Wilburton Commercial Area

Wilburton-Grand Connection Planning Initiative

Citizen Advisory Committee Briefing Book

December 2016






Table of Contents

Council Principles.....3

Public Engagement Plan.....5

Land Use and Urban Design Consultant Scope of Work.....13

Transportation and Environmental Consultant Scope of Work.....19

The Grand Connection.....29

Existing Conditions.....43

Introduction.....43
Study Area.....44
Population Characteristics.....48
History.....51
The Natural Environment.....53
Parks and Open Space.....57
Transportation.....59
Utilities.....67
Zoning and Permitted Uses.....71
Oblique Images.....130

Potential Future Developments.....137

Adopted and Existing Plans.....155

Reference Materials.....171

116th Avenue NE Streetscape Plan.....A
Eastside Rail Corridor Master Plan.....B
ULI National Advisory Panel Report.....C
NE 6th Street Extension Plan.....D
Tourism Survey Summary.....E

Council Principles

Council Principles

Adopted December 7, 2016

Impetus for change in the Wilburton Commercial Area has been generated by tremendous growth around the study area, and a number of completed and proposed infrastructure improvements within the study area. Downtown and BelRed continue to grow as significant employment and residential centers of the city, and Wilburton's context between the two growth centers positions the area as Bellevue's next emerging neighborhood. Several infrastructure improvements are anticipated to redefine the access and connectivity of the study area. These improvements include Sound Transit's East Link light rail extension, the Eastside Rail Corridor, and as a companion effort to the Wilburton planning initiative, the Grand Connection. These connections will greatly increase non-motorized and high capacity transit access. The purpose of this planning initiative is to set forth a new vision that capitalizes on these improvements.

The project scope will include the following topics:

- Amenity incentive system
- Building height and form
- Design guidelines
- Environmental sustainability
- Interface with the Eastside Rail Corridor
- Interface with the Grand Connection
- Interface with light rail
- Land uses and zoning
- Parking
- Permitted uses
- Station area planning and transit oriented development
- Streetscape improvements
- Trail oriented development
- Urban design and character

The following Council Principles are intended to provide consistent direction over the course of this project:

1. Grand Vision: *Ensure that the vision for the Wilburton project area is extraordinary and fully capitalizes on the special opportunities created by the area's outstanding location and access.*

2. Special Niche: *Create alternatives and explore innovations that will provide Wilburton an economic niche that complements and adds to the vitality of Bellevue and the Eastside.*

3. Grand Connection: *Ensure that the vision for the Grand Connection encompasses the entire corridor from the Meydenbauer Bay waterfront to the Eastside Rail Corridor, and that it positions the corridor to serve as both a memorable and transformative public space as well as a means of non-motorized transportation.*

4. Neighborhood Identity: *Develop placemaking and urban design strategies that create a strong and unique neighborhood for Wilburton.*

5. Emerging Opportunities: *Address changes and opportunities that have emerged since the last major update of the land use plan for Wilburton.*

6. Integrated Station Area Planning: *Integrate station area planning for the Wilburton/ Hospital light rail station with the balance of the Wilburton Plan, while utilizing this station as an opportunity to establish connectivity between the two areas bisected by NE 8th Street.*

1. **Community Benefit:** *Create community benefit and value for the surrounding neighborhoods of Downtown, BelRed, and the greater subarea of Wilburton. Benefit and value should be derived from connectivity, access to services, and improved amenities that serve all residents and businesses.*

2. Affordable Housing Opportunities: *Consider opportunities for land use changes in the area to provide for affordable housing.*

3. Impact Mitigation: *Ensure sensitivity to potential adverse impacts of change on nearby residential neighborhoods, and provide for a graceful transition between new development and established neighborhoods.*

4. Economic Vitality: *Enhance economic vitality and advance the goals of the City's Economic Development action plan.*

5. Timing: *Explore means by which key elements of the vision can be in place by the 2023 initiation of light rail service. This include pedestrian connectivity across I-405 and NE 8th Street, as well as catalyst land use elements.*

6. Public Engagement: *Utilize effective public engagement strategies to involve diverse stakeholders in conversation about the project.*

Public Engagement Plan

Public Engagement Plan

Extensive public engagement with a broad spectrum of stakeholders will be essential to the project. Public engagement began in April of 2016 and will be ongoing into the first quarter of 2018. Feedback and public comment will be sought from residents of impacted areas such as Downtown and Wilburton Hill. Additionally, comment and feedback will be sought from property owners and management, corporations, workforce, business leaders, and civic institutions.

Objectives for Public Engagement

- Seek ideas and perspectives on an on-going basis from the study area and surrounding communities that address the full range of topics of the planning initiative.
- Keep stakeholders informed on the current status of the planning initiative, how they can impact change, and help them discover and adapt to the future Wilburton Commercial Area environment.
- Establish on-going long term relationships with individual residents, organizations, and businesses with interest in the study area.
- Coordinate with organizations that have a continued interest in the Wilburton Commercial Area such as the Bellevue Chamber of Commerce, major businesses and institutions, Sound Transit, King County, Bellevue Downtown Association, and others.
- Ensure that information is well documented and distributed through a variety of means, including traditional outreach, interactive experiences, and technology based methods
- Incorporate new and innovative means of public engagement, including web based products, virtual reality, and data driven visualizations tools that appeal and reach a broad and diverse audience.

Citizen Advisory Committee

An advisory body comprised of the following members will assist in guiding this effort. The full Planning Commission will ultimately review and hold a hearing on the entire code amendment package prior to Council, for adoption. This approach is intended to instill a wide range of perspectives into the Wilburton Commercial Area planning process. Maintaining the proposed schedule will be essential in ensuring that the project timeline is satisfied.

- 1 member from the Planning Commission
- 1 member from the Transportation Commission
- 1 member from the Parks and Community Services Board
- 1 member from the Arts Commission
- 1 member from the Human Services Commission
- 1 member from the Bellevue Chamber of Commerce
- 1 member from the Bellevue Downtown Association
- 1 business representative
- 1 institution representative
- 6 residents

Stakeholder Groups

To accomplish the above objectives, public outreach will incorporate a multi-faceted approach to reach stakeholders. Outreach tactics will include interactive experiences, traditional media and web use, and creative use of new technology. The following groups are the primary targets for outreach.

Residents:
The planning initiative provides an opportunity for neighborhood outreach with residents within the study area, and those in impacted areas such as

the Wilburton Hill neighborhood and Downtown residents. As a Council priority, it is imperative that the study area adds value, character, and respects the surrounding neighborhoods.

Workforce:
The Medical District, within the study area, is a vital employment center for Bellevue. Additionally, technology companies play an important role in the Bellevue economy. To better understand the unique niche and complementary aspects that the study area can serve, interaction with these economic sectors, and others will be essential.

Property Owners:
The property owners within the study area will be essential to crafting a pragmatic, yet forward looking vision. Engagement will be provided through small groups, individual outreach, and a Property Owners Panel. The Property Owners Panel will be described later in this engagement plan.

Organized Business Community, Civic Organizations, and Non-Profits:
These stakeholders will be reached through interaction with organized groups such as the Bellevue Downtown Association, Bellevue Chamber of Commerce, and other institutions and non-profits. These organizations will play an essential role in addressing the needs of the business community, allowing the study area to play a complementary role to neighborhoods such as Downtown, and addressing challenges such as affordable housing, affordable commercial space, and others confronting the City and the business community.

Eastside Rail Corridor:
The Eastside Rail Corridor will serve as an important non-motorized spine for the study area. The Eastside Rail Corridor is represented by a myriad of stakeholder groups such as King County Parks, Eastside Greenway Alliance, and the Cascade Bicycle Club. These organizations will be essential in reaching a broader audience and shaping land use and urban design patterns along the Eastside Rail Corridor.

Property Owners Panel:
The scope and scale of the study area is dynamic. It includes a complex network of properties in both their scale and use with a number of differing influencing factors such as the Eastside Rail Corridor, new road improvements, the Grand Connection, and East Link light rail. To best represent this diverse group of stakeholders the Citizen Advisory Committee will be engaged in a series of workshops as part of the CAC process. The workshops will allow the CAC and the Property Owners Panel to share their visions and ideas, while providing a perspective of market and land use realities.

Outreach Strategies

Some or all of the identified outreach strategies listed below, will be implemented to achieve the objectives of the engagement plan.

Briefings:
The Wilburton planning team will provide a standard presentation, that will be regularly updated to take to important institutions, companies, and organizations such as Group Health, Overlake Hospital, REI, King County, Bellevue School District, Bellevue Downtown Association, Bellevue Chamber of Commerce, property owner groups, and other groups as they emerge and are defined. This will allow for regular updates and to reach an even broader group of stakeholders in an efficient and consistent manner.

Neighborhood Focused Meetings:
The Wilburton planning team will work with the City's outreach team to meet with residents and surrounding communities and neighborhoods. These events and interactions will be used to engage residents and for them to provide insight and feedback on how the Wilburton Commercial Area vision can create an asset and complementary community to their neighborhoods.

Focus Groups:
To help articulate values of the community, a variety of targeted focus groups will take place over the course of the project. Examples of stakeholder groups includes, residents, employment sectors, visitors, property owners, developers, institutions, and cultural arts groups. These focus groups will allow staff to understand the nuances of their interests and to better incorporate these specific topics as part of the planning efforts.

Online Open Houses and Surveys:
Understanding the limited capacity of physical meetings, the Wilburton planning team will utilize web based products and tools extensively to reach a larger audience. This will include vision and preference surveys, exhibition of work to date through online open houses that allow for feedback and input, and other innovative means to assist in the visualizing concepts to the public through electronic media.
City of Bellevue Wilburton Commercial Area Project Website and Grand Connection Project Website:
The City operates two websites focused on the project. These sites will be continually updated with project information and opportunities to be engaged and informed about events and web based tools. The City will also use Facebook, Twitter, NextDoor, and other social media outlets to provide forums for discussion and communication.

Media: News releases and stories to local media regarding the major project milestones will be released. Use of It's Your City and Neighborhood News, provided by the City of Bellevue, will accompany external media resources such as the Seattle Times, Bellevue Reporter, Puget Sound Business Journal, Business 425, and blogs of relative topics.

Flyers/Posters:
Public bulletin boards have been identified and postings for events will be done in other public venues where available.

Other:
Staff will pursue other innovative forms of engagement including virtual reality and tactical urbanism. Virtual reality will allow for visualization tools to reach a broad audience while illustrating the work in new and engaging manners. Tactical urbanism events will allow for small scale, inexpensive testing of long terms visions and ideas, prior to making implementation plans and strategies. As part of the visualization process the selected land use and urban design consultant will incorporate a design computation tool that allows users to input variables that influence height, density, and scale for real time visualization and analysis.







Images from Enliven Wilburton: A Tactical Urbanism Event on the Eastside Rail Corridor

CAC Members and Meeting Schedule

Jeremy Barksdale - *Bellevue Planning Commission (Co-Chair)*
Lei Wu - *Bellevue Transportation Commission (Co-Chair)*
Debra Kumar - *Bellevue Parks and Community Services Board*
Maria Lau Hui - *Bellevue Arts Commission*
James McEachran - *Human Services Commission*
Chris Johnson - *Bellevue Chamber of Commerce*
Matt Jack - *Bellevue Downtown Association*
Jonathan Duarte - *Institution Representative*
Alison Washburn - *Business Representative*
Sarah Chong - *Bellevue Resident*
Glen Griswold - *Resident from nearby neighborhood*
Jay Hamlin - *Resident from nearby neighborhood*
Andrew Pardoe - *Bellevue Resident*
Daniel Renn - *Resident from nearby neighborhood*
Don Weintraub - *Resident from nearby neighborhood*

Year	Month	Meeting Topic
2017	January	Introductions, Process, Goals, and Project Overview
2017	February	Project Context
2017	March	Existing Conditions and Opportunities
2017	April	Development of Preliminary Land Use and Urban Design Concepts *
2017	May	Transportation Conditions and Opportunities
2017	June	Public Workshops and Open Houses / Development of Transportation Strategies
2017	July	CAC and Property Owners Panel Workshop *
2017	August	No Meeting
2017	September	Preliminary Land Use and Transportation Scenarios
2017	October	Develop Preferred Land Use and Transportation Scenarios
2017	November	CAC and Property Owners Panel Workshop *
2017	December	Select Preferred Land Use and Transportation Scenario / CAC Property Owners Panel Workshop
2018	January	Select, Ratify Preferred Land Use and Transportation Alternative

* Property Owners Panel

Figure 2.1 - Anticipated CAC Meeting Schedule

Vision

Policy



Policy S-WI-31. Recognize the transportation and recreation uses under consideration for the BNSF rail corridor when considering public and private improvements adjacent to the corridor and preserve the opportunity for future multi-modal transportation use and access.

Discussion: The Port of Seattle has proposed acquiring the rail corridor from Burlington-Northern Sante Fe (BNSF) for future use as a regional pedestrian/bicycle trail and/or transportation/rail corridor. As development adjacent to the corridor occurs, the design and placement of streets, driveways, infrastructure, and buildings should take the potential future use of the rail corridor into account so as to avoid inherit conflicts.

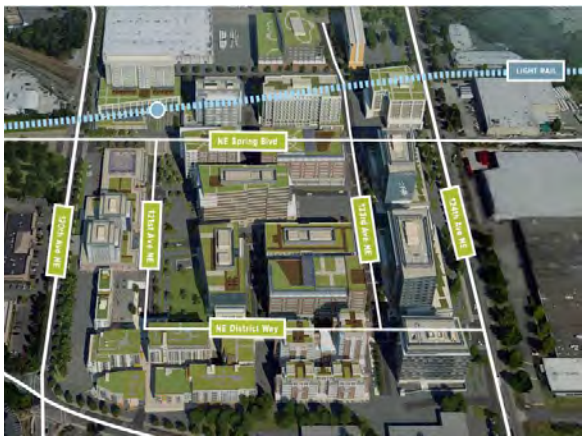
Citizen Advisory Committee Report

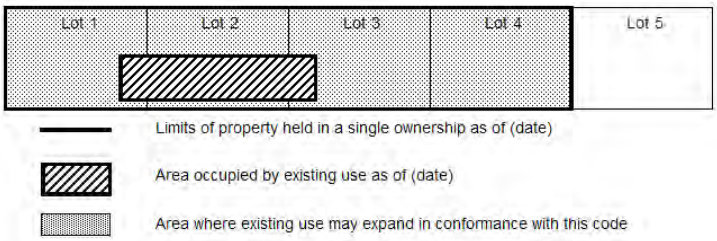
Comprehensive Plan Update

Process

Concept

Code





Land Use Code Amendments

LU/UD Scope of Work

Land Use and Urban Design Consultant Scope of Work

The information outlined below are the tasks and deliverables to be expected from the Land Use and Urban Design consultant.

Task 1: Economic Analysis

Phase I – To be completed prior to development of Land Use Alternatives

This phase will be consolidated into a single technical memo to include:

- A written narrative providing an overview and economic analysis of the existing and expected market demand for the study area in relationship to residential, retail, commercial, and hospitality uses in the context of Bellevue and the Puget Sound region. The analysis should build upon existing information provided by the City and the Urban Land Institute National Advisory Panel report.
- A written narrative and analysis providing an overview of the unique or niche market that the study area can satisfy in support of its role as a 'Special Opportunity Area' to the city and the region. The narrative should include the economic and development impact of the East Link light rail, the Eastside Rail Corridor, and the Grand Connection.

Phase II – To be completed with the development of Land Use Alternatives

- A written narrative providing an economic analysis of the challenges and constraints of key parcels (up to four) identified by the city as a result of the selected and preferred land use alternative and their redevelopment potential.
- A written narrative providing an economic analysis of the performance of the study area as a result of the selected and preferred land use alternative, compared to no change occurring in the study area, in the context of Bellevue and the Puget Sound region.
- A written narrative outlining feasible implementation strategies.

Consultant tasks and deliverables:

1. Consolidated memos at the end of each phase that will be incorporated into final plans and documentation.

Task 2: Staff Workshop and Strategy Sessions

The consultant will participate in an initial kick-off work session with city staff and up to four (4) internal workshops and strategy sessions. Depending on the nature of each session, additional members of the consultant team will also attend. Sessions are expected to address the following:

- No action/existing trends scenario;
- Land use components, district/sector/ node alternatives, potential transportation improvement options (transportation solutions developed by others);
- Eastside Rail Corridor built environment character;
- Interface with the Grand Connection and the study area;
- Identification of the 'Special Opportunity;'
- Development of preliminary preferred alternative;
- Development of a final preferred alternative;
- Preferred alternative implementation strategies.

Consultant tasks and deliverables:

1. Production of relevant preparation materials prior to workshops and sessions;

1. Attend and participate in the above workshops and strategy sessions, ranging in duration from 2 to 4 hours each;
2. At meetings, create illustrations and/or notes (not detailed minutes) as appropriate to record discussions and outcomes;
3. Consultant attendance will be required as directed by the Project Manager.

Products

1. Results from work session. The consultant will assist in compiling or translating graphic output into a summary form.

Task 3: CAC Support and Public Engagement

The consultant will participate in approximately 8 Citizen Advisory Committee (CAC) meetings, including workshops and strategy sessions with an anticipated length of 2 to 4 hours. Depending on the nature of the session other members of the consultant team may be required to attend. CAC meetings will coincide with major tasks and deliverables related to the project scope modules.

Consultant tasks and deliverables:

1. Prepare support materials and graphics appropriate for each CAC meeting;
2. Attend and participate in approximately 8 CAC meetings, ranging in duration from 2 to 4 hours each.
3. Coordinate with City staff prior to each CAC meeting to determine roles and approach to meeting discussions.
4. Follow up each meeting with coordination with City staff to clarify next steps.
5. Develop electronic tools to disseminate information to the larger pubic such as online open houses and online surveys.
6. Develop templates for project outreach materials, such as display boards, fact sheets and PowerPoint presentations.

Tentative consultant attendance at:
Up to 8 CAC meetings including:

- 1 Leadership Summit visioning exercise regarding land use scenarios and urban design concepts
- 3 CAC and Property Owners Panel workshop meetings
- 1 public open house/workshop meeting including the use of the design computation scenario modeler.
- 3 meetings on the development, selection, and refinement of the preferred land use alternative

Products

- Graphic materials to support CAC meetings. Note that most of these materials are included as part of Task 4 and Task 5, but there may be other incidental support materials as necessary, and defined by City staff.
- Online open houses (up to 3) including development of look, feel, functionality, and limited content.
- Online surveys (up to 3) and summaries of comments and feedback received.
- Templates for informational materials.
- Other online and engagement tools to be coordinated between the consultant team and the project manager.

Task 4: Land Use Alternatives

The consultant will prepare 3 alternative land use scenarios for the study area that achieve the project objectives, the established Council principles, and capture market-driven opportunities. The consultant shall produce graphics and narratives in support of this work.

Consultant tasks and deliverables:

1. Review project background materials available on the project website, particularly related to the ULI National Advisory Panel;
2. Attend kick-off meeting and study area tour with City staff to review and clarify project purpose, status, and goals;
3. Gain a general understanding of land use and zoning patterns in the study area, and of opportunities for, or barriers to, achieving desirable development;
4. Work with City staff and the CAC to explore opportunities for different geographic 'sectors' or nodes within the study area and develop land use alternatives;
5. Identify the unique market niche or other applicable uses, features, and development opportunities that satisfy the study area's role as a 'special opportunity;'
6. Work with City staff and the CAC to create three preliminary study area-wide land use alternative scenarios and coordinate with transportation and economic consultants to refine the analysis;
7. Prepare graphic illustrations and narrative summaries supporting the preliminary alternatives and summarize project constraints, challenges and implications.

Products

- Concept studies that demonstrate challenges and opportunities for each alternative.
- Alternatives that consider opportunities for sectors, nodes, or districts.
- Illustrations noted in (f).
- Analysis and precedent examples of the unique opportunity the study area can serve.

