per 1,000 sf)	1	1
Flex and Urban Industrial parking ratio (per 1,000 sf)	1	1
Wholesale parking ratio (per 1,000 sf)	1	1

*Tech Campus: 5/1000 square feet per lease.

In order to achieve the lower end of the proposed parking range under Action Alternatives, policy or code changes would require individual development projects include features such as: shared parking, parking management, unbundled parking, paid parking, or monitoring.

Transportation Demand Management Mitigation: Other potential mitigation measures are explored in Section 3.6 Transportation such as:

- Shuttle providing first -mile/last- mile access for surrounding neighborhoods and Downtown.
- Managed on-street parking strategies.
- Partner with Transportation Network Companies (TNCs) to provide pooled ridesharing options.

Parks and Open Space: The Action Alternatives would promote policies and regulations that could add parks and open space, including:

- Neighborhood Parks and Pea Patches: There may be opportunities for park acquisition, or implementation of public or private pea patches in new developments (e.g., Pike Place Urban Garden).
- Neighborhood Linear Parks: As part of new streets or through block connections, linear parks and enhanced landscaping could contribute to the greenness of the area.
- Site Scale: At a site level the Form-Based Code would create standards for a pedestrian oriented public realm, and buildings could be required to meet a green factor (e.g., like Seattle or Denver). There could be requirements for public plazas and publicly accessible open space along with new mixed use and office developments, and requirements for shared open space (e.g., landscaped roofs with recreational space, dog runs, play areas for children) in residential development.

These concepts are explored more in Section 3.7 Public Services.

Details of Alternatives 2 and 3 are described below.

Alternative 2

Summary: In support of the SAP objectives and goals to maximizing transit-oriented development, community benefits including affordable housing, and quality of life, this alternative would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. This growth would allow for a range of mid-rise, mixed use office/residential with incremental infill in established residential neighborhoods. Mobility and environmental strategies would focus on enhancing existing City plans, including additional bike lanes, sidewalks, and minor green infrastructure investments.

Station Area Plan (SAP) and Form-Based Regulations: This alternative would create a SAP and Form-Based Code allowing for added housing and commercial/retail activity in buildings up to 10 stories in height (150 feet) closest to the station and along designated street corridors and low and midrise heights (25 to 85 feet) elsewhere.

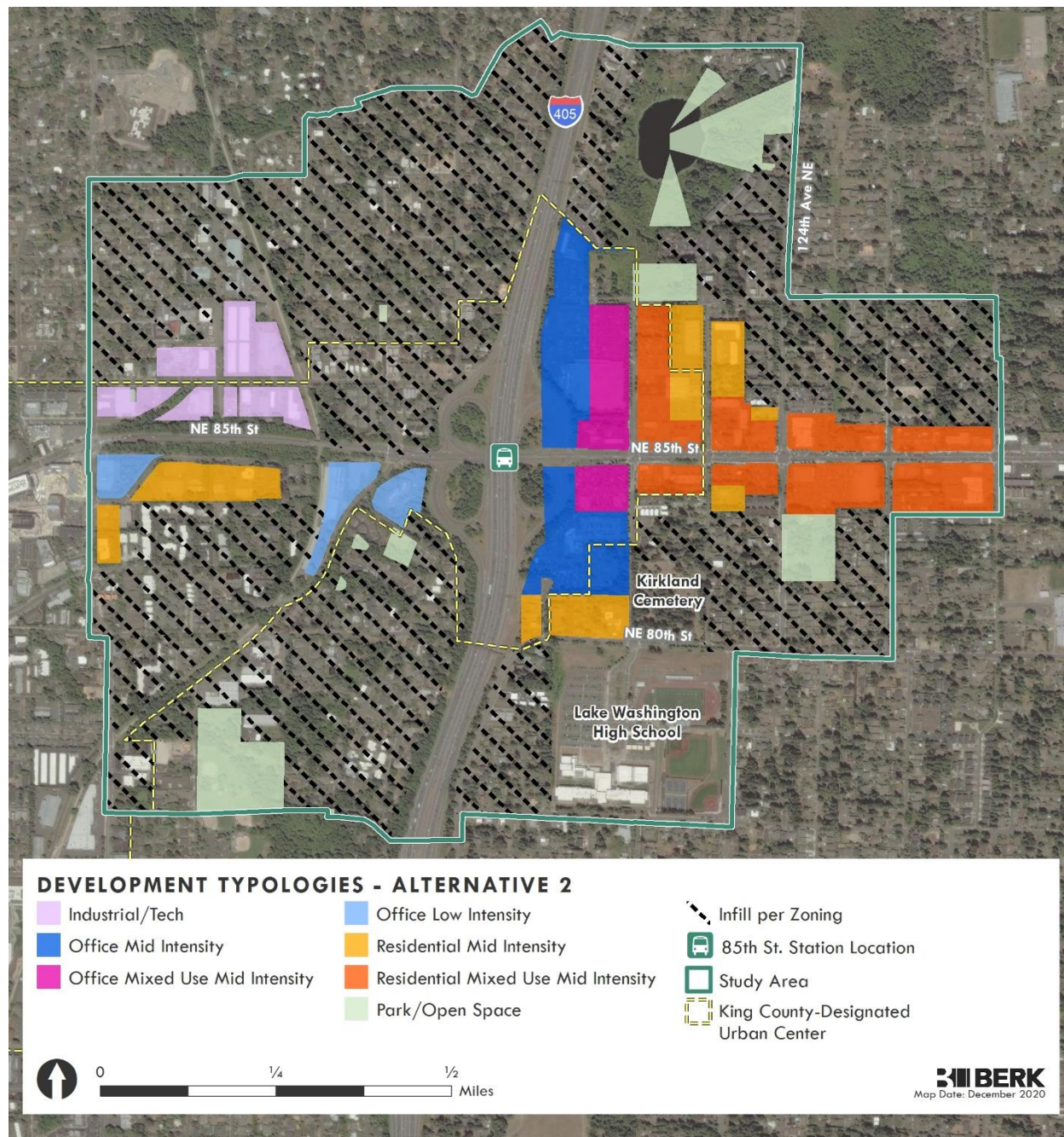
Planned Action Ordinance: A Planned Action Ordinance would be prepared to facilitate growth consistent with the plan vision, regulations, and environmental mitigation measures.

Land Use Plan: The proposed land use plan illustrated in Exhibit 2-11 includes:

- Rose Hill NE 85th Corridor and Station Area: Mid-rise office/residential mixed use (up to 10 stories and 150 feet)
- Rose Hill/Moss Bay/Norkirk/Everest/ Highlands: Infill development in other areas in accordance with zoning (see also Exhibit 2-9)

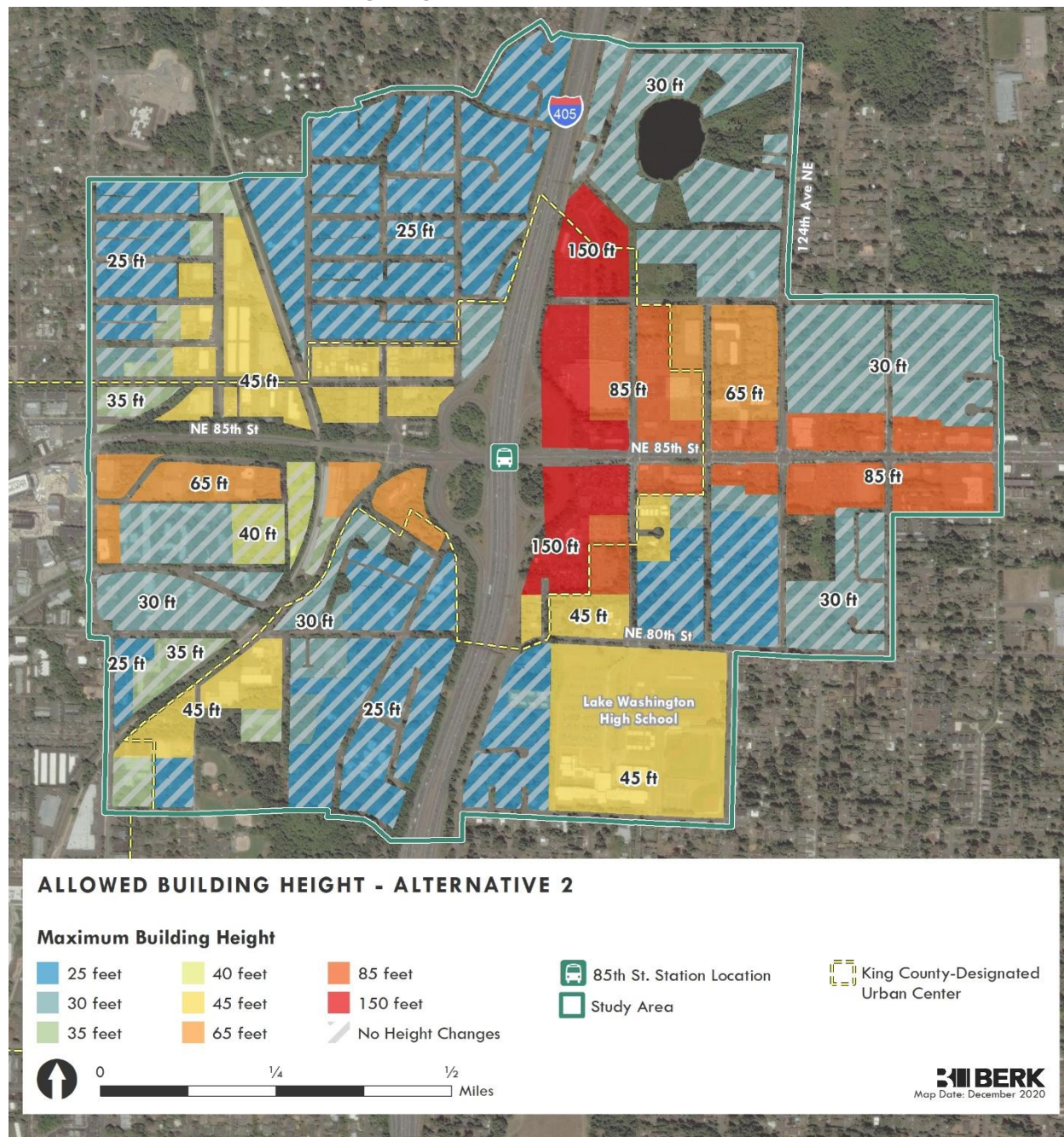
Building heights would be about 10 stories or 150 feet closest to the station east of I-405, transitioning to 85 feet, 65 feet, and 45 feet as distance increases from the freeway eastward along NE 85th Street. To allow for capacity increases and effective use of current sites, the alternative considers adding a story in height at the Lake Washington High School. See Exhibit 2-12.

Exhibit 2-11. Alternative 2 Land Use Change Areas



Sources: Mithun, BERK, 2020.

Exhibit 2-12. Alternative 2 Building Heights



Sources: Mithun, BERK, 2020.

Growth: Alternative 2 would allow for housing to grow up to about 8,500 by 2035, which is 6,600 above existing homes. Alternative 2 would also allow for jobs to grow up to 28,700 by 2035, about 23,700 more than the existing number of jobs.