Task 5: Urban Design Concepts

Develop a design vocabulary for concept-level urban design solutions in the study area. The vocabulary should consider the many unique opportunities in the study area such as the Eastside Rail Corridor, the Grand Connection, Wilburton Trestle, and its opportunity as a Transit Oriented Development. Urban design concepts should address the following:

- Creating a sense of place;
- Means by which nodes or sectors can connect with the new transportation assets being incorporated into the study area;
- Means by which the street character of the study area can be improved for non-motorized transportation and connectivity;
- Establishing design guidance for trail-oriented development;
- Improvement and development of urban amenities that assist in creating an identity and distinguishable character for the study area;
- Identify locations and opportunities for open space, parks, and other urban amenities, particularly how they integrate, build upon, and connect with assets such as the Eastside Rail Corridor, the Grand Connection, and Wilburton Hill Park;
- Creating opportunities to incorporate the Eastside Rail Corridor and Grand Connection as part of the urban fabric, influencing urban design character and establishing permeability and access throughout the entire study area.

Consultant tasks and deliverables:

1. As appropriate, meet with Sound Transit and Eastside Rail Corridor officials to identify design constraints and opportunities related to planned and proposed projects and develop a design vocabulary for proposed development, public spaces, and other improvements;
2. Prepare graphic support materials to illustrate design concepts including schematic plans and sections of key elements and areas;
3. Working with City staff, develop a high level framework plan for future work as design guidelines for the study area leveraging the characteristics of the East Link light rail, Eastside Rail Corridor, Grand Connection and the defined 'Special Opportunity' of the study area;
4. Develop and illustrate targeted or significant areas (to be identified by staff and the consultant) to apply urban design concepts.

Products

- Preliminary urban design concepts for staff review.
- Illustrations of targeted areas, following the selection of a preferred land use alternative.

Task 6: Production of a Preferred Alternative

Based on the evaluation of alternatives and public input, a preferred alternative will be developed. The preferred development patterns will be refined and illustrated. In addition to land use and urban amenities, the preferred alternative will include the transportation improvements (developed by others) needed to accommodate the vision, and strategies to minimize impact to surrounding areas.

Consultant tasks and deliverables:

1. Work with City staff and the CAC to develop a preliminary preferred land use and urban design scenario for the study area. As appropriate, work with economics consultant to identify actions necessary to make the desired outcomes realistically feasible. As appropriate work with the transportation consultant to address multi-modal circulation issues and integrate solutions into the alternative;
2. Prepare graphic illustrations and narrative summaries supporting and describing the preliminary preferred alternative and its design, redevelopment and transportation implications;
3. Incorporate transportation improvements and solutions (developed by others) into the final graphic and narrative documentation for the final preferred alternative;
4. Refine the preliminary preferred alternative into a final preferred land use and urban design alternative/recommendation.

Products

- Preliminary preferred land use and urban design scenario with illustrations.
- Refined land use and urban design recommendation.

Task 7: Final Plans and Documentation

Prepare illustrations, electronic models, reports and other medium depictions of the final proposed solutions for presentation to the public, the City, and its elected officials.

Consultant tasks and deliverables:

1. Discuss report contents and format with staff, and if appropriate with the CAC. Prepare for review by City staff, a draft final report

containing illustrations and supporting text that:

a.Describes and conveys the final preferred/recommended land use and urban design alternative and the concepts embodied therein;

b.Incorporates related transportation improvements and solutions (developed by others);

c. Describes the planning context, including project background, planning principles, and planning process;

d. Identifies implementation strategies;

e. Provides a foundation for design guidelines as well as land use code amendments.

2. Refine the report into final form, responding to City staff review comments on the draft final report.
3. Submit electronic, print-ready, copy of the final report to staff
4. Submit electronic records of all materials prepared by the consultant in fulfillment of the contract.

Products

- Draft and final reports as outlined above.

Task 8: Coordination and Communication

Consultant and City staff will confer via phone, email, and meetings as necessary to ensure effective project coordination and communication.

Consultant tasks and deliverables:

1. Phone conversations, email communication, meetings with City staff as appropriate.

Transportation/EIS Scope of Work

Transportation and Environmental Consultant Scope of Work

The information outlined below are the tasks and deliverables to be expected from the Transportation and Environmental consultant.

Task 1: Project Management and Planning

Establish a detailed guide for the consultant's management of the transportation and environmental analysis of the project.

Consultant tasks and deliverables:

1. A project management plan that will establish the consultant's team, communications, decision- making, schedule, and budget. Progress reports will accompany all invoices (agreed upon in advance between the consultant and the City) identifying task completion status, issues remaining to be addressed, budget, and schedule status.
2. A project budget that identifies key staff by task and role and their hours and cost by task for progress monitoring. With City approval, task budgets may be adjusted within the fixed overall budget in response to changing project needs.
3. A project schedule that details milestones, meetings, and critical path decision points for each major task.
4. Attend a kick off meeting and site tour with City staff, as well as additional regular project meetings as agreed upon by the consultant and City.

Products:

- Project management plan
- Technical memo outlining project budget and schedule
- Kick-off meeting attendance

Task 2: Review of Existing Transportation and Environmental Analyses

Establish an understanding of the existing and planned local and regional transportation context and prior environmental review within the study area. City will provide to Consultant all data in City's possession relating to Consultant's services on the project. Consultant will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by City.

Consultant tasks and deliverables:

1. Identify relevant case studies with similar context and transportation infrastructure. Look for opportunities to incorporate case study related information in the comparative evaluation of alternatives.

Products:

- Prepare a technical report with relevant case studies with comparable variables including graphics as appropriate.

Task 3: Performance Measures

Prepare and achieve agreement on the evaluation tools that will be used to compare, contrast, and describe the relative performance of the alternatives, including no action, regarding transportation and environmental performance. Consultant will use MMLOS metrics consistent with standards.

Consultant tasks and deliverables:

1. Anticipate preparation of benefit/cost analysis for finalist alternatives to be analyzed in the EIS, subject to advance review and approval of the methodology and assumptions.
2. Analyze the transportation system performance for a 2 hour PM peak period consistent with

the City's concurrency methodology except for transit performance which will be based on the AM peak period ridership. Consultant will analyze up to 7 measures using the City's MMLOS performance measures and standards. One or more metrics/performance measures shall be applied to the following modes of transportation; pedestrian (1), bicycle (1), transit (2), automobile (3).

3. Analyze the environmental consequences related to potential changes in traffic volume, congestion and delay on residential streets, parking overflow into residential neighborhoods, buildings and acreage displaced by land use type, business and residential units displaced, acreage of partial displacements/ encroachments, likely view obstructions or impacts on air, noise, water quality, wetlands, plants and animals, hazardous material, public services, and utilities.
4. Work with the land use and urban design consultant to identify a method to compare opportunities among alternatives for providing environmental sustainability within the project area.
5. Ensure analysis and performance measures are consistent with all affected jurisdictions and transportation providers potentially impacted by the outcome of the study and implementation of a preferred alternative.
6. Achieve financial feasibility with project cost estimates, ongoing operating and maintenance costs, and revenue/funding opportunities.

Products:

- Prepared a draft and final spreadsheet tool for cost-benefit analysis and cost estimates. City to provide relevant cost assumptions from other infrastructure projects. City will provide consolidated comments on the tool, and Consultant will prepare revisions to the draft to create a final tool.
- Produce a draft and final technical report outlining the above mentioned performance measures. City will provide consolidated comments, and Consultant will prepare revisions to the draft to create a final technical report.

Task 4: Scoping

Obtain public and agency input to define the scope of the environmental review.

Consultant tasks and deliverables:

1. Prepare display materials for scoping meeting(s) as requested by the City to convey the purpose and need for the project, proposed scope of analysis, and possible alternatives to be considered.
2. Attend public and agency scoping meetings.
3. Document scoping process results in a final report.

Products:

- Graphic boards, number to be coordinated by City and the consultant.
- Draft determination of significance and scoping notice to be prepared by the Consultant; City to finalize and distribute
- Scoping meeting attendance.
- Draft and final report documenting the scoping process and input/comments provided results. City will provide consolidated comments, and Consultant will prepare revisions to the draft to create a final scoping report

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Task 5: Urban Design Support

Provide support to the Land Use and Urban Design Consultant for developing street character and urban design framework for multi-modal transportation options.

Consultant tasks and deliverables:

1. Identify desire lines and gaps in connectivity for pedestrians and bicyclists.
2. Provide strategic input on refinements to the structure of the street network, including the potential of new privately-owned roadways, to maintain adequate circulation for all modes.
3. Identify opportunities to establish site to site non-motorized connections and permeability to the Eastside Rail Corridor.
4. Provide strategic input on design of area roadways with a focus on improving the non-motorized experience while advancing and improving City standards. Considerations will include on-street parking, number of travel and turn lanes, and appropriateness of pedestrian and bicycle facilities.
5. Provide input on street character design and scale.
6. Provide support to the Land Use and Urban Design Consultant (executed under a separate contract) to establish an aesthetic and character that is supportive of the identified urban design character and use of the study area.

Products:

- Graphic boards and images, number to be coordinated by the City and consultant
- Draft and Final Technical memo with supporting graphics outlining strategic locations for street character design and improvement and opportunities for new and enhanced connectivity for pedestrians and bicyclists and other modes of connectivity. City will provide consolidated comments, and Consultant will prepare revisions to the draft to create a final technical report.

Task 6: Alternative - Baseline Alternative

Document assumed future conditions in the study area if no action is pursued in regards to land use or transportation. Establish a baseline BKR model for long range horizon of 2035 for comparison of land use/transportation alternatives.

Consultant tasks and deliverables:

1. Recommend needed changes, if any, to the BKR base model platform, considering all existing conditions, future light rail implementation, and other relevant considerations. Following review and approval, code the transportation network assumptions to represent the multi-modal transportation conditions of the No Action Alternative including assumed transportation projects.
2. Code the current land use conditions to be assumed as the No Action Alternative.
3. Load the travel demand on the No Action Alternative transportation network using the four-step procedure of trip generation, distribution, mode choice, and assignment.
4. Post-process BKR model volumes using UFOS-Net consistent with the City's established practice.
5. Use EMME/2 and UFOS-Net to forecast link and intersection volumes, ridership, LOS, system VMT, VHT, and other transportation system performance measures as defined in Task 3.
6. Using the existing calibration year model (MP0) provided by the City, document the comparison

of the existing conditions with the No Action Alternative for a horizon of 2035.

Products:

- Prepare a draft and final technical report documenting the assumed No Action Alternative transportation network and services, land use assumptions by geographic area, and transportation system performance to demonstrate change from existing to the No Action Alternative for baseline measurement purposes. City will provide consolidated comments, and Consultant will prepare revisions to the draft to create a final technical report.

Task 7: Land Use/Transportation Alternatives

Develop distinctly different integrated land use/ transportation scenarios (no more than 3) for the study area with the expectation that any of the possible land use scenarios developed by the independent consultant could become for the foundation for the study area plan.

Consultant tasks and deliverables:

1. The different scenarios will be prepared representing varying combinations of land use development and multi-modal transportation facilities and services for the Wilburton Commercial Area. The transportation consultant will lead the preparation of the transportation system elements to be integrated with the land use assumptions developed by a separate consultant. This task will require collaboration with City staff, the Steering Committee, the Transportation commission, the land use and urban design consultant, and other relevant consultants. In creating the alternatives, the team will consider: the creation of a denser street and pedestrian network, accommodating pass-through trips, improving regional accessibility; the impacts of the Grand Connection and the Eastside Rail Corridor, including opportunities to establish trail- oriented development, and transit-oriented development. This will include analysis of the three alternatives generated for the Grand Connection I-405 crossing.
2. Detail the assumed transportation system changes from the No Action Alternative and for each of the alternatives, including changes to the street network, non-motorized elements (pedestrian and bicycle infrastructure), and the forthcoming light rail line. Code the assumed networks and service assumptions in the BKR model.
3. Prepare a qualitative analysis of each alternative to identify how it contributes to a high quality urban neighborhood before proceeding with the further detailed analysis.
4. Load the forecast travel demand on the planned transportation network for each of the alternatives using the four-step procedure of trip generation, distribution, mode choice, and assignment. Identify deficiencies in terms of safety, delay, level of service and other possible outcomes that could negatively affect the transportation network or potential land use alternative.
5. Post process BKR model trip volumes using UFOS-Net consistent with the City's established practice and prepare analysis per measures identified in Task 3.

Products:

- Prepare a draft and final technical report documenting each of the alternatives and an analysis of their strengths and weaknesses relative to desired outcomes. City will provide

consolidated comments, and Consultant will prepare revisions to the draft to create a final technical report. This report will be adapted as well to become the Alternatives chapter of the Draft EIS.

Task 8: Alternatives Evaluation

Compare and contrast the Baseline Alternative and the other integrated land use/transportation alternative scenarios in order to clearly identify the differences as a guide to public policy decision making.

Consultant tasks and deliverables:

1. Prepare conceptual engineering of transportation improvements as the base for technical analysis, feasibility analysis, cost estimating and documentation.
2. Prepare both a quantitative and qualitative analysis of the alternatives, applying the performance measures developed in Task 3.
3. Employ the consultant's web-based application MainStreet to provide supporting evidence for trip generation.
4. Summarize the analysis results in graphic, tabular, and other formats for ease of communication and inclusion in the Draft EIS.
5. Lead the preparation of transportation system information to be included in visual simulations for the combined land use/transportation alternatives by the land use and urban design consultant team.
6. Prepare planning-level cost estimates for transportation elements of the three action scenarios, including relative costs for and ongoing operations and maintenance.

Products:

- Prepare a draft and final technical report documenting the evaluation of each alternative. City will provide consolidated comments, and Consultant will prepare revisions to the draft to create a final technical report. This report may be consolidated with the scoping report depending on the needs of the project.

Task 9: Prepare Draft EIS

Satisfy the needs of public and agency review, decision-making support and SEPA regulations for a non-project EIS per WAC 197-11. The consultant will analyze and describe the affected environment, alternatives under consideration, comparative impacts by alternative, potential mitigation measures, and significant unavoidable adverse impacts for each element as follows and as identified in Attachment 5.

Consultant tasks and deliverables:

1. Land Use and Economic Activity – Land uses and patterns, employment, and economic activities and trends; direct (displacements) and indirect (redevelopment) impacts, consistency with plans and local tax bases.
2. Neighborhoods and Populations – Neighborhoods, populations and their characteristics, including assessment and documentation of affected adjacent neighborhoods and populations.
3. Aesthetics – Visual and aesthetic assessment considering both visual resources and viewer response to the visual environment.
4. Transportation – Summarized from Task 7.
5. Air Quality – Emission burden and CO micro-scale analyses as needed to demonstrate conformity.
6. Noise – Monitor ambient conditions as needed,

assess major land use changes, model exterior transportation related impacts relative to the FHWA criteria, and identify locations needing mitigation.

7. Ecosystems – Vegetation and wildlife habitat, threatened and endangered species, aquatic resources and wetlands.
8. Water Resources – For major drainage areas and surface water bodies: land uses, hydrology, flooding, and water quality conditions.
9. Energy – Energy types, sources, and rates of consumption.
10. Geology and Soils – Topography and geology, soils and groundwater hazards.
11. Environmental Health – Hazardous materials and electromagnetic fields.
12. Public Services and Utilities – Fire and emergency medical services, law enforcement, schools and bus transportation, solid waste collection, utility pipes/conduits/cables and related infrastructure.
13. General sections: fact sheet, summary, and distribution list (based on City SEPA mailing list and stakeholder list)

Products:

- Template for the Draft EIS prepared by Consultant and authorized by the City for authors' use.
- Preliminary Draft EIS for staff review
- Print Check to confirm changes
- Public Draft EIS – consultant to prepare camera ready and web-ready document; City to print and distribute
- Preliminary Notice of Availability prepared by consultant; City to prepare and distribute public notice.

Task 10: Select the Preferred Alternative

Select a preferred land use/transportation scenario that is most consistent with community objectives to be carried forward into the Final EIS and subsequent plan adoption/implementation actions. Assume that the Preferred Alternative may be a hybrid of the action alternatives.

Consultant tasks and deliverables:

1. Assist with efforts to obtain and assess stakeholder input and integrate the feedback and information gained in the evaluation, screening and selection of alternatives.
2. Work with staff to provide a consultant's recommended preferred alternative and a supportive rationale for its selection.
3. Update and summarize analysis results for the selected alternative in graphic, tabular and other formats for ease of communication. Additional transportation modeling of the preferred alternative should be assumed. The product will be included in the project final reports.
4. Prepare operational simulations for the Baseline and Preferred Alternative to visually demonstrate traffic operating conditions.

Products:

- Final EIS Chapter2 Description of the Preferred Alternative.

Task 11: Prepare Final EIS

Respond to staff and public comments on the Draft EIS, prepare additional analyses to include the preferred (hybrid) alternative, and complete the environmental documentation to finalize the environmental process.

Consultant tasks and deliverables:
Work cooperatively with the City and consultant team to determine the Final EIS content:

1. Identify responsibility of consultant and City for responding to comments and other needs. The City will compile and organize comments received for evaluation by the City and consultant consistent with identified responsibilities.
2. Assist with preparation of Frequently Asked Questions and responses.
3. Assist with response to comments from Draft EIS. Assume up to 50 separate letters/comment forms with up to 200 different substantive comments. Assume two rounds of review by the City and consultant team, and that the City provides a single consolidated mark-up document to the consultant.
4. Prepare Preliminary Final EIS
5. Prepare Final EIS

Products:

- Responses to FAQs and Draft EIS comments
- Preliminary Final EIS
- Final EIS consultant to prepare camera ready and web-ready document; City to print and distribute
- Preliminary Notice of Availability prepared by consultant; City to prepare and distribute public notice

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Task 12: Refinement of Preferred Alternative

Refine the Preferred Alternative to establish the basis for subsequent public policy changes and investments in transportation infrastructure and services.

Consultant tasks and deliverables:

1. Prepare a financial strategy that estimates revenue availability for transportation related elements based on known resources.
2. Recommend project priorities, phasing, and project descriptions as a guide to programming and funding the transportation elements of the Preferred Alternative.
3. Recommend transportation policy changes necessary to achieve the Preferred Alternative and/or to contribute to the objectives and principles of the planning effort.

Products:

- Prepare a technical report outlining the above information.

Task 13: Draft and Final Study Area Reports

Provide reports to summarize the analysis, findings, and results of the project and recommendations to achieve the preferred future vision. Final report shall include a compilation of prior technical memos, a summary of the preferred transportation strategy, recommended policies and implementation strategies, and urban design recommendations.

Consultant tasks and deliverables:

1. Prepare a Draft Final Report to integrate, document and summarize the reports from Tasks 1-11.
2. Prepare a Final Report incorporating revisions requested from reviews of the draft.

Products:

- Draft Final Report for staff review and comment. City will provide consolidated comments.
- Final Report

Task 14: Community and Stakeholder Outreach

Involve affected and interested businesses and residents in developing a long range land use vision and identify supportive strategies to improve mobility, mitigate impacts, and gain public support.

Consultant tasks and deliverables:

1. On request by the City, assist with organizing, facilitating, and participating in public forums, hearings, open houses, workshops, and other public meetings, including selected meetings of the Steering Committee, Planning and Transportation Commissions, and Bellevue City Council. Advise on and assist with development of agendas, formats, posting web-based project materials, presentation materials and publicity, facilitating meetings and summarizing public discussions.
2. Prepare graphic materials to summarize work products for public display, publication, and review and comment.
3. Technical experts of the team must be available for ongoing discussions and supplementary analyses on key aspects of the project.

Products:

- Assume preparation for and participation in 1 meeting per month after standard business hours for the life of the contract.
- Assume City will lead all public involvement efforts and will distribute all communication and other public documents.

The Grand Connection

The Grand Connection

The Grand Connection serves as a companion planning element to the Wilburton Commercial Area analysis. Review and selection of the Grand Connection will not be part of the Citizen Advisory Committee scope, but its influence on the land use, urban design, and transportation of the Wilburton Commercial Area will be substantial. The Committee will be asked to consider its role in shaping each of these variables, as well as how changes in the study area could influence the programming and use of the connection across I-405.

A Unique Urban Experience

The Grand Connection is a vision of a non-motorized route that begins at Meydenbauer Bay and extends through Downtown, terminating in the Wilburton neighborhood. The eastern terminus will interface with the Eastside Rail Corridor. In addition to providing a unique pedestrian and cycling experience, the Grand Connection presents an opportunity to stitch together important neighborhoods and uses in Downtown.

Beginning at Meydenbauer Bay, the route extends through Old Bellevue and the Downtown Park connecting to Bellevue Way and traveling north to NE 6th Street. The route moves east along NE 6th Street and the Pedestrian Corridor connecting with the Transit Center and the Civic Center District. This portion of the route would work with existing infrastructure and existing pedestrian and bicycle plans.

From the Civic Center District there is no existing infrastructure that connects with the Wilburton Commercial Area. As part of the Grand Connection the vision is to connect the Civic Center District to Wilburton, interfacing with the Eastside Rail Corridor,

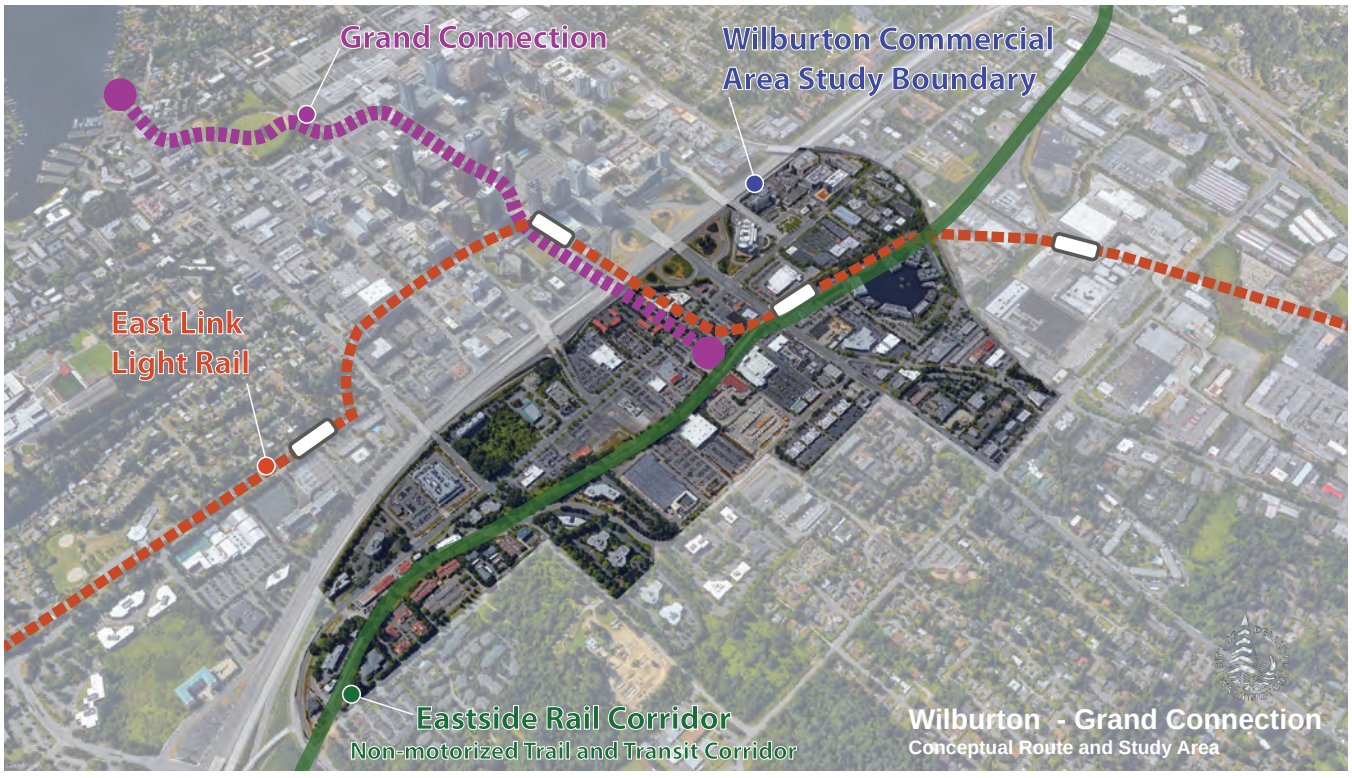


Figure 5.1 - Grand Connection and Wilburton Commercial Area Context

with a significant landmark piece of infrastructure. The goal is to create a connection as much as it is a place, programmed with elements that encourage tourism and social interaction and engagement.

The visioning process is currently in process and is anticipated to be completed in the Spring of 2017. The scope of the Wilburton Commercial Area and its relationship to the Grand Connection is limited to its interface with the Eastside Rail Corridor and any proposed land use and transportation improvements.

Visioning Process to Date

The visioning consultant was asked to consider the work in two phases. The first examined the portion of the route from Meydenbauer Bay to the Transit Center, consisting of mainly existing infrastructure through Downtown. This work included defining the route, establishing an identity, cohesive design strategies, improved connectivity, and improved public spaces. The second phase of the work consider the crossing of Interstate 405, its interface with future potential land uses, and its interface with the Eastside Rail Corridor. The prevailing identities and strategies established in the first phase of work would carry over into the second phase, and inform the overall design and programming of the segment crossing I-405 and connecting to the Eastside Rail Corridor.

To date, the consultant has substantially completed the first phase of work, providing a menu of options and alternatives to apply to the route, and is approximately 30% complete in developing the three alternatives to cross I-405.

Public Engagement

Engagement has been conducted through various means to obtain the input and feedback of residents, visitors, businesses, and stakeholders. This engagement has been key to developing alternatives and represents some of the common themes and ideas that respondents feel are most important to the route.

Bellevue Arts Museum Design Charrette

In April of 2016 the City and Bellevue Arts Museum hosted a Grand Connection Visioning design charrette. The three day event engaged over 70 architects, artists, engineers, and planners to generate ideas and concepts around the project. The charrette visions ultimately provided the first graphic and visualization tools for the project.

Along with the charrette, stakeholder and public open houses were held to allow participants to experience the charrette and provide input on the visions created. Results of the charrette were documented in an 160 page book available on the project website.

Website

In an effort to establish a strong identity for the project, staff established an independent website (www.bellevuegrandconnection.com) to serve as a resource. The website has been key in hosting online open houses, polls, and an efficient means for those interested in the project to pose questions and provide feedback and input. The website also hosts the visions developed through the co hosted Bellevue Arts Museum charrette.

Public Engagement Map

As part of the charrette open house, the consultant and city provided a 14’ x 6’ map of the conceptual route for participants to leave comments. The comments were categorized as “needs,” “favorites,” and “dangers” to highlight things the public wanted to see on the route, existing elements that they

enjoyed, and locations that posed a threat or danger to pedestrians and cyclists. The map was installed for the charrette open house at Bellevue Arts Museum, and later installed in the Bellevue City Hall concourse. An online version using Geographic Information Software was launched online. In total over 300 comments were received.

Interviews

To capture the opinions and input of those using key segments of the route, the public engagement consultant conducted short interviews with users. The Downtown Park, Compass Plaza, and Bellevue Transit Center were identified as key locations on the route. The public engagement consultant employed a series of questions that sought to obtain input on what the users liked about the space, how it could be improved physically and through programming, and what would encourage them to use the space during alternative times and seasons. In total over 100 interviews were conducted.

The Route

The consultant provided a long term and short term alternatives for the route, as well as alternatives to manage pedestrian, bicyclist, and alternative transportation modes. The short term route, Figure 5.2, represents the primary route. The orange line represents pedestrian movement, while the blue represents bicyclists and alternative transportation options. A second, long term route option, includes Main Street serving as a secondary route, connecting the Wilburton Hill Neighborhood Park and the Botanical Garden.

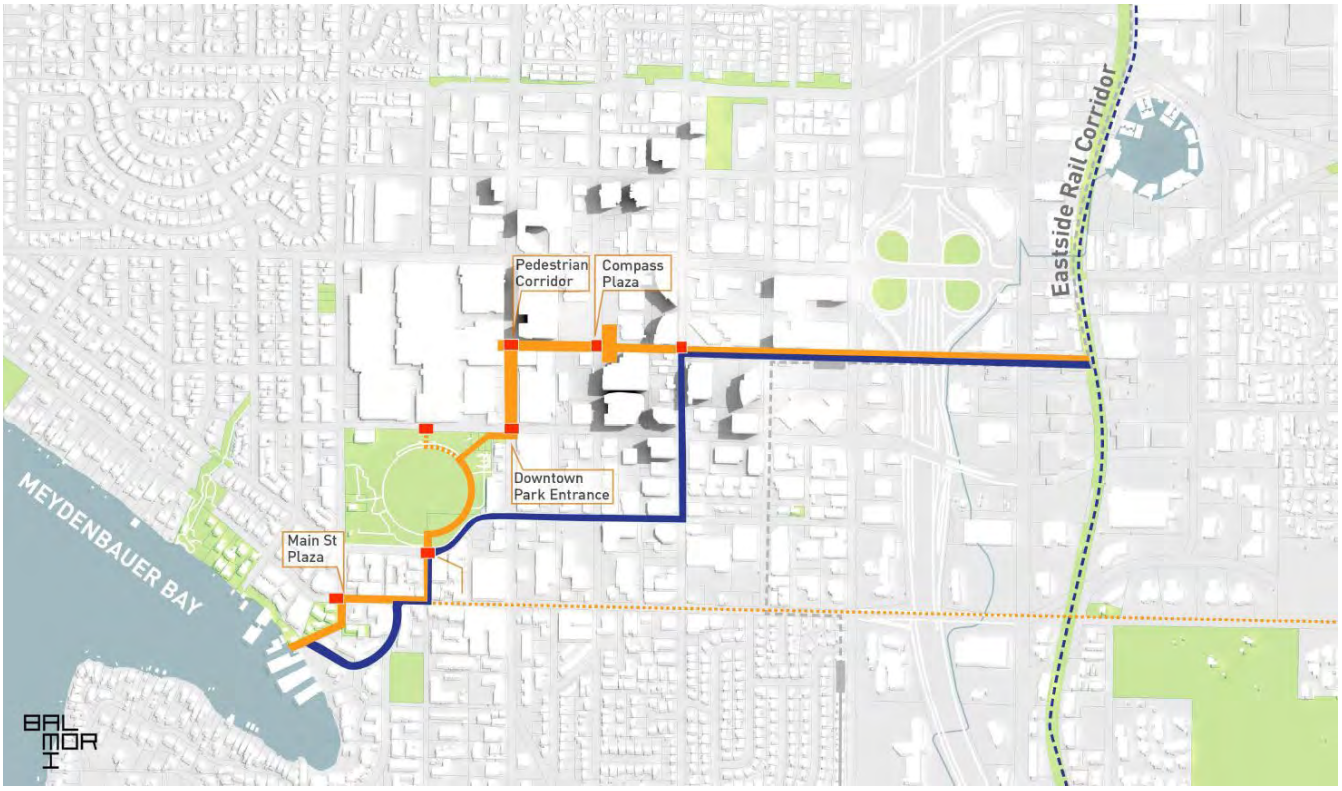


Figure 5.2 - Grand Connection Short Term Route

Overall Identity

The consultant has provided three alternatives to serve as the overall identity of the route. These alternatives are not to be singular, but rather representative of ideas and themes that can be applied in a contextually sensitive approach. These identities include enhancement and improvement of the natural landscape, a playful environment intended to activate and animate public spaces for users of all ages, and a communal landscape that creates public environments intended to bring people together and exhibit Bellevue's history. These identities would be exhibited through design, programming, and art installations.

Cohesive Design Strategies

To establish a cohesive aesthetic that supports the identity of the route, the consultant has identified a number of design strategies that would speak a similar aesthetic and support that cohesive vision. This includes weather protection that would improve opportunities to use the route in all seasons and weather conditions; paving strategies that would create direction and identity while incorporating landscape elements; and a landscape and planting plan that would improve the natural landscape characteristics of the route. Each strategy would be applied in a contextually sensitive way, establishing design and aesthetic continuity along the route.

Mobility and Connectivity Improvements

The consultant has identified a series of improvements that could be made that would increase the range and safety of pedestrians and cyclists, while also introducing a new alternative mode of transportation. These improvements include raised intersections that would increase the visibility and safety of pedestrians, while also making drivers more aware and improved signal timing along the route for pedestrians and cyclists to reduce wait times. Figures 5.3 and 5.4 demonstrate the improved range for a 10 minute walk (average speed of three miles per hour) for pedestrians by making these modest changes. For this analysis the consultant chose three starting points to determine range; Meydenbauer Bay Park, Bellevue Transit Center, and the Center of the Wilburton Commercial Area.

To assist in navigating the topographic challenges of Bellevue residents, while increasing range and connectivity for users of all ages, the consultant has proposed an alternative transportation solution. Group Rapid Transit vehicles (GRT's) are small autonomous vehicles that travel the same speed as bicycles (12 to 18 miles per hour) and carry four to eight passengers at a time. These compact vehicles can share the space with bike lanes, and greatly increase the 10 minute range of users, encompassing all of Downtown, the Wilburton Commercial Area, and portions of BelRed. Figure 5.6 shows the improved range with the Bellevue Transit Center as the selected starting point.

Public Space Improvements

Several key public spaces were identified for improvement that would achieve the goals of the project, including improved public forums for activities and programming, opportunities for art, social engagement, and improved aesthetics, and reinforcing the identities and cohesive design strategies outlined earlier.

Downtown Park

The visioning process has looked upon the Downtown Park as an opportunity to connect this exceptional green space to the Downtown and



Figure 5.3 - Existing Pedestrian Range - 10 Minute Walk

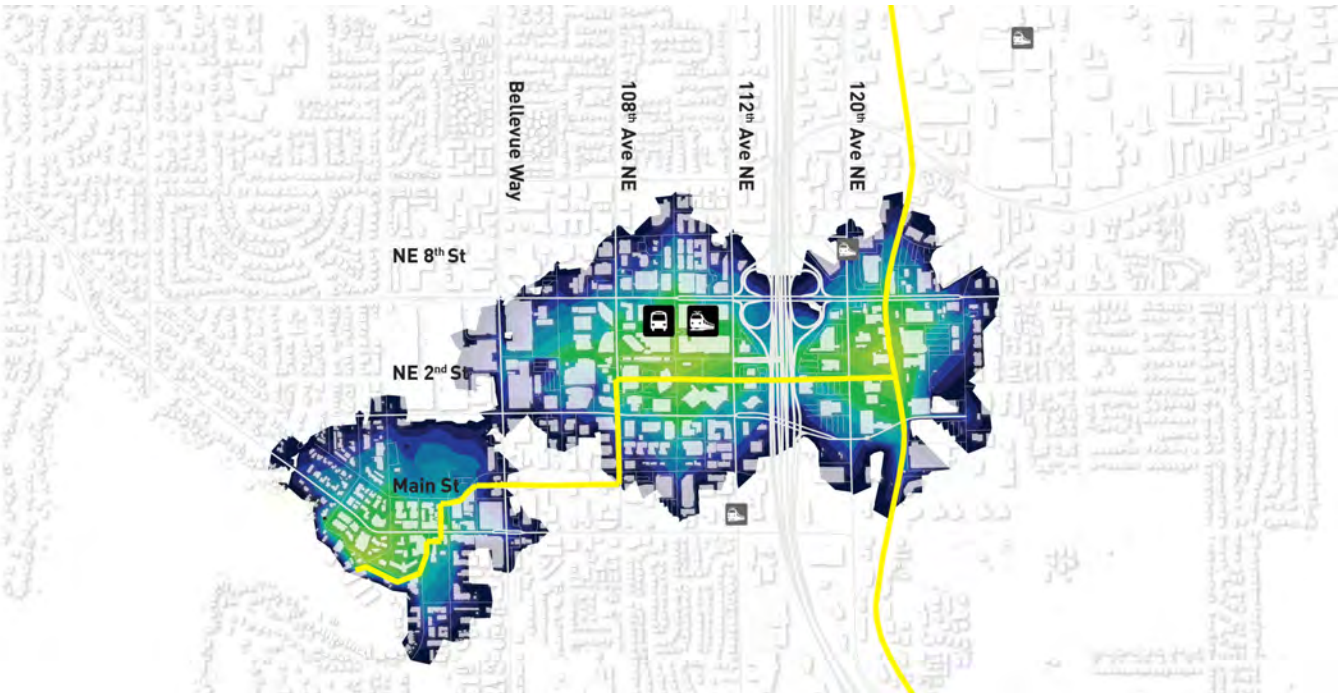


Figure 5.4 - Potential Pedestrian Range - 10 Minute Walk

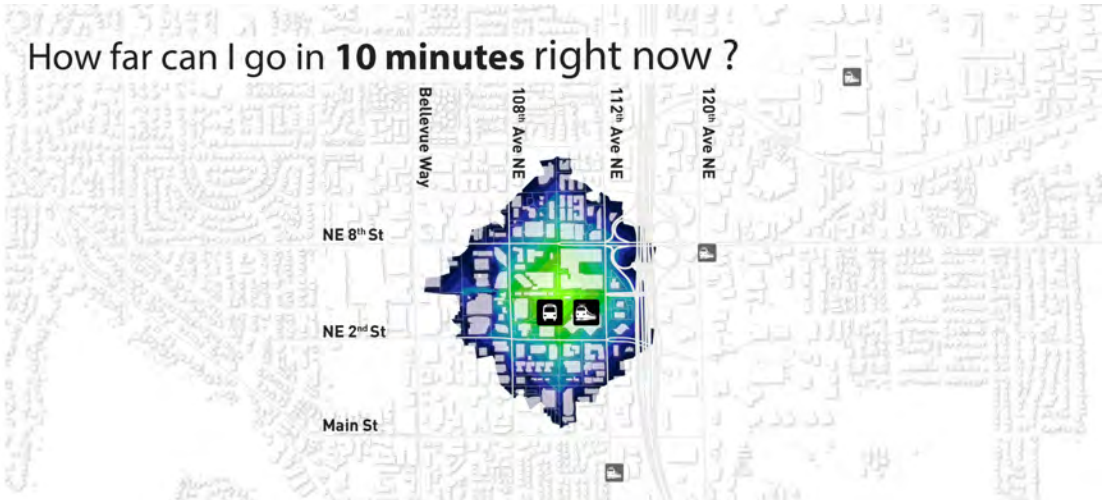


Figure 5.5 - Existing Pedestrian Range - 10 Minute Walk from Bellevue Transit Center

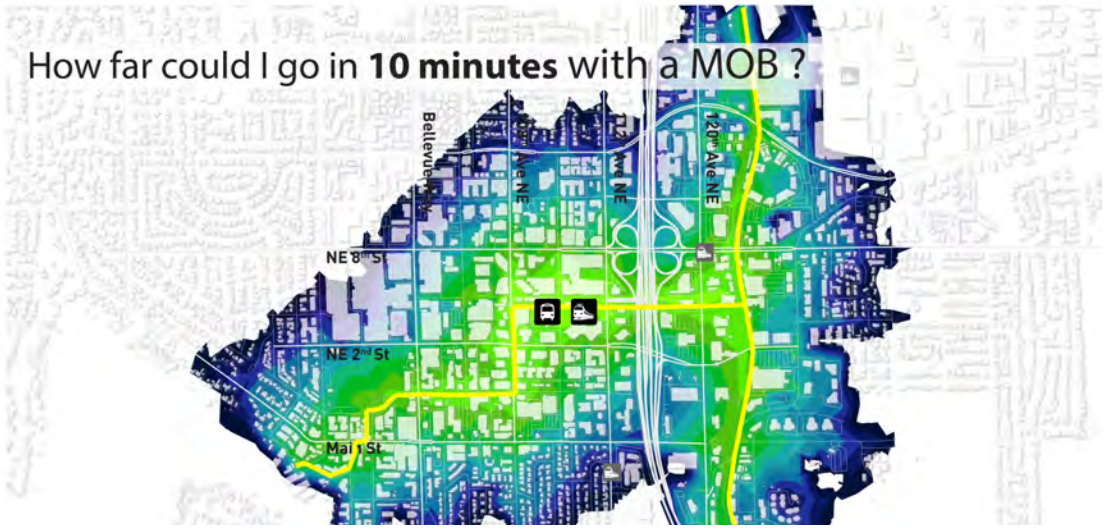


Figure 5.6 - Potential Range Using Group Rapid Transit - 10 Minute Range from Bellevue Transit Center



Figure 5.7 - Potential Group Rapid Transit Sharing Bike Lane Space

enhance its overall experience and access. Three key locations were considered for potential physical improvements; the west parking lot on 100th Avenue NE, the north entrance mid block between Bellevue Way and 100th Avenue NE, and the northeast corner at Bellevue Way and NE 4th Street.