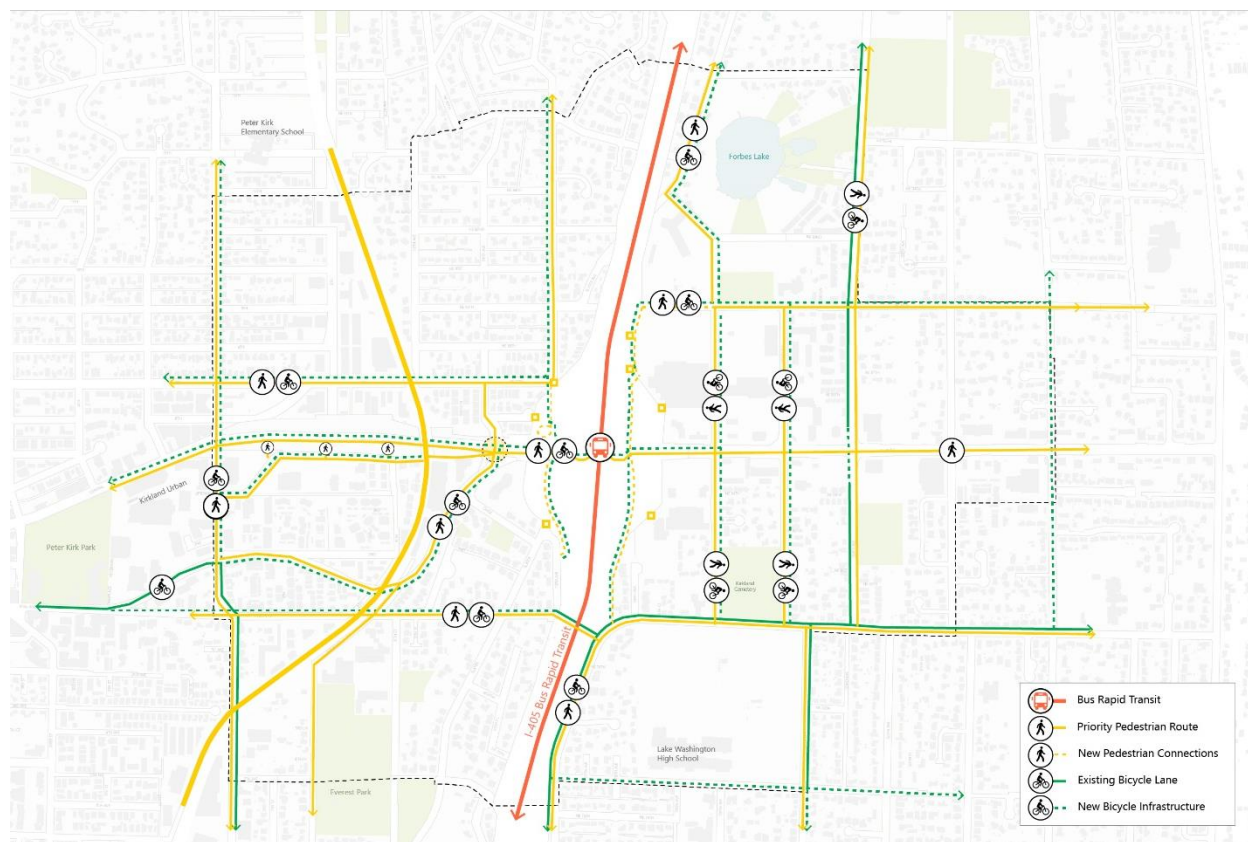
Mobility/Transportation: Mobility elements include but are not limited to:

- Transit: WSDOT/ST 1-405 and NE 85th St, Interchange and In-line BRT planned projects

- Bike/Pedestrian: Incremental green streets midblock connections policy in Rose Hill, Enhanced bike/pedestrian lane/new sidewalks) on 120th Ave NE and other key streets. Green streets include both non-vehicular and vehicular streets that provide public access through large sites; green streets enhance aesthetics and water quality as well as mobility. It includes vegetated green stormwater infrastructure, traffic calming, non-motorized mobility, and place making design elements. These streets may be private or publicly owned.
- Parking: Reduced parking ratios for mixed use development (see Exhibit 2-8)

Mobility concepts for Alternative 2 are illustrated in Exhibit 2-13 below.

Exhibit 2-13. Alternative 2 Mobility Concepts



Source: Mithun, 2020.

Environment: Key environmental elements include:

- Minimize development near Forbes Lake; retain current land use and environmental regulations
- Stormwater improvements included as part of the WSDOT I-405 project and individual site/project development or redevelopment
- Minor increase of tree canopy, which could include: Tree retention, replacement, and new tree planting requirements for the subarea that

support the City's tree canopy goals.

- Streetscape-based stormwater improvements along 120th Ave NE
- Moderate/incremental green building standards

Alternative 3

Summary: In support of the SAP objectives and goals to maximizing transit-oriented development, community benefits including affordable housing, and quality of life, this alternative would allow for the most growth throughout the district. This growth would include mixed use residential and office buildings up to 20 stories (150 to 300 feet) in select commercial areas, midrise residential mixed use along NE 85th and adjacent to the office mixed use areas, and smaller scale infill in low-density residential areas. Mobility strategies would involve substantial investments in multimodal strategies to accommodate growth through transit, biking, and walking, as well as a district - wide parking strategy and facility. Environmental strategies would be coordinated at the district scale to maximize environmental performance through green infrastructure and a signature "blue street" on NE 120th Street that would integrate a new shopping street-focused streetscape with stormwater management improvements.

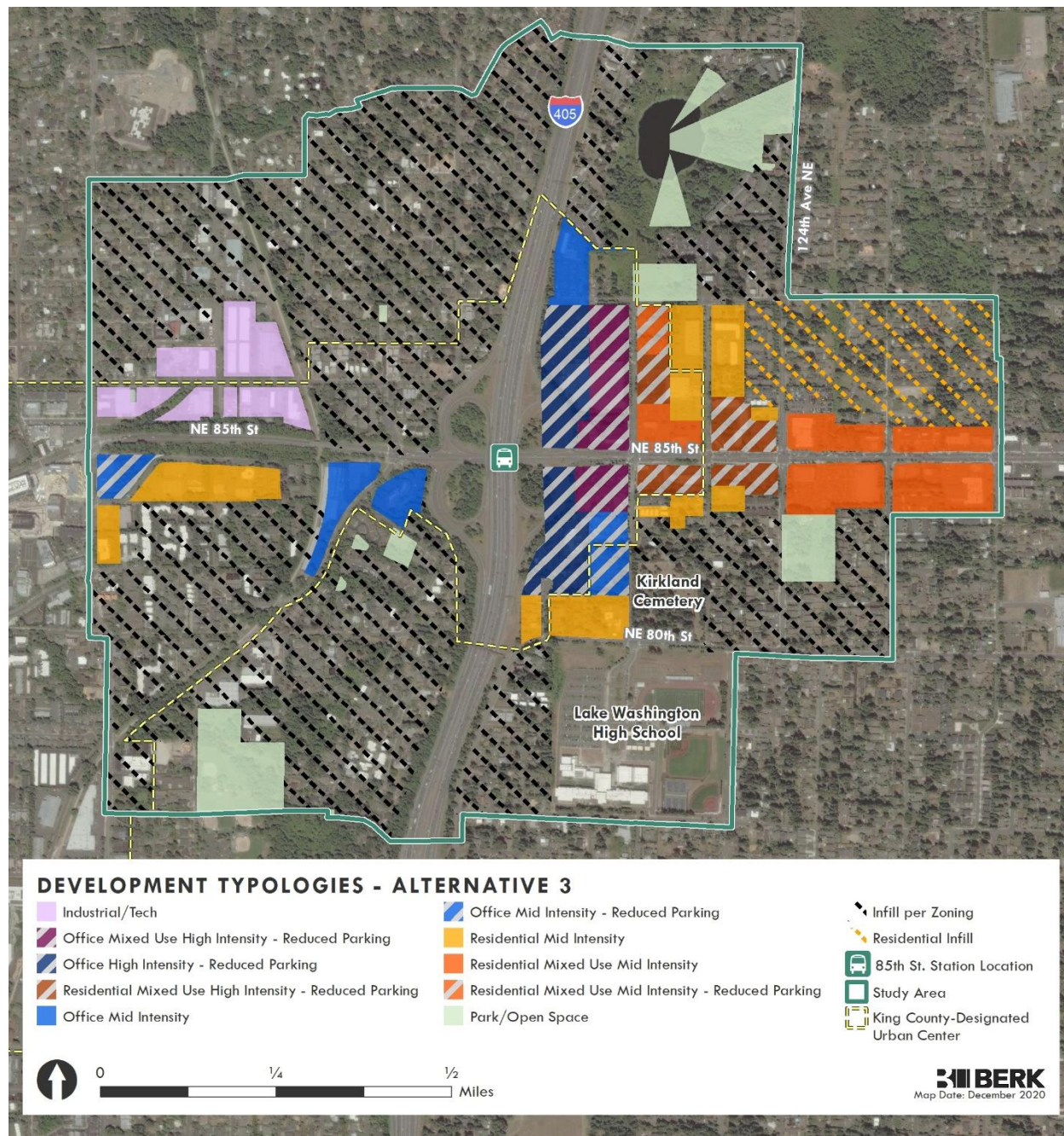
Station Area Plan (SAP) and Form-Based Regulations: This alternative would also create a SAP and Form-Based Code, and would allow for further intensified development close to the station offering jobs and housing in buildings up to 20 stories (150-300 feet) in height, transitioning to mid-rise and low rise development further from the station. As described under 2.5.2 Action Alternatives elements of the SAP and Form-Based Code could include added affordable housing policies, incentives or regulations, and parks and open space strategies and code requirements.

Planned Action Ordinance: Similar to Alternative 2, a Planned Action Ordinance would be implemented under Alternative 3 to incentivize development that meets environmental performance standards as well as the plan vision and other local regulations.

Land Use Plan: The major elements of the land use plan include:

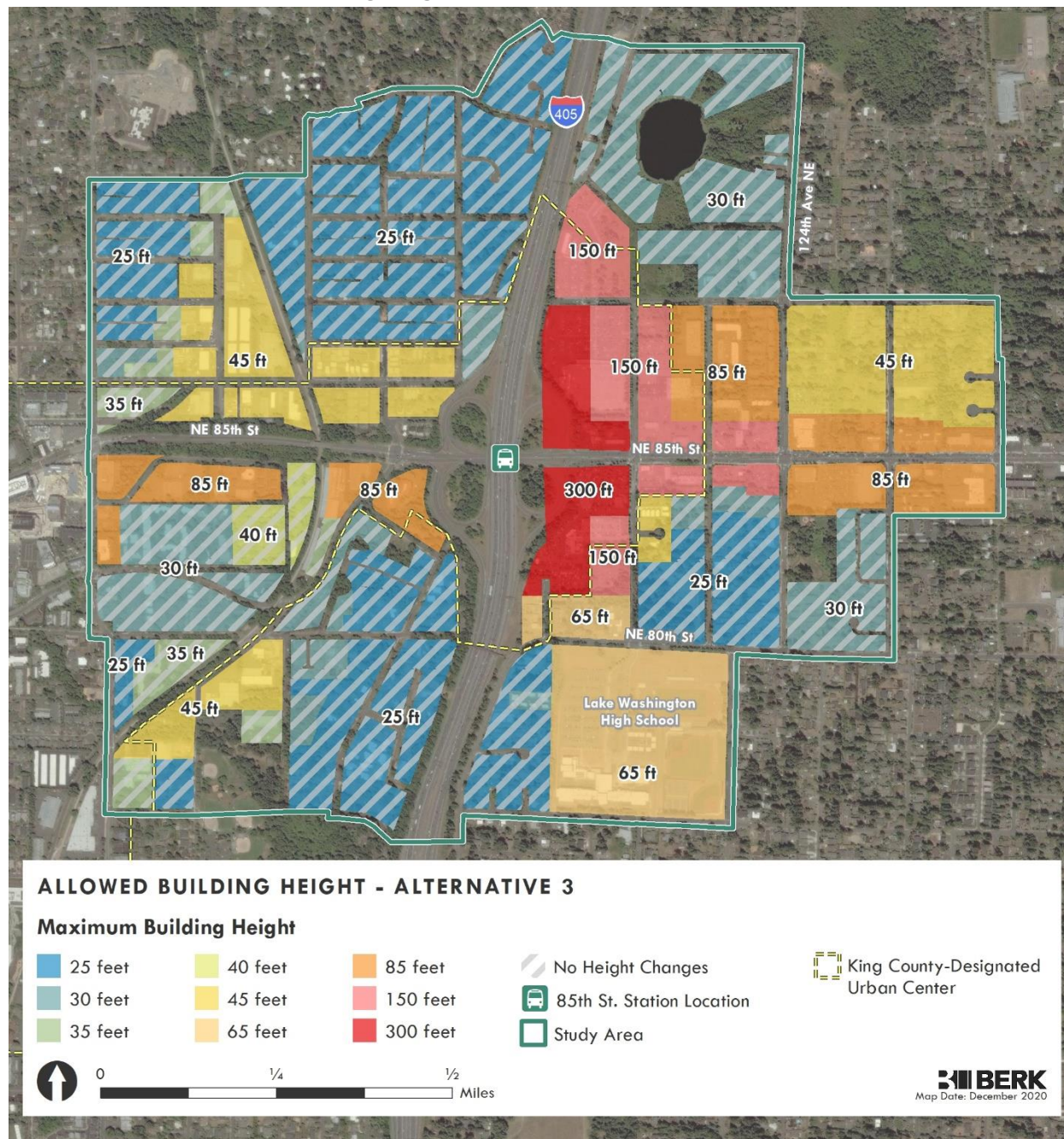
- Rose Hill NE 85th Corridor and Station Area: Taller buildings (up to 20 stories, 150-300 feet) with mid-rise office/residential mixed use (85-150 feet)
- Moss Bay/Norkirk/Everest/ Highlands: Mid-rise office residential mixed use (85-150 feet), Industrial/Tech in Norkirk
- School Capacity: To allow for capacity increases and effective use of current sites, Alternative 3 considers adding two more stories height above current zoning at the Lake Washington High School. Under this alternative, the City could also work with the Lake Washington School District and major employers on how to accommodate school capacity in urban formats or allow for specialty instruction for students.
- Other: Residential infill, including small-scale redevelopment, could result in more housing variety with low rise townhouses, small apartments, and other similar housing forms. Significant investment in open space and community gathering spaces as noted under 2.5.2 Action Alternatives.

Exhibit 2-14. Alternative 3 Land Use Change Areas



Sources: Mithun, BERK, 2020.

Exhibit 2-15. Alternative 3 Building Heights



Sources: Mithun, BERK, 2020.

Growth: Alternative 3 would allow for total housing to reach up to about 10,900 by 2035, which is 9,000 above the existing number of homes. With a focus near the station, Alternative 3 would also allow jobs to grow up to nearly 35,000 by 2035, about 30,000 above the existing number of jobs.

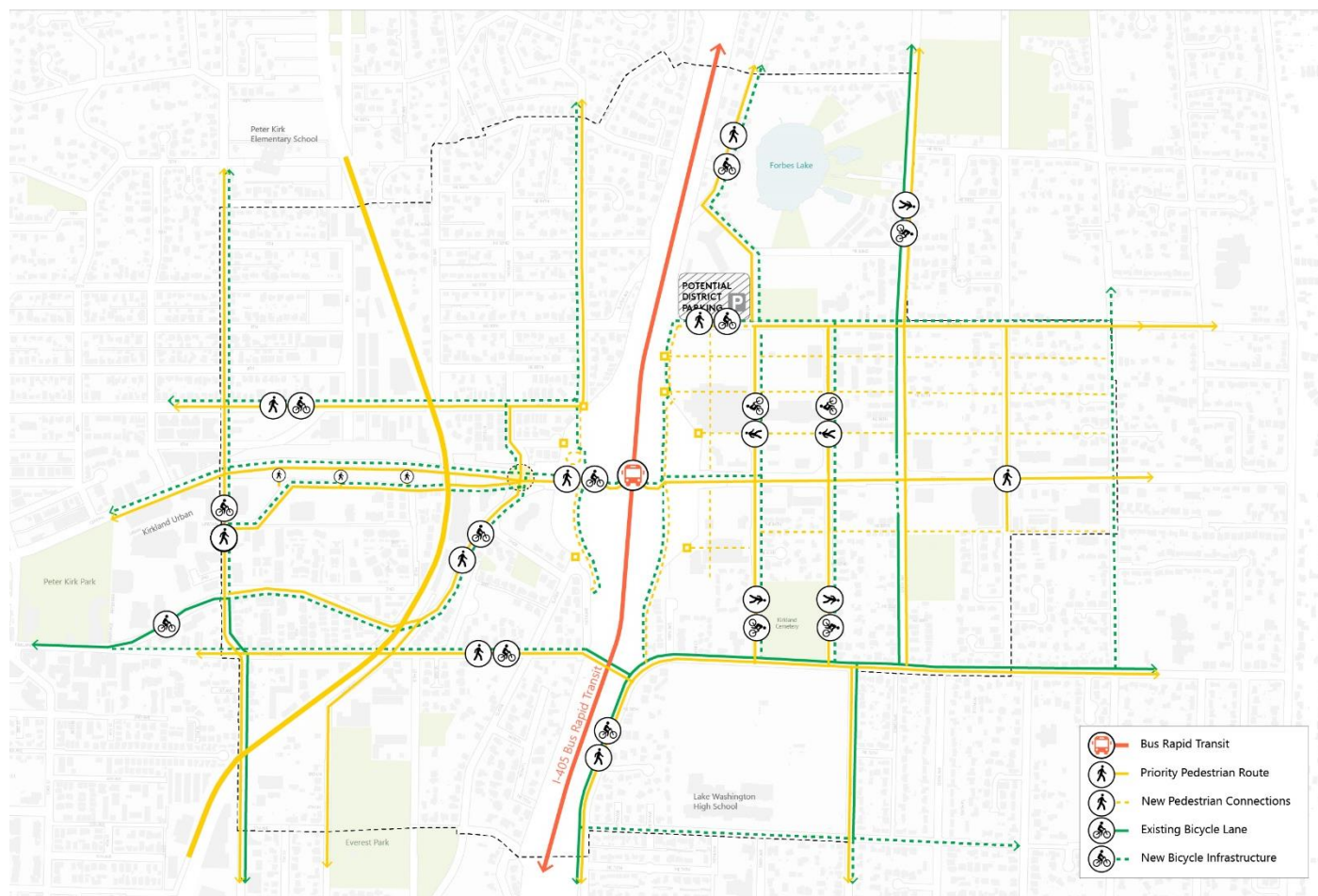
Mobility/Transportation: Mobility elements include but are not limited to:

- Transit: WSDOT/ST 1-405 and NE 85th St Interchange and Stride BRT Station project which integrates with local transit on NE 85th St.
- Bike/Ped: Required green streets midblock connections policy in in Rose Hill, substantial bike/ped improvements (cycle track⁹ network, retail supportive streetscape) on 120th Ave NE and other key streets. See Exhibit 2-16. Green streets include both non-vehicular and vehicular streets that provide public access through large sites; green streets enhance aesthetics and water quality as well as mobility. It includes vegetated green stormwater infrastructure, traffic calming, non-motorized mobility, and place making design elements. These streets may be private or publicly owned. The City would define a green street standard, and require it to be implemented as redevelopment occurs.
- Parking: District parking facility, located within Rose Hill commercial area that provides shared access to parking for commercial area users, visitors and residents in mixed use areas but would not be available for commuters, lower end parking ratios in Rose Hill (see Exhibit 2-10) paired with demand reduction and parking efficiency features such as: shared parking, parking management, unbundled parking, paid parking, or monitoring. Managed on-street parking.

The mobility concepts under Alternative 3 are illustrated below.

⁹ A cycle track is a bike lane that is physically separated from motor traffic and distinct from the sidewalk. (National Association of City Transportation Officials, 2020)

Exhibit 2-16. Alternative 3 Mobility Concepts



Source: Mithun, 2020.

Environment: Key environmental elements include:

- Minimize development near Forbes Lake; retain existing environmental and land use regulations
- Stormwater improvements included as part of the WSDOT I-405 Interchange project and individual site/project development or redevelopment
- Major increase of on-site tree canopy through green street midblock connections in Rose Hill and potentially within proposed open spaces. Green streets and open spaces may be private or publicly owned. Beyond 120th Avenue NE Green Street, other green streets would be planned by the City but built by the developers according to design standards provided by the City. Other changes could include: Tree retention, replacement, and new tree planting requirements for the subarea that support the City's tree canopy goals.
- “Blue Street” reconstruction and streetscape improvements for 120th Ave NE to provide stormwater conveyance, attenuation (detention), and water

quality treatment. The “blue street” concept would include vegetated stormwater infrastructure element in the median of the street which has flowing water on the surface. The corridor may also be integrated with bike/pedestrian/transit infrastructure and community gathering spaces. See also “green streets” under Mobility/Transportation above.

- Districtwide green building standards / incentives

2.5.3 Final SEIS Alternatives

This FSEIS evaluates two alternatives in the range of the DSEIS Alternatives:

- Alternative A Current Trends
- Alternative B Transit Connected Growth – Preferred Direction

The Kirkland City Council has reviewed the results of a fiscal analysis of both Alternatives, and with the adoption of Resolution R-5503 has given direction to further develop Alternative B as a preferred direction for the Subarea Plan and Form-Based Code.

Alternative A Current Trends

Summary: Alternative A Current Trends (illustrated in Exhibit 2-17) is based on the starting point of DSEIS Alternative 1 No Action. For Alternative A Current Trends, the growth targets were adjusted upward from DSEIS Alternative 1 No Action because growth in the past six years has outpaced the assumptions in the 2015 Comprehensive Plan.

Plans, Land Use, and Growth: Alternative A Current Trends maintains existing zoning heights throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing than DSEIS Alternative 1. In Alternative A Current Trends, these additional jobs were studied in portions of the Study Area currently zoned for development up to 67' in height in zones RH-1A, RH-2A, and RH-2B, directly east of the interchange, north and south of NE 85th St. Areas within the district currently zoned for single family or other low density residential area would maintain their current zoning. See Exhibit 2-17 and Exhibit 2-18.

Mobility and Transportation elements would include those identified for the No Action Alternative:

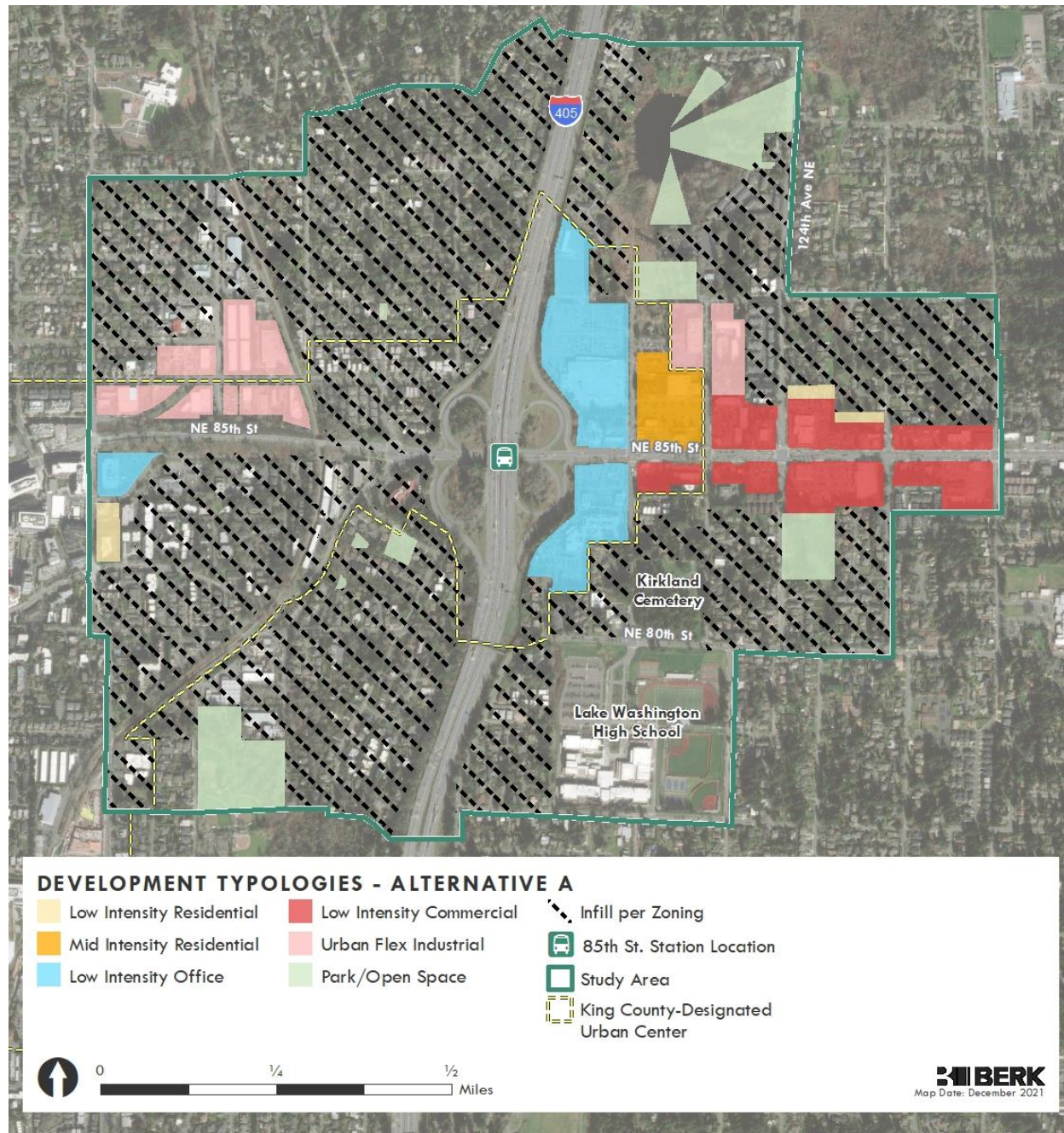
- Transit: WSDOT/ST I-405 and NE 85th St Interchange and Stride BRT Station project which integrates with local transit on NE 85th Street
- Bike/Pedestrian: Minor streetscape improvements associated with