The primary focus for improvement was at the northeast corner of the park at Bellevue Way and NE 4th Street. Oriented towards Downtown, and at a prominent intersection, the corner of the park is lacking an identifiable entrance for such an important location. The consultant has recommended creating a gateway of vegetation, with a modest corner plaza and water feature that would provide visual connectivity between Downtown and the Park, while providing it with a prominent entry.

The consultant also looked at creating more fluid movement into the park mid-block between Bellevue Way and 100th Avenue NE. This includes removal of the existing wall and diverging paths, and creating a more open entry that combines ramp and stair into a single route. The plaza would also be reconfigured to have more interactive and engaging elements.

Along the west parking lot the proposal seeks to mitigate the impact of the automobile on the experience of the park. This includes a berm like structure that would conceal the first row of parking as a natural element, creating opportunities for seating, an amphitheater or other programmed elevated space.



Figure 5.8 - Potential Downtown Park Entrance and Gateway

Compass Plaza

Compass Plaza is located at the geographic center of downtown and represents an opportunity to be a key public space in Bellevue. Its current configuration was identified as being too fragmented, with multiple paths of travel to accommodate users of all abilities and the grade changes that occur. As such, these disjointed spaces are sized poorly for adequate programming and a fluid public space. The consultant recommended to simplify this space by creating a combined stair and ramp for a single path of travel for all users. This results in a large public space that can be programmed and expanded as developments around the plaza come online in the future. This large programmable space responds to the frequent requests for a farmer's market, festivals, fairs, and performance art that was provided during public engagement.

With a larger raised intersection that is the full length of the future plaza, the closing of 106th Avenue NE for special events will turn Compass Plaza into a grand public space. Other programming and improvement alternatives considered included a technology pavilion, a regional showcase of vegetation and playscapes for all ages.

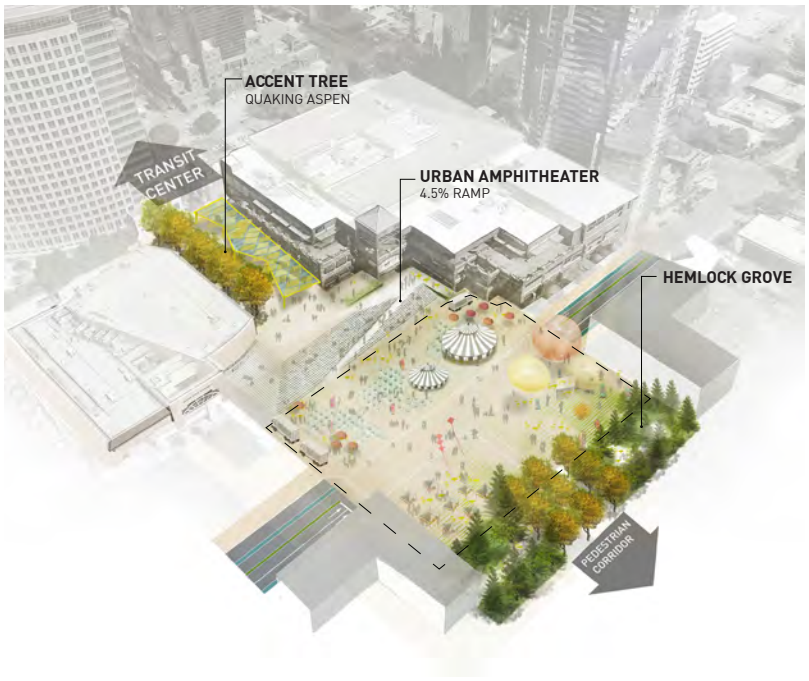


Figure 5.9 - Potential Redesign of Compass Plaza

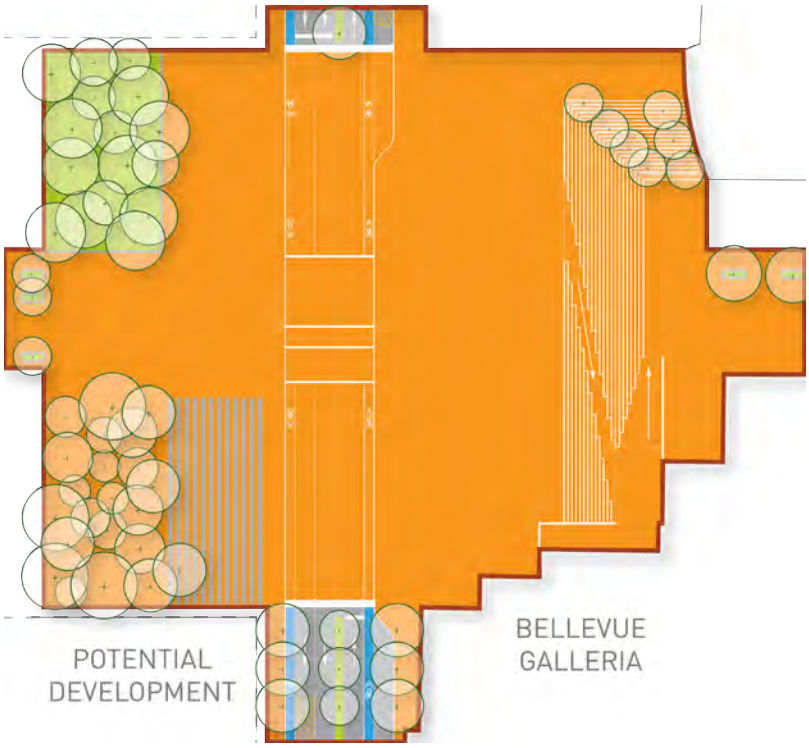


Figure 5.10 - Potential Redesign of Compass Plaza - Plan

Bellevue Transit Center

The Bellevue Transit Center is an important gateway into Bellevue. The current configuration of the Transit Center creates opportunities for several points of conflict between non-motorized traffic and buses. Both the east and west ends of the Transit Area have significant movement in and out. The consultant has analyzed the bus flow and provided a recommended alternative that would simplify the movement of buses and reconnect pedestrian space.

The proposal would close the south lane of the

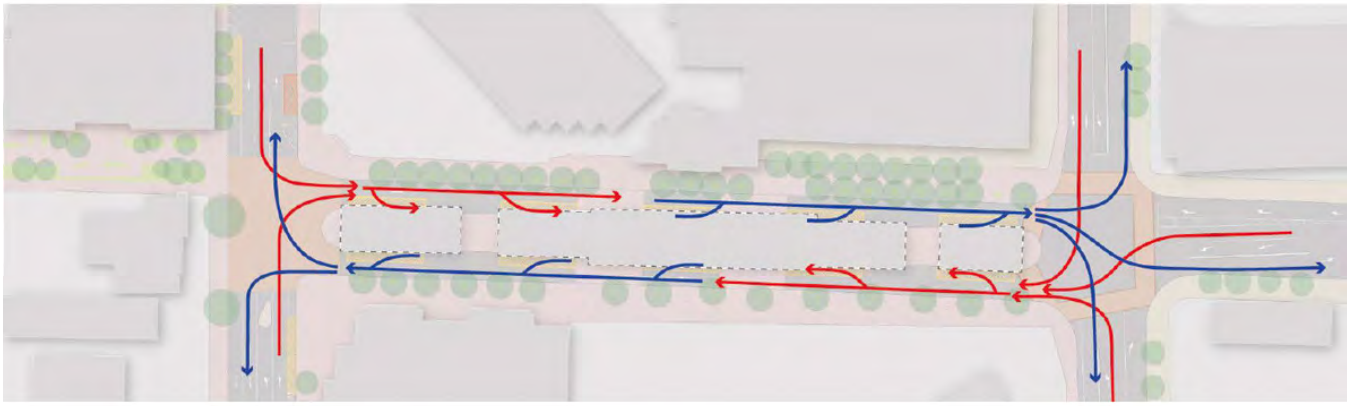


Figure 5.11 - Existing Bus Movements

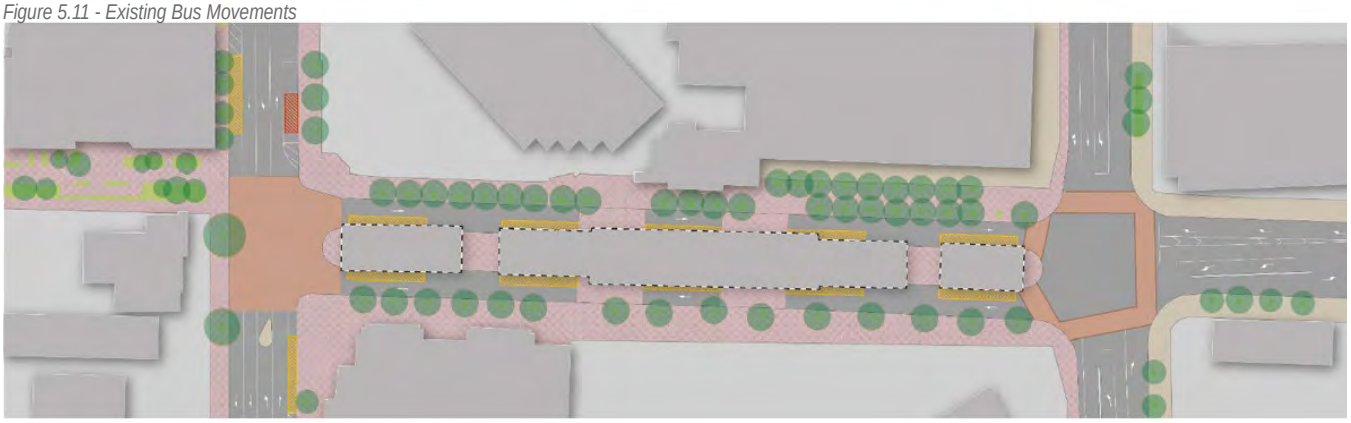


Figure 5.12 - Existing Configuration

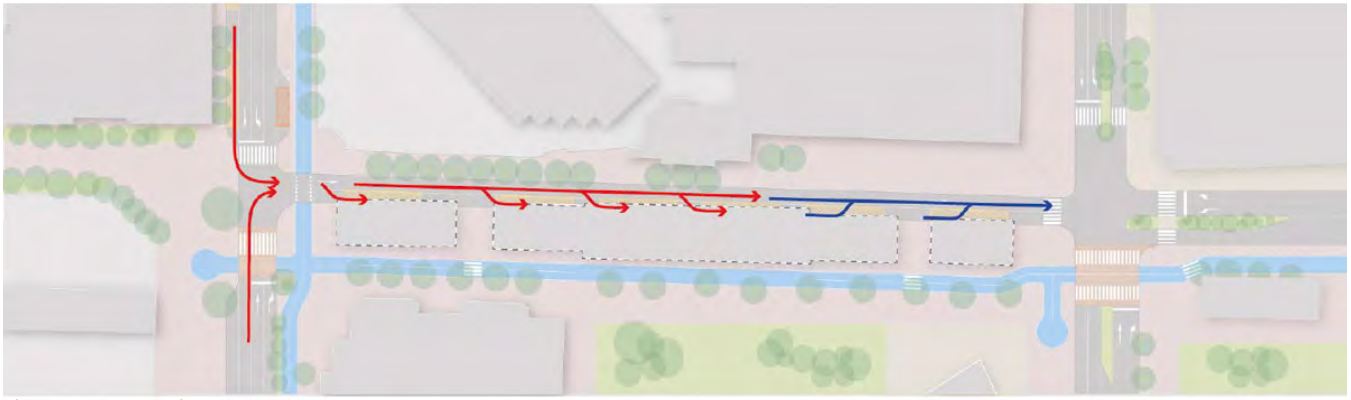


Figure 5.13 - Proposed Bus Movements

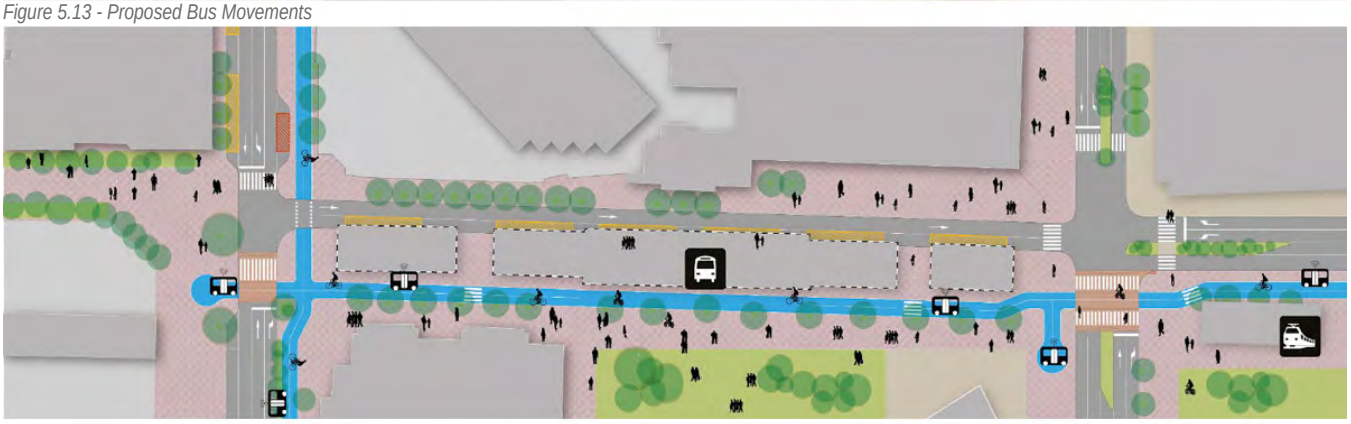


Figure 5.14 - Proposed Configuration

Transit Center and connect the existing island with the open space directly to the south. All bus movements would enter from the west end of the Transit Center and exit on the east end. This reclaimed space could be used to expand the existing open space or to create a bike route, or alternative transportation route.

I-405 Crossing

The I-405 crossing has an opportunity to establish a safe and comfortable connection between Downtown and the Wilburton Commercial Area. While establishing a connection this crossing will also pursue an opportunity to create an iconic and signature public space. The consultant has been tasked with identifying three alternatives for crossing the interstate. To date this visioning process is still in progress and the concepts developed are in the early stages.

Alternative One

This alternative assumes that NE 6th Street would not be extended into the study area. The alternative creates several options to build upon and narrow the existing NE 6th Street and extending onward as a pedestrian only path into the Wilburton Commercial Area. The crossing would land at a public space, while also providing an opportunity for public space on the crossing. Ultimately the crossing would extend to the Eastside Rail Corridor. Additionally, the design of the crossing could be a signature structure. This alternative would allow for sight lines between Downtown and Wilburton to maintain along NE 6th Street.

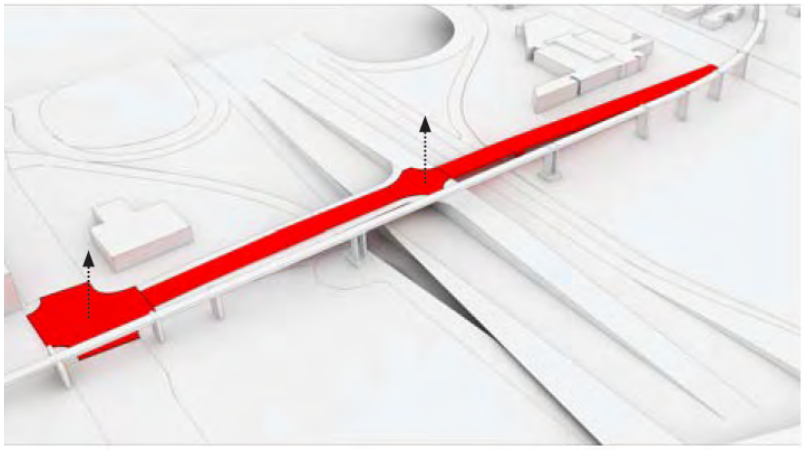


Figure 5.15 - Alternative One Crossing Diagram

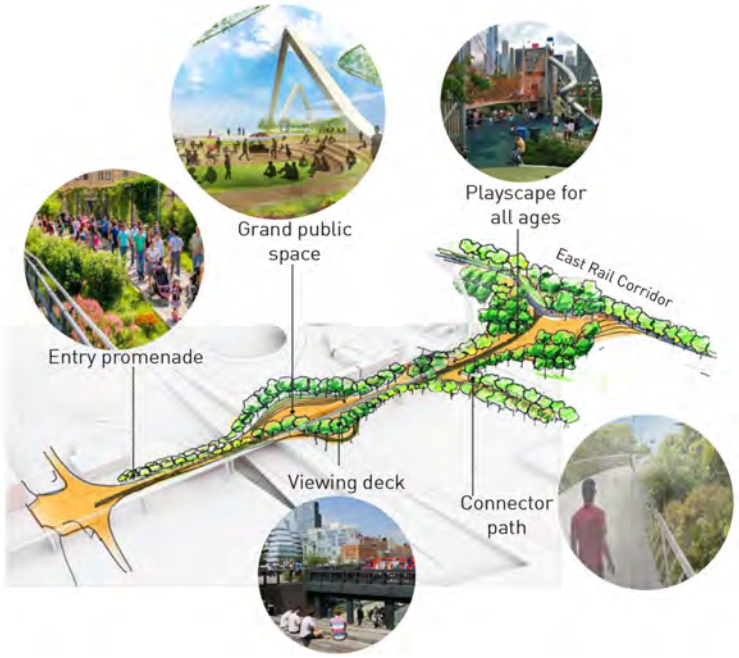


Figure 5.16 - Alternative One Concept Sketch

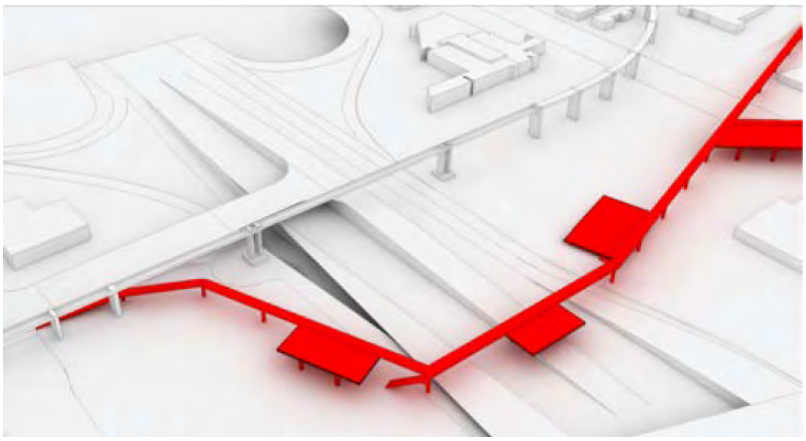


Figure 5.17 - Alternative Two Crossing Diagram

Alternative Two

This alternative creates a bridge like structure that would navigate around the changes in grade and the interstate ramps. The width of the bridge could vary and create larger moments for public spaces for green space, viewing platforms, or vendors. Additionally the structure could integrate into future development on the east and west sides of the interstate. This alternative would require access to private development on the west side as well as dependent on the timing of any future redevelopment on the property before the crossing could be constructed. This route creates several opportunities to integrate into the Eastside Rail Corridor, and away from the East Link light rail aerial guideway.