development frontages and planned projects

- Parking: Current requirements for new development

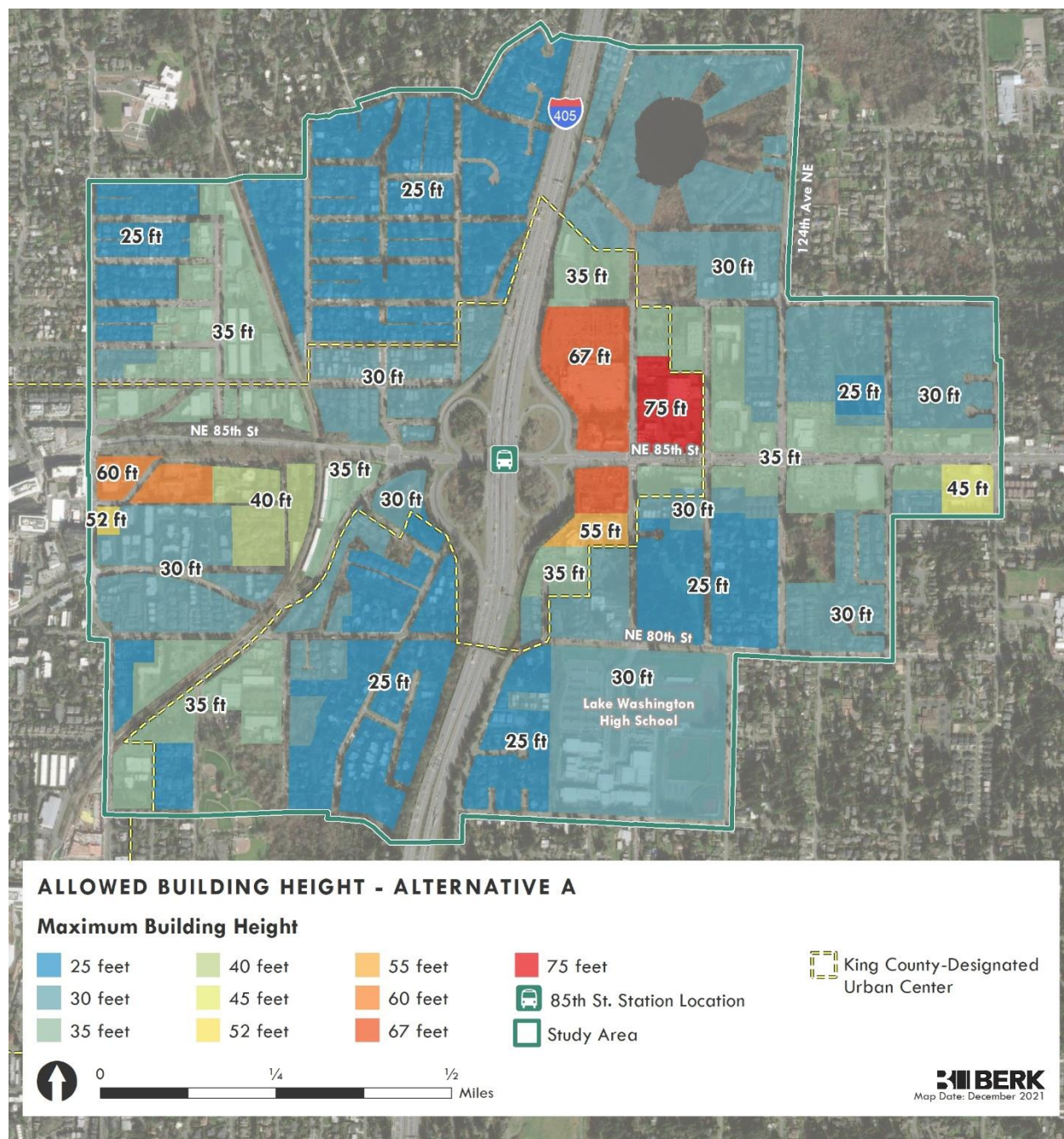
More analysis is provided in Chapter 3 regarding transportation mitigation for this alternative.

Exhibit 2-17. Alternative A: Current Trends – Development Typologies



Sources: Mithun, BERK 2021.

Exhibit 2-18. Alternative A: Current Trends – Heights



Sources: Mithun, BERK 2021.

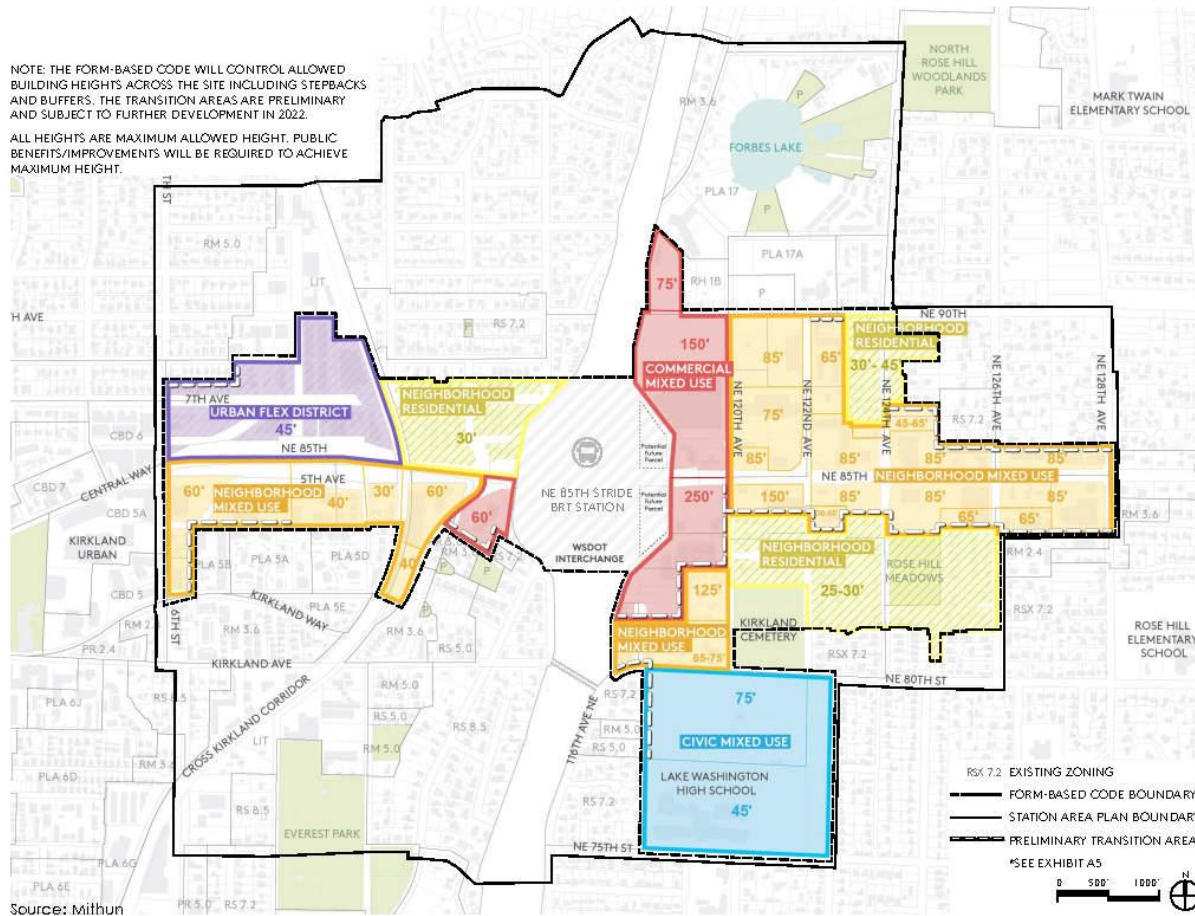
Alternative B Transit Connected Growth – Preferred Direction

Summary: Alternative B Transit Connected Growth is aligned with the overall Station Area Plan growth framework in the Station Area Initial Concepts (Exhibit 2-7). This alternative is based on the overall land use pattern established in DSEIS Alternative 2, and incorporates selected elements shown in the commercial corridors of DSEIS Alternative 3. The intent of this strategy is to:

- Optimize for workforce and affordable housing, in particular the number of units provided through linkage fees and/or inclusionary zoning.
- Attract new jobs to foster economic activity and meet citywide targets.
- Balance the distribution of commercial-focused development across the Study Area.
- Foster an environmentally sound land use pattern that helps achieve the City's sustainability goals.

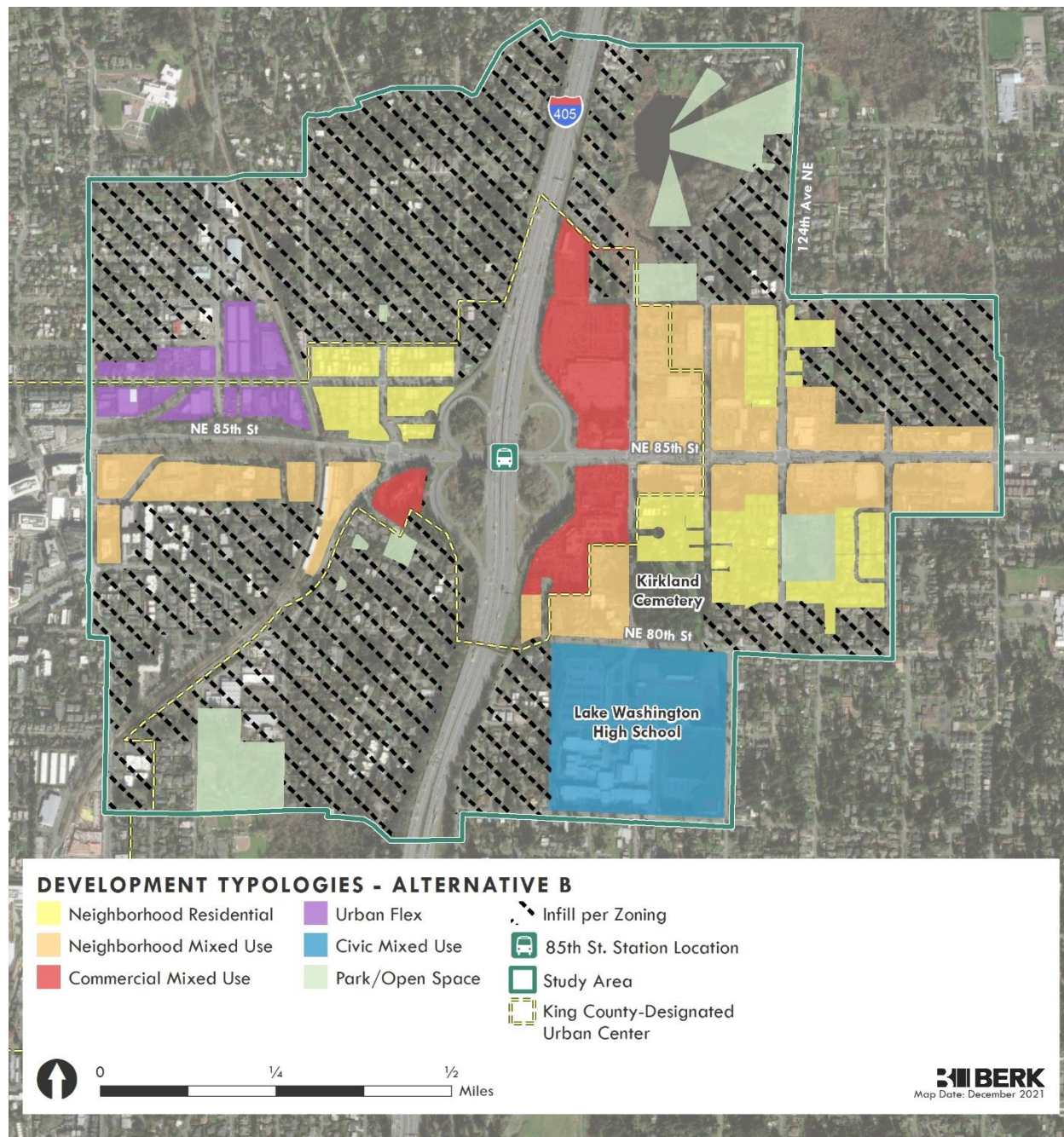
Station Area Plan (SAP) and Form-Based Regulations: This alternative would also create a SAP and Form-Based Code (see elements below), and would allow for more intensive development close to the station offering jobs and housing in buildings up to 20 stories (150-250 feet) in height, transitioning to mid-rise and low rise development further from the station. The proposed land use plan is illustrated in Exhibit 2-19. Typologies and heights are also shown in Exhibit 2-20 and Exhibit 2-21.

Exhibit 2-19. Alternative B: Transit Connected Growth- Preliminary Regulating Plan



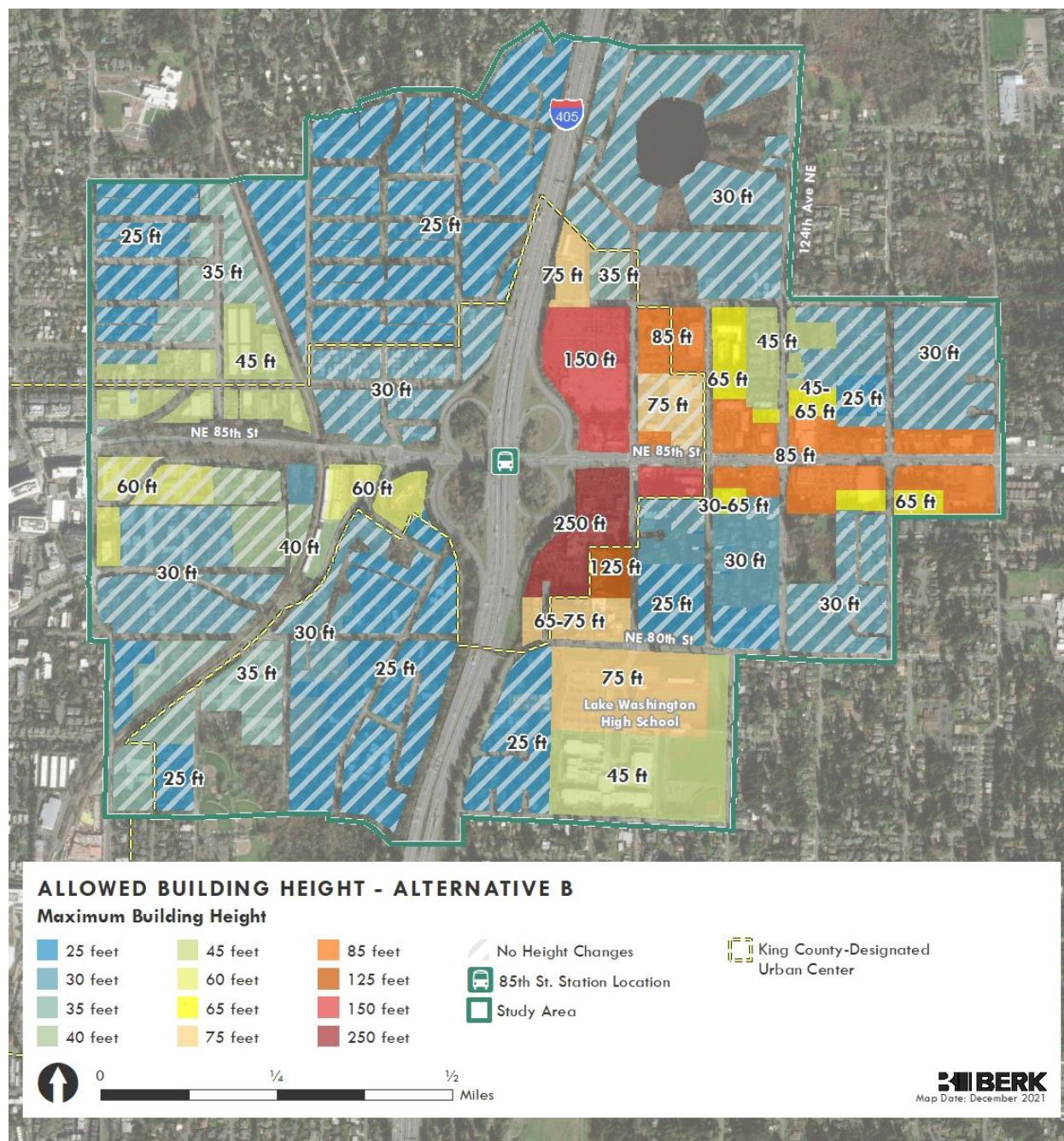
Source: Mithun 2021.

Exhibit 2-20. Alternative B: Transit Connected Growth- Typologies



Sources: Mithun, BERK 2021.

Exhibit 2-21. Alternative B: Transit Connected Growth- Heights



Sources: Mithun, BERK, 2020.

Alternative B Transit Connected Growth responds to the public comment heard during the DSEIS comment period and the May 26, 2021 Council Listening Session. Although a wide range of comments were shared, many participants reiterated a desire to maintain existing residential character, and concerns regarding the maximum allowable zoning heights proposed in DSEIS Alternative 3.

Alternative B Transit Connected Growth only studies increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections. To that end, several areas where height increases had been proposed as part of DSEIS Alternatives 2 and 3 have been removed from consideration in Alternative B Transit Connected Growth. These include areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors.

Key Form-Based Code elements include the following:

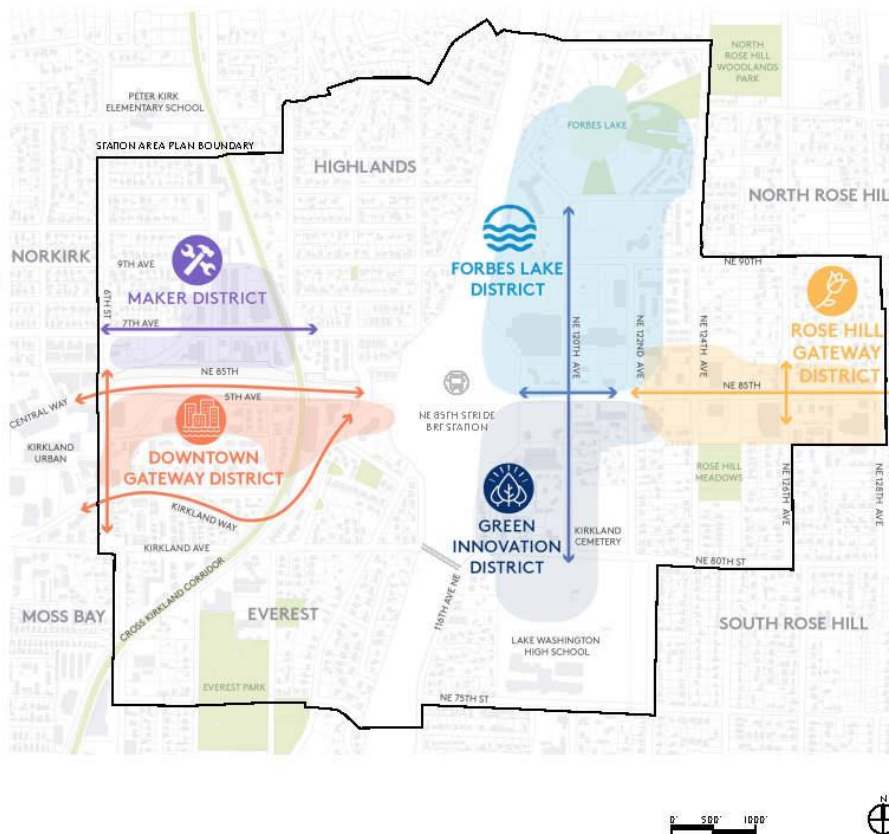
- **Character Subareas:** Character subareas are identified based on key streets that organize the subarea and other connections shown. See Exhibit 2-22. Illustrations of the character areas are shown on Exhibit 2-23.

Exhibit 2-22. Alternative B Transit Connected Growth Character Subareas

THE VISION

The Station Area is a thriving, new walkable district with high tech and family wage jobs, plentiful affordable housing, sustainable buildings, park amenities, and commercial and retail services linked by transit.

The vibrant, mixed-use environment is a model of innovation. With an outstanding quality of life and unmatched mobility choices, the Station Area is eco-friendly, a place to connect, and deeply rooted in the history of the land, the people, and the culture of this special crossroads in Kirkland. The highly visible integration of ecological systems within an urban setting set the Station Area apart while tying the unique sub-area districts together with existing open space and active living opportunities.



Source: Mithun

Source: Mithun 2021.

Exhibit 2-23. Alternative B Transit Connected Growth Character Subareas – Descriptions



MAKER DISTRICT

Pedestrian-oriented district building on Norkirk's character and excellent Cross Kirkland Corridor trail connections. 7th is a lively connection between the BRT drop off and old downtown. The traditional mixed industrial/commercial character of the area is recognized while encouraging more urban uses supporting "maker" activities, locally-owned small businesses, active lifestyle and recreation-related private and public uses.



DOWNTOWN GATEWAY DISTRICT

Gateway district to Downtown Kirkland via 6th St that emphasizes mid-rise residential and office uses along 6th and important bicycle and pedestrian connections along green pathways to and from the station and the Cross Kirkland Corridor.



FORBES LAKE DISTRICT

A walkable mixed-use district with opportunities for shops and office uses as well as mid-rise residential uses, organized around a green main street corridor with retail and active uses combined with small open spaces on 120th that connects to Forbes Lake. Biophilic design and visible water, energy, and biodiversity strategies tell the story this place.



GREEN INNOVATION DISTRICT

This vibrant, mixed use district is a model of innovation and place for community, students, and the workforce to connect. It transitions from shops and office uses to townhouses, small apartment buildings, and civic uses. Active transportation choices, connections to green space, and walkable South 120th offer a healthy lifestyle. Views abound.



ROSE HILL GATEWAY DISTRICT

Corridor-based gateway with a mix of active ground floors and mid-rise residential along NE 85th that focuses on creating a strong sense of arrival from Redmond with streetscape design, public art, and urban design features.