Figure 5.18 - Alternative Two Concept Sketch

Alternative Three

This alternative proposes covering the interstate between NE 6th and NE 4th Streets. The 'lid' concept would propose creating barrel vaults over the existing interstate ramps resulting in a rolling terrain and connection to surrounding future development podiums. The large space, around 200,000 square feet, could be programmed for a park or other natural area, while combining other activities and services. Access could occur from both sides of the interstate in addition to NE 4th Street, and potentially NE 6th Street ensuring that the space is always public. An opportunity for an iconic crossing or bridge could also extend from the lid to the Eastside Rail Corridor. This would mitigate the need for additional public space in the Wilburton Commercial Area as it would create a new park without requiring the acquisition of existing land in the study area.

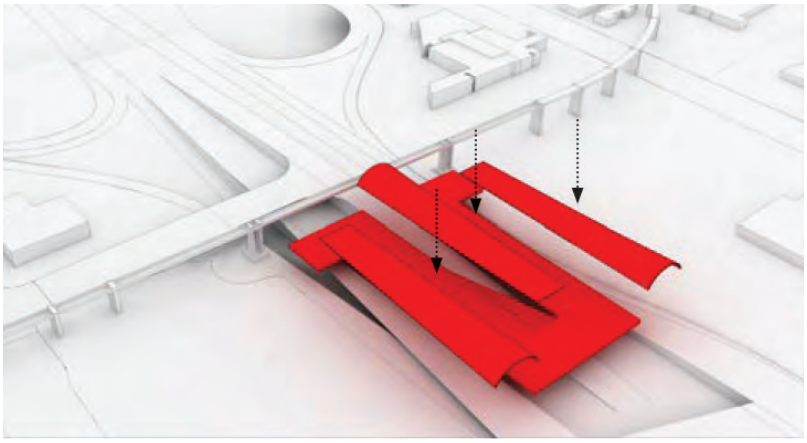


Figure 5.19 - Alternative Three Crossing Diagram

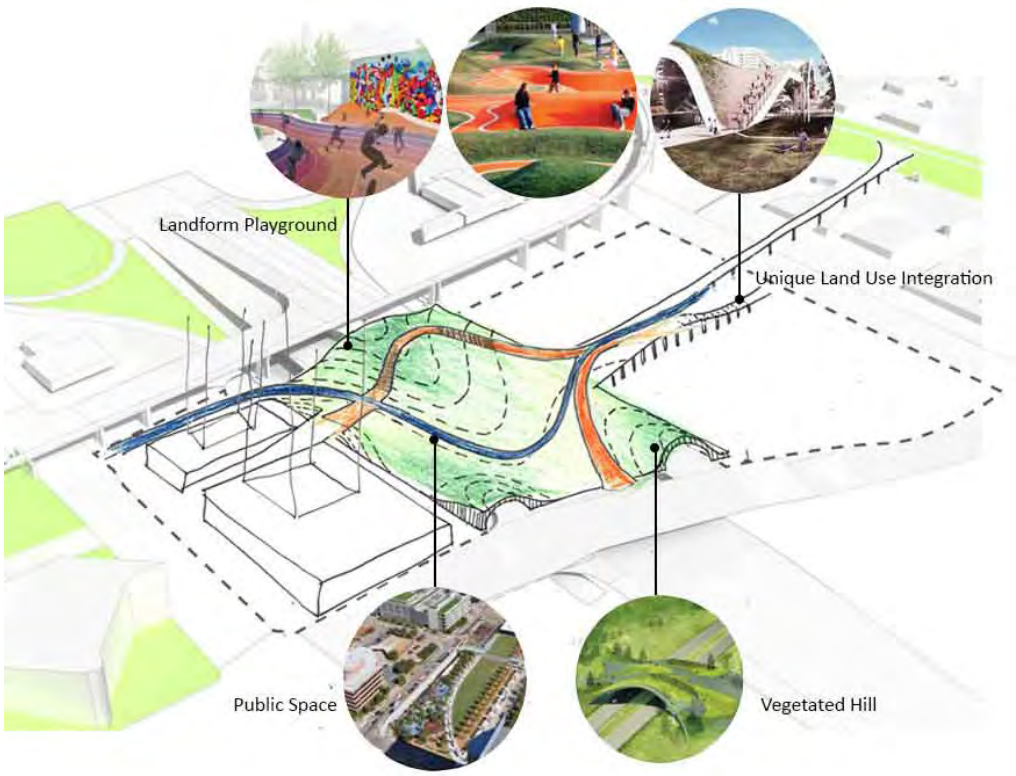


Figure 5.20 - Alternative Three Concept Sketch

Existing Conditions

1 - Introduction

Why are we evaluating Wilburton now?

Impetus for change in the Wilburton Commercial area has been generated by tremendous growth and infrastructure improvements. Downtown and BelRed continue to grow as significant employment and residential centers of the City, and Wilburton's context between the two growth centers positions the area as Bellevue's next emerging neighborhood. Road expansions, the forthcoming East Link light rail, and Eastside Rail Corridor will converge within this area creating opportunities for profound transformation and potential for the neighborhood and City. Additionally, the impending Wilburton East Link light rail station creates a need for station area planning within the Wilburton Commercial Area.

As part of City Council priority directives, this report was prepared to assess Wilburton's position amongst the high growth centers of Downtown and BelRed, along with its existing conditions and infrastructure. The transportation projects currently under development represent opportunities to further connect Wilburton with Downtown, Bel-Red, and other communities in the immediate area. The Wilburton light rail station represents an important node in the East Link system while enhancing multi-modal connectivity for this area.

In Council's 20-year vision for Bellevue, the Wilburton Commercial Area is envisioned as a "center for business and entertainment." They further directed staff to establish the vision for the Grand Connection from Meydenbauer Bay Park to the Wilburton Special Opportunity District in their two-year priorities. Council recognizes the potential of this area and has an interest in establishing a clear vision to help guide future development.

This project will serve to identify opportunities to strengthen opportunities in Wilburton to take advantage of its connectivity with surrounding mixed-use centers and the proposed transportation improvements. The expansion of light rail into the area creates a tremendous opportunity to better integrate land use patterns and transportation infrastructure. Additionally, economic development strategies will seek to create economic clusters within the Wilburton Commercial Area including, but not limited to, information technology jobs and tourism.

In the past, several concepts for the Wilburton area have been put forth including an Arena District housing a sports stadium between NE 4th and NE 6th streets; an Urban Village with mixed-use development and pedestrian friendly streets; and a Cultural Center with a place to celebrate Bellevue's diversity. Establishing a new vision for the Wilburton Commercial Area that captures its potential and sets the framework for future development will serve as a guiding principle in the forthcoming planning process.

Planning Process

This report documents and describes existing conditions within the study area, and preliminarily identifies opportunities for, and challenges to, future change, in order to assist in guiding the planning process. It provides an understanding of land uses, environmental characteristics, economics, utility and transportation infrastructure, and other essential characteristics of the study area. It will help ensure that environmental issues and other considerations are an integral part of the development and evaluation of alternatives, consistent with the "SEPA/GMA Integration" provisions of the State Environmental Policy Act.

2 - Study Area

Primary Study Area

The primary study area, shown in Figure 6.6 is bound by several major arterials. Interstate 405 forms the western boundary with NE 12th Street defining the northern boundary. Moving south along 124th Avenue NE the boundary turns west along NE 8th Street before moving south just prior to 120th Avenue NE. The boundary captures a series of commercial properties east of 120th Avenue NE prior to turning west and then south on 120th Avenue NE. The eastern boundary on 120th Avenue NE provides a buffer between the commercial area and the Wilburton Hill neighborhood. The boundary takes a slight jog west on Main Street and then south on 118th Avenue SE, and continuing south to the historic Wilburton Trestle.

Areas of Influence

West - Downtown

The study area is connected to Downtown via NE 4th, NE 8th, NE 10th, and NE 12th Streets. A future extension of NE 6th Street from Downtown to the Wilburton Commercial Area for I-405 HOV connectivity is also proposed. This would provide a direct connection to the Convention/ Civic District; the location of City Hall, Meydenbauer Convention Center and the Bellevue Transit Center. North of the City Hall site will be the Downtown East Link light rail station, with portions of the study area lying within the Downtown Station walk shed. Other uses in this area include office, hospitality, multi-family residential, and retail.

South of this area will be the East Main East Link light rail station. This station and the surrounding properties are currently in the City's station area planning process to assess opportunities to enhance development potential with the forthcoming light rail station. Predominate uses include smaller scale office, retail, hotels, and multi-family residential. Smaller scale office uses continue north to south along I-405.



Figure 6.1 - Arena District Concept (2006)



Figure 6.2 - View of Downtown from the Wilburton Commercial Area

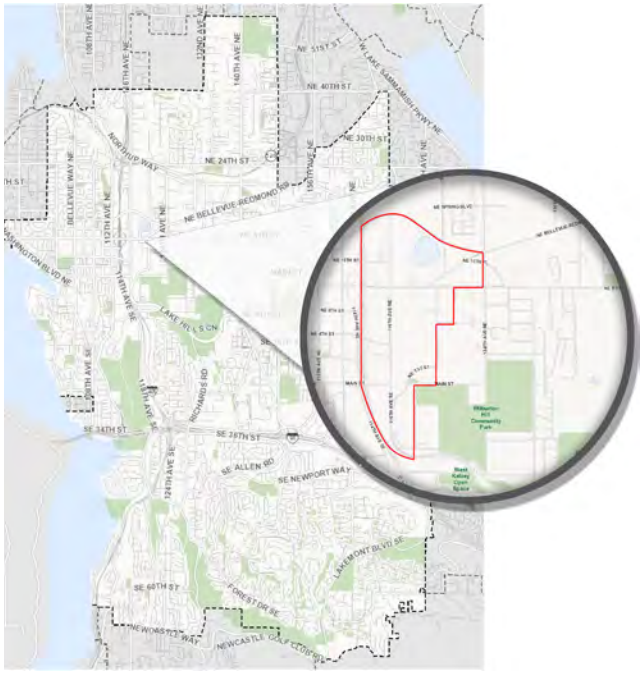


Figure 6.3 - Study Area Context Map

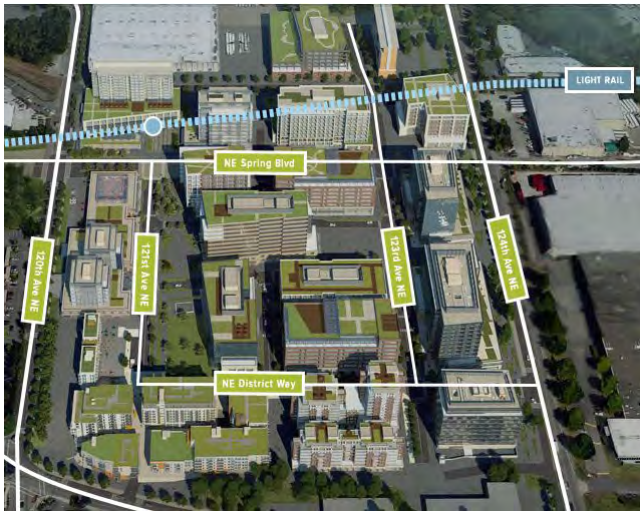


Figure 6.4 - Spring District Master Plan



Figure 6.5 - Wilburton Hill Park

North - BelRed

North of NE 12th Street is an emerging urban node at the 120th/ Spring District light rail station. As a growing employment and urban center of Bellevue, the area shares the commonality of transportation improvements having served as a catalyst to redefine its land use composition. As a result the area was part of a re-visioning and planning process from 2006 to 2009 to capitalize on the proposed light rail improvements. This initiative allowed the City to get out in front of light rail and assist in the location of the station as well as planning in advance of improved access to mass transit. Part of this re-visioning included the now emerging Spring District, located directly north of the study area across NE 12th Street. The mast plan for the Spring District calls for over 1,000 apartments, office, and retail uses in addition to new green space. The Spring District will also be home to the Global Innovation Exchange (GIX), a partnership between the University of Washington, Tsinghua University, and Microsoft. The GIX represents a unique global partnership for Bellevue and this region. Recently REI announced that they would be relocating their corporate headquarters into the Spring District.

East - Wilburton

Immediately east of the study area is limited multi-family residential, followed by the predominate use of single family residential, comprising much of the Wilburton subarea. Southeast of the study area at Main Street and 124th Avenue NE will be the site of the future Wilburton Elementary school, part of the Bellevue School District. The school is intended to serve students from Downtown, Wilburton, and portions of Bel Red, and is currently in the Design Review process.

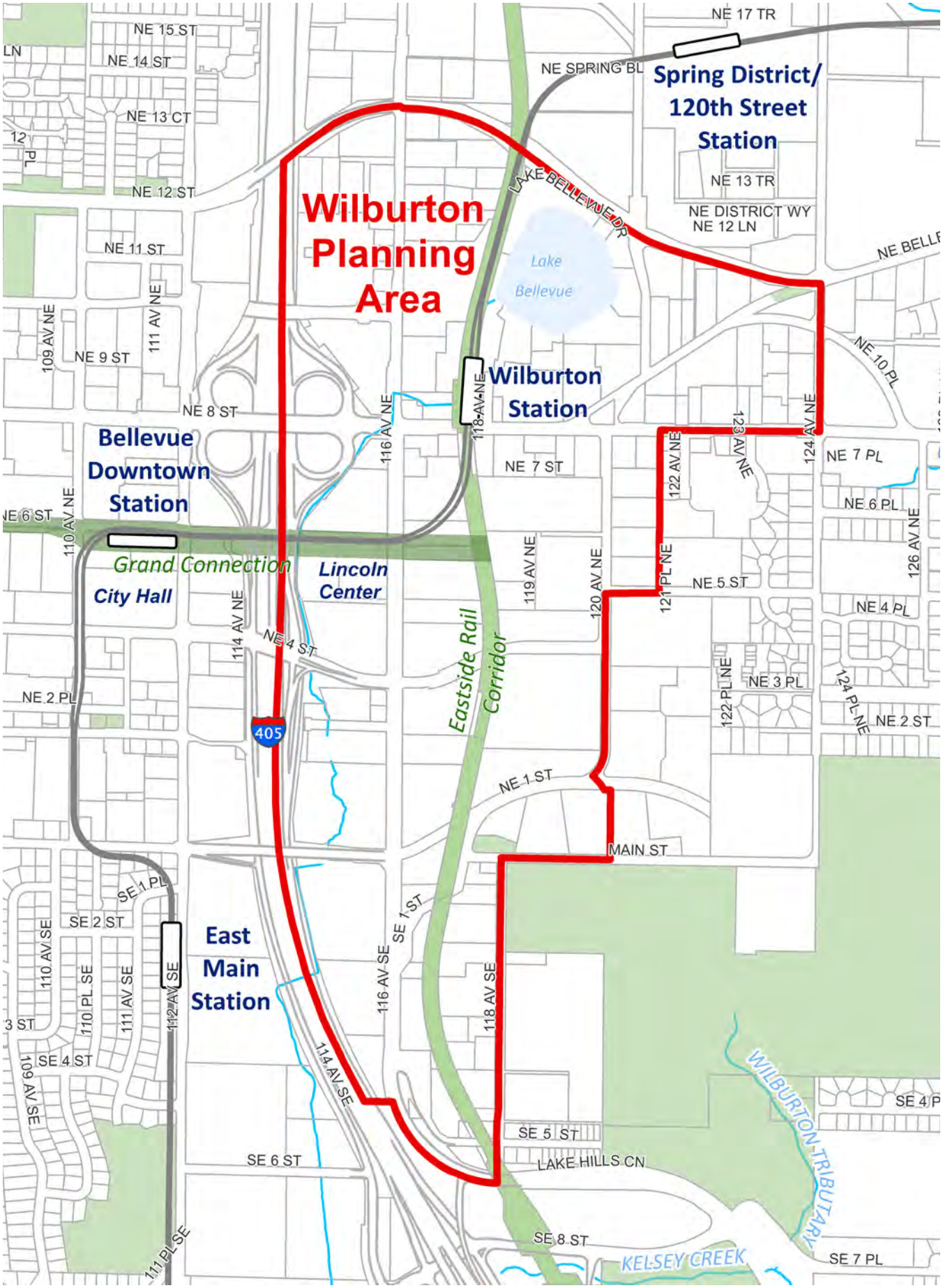


Figure 6.6 - Study Area Map

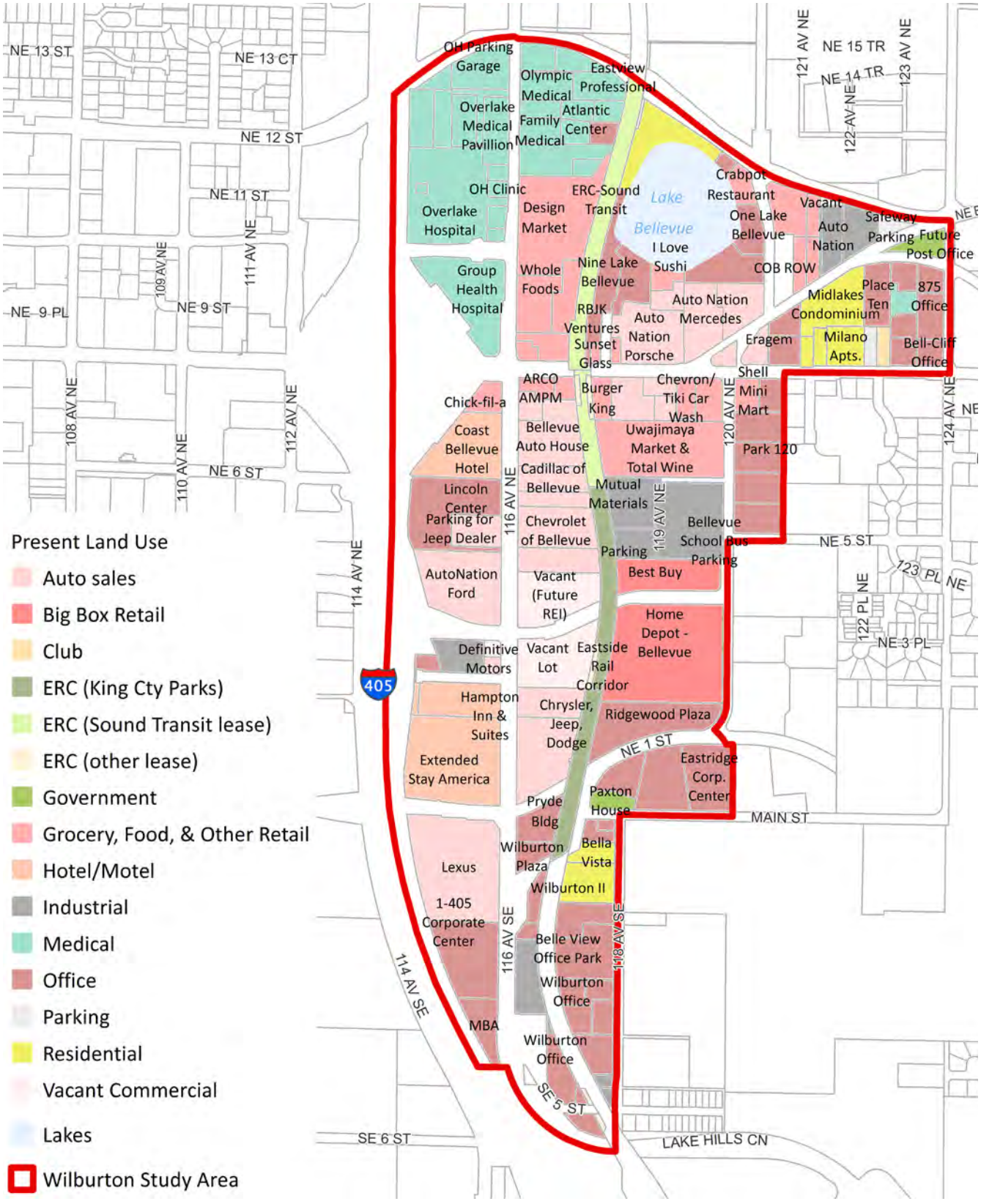


Figure 6.7 - Existing Land Use

Population Characteristics

Characteristics of the study area population are based on estimates from the U.S. Census Bureau's 2010-2014 American Community Survey. All of the study area's residential units fall within Census tract 236.01 except for units part of the Lake Bellevue Village Condominium, which falls within Census tract 237. However, because Census tracts cover so large an area, it is difficult to isolate characteristics of people and households living within the study area from those living in the surrounding areas.