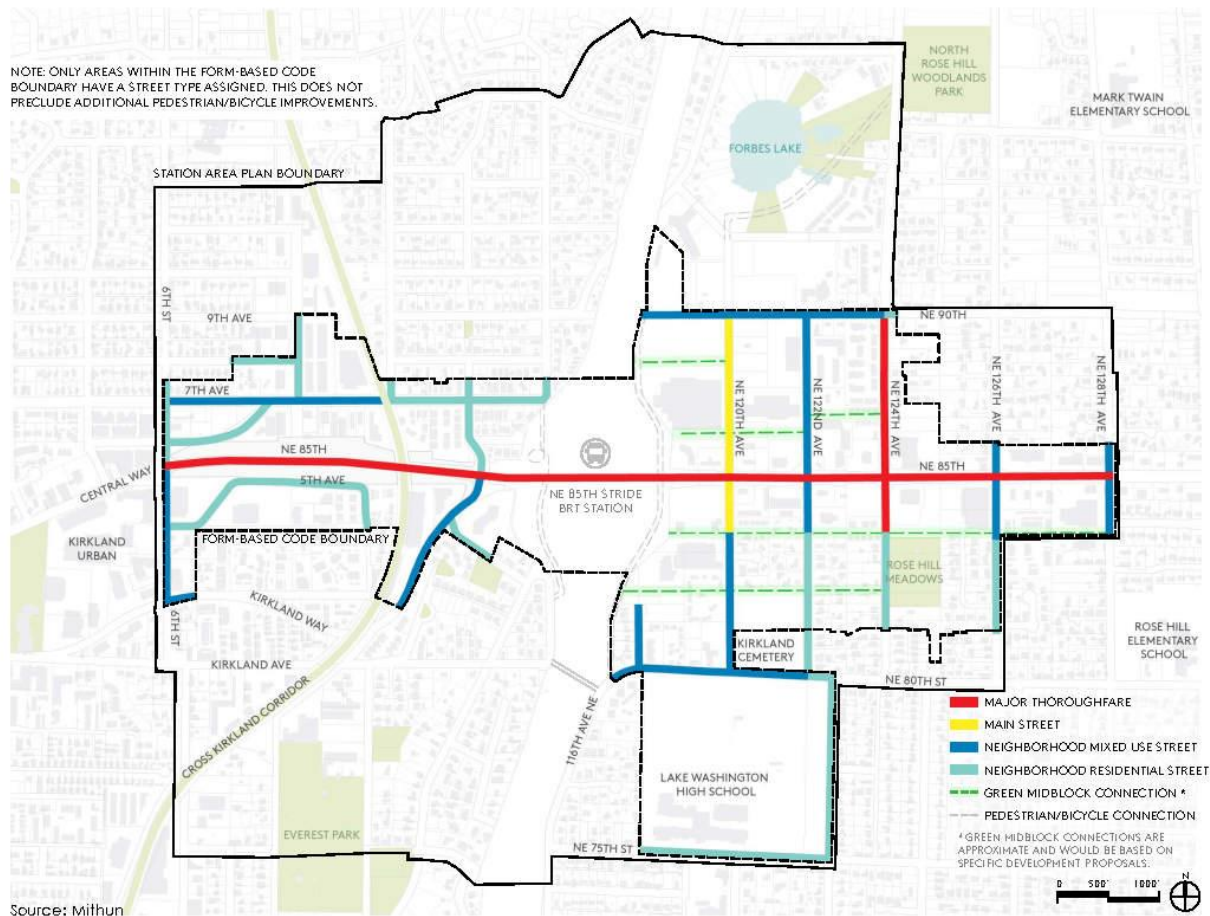


Source: Mithun

Source: Mithun 2021.

- **Regulating Districts and Active Frontages:** The Regulating Plan illustrates maximum heights and provides a description of land use intent. This diagram also includes initial thinking around future active frontages and important locations development transitions. See Exhibit 2-24.

Exhibit 2-24. Regulating Districts and Active Frontages



Source: Mithun 2021.

Planned Action Ordinance: A Planned Action Ordinance would be prepared to facilitate growth consistent with the plan vision, regulations, and environmental mitigation measures. A draft Planned Action Ordinance is included as Appendix C.

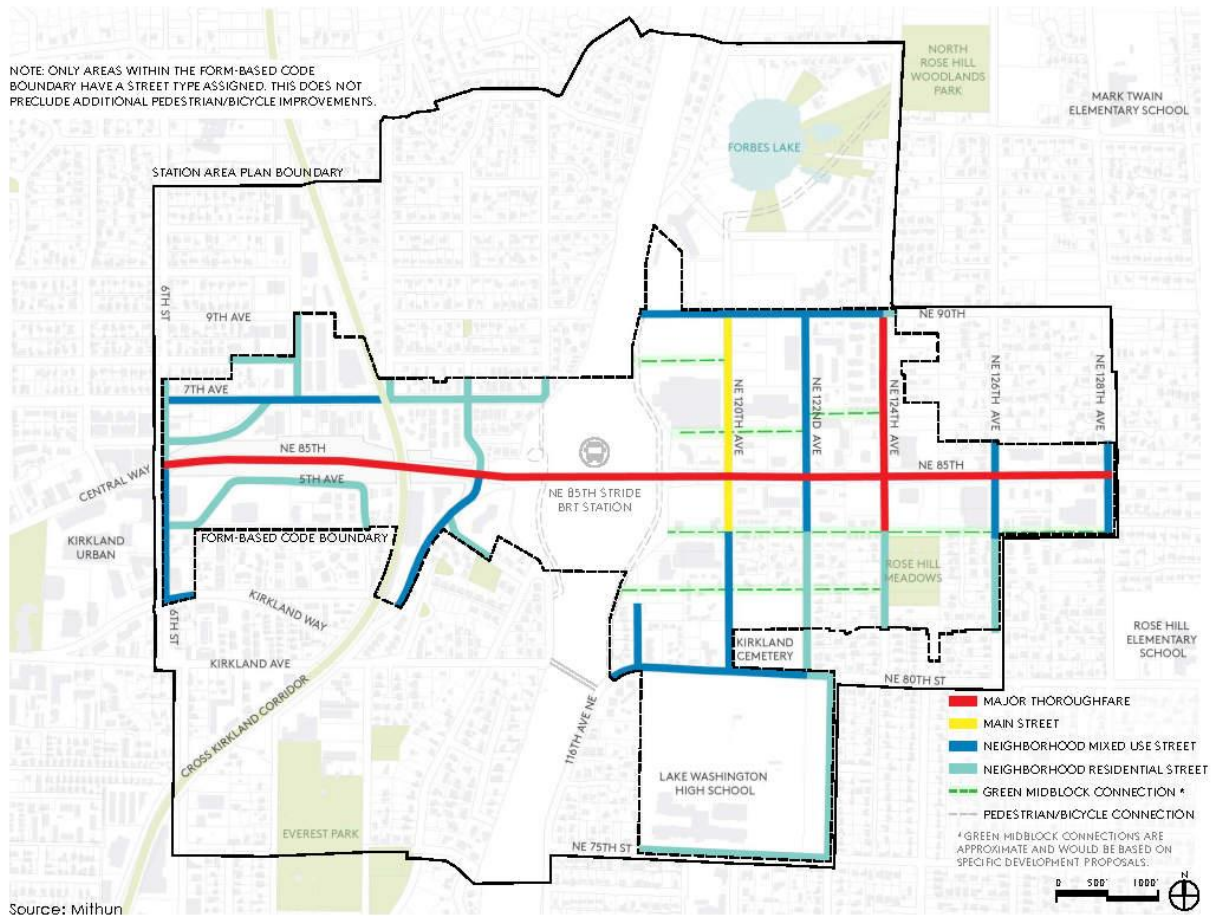
Growth: Alternative B Transit Connected Growth results in similar household growth numbers as DSEIS Alternative 2, but lower employment numbers, showing more of a jobs-housing balance. The Southwest Quadrant of the Study Area has lower growth numbers, closer to what was proposed for DSEIS Alternative 1.

In alignment with the Station Area Initial Concepts Growth Framework, Alternative B includes a few areas of greater height and capacity for change as compared to existing conditions, ranging up to 125-250 feet near I-405. These are focused around the BRT node and the Cross-Kirkland Corridor, including two areas in Rose Hill nearest to the future BRT station: the mid-rise office designation in the northeast quadrant and the high-intensity office designation in the southeast quadrant; and the height changes along the NE 85th Street corridor west and east of I-405. Throughout this report, these areas will be referred to as SE Commercial Area or Lee Johnson Site, NE Commercial Area or Costco Site, and Norkirk Area, respectively. References to the current ownership have been included to assist the reader in identifying the locations that were evaluated.

Mobility and Transportation elements would be similar to those identified for Alternatives 2 and 3.

- **Pedestrian and bicycle connections and street improvements.** Transportation analysis, presented in Section 3.6, describes analysis that was completed to support the narrowing of Alternatives and better understand how the mix and level of growth could be adjusted to reduce the impacts modeled in DSEIS Alternative 2.
- **Parking ratios** would also be reduced per Exhibit 2-10. This was found to be important in creating the potential for value capture and community benefits. See Appendix B.
- **Street Types** would be defined based on street function and relationship to the expected development typologies. See Exhibit 2-25 and Exhibit 2-26.

Exhibit 2-25. Street Types Map








Source: Mithun

Source: Mithun 2021.

Exhibit 2-26. Street Types Description

NOTE: STREET TYPES WILL BE PART OF THE FUTURE FORM-BASED CODE. THEY WILL ESTABLISH ALLOWED FRONTAGE TYPES ALONG EACH STREET SEGMENT, AND ALSO RECOMMEND THE FUTURE DESIGN CHARACTERISTICS OF THE PUBLIC RIGHT OF WAY. ELEMENTS SUCH AS FRONTAGES, TRANSITIONS, AND DEVELOPMENT REQUIREMENTS WILL BE ADDRESSED THROUGH OTHER ELEMENTS OF THE FUTURE FORM-BASED CODE.

Major Thoroughfare	Main Street	Neighborhood Mixed Use Street	Neighborhood Residential Street	Green Midblock Connection
				
Streets that connect regional centers or run through central commercial corridors. Many of these streets have significant traffic volumes at peak hours are key places for high-capacity transit routes and auto-separated bike facilities.	Primary corridors for ground-floor retail, often with generous public realm design. They are high pedestrian volume streets that balance that pedestrian activity with auto, bike, and transit needs.	Neighborhood streets with low to mid-intensity commercial and mid-rise residential and occasional ground floor retail. Generally lower vehicular traffic volume than major thoroughfares, and some may contain auto-separated bike facilities.	Residential-focused streets with low vehicular traffic volumes, which can accommodate shared bike facilities.	Generously landscaped mid-block connections within larger commercial or residential developments or between parcels. May include required on-site green stormwater infrastructure. Does not include public ROW improvements to "green" an existing street.
Typical ROW Width 80-120'	65-85'	45-75'	45-70'	30-50'
Functional Classes Principal Arterial	Minor Arterial, Collector	Collector, Local	Collector, Local	Local
Adjacent Land Uses High intensity commercial, residential, and active ground-level uses.	Mid-intensity commercial, residential, and ground-level retail uses.	Low to mid-intensity commercial, residential, and occasional active ground-level uses.	Predominantly low to medium intensity residential uses.	Low to high intensity commercial or residential uses, typically within larger developments. May have active ground-level uses, depending on site design.
Allowed Frontage Types Urban Street Edge, Retail & Active Uses, Plaza/Public Space	Retail & Active Uses, Plaza/Public Space	Urban Street Edge, Plaza/Public Space, Residential Stoop/Porch	Urban Street Edge, Plaza/Public Space, Residential Stoop/Porch, Private Yard	Urban Street Edge, Retail & Active Uses, Plaza/Public Space,
Travel Priorities Ped*, Bike*, Transit, Freight, Auto	Ped, Bike, Transit, Auto	Ped, Bike, Auto	Ped, Bike, Auto	Ped, Bike, Auto**
*Separated facilities				**Local access, loading only

Source: Mithun 2021.

- **Community Benefits, Linkage Fees, and Density Bonuses:** The Fiscal Impacts and Community Benefits evaluation in Appendix B identified some potential implementation strategies to achieve affordable housing, parks, and other infrastructure investments. These elements would be part of the Subarea Plan and Form-Based Code or subsequent implementation strategies. The Fiscal Impacts and Community Benefits evaluation found some land use types more feasible than others that could allow for value capture and incentives to achieve community benefits; these more feasible developments include mid-rise residential development without ground floor commercial, and non-residential development at different scales including office developments within the upper height ranges included in Alternative B. A density bonus program could link added development sizes/scales to the provision of parks (pocket parks, plazas, roof decks, other), schools (childcare or educational space), mobility improvements (transportation demand management efforts), and sustainability components (green infrastructure, solar arrays, other).