For instance in tract 236.01, it is difficult to distinguish characteristics of households living within the study area from characteristics of households living in the rest of Census tract 236.01, in the Wilburton neighborhood. For households living at Bellevue Village Condominium, it is difficult to distinguish their characteristics from those of households living north of SR 520 in Census tract 237. That said, it is helpful to understand population characteristics in surrounding areas. Since the study area is adjacent to Downtown, it will become more strongly connected to Downtown with the advent of light rail and the Grand Connection, the characteristics of households living Downtown are also of interest.

Housing Characteristics

About 99 percent of Downtown's housing units are in multi-family structures compared to 56 percent of tract 236.01(Wilburton) and 41 percent of tract 237(north of SR 520). Residential structures in Downtown also tend to be newer than residential structures in tracts 236.01 and 237 with a median year built of 2004 compared to 1976 and 1977 for tracts 236.01 and 237. Downtown units also tend to have lower occupancy rates than units in tracts 236.01 and 237, falling below 90 percent occupied, compared to about 92 percent occupied in tract 236.01 and about 99 percent in tract 237.

While the median housing unit value in Downtown is lower than both tract's 236.01 and 237, Downtown has higher lower and upper quartile values than tract 236.01 (Table 4.1). Monthly costs for homeowners with a mortgage, without a mortgage and renters all tend to be lowest in tract 236.01 compared to Downtown and tract 237, which have more similar monthly costs (Table 4.2). It should be noted that single family homes in the Bridle Trails and Wilburton neighborhoods impact the data of the study area.

Despite lower costs, tract 236.01 has the highest percentage of cost burdened households, with 41 percent of households spending 30 percent or more of their incomes on housing. And despite higher monthly costs, especially for renters, Downtown has the lowest percentage of severely cost burdened households, with 14 percent o households spending 50 percent or more of their incomes on housing (Table 4.3).

Household Characteristics

About 81 percent of Downtown households rent their units compared to 45 percent in tract 236.01 and 29 percent in tract 237. The average household size in Downtown also tends to be smaller at around 1.64 compared to 2.16 in tract 236.01 and 2.39 in tract 237.

Population Demographics

Age

Age cohorts are most evenly distributed in Tract 237. In comparison, Downtown has a much higher percentage of the young workforce population, ages 18 to 44 than the other two tracts, and a much lower percentage of children under 18. Interestingly, Downtown also has the highest percentage of older

	Downtown	Tract 236.01	Tract 237
Lower Quartile Value	$313,266	$238,700	$459,700
Median Value	$425,155	$477,700	$642,500
Upper Quartile Value	$704,039	$671,600	$845,000

Figure 6.8 - Housing Values

	Downtown	Tract 236.01	Tract 237
Homeowners with a mortgage	$2,479	$1,956	$2,796
Homeowners without a mortgage	$968	$622	$933
Renters	$1,685	$1,353	$1,609

Figure 6.9 - Median Monthly Housing Costs

	Downtown	Tract 236.01	Tract 237
Households paying 30% or more of their incomes on housing	35%	41%	34%
Households paying 50% or more of their incomes on housing	14%	20%	20%

Figure 6.10 - Housing Affordability

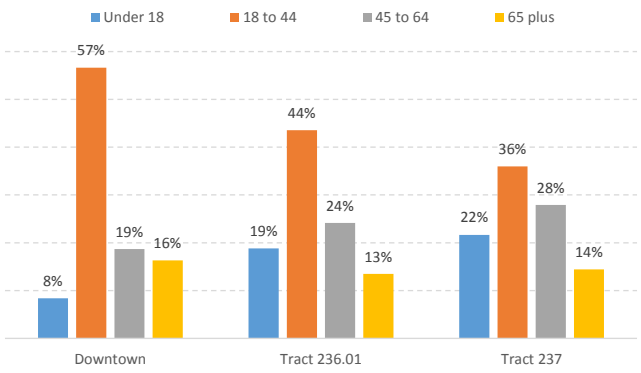


Figure 6.11 - Age Cohort Distribution

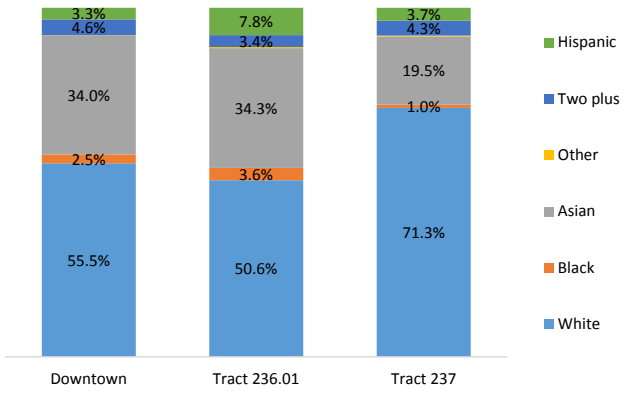


Figure 6.12- Race and Ethnicity Distribution

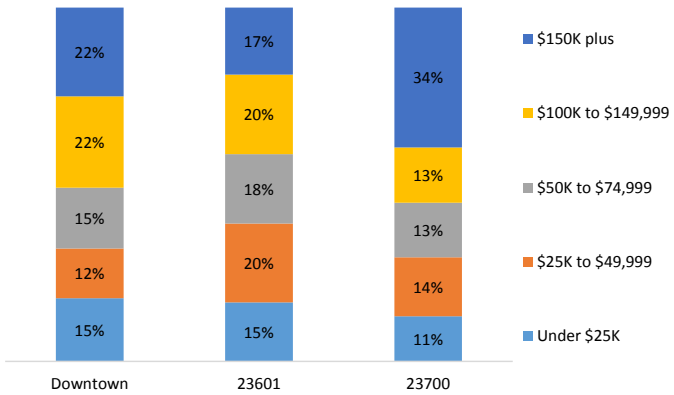


Figure 6.13 - Household Income Distribution

adults, 65 years and over. With such a high percentage of the young workforce Downtown has the lowest median age at 34.0 compared to 39.3 in tract 236.01 and 38.4 in tract 237.

Race and ethnicity

Tract 236.01 is the most racially and ethnically diverse with just over 50 percent of the population being non-Hispanic white. Tract 237, in contrast, is the least racially and ethnically diverse, with over 71 percent of its population being non-Hispanic white. Asians comprise over a third of the populations in Downtown and tract 236.01 whereas less than 20 percent in tract 237. Tract 236.01 also has the highest percentages of Hispanic or Latino and Black populations.

Household Income and Poverty

Tract 236.01 has the most even distribution of household incomes, followed by Downtown. In contrast, over a third of households in Tract 237 have household incomes upwards of $150,000. This may be partially due to Tract 237 having a higher average household size and therefore a greater percentage of double income households. Tract 236.01 also has the lowest median household income at $69,675 compared to $88,650 in Downtown and $94,762 in tract 237. Tract 236.01 and Downtown also have higher rates of poverty at 12 and 11 percent respectively compared to five percent in tract 237.

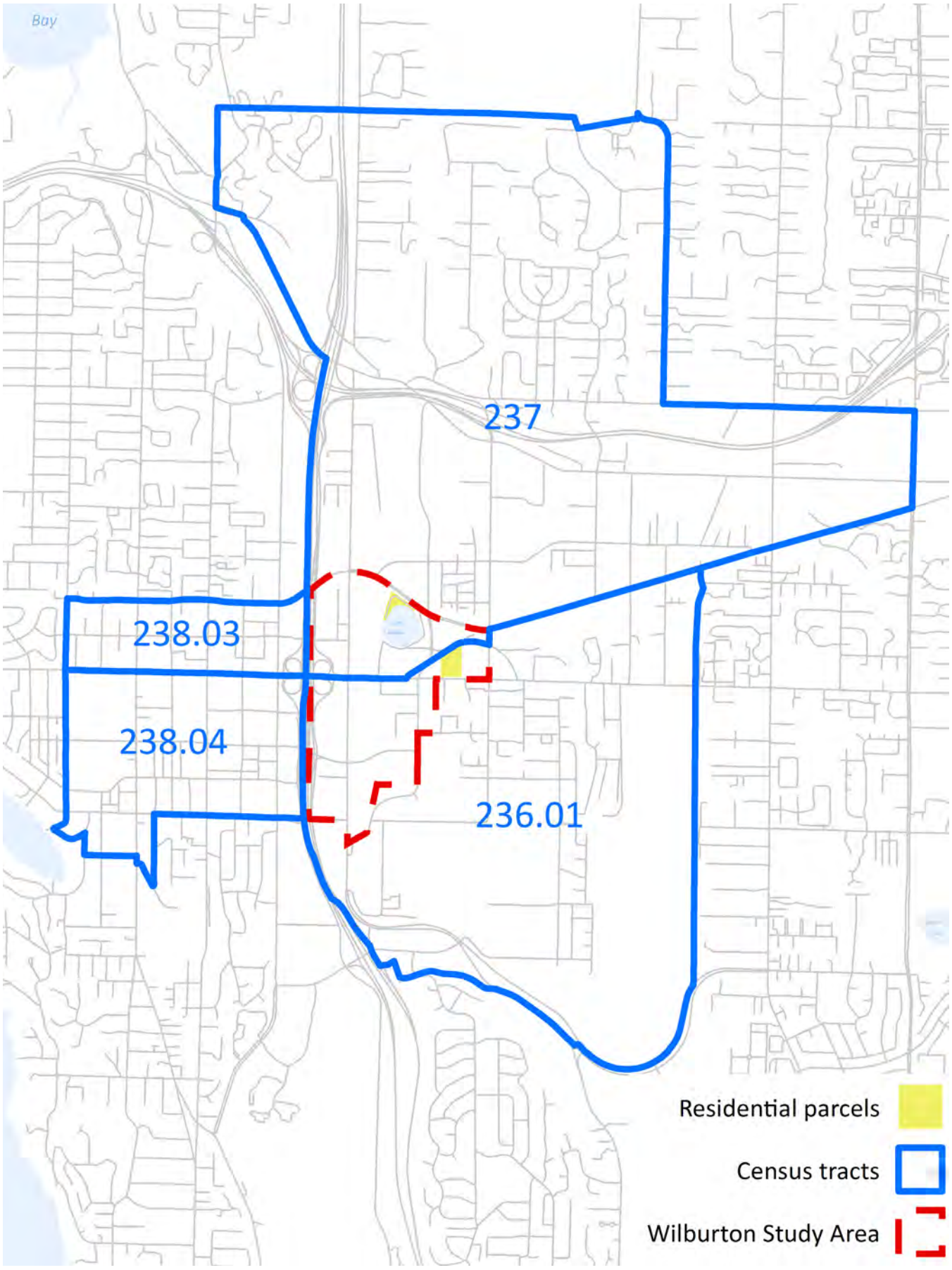


Figure 6.14 - Census Tracts Encompassing and Adjacent to the Study Area

History

Agriculture and Lumber

Approximately a century ago, Wilburton was the largest community on the East Side. Its success was established as a lumber boom town.

Originally platted in 1889 as 10-acre residential lots by Lydia and Timothy Kellogg, the area extended from modern day I-405 to 128th Ave east to west, and NE 8th to SE 8th north to south. The Kellogg's started a small fruit farm, and named the plat "Strawberry Lawn."

In 1901, however, hopeful industrialists began to move into the area. The logging firm Wilbur and England founded a logging operation at the upper end of Mercer Slough, and towed over 700,000 ft. of cedar, fir, and spruce over the next two years. At the time, Mercer Slough was deep enough to be navigable and viable. In 1903, the site was taken over by the Bellevue Lumber Company, which built the first lumber mill on the shores of Mercer Slough. By 1904, the bottom half of Strawberry Lawn was re-platted as smaller residential lots so that mill workers could build homes near the old Wilbur and England logging operation, thus forming Wilbur town, or Wilburton.

Between 1904 and 1919, the population of Wilburton fluctuated between 300 and 500 people, and was home to two general stores, multiple mills, and a spur of the North Pacific Railroad. A trestle for the railroad line was built over Mercer Slough. Known as the "Wilburton Trestle," it remains standing today, serving as an identifiable and significant historical landmark, and is bisected by the Lake Hills Connector.

In 1916, Lake Washington was lowered by roughly 9' feet with the creation of the Lake Washington Ship Canal, Montlake Cut, and Chittenden Locks. As a consequence, Mercer Slough turned into an unnavigable marsh. Without water access, the Hewitt-Lea sawmill became unprofitable, and shut down in 1919. Subsequently the original Wilburton School shut down, and the town was mainly abandoned.

With the closure of the mill, farming returned as the predominant use. Between 1919 and the 1950s, Wilburton was home to over a dozen Japanese tenant farming families. Most ultimately did not return after being interned during World War II. Additionally a large dairy farm, a veterinary clinic, the Glendale Golf Course, and a few surreptitious whiskey stills during prohibition era occupied the area.

Emergence of Auto Row

In the 1950s, as Bellevue grew rapidly following World War II, a handful of car dealerships and inns moved east into Wilburton (116th Ave). One of the firsts was the Evered Mercury dealership, started by Art Evered in 1957 with two cars and a gas station. In 2001, the Evered Mercury was the largest Lincoln-Mercury dealership in the Pacific Northwest. 116th Ave is still known as "Auto Row," today, and is, for example, home to one of the largest Lexus dealerships in the country.

In 1992, the Bellevue Botanical Garden was constructed on the property of the late Calhoun and Harriet Shorts, who acquired the property in 1947 to build a family farm. Today, the Botanical Garden is a center for gardening and horticulture activity, and is the home of the popular Garden d'Lights each December. As part of Wilburton Hill Park, the two form the most substantial public green space in the surrounding area.



Figure 6.15 - 116th Avenue and NE 8th Street - 1910



Figure 6.16 - Midlakes Grain and Feed Store - 1914



Figure 6.17 - Facing West at 116th Avenue and NE 8th Street - 1967

The Natural Environment

Streams

Sturtevant Creek drains most of the planning area. Considered a Type F stream, it originates at Lake Bellevue and flows south, adjacent to the Eastside Rail Corridor for approximately 600 feet before diverting into an underground pipe at approximately NE 8th Street. Sturtevant Creek daylights again north of NE 4th Street near the City owned property, Lincoln Center at 515 116th Avenue NE, and flows south in channelized form to a culvert under NE 4th Street and then through a large wetland complex to Main Street where it flows under the Lexus site and then under I-405.

After it crosses I-405, Sturtevant Creek flows south to its confluence with Kelsey Creek and Mercer Slough. I-405 is currently considered a fish passage barrier based on Washington Department of Fish & Wildlife (WDFW) SalmonScape maps (WDFW, 2010) and the City's basin map for Sturtevant Creek (Bellevue, 2010a). Even if this fish barrier were to be removed, the piped portion of Sturtevant Creek under Whole Foods and NE 8th may also be considered another fish barrier.

Lake Bellevue

Since the early 1940's, Lake Bellevue's watershed has experienced significant urban development. The lake's perimeter wetlands and the lake itself have been reduced in area and the underlying ancient peat soil deposits have been covered by impervious surfaces causing a decline in water quality. The result is a culturally eutrophic lake that is over-enriched with nutrients, specifically phosphorus, which promotes cyanobacteria growth diminishing the lake's ability to support beneficial uses. The lake has long since exhausted its resiliency or capacity to assimilate nutrients resulting in excess phytoplankton, reduced dissolved oxygen (leading to odors) and loss of aquatic habitat.

Wetlands

The other major hydrological feature, in addition to Sturtevant Creek, is a significant five acre wooded wetland located at the corner of 116th Avenue NE and Main Street. Due to its large size, location in the watershed, significant water quality benefits, high habitat value, and buffer value to Sturtevant Creek which flows through it, this wetland is likely a Category II wetland. The site was partially developed in the 1990s with an Extended Stay Hotel.

Wildlife Corridor

The study area is bisected north-to-south by the Eastside Rail Corridor. King County is undertaking a master planning process for this corridor to site a regional trail. Because of its width, continuity, and vegetated boundaries, it also represents a significant transit corridor for wildlife moving through the area. Unfortunately, improvements to I-405 resulted in removal of the land bridge across the freeway cutting off wildlife transit to and from Mercer Slough.

Tree Canopy and Impervious Area

The study area is almost entirely impervious with significant tree canopy existing only within designated critical areas such as Sturtevant Creek, the Main Street wetland, and on the steep slopes east and west of the rail corridor. On some sites, parking lot landscaping is visible but it is generally sparse throughout. The predominance of auto dealerships in this area and the demand for unobstructed parking makes for a bleak urban landscape throughout.

Contaminated Sites

Due to the longstanding predominance of auto sale uses in the study area, there is potential for significant site contamination with petroleum products and volatile organic compounds. Examination of the Executive Summary of the Environmental Data Resources, Inc. Report for the NE 4th Project reveals multiple properties within the study area where contamination may have been identified.

Steep Slopes

There are minimal steep slopes in the area. Most of the steep slopes are located near the Eastside Rail Corridor, particularly on the southwestern edge within the study area. There are other isolated pockets of steep slopes but few of the properties are dramatically affected.

Liquefaction hazards are isolated primarily around the northern and western perimeters of Lake Bellevue. Much of the liquefaction hazards are located outside of the study area boundary or in areas unlikely to experience change from the planning process.



Figure 6.18 - Wooded Category II Wetland



Figure 6.19- Eastside Rail Corridor Looking South



Figure 6.20- Auto Dealership Impervious Surface

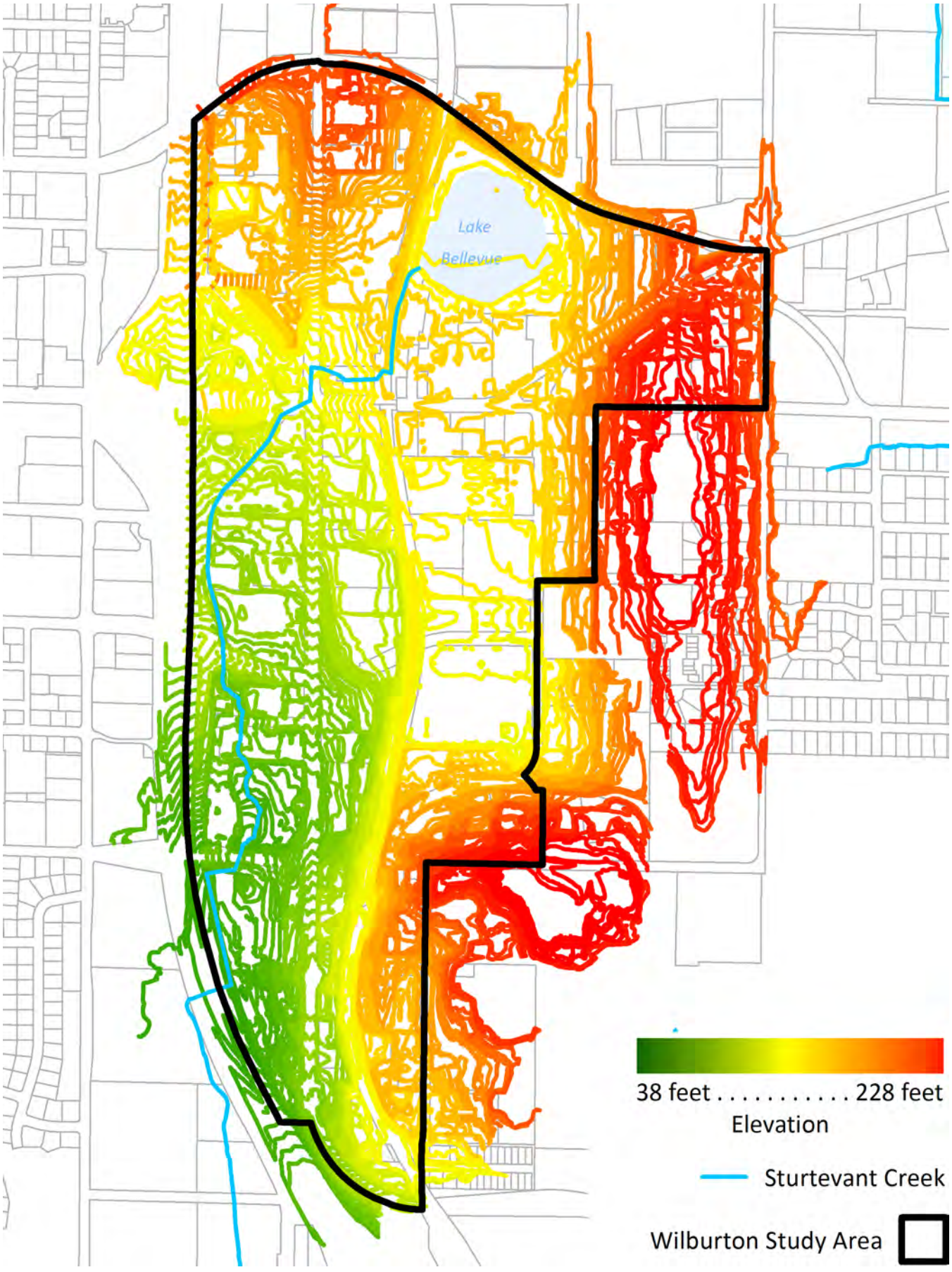


Figure 6.21 - Topography

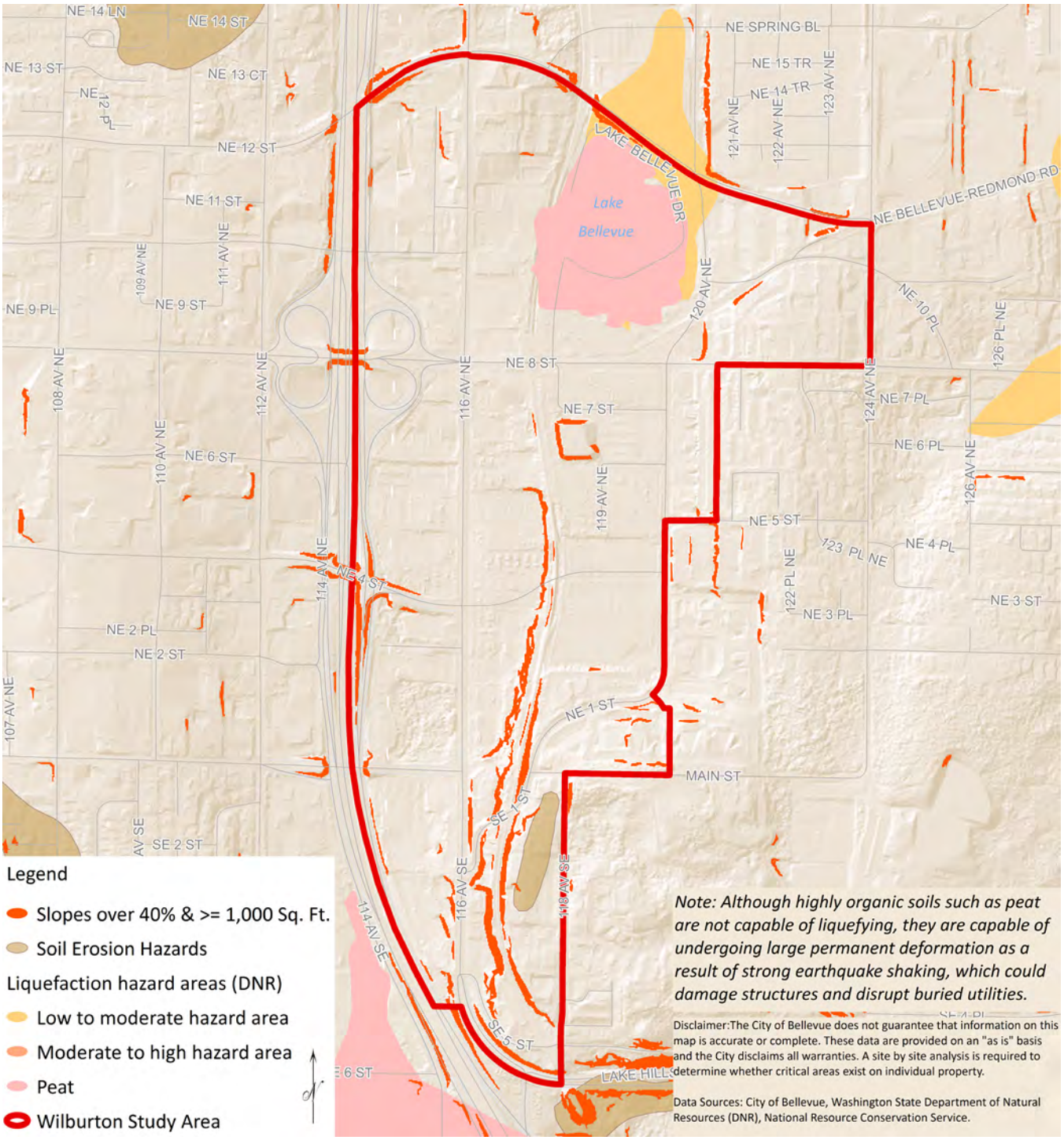


Figure 6.22 - Steep Slopes

Parks and Open Space

Eastside Rail Corridor

The Eastside Rail Corridor (ERC) extends from Renton to Snohomish, passing through Bellevue, Kirkland, Woodinville, and portions of unincorporated King County. It also includes the Redmond Spur, which extends south from Woodinville to Redmond. The ERC is owned and managed by King County, the cities of Kirkland and Redmond, Sound Transit, and Puget Sound Energy. These owners work together through the Regional Advisory Council to maintain a collaborative, regional planning process for the ERC, with the goal of achieving connectivity and multiple uses.

Within the Wilburton study area, ownership of the ERC is split with Sound Transit owning the section approximately north of NE 4th Street and King County owning the section south.

King County has developed a Master Plan for a major regional trail. This trail will eventually connect Renton, Bellevue, Kirkland, Woodinville, and Redmond with the rest of the regional trail system, while preserving the opportunity to co-locate rail, transit and utilities in the future. As part of the master planning project, King County has prepared an Environmental Impact Statement that includes study of ecosystem resources, geologic conditions, historic and cultural resources, and potential trail alignment alternatives. City staff and relevant departments are participating with the County in the master planning process.

Of particular interest to the Wilburton-Grand Connection study will be the proposed grade changes between NE 8th and NE 4th Streets. The potential for grade changes could greatly influence how the Grand Connection will interface with the ERC, as well as impacts on adjacent properties.

Southeast of the Wilburton study area is the 105-acre Wilburton Hill Community Park. The park is home to the Bellevue Botanical Garden and includes a large picnic area, a playground, two baseball fields, one multi-use artificial turf athletic field, and restrooms. Wilburton Hill Park is one of the largest parks in the city and provides a wide variety of active and passive recreational opportunities. The park's trail serves as a major link in the Lake to Lake Greenway Trail.

Bellevue Botanical Garden

The Bellevue Botanical Garden features cultivated display gardens, natural wetlands and a woodland trail system, featuring the unique Ravine Experience suspension bridge. Bellevue Botanical Garden displays plants and gardening practices for healthy, beautiful Northwest gardens. The Garden attracts 300,000 visitors a year, making it one of the city's most popular destinations. The Bellevue Botanical Garden opened in 1992 and operates under a partnership with the Bellevue Botanical Garden Society (BBGS). The Botanical Garden is the home of the popular Garden d'Lights each December, and serves as a regional festive draw.

Lake to Lake Greenway Trail

The Lake to Lake Greenway Trail skirts the southern boundary of the study area. Extending approximately 10 miles, the Greenway Trail connects nine parks across Bellevue. From east to west, the trail starts at Weowna Park next to Lake Sammamish and continues west, through Wilburton Hill Park, proceeding either over I-405 at Main Street, or under I-405 at SE 8th Street as it continues to two possible termination points at Meydenbauer Bay Park or Enatai Beach Park.



Figure 6.23 Eastside Rail Corridor Planning Areas and Ownership



Figure 6.24 - Wilburton Hill Community Park



Figure 6.25 - Bellevue Botanical Garden

Transportation

Roadway Network

NE 8th Street is the major arterial carrying the bulk of traffic traveling east and west through the center of the study area with average weekday counts reaching over 45,000. NE 12th Street carries over 18,000 vehicles traveling east and west along the northern edge of the study area. South of NE 8th Street, 116th Avenue NE carries over 23,000 vehicles a day on average moving north and south through the study area. Traffic counts have not been taken along NE 4th Street or 120th Avenue NE in the study area, but recent improvements to those arterials will likely lead to increased traffic volumes along them. Their impacts on existing traffic volumes will be monitored.

These five major arterials comprise the majority of the roadway network within the study area. Minor and collector arterials comprise another eight percent each and serve as secondary connectors. Local streets, both public and private, comprise the remaining 25 percent and serve primarily as access roads to properties rather than as connectors between arterials.

Signals exist at all intersections of major and major arterials and major and minor arterials. In addition, two signals exist adjacent to Overlake Hospital and Group Health Medical Center on NE 10th Street and Overlake Hospital on 116th Avenue NE. Approximately half of the signals in the study are interconnected enabling synchronization of signals and improved mobility.

Public Transportation

Existing Bus Service

King County Metro's RapidRide B-Line carries passengers within the study area to Downtown Bellevue and Downtown Redmond via Crossroads and Overlake with stops along NE 8th Street at 116th/118th, 120th and 124th Avenues NE. Operating at 10 minute headways during peak hours, 15 minute headways during mid-day and evenings and about 30 minute headways in the early mornings and late evenings, the B-Line offers passengers convenient access to places along the corridor. RapidRide service also provides free Wi-Fi, real time bus arrival signs, well-lit shelters and integrated intelligent transportation systems that speed up travel and boarding times and enhance customer information.

Along NE 10th Street and 116th Avenue NE route 226 carries passengers from the hospitals to Downtown Bellevue or along NE 12th and Bel-Red Road to Interlake High School, Crossroads, Lake Hills, Bellevue College and the Eastgate Park & Ride. It operates on approximately 30 minute headways until 8:00 pm when it switches to 60 minute headways until 11:00 pm.

Also along NE 10th Street and 116th Avenue NE, routes 234 and 235 provide service to Downtown Bellevue and to Kirkland, Kenmore and Kingsgate at 15 minute headways most times of the day.

In the southern part of the study area along 116th Avenue NE just south of NE 4th Street, route 271 provides service to Downtown Bellevue and the University District in Seattle or to Bellevue College, Eastgate Park & Ride and Issaquah Transit Center at 10 and 15 minute headways throughout most times of the day. Route 887 also stops along 116th Avenue NE and provides weekday service to International School and to Downtown Bellevue, Bellevue High School, Factoria, Newport High School and the neighborhood of Newport Hills at limited times during the morning and afternoon.

No service exists along 116th Avenue NE between

NE 4th Street and NE 10th Street nor along 120th Avenue NE between NE 1st Street and NE 12th Street.

In Bellevue's Transit Master Plan, frequent service is called for along NE 6th Street from Downtown Bellevue across I-405 to 120th Street, then up to NE 8th Street and east to Crossroads. Frequent service is also planned across NE 10th Street and up 116th Avenue over to the Spring District in BelRed.

Future Light Rail

Light rail will cross I-405 on an aerial guide-way immediately south of and roughly parallel to the proposed extension of NE 6th Street. The guide-way will remain elevated throughout the Wilburton study area as it crosses over the future extension of NE 6th Street and continues north within the Eastside Rail Corridor. The study area will be served by three light rail stations when the system becomes operational in 2023: East Main, Bellevue Downtown, and Wilburton Stations (see map). The proximity of Wilburton Station to the study area and the future connection with a regional trail in the Eastside Rail Corridor likely makes it the primary station that will serve the focus area.

Wilburton Station will be an elevated structure with pedestrian access from the south end along NE 8th Street and from the north to the future regional trail. There will also be a designated walkway connecting to 116th Avenue NE to the west near the intersection with NE 10th Street. The quarter-mile radius (i.e. approximately a 5 minute walk) of the station includes most of the focus area and the northern half of the study area. Virtually all of the study area is encompassed within the one-half mile radius (i.e. approximately 10 minute walk) of the station. No parking is planned with the station; however, on the east side along 118th Avenue NE there will be a pick-up and drop-off area for automobiles and para-transit vehicles.

Bellevue Downtown Station is the next closest to the focus area. It is located immediately east of the Bellevue Transit Center which provides bus connections to other parts of Bellevue, the Eastside and the region. The station emerges from the Downtown tunnel and ends in an elevated structure on the west side of 112th Avenue NE. The aerial guide-way then continues over 112th Avenue NE and I-405. The one-quarter mile radius extends east into the study area to about 116th Avenue NE and the one-half mile radius extends to the eastern

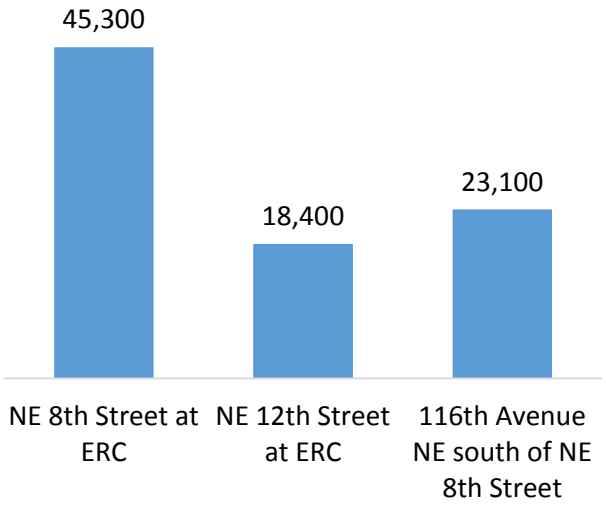


Figure 6.26 - Average Weekday Traffic, 2014

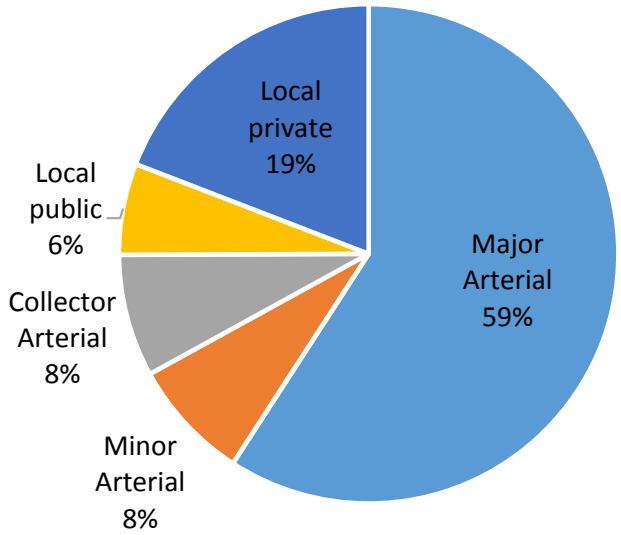


Figure 6.27 - Roadway Classification Distribution, 2014

edge of the study area (i.e. 120th Avenue NE). The potential service area of this station within the study area is completely overlapped by the service area of the Wilburton Station. The current lack of direct pedestrian connections across I-405 effectively precludes the potential for serving the study area. However, a planned extension of NE 6th Street to 120th Avenue NE would create the potential for this station to serve a portion of the Wilburton area, as well as the proposed Grand Connection, discussed later in this document.

The East Main Station has the potential to provide limited service to the southern portion of the study area via the Main Street crossing of I-405. The one-quarter mile and one-half mile radii from the East Main Station into the study area are virtually encompassed by the one-half mile radius from the Wilburton Station. East Main Station is located at-grade on the west side of 112th Avenue SE across from the Red Lion and Hilton Hotels.

Non-Motorized Networks

Bicycle Facilities

Bicycle infrastructure is limited within the study area and fractured. A dedicated lane exists on 120th Avenue NE between NE 5th Street and just short of NE 8th Street. Additionally, a dedicated lane exists on the most recent to open segment of NE 4th Street between 116th Avenue NE and 118th Avenue NE. One dedicated lane terminates on the north side of NE 12th Street on 116th Avenue NE just at the perimeter of the study area.

Other facilities are provided on additional streets that include bicycle shoulders, shared shoulders, outside lanes, or sharrows. These streets include NE 8th Street from 116th Avenue NE westward into Downtown, NE 8th Street at 120th Avenue NE into the Wilburton Hill neighborhood, portions of Bel-Red Road and NE 12th Street beginning at 116th Avenue NE and going eastward.

Pedestrian Facilities

There are existing sidewalks within the area, but a consequence of the large parcels, large blocks, and uses has created a limited pedestrian infrastructure. Nearly all streets in the study area have sidewalks but there is little consistency in the articulation of the streetscape. Much of the south side of NE 8th Street includes a planting strip and street trees, while the north side of NE 8th Street is absent of vegetation or buffer between the sidewalk and the street. Similar conditions exists on 120th Avenue NE, where the west side of the street includes planting strips, street trees and newer sidewalks, while the east side is lacking vegetation and buffer. Further south along 120th Avenue NE a more complete street scape exists on both sides of the street following the completion of Bellevue School District's bus maintenance facility. Newly opened NE 4th Street continues this complete streetscape of planting strips and street trees leading up to the I-405 overpass.

116th Avenue NE includes sidewalks but the planting buffer exists between the sidewalk and the developments rather than between the sidewalk and street. Crossing over NE 8th Street on 116th Avenue NE enhanced landscaping and buffers are provided along the hospitals. The west side of 116th Avenue provides a more complete streetscape extending up to NE 12th Street, while the streetscape on the east side is more fragmented and incomplete. As referenced in the design guidelines portion of this section, 116th Avenue NE has created new guidelines for pedestrian infrastructure and streetscape design in advance of future development.

For much of the remaining study area the pedestrian infrastructure is limited to only sidewalks, without additional streetscape elements. Once complete, the Eastside Rail Corridor will enhance pedestrian connectivity as well. As part of the light rail station and improvements there is currently a design proposal underway to provide a pedestrian bridge across NE 8th Street to provide access to the station and to allow movement of pedestrians across NE 8th Street.