2.5.4 Growth Comparisons

The City plans for growth in its Comprehensive Plan consistent with GMA. Currently, the City plans for a 2035 horizon and takes its fair share of growth based on growth target set in the Countywide Planning Policies. Regarding housing, the City reported that in 2013, Kirkland had 36,866 housing units, capacity for an additional 13,664 to 23,817 new units, and a 2035 Growth Target of 8,361 units. In 2013, the City had about 37,981 jobs, and capacity for 22,984 to 57,155 new jobs above a growth target of 22,435 new jobs. (Table LU-3) Totem Lake Urban Center has the greatest share of growth capacity.

King County designated Greater Downtown Kirkland as an Urban Center in the King County Countywide Planning Policies in 2019, which includes portions of the study area for the Station Area Plan. The City has proposed it as a Regional Growth Center with the Puget Sound Regional Council.

In 2021, the growth capacity citywide was estimated as 13,352 households and 18,139 jobs. (King County, 2021) New draft 2019-2044 growth targets are 13,200 households and 26,490 jobs. (King County GMPC, 2021)

Exhibit 2-27 compares housing and jobs across alternatives in the Station Area Study Area boundaries. Based on proposed land use, the DSEIS Alternatives set a bookend of growth:

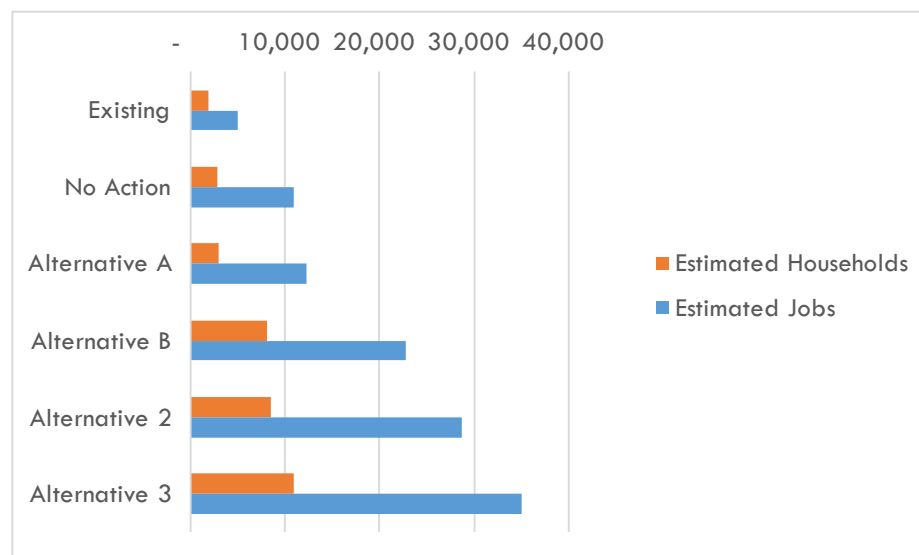
- Alternative 1 allows for the least housing and job growth of each alternative. It contributes to the adopted Comprehensive Plan capacity and would contain about 2,782 households and 10,859 jobs, slightly higher than the 2019 estimates of 1,909 households and 4,988 jobs.
- Alternative 2 allows for growth well above Alternative 1 but less than Alternative 3. Alternative 2 would provide for 6,600 new households, and 23,700 new jobs. For the year 2044, the anticipated total growth levels would be up to 8,509 households and 28,688 jobs.
- Alternative 3 allows for the most housing and job growth. Alternative 3 would add capacity for 9,000 new housing units and 30,000 jobs, a substantial addition to the city's capacity. For the year 2044, the anticipated total growth levels would be up to 10,909 households and 34,988 jobs.

The FSEIS Action Alternatives are in the range of the DSEIS Alternatives:

- Alternative A is similar to and slightly higher than the housing and job growth of Alternative 1 including 2,929 households and 12,317 jobs.
- Alternative B is similar to Alternative 2 and slightly smaller. It provides a total of 8,152 households (net change of 6,243) and a total of 22,751 jobs (net change of 17,763).

Action Alternatives would create capacity for the City to advance its Comprehensive Plan beyond the current 2035 planning horizon, looking ahead to the next 2044 planning horizon, and associated regional growth projections, especially Alternatives B, 2, and 3. See Exhibit 2-27 and Exhibit 2-28.

Exhibit 2-27. Alternative Total Housing and Job Comparisons 2044



Sources: Mithun, 2020; BERK, 2021.

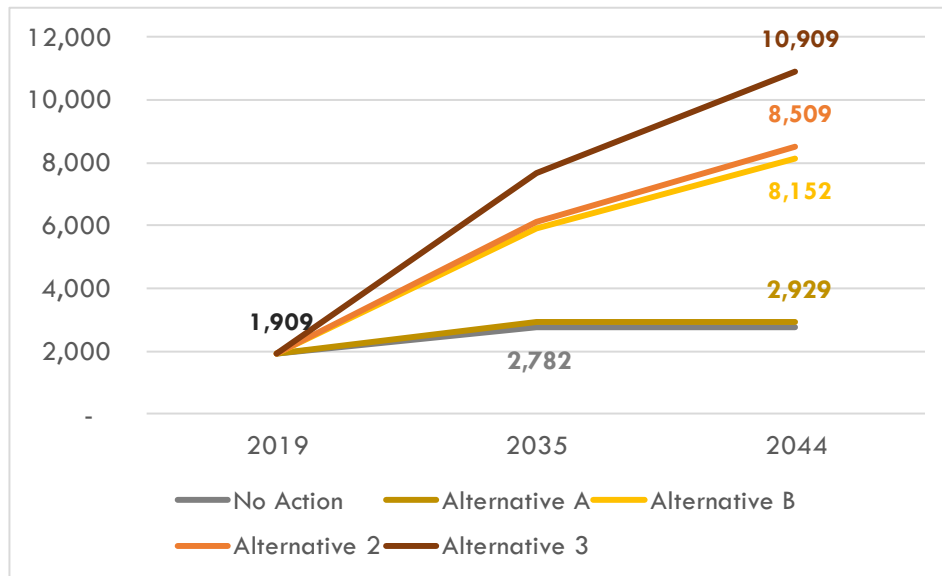
Exhibit 2-28. Employment and Household Totals by Alternative

	DSEIS No Action	FSEIS Alternative A	FSEIS Alternative B	DSEIS Alternative 2	DSEIS Alternative 3
Households	2,782	2,929	8,152	8,509	10,909
Employment	10,859	12,317	22,751	28,688	34,988

Sources: Mithun, 2021; ECONorthwest, 2021; BERK, 2021.

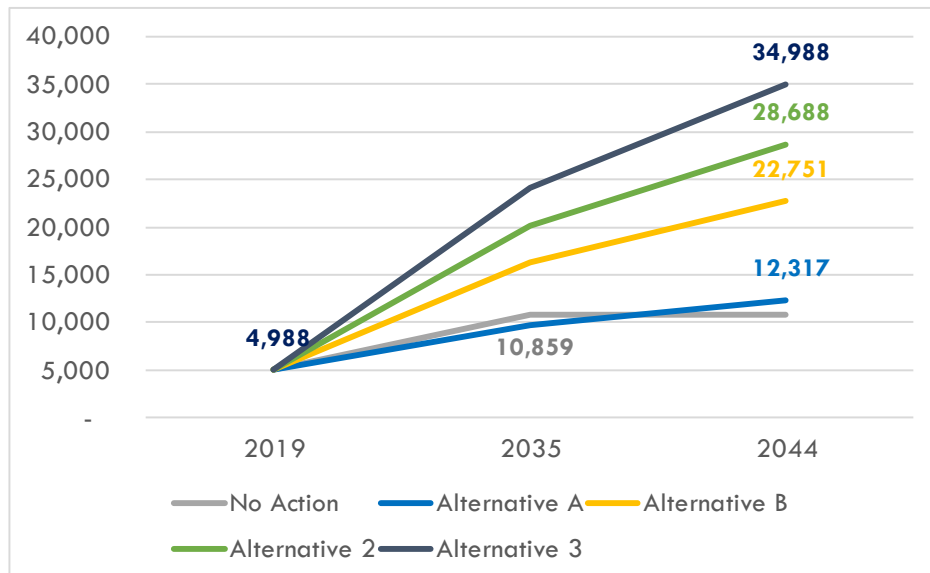
A comparison of the growth curves for housing and jobs are shown below in Exhibit 2-29 and Exhibit 2-30, respectively.

Exhibit 2-29. Total Households 2019-2044



Sources: Mithun, 2021; BERK, 2021.

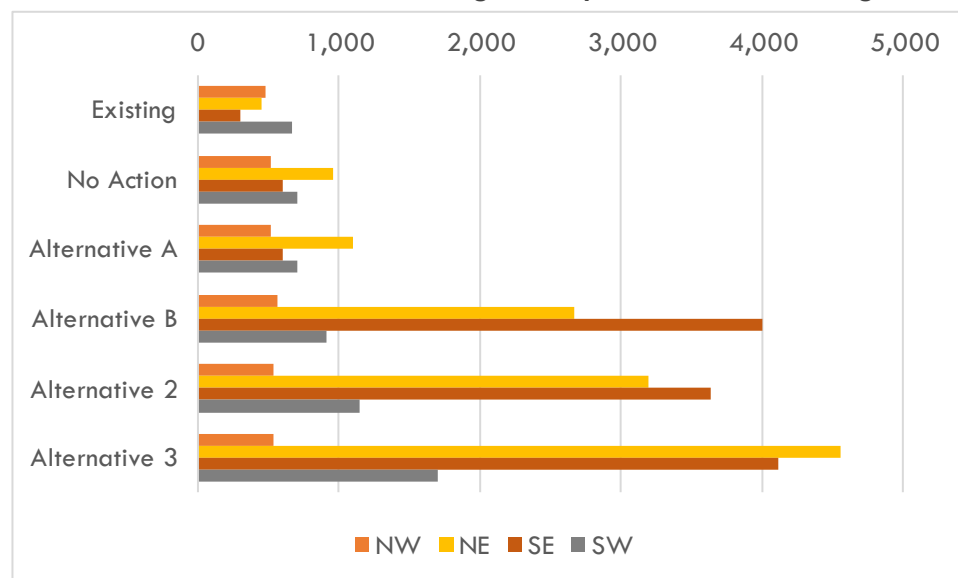
Exhibit 2-30. Total Jobs 2019-2044



Sources: Mithun, 2021; BERK, 2021.

DSEIS Alternatives 2 and 3, and FSEIS Alternative B, allow growth to different levels but would place more growth in the northeast and southeast quadrants of the station area compared to the northwest and southwest quadrants. All alternatives plan for less growth in the northwest quadrant of the Study Area. See Exhibit 2-31 and Exhibit 2-32 for allowed housing totals by location around the interchange.

Exhibit 2-31. Alternative Total Housing 2044 by Location surrounding I-405 Interchange



Sources: Mithun, 2020; BERK, 2020.

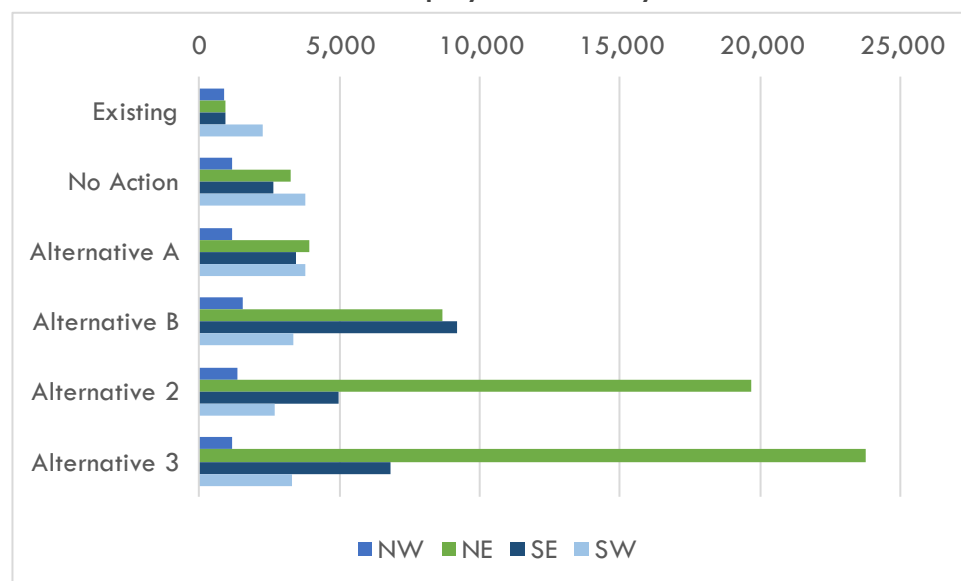
Exhibit 2-32. Total Housing by Alternative 2044: Detail

Location	Existing	No Action	Alternative A	Alternative B	Alternative 2	Alternative 3
NW	484	515	515	568	533	537
NE	453	957	1,104	2,670	3,196	4,559
SE	305	600	600	3,998	3,636	4,112
SW	667	710	710	916	1,144	1,701
Total	1,909	2,782	2,929	8,152	8,509	10,909

Sources: Mithun, 2020; BERK, 2021.

Similarly, allowed employment levels by Action Alternative show most growth in the NE and SE quadrants of the Study Area and relatively less in the NE and NW. In all alternatives, the least growth is planned in the NW. See Exhibit 2-33 and Exhibit 2-34.

Exhibit 2-33. Alternative Total Employment 2044 by Location



Sources: Mithun, 2020; BERK, 2020.

Exhibit 2-34. Total Employment 2044 by Alternative: Detail

Location	Existing	No Action	Alternative A	Alternative B	Alternative 2	Alternative 3
NW	898	1,164	1,164	1,561	1,358	1,145
NE	906	3,252	3,918	8,660	19,698	23,761
SE	913	2,657	3,449	9,174	4,969	6,794
SW	2,270	3,787	3,787	3,356	2,663	3,288
Total	4,988	10,859	12,317	22,751	28,688	34,988

Sources: Mithun, 2020; BERK, 2020.

Alternative 3 has the most total jobs with an emphasis on the NE quadrant. Alternatives B and 2 have mid-range jobs with Alternative B emphasizing a balance between the NE and SE quadrants and Alternative 2 having more emphasis on the NE quadrant.

2.5.5 Key Elements by Alternative

Key elements described by alternative above are compared in Exhibit 2-35.

Exhibit 2-35. Comparison of Alternatives Key Elements

Alternatives	Summary	Development	Mobility	Environmental Strategies	Relationship to Equity & Inclusive District
	<i>SEIS Topics Studied</i>	<i>Land Use, Aesthetics, Public Services, Greenhouse Gases, Open Space, Housing, Economic Activity</i>	<i>Transportation, Greenhouse Gases</i>	<i>Surface & Stormwater, Utilities, Greenhouse Gases, Open Space</i>	<i>Public Services, Greenhouse Gases, Open Space, Housing, Economic Activity, Transportation</i>
No Action Alternative 1 <i>Reflects principles of comprehensive plan, recent trends and current zoning</i>	This alternative would reflect existing zoning and current city plans. It would include limited residential development throughout the district, and in Rose Hill it would include substantial retail employment and modest office development up to 6 stories. Mobility changes would be limited, and environmental strategies would primarily consist of minor streetscape improvements as part of existing design guidelines.	Rose Hill: Primarily retail development with limited office/residential above Moss Bay/Norkirk/Everest/Highlands: No change Other: Infill per zoning	Transit: WSDOT/ST I-405 and NE 85th St Interchange and Inline BRT project Bike/Ped: Minor streetscape improvements associated with development frontages and planned projects Parking: Current requirements for new development	Minimize development near Forbes Lake Stormwater improvements included as part of the WSDOT I-405 Interchange project	Unlikely to produce substantial affordable housing Likely to maintain current transit, walking, and biking Unlikely to improve health equity factors such as access to open space, healthy food, and air quality Likely preserves existing retail jobs ; includes substantial retail employment Unlikely to support additional education opportunities Unlikely to create new opportunities for community benefits through development linkages Unlikely to reduce the district's carbon footprint
Alternative A Current Trends <i>Reflects principles of comprehensive plan, recent trends of last six years and current zoning</i>	Similar to No Action Alternative 1 described above. Current Trends maintains existing zoning heights throughout the district and slightly adjusts the assumed 2044 growth projections to reflect current market trends, showing more jobs, and only slightly more housing. The growth targets were adjusted upward from DSEIS Alternative 1 No Action because growth in the past six years has outpaced the assumptions in the 2015 Comprehensive Plan.	Rose Hill: In Alternative A Current Trends, additional jobs were studied in portions of the Study Area currently zoned for development up to 67' in height in zones RH-1A, RH-2A, and RH-2B. Moss Bay/Norkirk/Everest/Highlands: No change Other: Areas within the district currently zoned for single family or other low density residential area would maintain their current zoning.	Similar to No Action Alternative. More analysis is provided in Chapter 3 regarding transportation mitigation for this alternative.	Similar to No Action Alternative. More analysis is provided in Chapter 3 regarding stormwater mitigation for this alternative.	Similar to Alternative 1.
Alternative B Transit Connected Growth <i>Reflects principles of comprehensive plan, with some rezoning and additional growth blending elements of Alternatives 2 and 3</i>	This alternative would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. It would allow for further intensified development close to the station offering jobs and housing in buildings up to 20 stories (150-250 feet) in height, transitioning to mid-rise and low rise development further from the station.	Rose Hill: Mid-rise NE quadrant and high-rise SE quadrant. Moss Bay/Norkirk/Everest/Highlands: Smaller scale residential/office/industrial infill Other: Infill per zoning, Neighborhood scale pocket parks, onsite open space, and linear parks or pea patches see mitigation in Section 3.7	Similar to Alternatives 2 and 3. More analysis is provided in Chapter 3 regarding transportation mitigation for this alternative.	Similar to Alternatives 2 and 3. More analysis is provided in Chapter 3 regarding stormwater mitigation for this alternative.	Similar to Alternatives 2 and 3.
Action Alternative 2 <i>Reflects principles of comprehensive plan, with some rezoning and additional growth</i>	This alternative would allow for moderate growth throughout the district, primarily focused on existing commercial areas such as Rose Hill. This growth would allow for a range of mid-rise mixed use residential and office buildings up to 10 stories (150 feet) with limited infill in established neighborhoods. Mobility and environmental strategies would focus on enhancing existing plans, including additional bike lanes, sidewalks, and minor green infrastructure investments.	Rose Hill: Mid-rise office/residential mixed use (up to 10 stories) Moss Bay/Norkirk/Everest/Highlands: Smaller scale residential/office/industrial infill Other: Infill per zoning, Neighborhood scale pocket parks, onsite open space, and linear parks or pea patches see mitigation in Section 3.7	Transit: WSDOT/ST I-405 and NE 85th St Interchange and Inline BRT project Bike/Ped: Incremental green streets midblock connections policy in Rose Hill, Enhanced bike/ped improvements (bike lane/new sidewalks) on 120th Ave NE and other key streets Parking: Reduced parking requirements; see TDM discussion in Section 3.6 for other	Minimize development near Forbes Lake Stormwater improvements included as part of the WSDOT I-405 Interchange project Minor on-site stormwater and tree canopy increase Streetscape-based stormwater improvements along 120th Ave NE	Possibly would produce some affordable housing and increase housing diversity Likely to encourage transit, walking, and biking Possible to improve health equity factors such as access to open space, healthy food, and air quality Likely to create new employment opportunities across office, retail, and other sectors. Possibly would support additional education opportunities

Alternatives	Summary	Development	Mobility	Environmental Strategies	Relationship to Equity & Inclusive District
			mitigation	Moderate / incremental green building standards	Possibly would create new opportunities for community benefits through development linkages Likely to somewhat lower the district's carbon footprint
Action Alternative 3 <i>Reflects principles of comprehensive plan, with substantial rezoning and additional growth</i>	This alternative would allow for the most growth throughout the district. This growth would include mixed use residential and office buildings up to 20 stories (300 feet) in select commercial areas, substantial smaller scale infill in established neighborhoods, and limited changes to residential areas such as Highlands and South Rose Hill. Mobility strategies would involve substantial investments in multimodal strategies to accommodate growth through transit, biking, and walking, as well as a district parking structure for businesses/residents/ customers (not commuters). Environmental strategies would be coordinated at the district scale to maximize environmental performance through green infrastructure and a signature “blue street” for addressing stormwater.	Rose Hill: Towers (up to 20 stories) with mid-rise office/residential mixed use Moss Bay/Norkirk/Everest/Highlands: Mid-rise office residential mixed use, Flex office/industrial in Norkirk Other: Infill per zoning, and added residential infill in northeast extent, including low rise attached housing (townhouses, small apartments), Significant investment in open space and community gathering spaces, e.g. parks, onsite open space, and linear parks or pea patches see mitigation in Section 3.7.	Transit: WSDOT/ST I-405 and NE 85th St Interchange and Inline BRT project Bike/Ped: Required green streets midblock connections policy in Rose Hill, Substantial bike/ped improvements (cycle track network, retail supportive streetscape) on 120th Ave NE and other key streets Parking: District parking facility reduce parking requirements; see TDM discussion in Section 3.6 for other mitigation.	Minimize development near Forbes Lake Stormwater improvements included as part of the WSDOT I-405 Interchange project Major on-site tree canopy increase through green street midblock connections in Rose Hill Street reconstruction for 120th Ave NE to reduce on-site demands for stormwater improvements District sustainability strategies such as districtwide green building standards	Likely to produce significant affordable housing and increase housing diversity Likely to encourage transit, walking, and biking Likely to improve health equity factors such as access to open space, food, and air quality Likely to create new employment opportunities across office, retail, and other sectors. Likely to support additional education opportunities Likely to create new opportunities for community benefits through development linkages Likely to significantly lower the district's carbon footprint

2.6 Benefits and Disadvantages of Delaying the Proposed Action

Delay of the proposed action would continue present trends of low-rise commercial and residential development with substantial area dedicated to surface parking and auto infrastructure, and incremental mixed use and infill development. While the Stride BRT station will be built under any of the studied alternatives including No Action, mixed use growth would not realize a transit-oriented development pattern to the same degree if there were a delay of the SAP, Form-Based Code, and Planned Action and associated development. Residential development trends would continue producing homes that tend to be unaffordable to workforce households and would not support Kirkland's equity goals or project objectives. There would likely not be as many new opportunities for jobs in proximity to transit and housing, and thus regional commute times and resulting greenhouse gas emissions per capita would likely be higher under No Action than under the Action Alternatives. Delay of the proposal would reduce overall jobs and housing growth and related potential for additional traffic trips and utility and service demands, but would preclude achievement of land use efficiencies associated with more compact development (such as reduced vehicle miles traveled per capita, improved commutes, reduced regional traffic). The City's fiscal evaluation in Appendix B indicates that operating expenses (e.g., staff requirements) could be met with projected revenues under either FSEIS Alternative A or B; however, while there is a capital investment need under either Alternative A or B there is a decrease in the capital revenue deficit with Alternative B.

The disadvantages of delaying the proposed action include a lack of economic development, tax base increase, and housing variety, contrary to City long-range plans and project objectives. There would also be a less compact, mixed use development pattern that would provide less support for reducing single occupancy vehicles trips and increased transit ridership. Delaying the proposed action and associated redevelopment would also delay the improvement of stormwater quality and associated natural systems, and delay the addition of non-motorized improvements designed to connect the surrounding community to transit.

Concurrency and other requirements would remain in place to ensure proposed services and infrastructure fit the City's levels of service. Thus, growth may be phased until the investment in transit is made, and the urban form becomes more compact and provides the range of amenities proposed under the Action Alternatives.