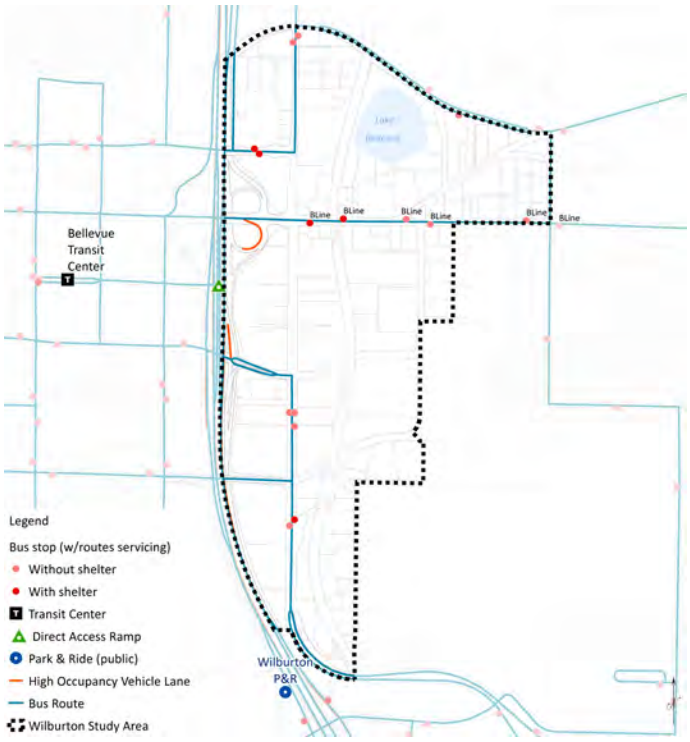


Figure 6.28 - Bus Service

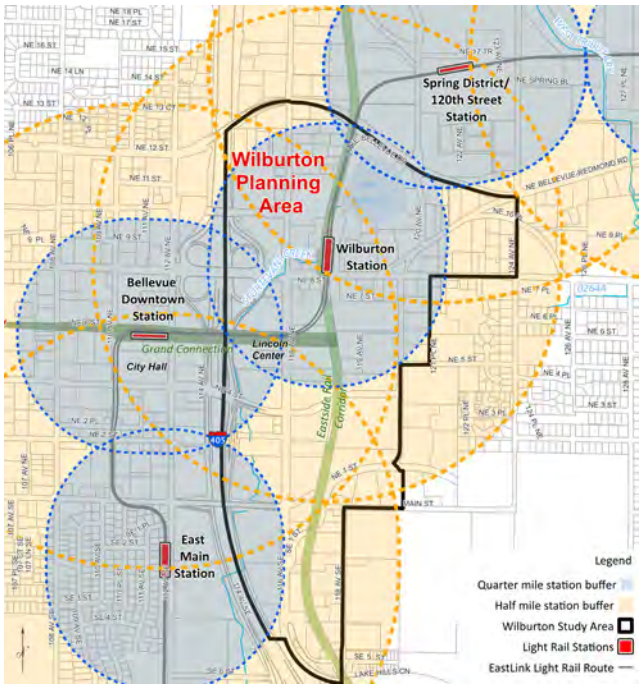


Figure 6.29 - Light Rail Station Map



Figure 6.30 - Looking westward along NE 8th Street towards Downtown

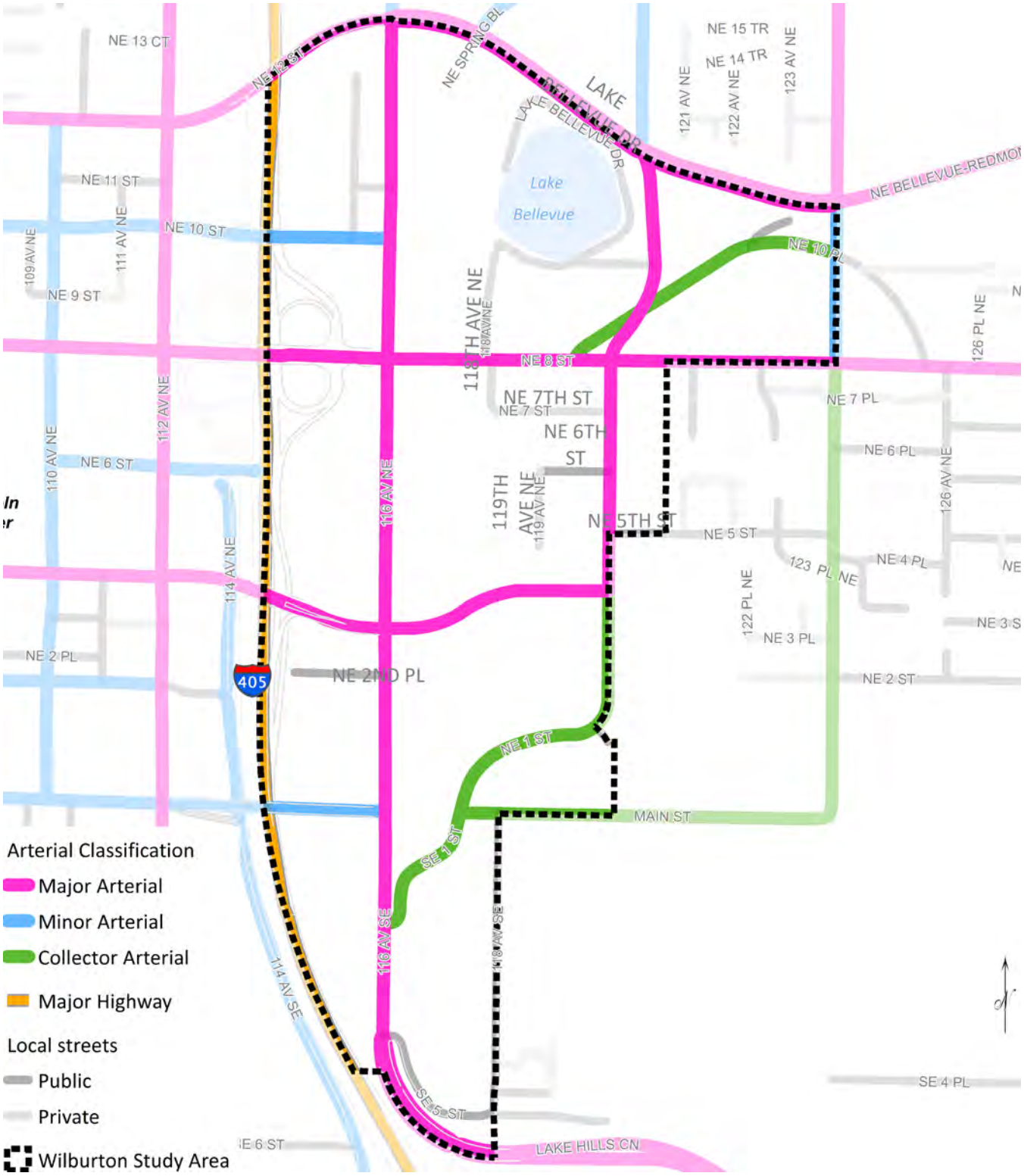


Figure 6.31 - Road Classification

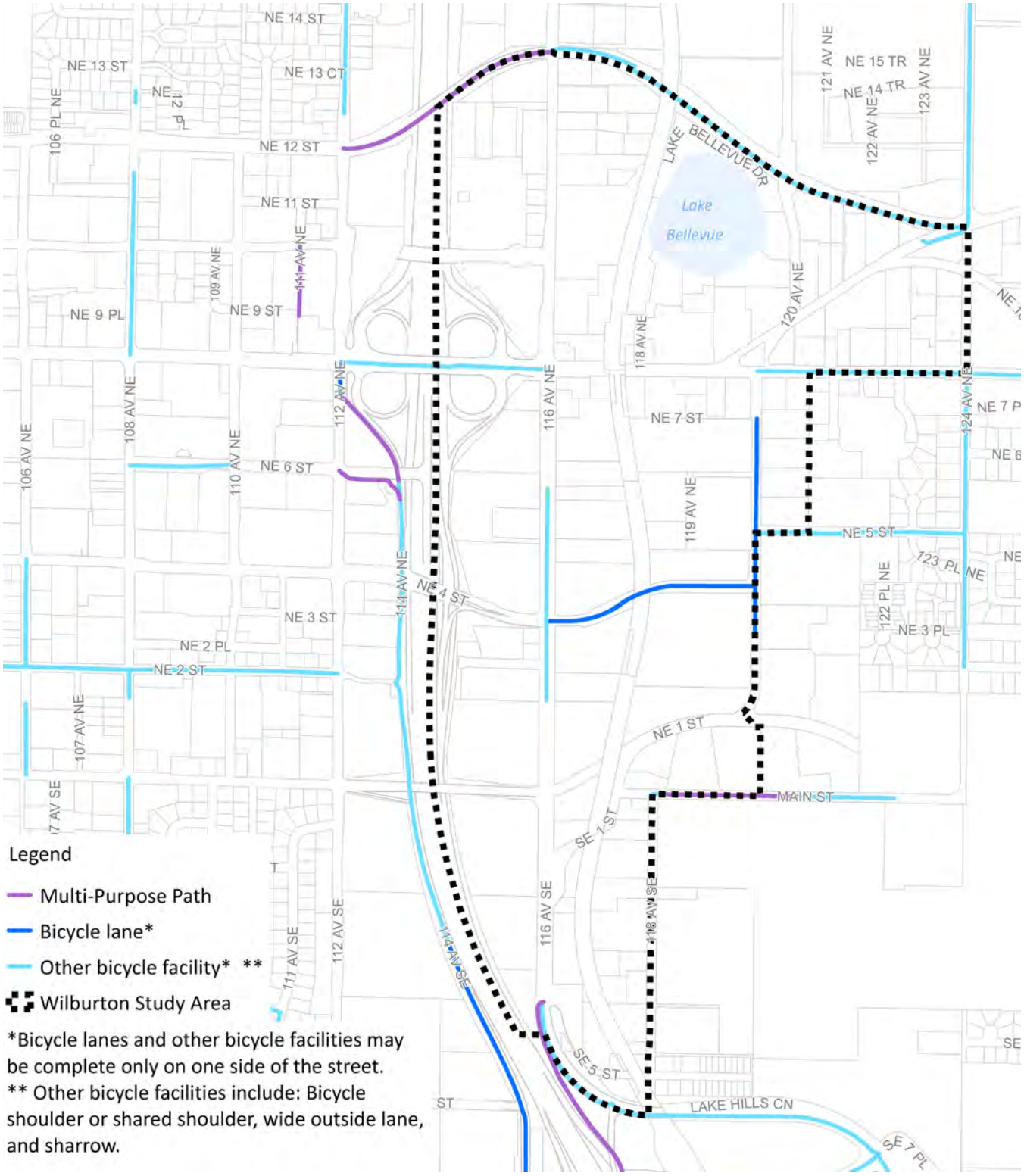


Figure 6.32 - Bicycle Infrastructure

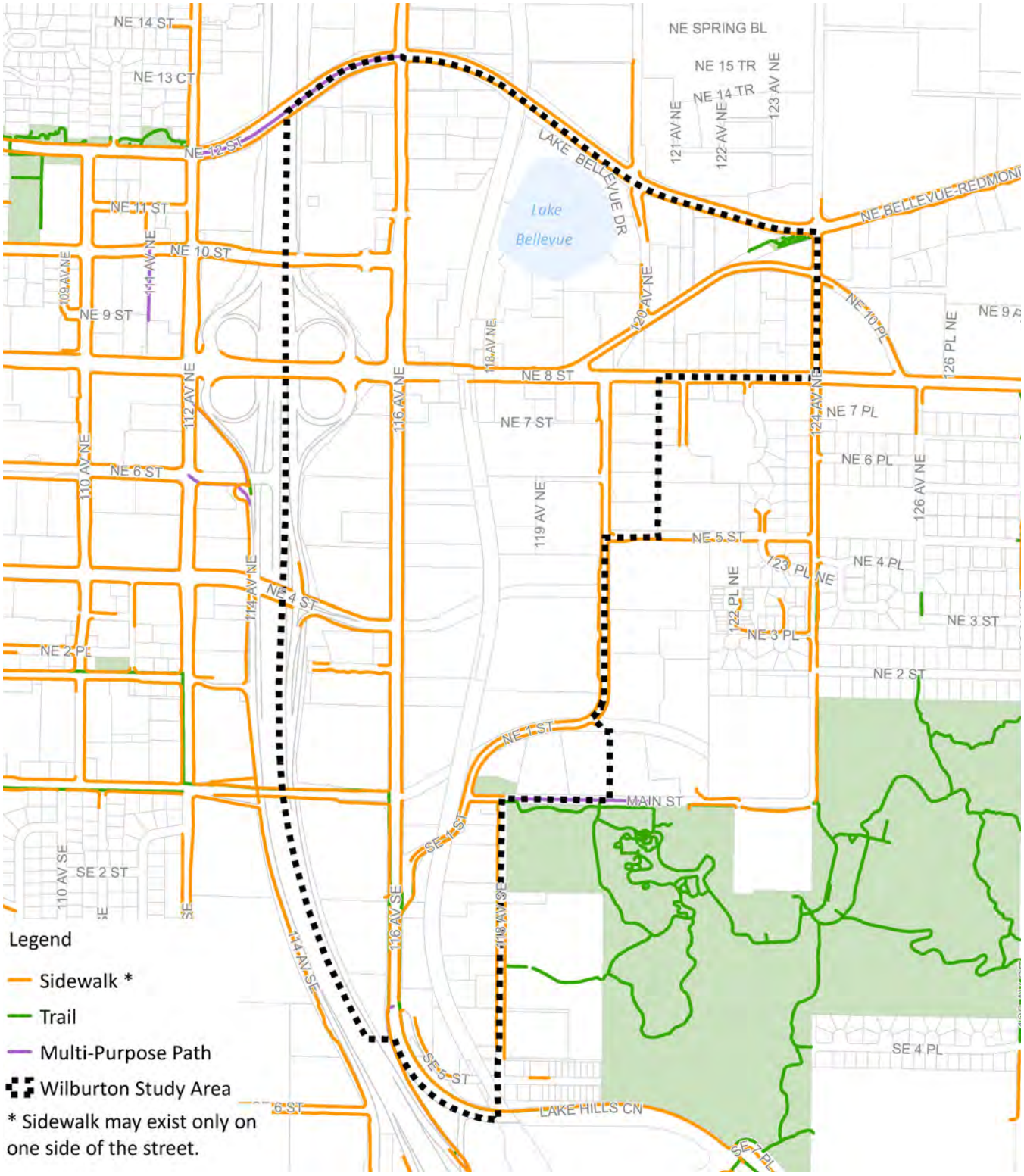


Figure 6.33 - Pedestrian Infrastructure

Utilities

Water System

Pressure zone

The study area falls within pressure zone BV400 in the water system's West Operating area. The Bel-Red inlet supplies most of the water flow to this area due to its capacity and proximity. However, some flow may also come through the Cherry Crest inlet. Lesser amounts may come from other sources during high demands or if either the Bel-Red or Cherry Crest inlets are off-line.

Storage

Clyde Hill 390 and Cherry Crest are the two reservoirs that serve the area normally. During high demands Meydenbauer and Woodridge reservoirs also provide capacity. The area is served by gravity, except during summer peak hours when the Meydenbauer Pump Station is used to pull water from Meydenbauer Reservoir. This area has been identified as needing more storage and more inlet capacity in the near term. Water connection charges could be added for new development in the future to help cover costs of new infrastructure.

Pipe Capacity and Age

Relative to the rest of Bellevue, the Wilburton study area has a lot of water capacity, with 12" mains in 116th Avenue and NE 8th (east of 120th), and 16" mains in old Bel-Red Rd and NE 8th (west of 120th). Other streets in the area have lots of loops and have at least 8" mains generally.

The recent fire at the Ford Dealership provided a good test of capacity in the area. The Fire Department drew over 10,000 gallons/min at one point during that event and reported no problems. This would not be possible in many other locations.

Many water mains in the area are circa 1960-1962 cast iron pipe, particularly the larger 12" and 16" mains. Other areas may have developed later and have ductile iron from the 1970s or 1980s. There isn't as much AC pipe as in other places, though there is some.

Water System Projects Planned in the Near Future

Three water supply projects are planned as part of the City's Capital Improvement Program. They are:

- CIP W-16: AC water main replacement in 116th Avenue from Main Street south to about SE 5th, tentatively scheduled for 2020.
- CIP W-103: Transmission capacity added from the East to the West Operating Area to make more water storage available.
- CIP W-104: Inlet capacity added.

Wastewater System

Sewer Basins

The area includes portions of the Mercer Slough (MRS10) and Lake Bellevue (LKB13) basins, plus many short sections of sewer main discharge directly into King County's Eastside Interceptor, which passes right through the middle of the area in the Eastside Rail Corridor. These are grouped together and designated as "Metro" basins MET51 and MET53.

Wastewater Facilities

The portion of the study area that falls within basin 10 flows to Bellevue's Bellefield Pump Station (being re-built now) and force main on 112th Ave, then to King County's Bellevue Trunk in Bellevue Way, to King County's Sweyolocken Pump Station (east side of Bellevue Way at Mercer Slough & I-90) and finally to King County's Eastside Interceptor. All other sewage in the study area drains directly to King County's Eastside Interceptor in the Eastside Rail

Corridor right-of-way.

Sewer System Projects Planned in the Near Future

Three major wastewater projects are currently underway that serve the portion of the Wilburton Study area in Basin 10. Flow criteria for both projects were increased during design, assuming that density would increase. Sewer connection charges may apply for benefiting customers.

CIP S-52 East CBD Trunk Capacity Improvements: Currently under construction and expected to be on-line in mid-2016. Located in 112th Ave NE, outside the Wilburton study area, but benefits the area significantly.

CIP S-53 Bellefield Pump Station Capacity Improvements: Currently under construction and expected to be on-line in mid-2016. Located on 112th Ave NE outside the Wilburton study area, but benefits the area significantly.

CIP S-60 Wilburton Sewer Capacity Upgrade: Has been designed and already bid. Construction should start in early 2016 and is expected to take a couple of years. This includes pipe in 116th Avenue NE from to NE 8th Street to NE 2nd Place, then down along the west side of the Extended Stay America and Lexus Dealership, through an existing crossing under I-405, down 114th Ave NE, and down SE 8th to 112th, where it discharges to East CBD.

Just north of the Wilburton study area in basin LKB13, CIP S-63 is up-sizing sewers in 120th between the Spring District and NE 8th Street, to benefit that local area. It is being constructed in conjunction with Transportation work in the area.

Stormwater System

All but seven and a half acres of the study area fall within the Sturtevant Creek Storm Drainage Basin, and the study covers over 30 percent of that drainage basin. The highest elevations (~214 feet) in the study area are found in the north near the intersection of NE 12th Street and 116th Avenue and in the east between NE 8th Street and Bel-Red Road. The lowest elevations (48 feet) are in the southwest corner of the study area where the wetland is located.

As shown in figure 10.9, over 73 percent of the study area is covered



Figure 6.34 - Gate Valve at BelRed Inlet Facility



Figure 6.35 - Clyde Hill 390 Reservoir Tank



Figure 6.36 - Force Mains Awaiting Installation

by impervious surfaces, 18.8 percent is pervious and the remaining eight percent is in open water, overwater structures or other surfaces. The majority of impervious surface in the study area is parking lots and driveways, followed by roofs and buildings, roads and small fraction is sidewalks.

About 27,575 feet or 5.2 miles of storm drainage pipe and 2,174 feet of open water stream convey stormwater to the wetland in the southwest corner of the study area before it drains to the Mercer Slough and finally out to Lake Washington.

Flooding is an issue around Lake Bellevue when rainfall exceeds three inches over a 24-hour period. In the 1980s and 1990s flooding was also an issue along lower Sturtevant Creek, but it has since been resolved through the replacement and expansion of culverts at and just upstream of SE 6th Street.

Electricity, Gas & Fiber

Two electric transmission lines run through the study area. One 115kV line, owned by Puget Sound Energy, runs north to south along 116th Avenue NE, and one 230kV line, owned by Seattle City Light, runs along the Eastside Rail Corridor. Potential for expansion exists along the Eastside Rail Corridor.

Puget Sound Energy operates their Center distribution substation at the southwest corner of NE 4th Street and 116th Avenue, and their North Bellevue distribution substation is located northwest of 116th Avenue and NE 12th Street just outside of the study area. Both of these substations have potential for expansion in the future.

Puget Sound Energy has natural gas mains in the study area running along NE 8th Street from 116th Avenue east, along 116th Avenue from NE 8th Street north, and along NE 12th Street from 116th Avenue west.

City owned fiber optic cables run north to south through the study area along 116th Avenue NE and along 120th Avenue NE and NE 1st Street south of NE 8th Street. Fiber optic cable also runs east to west through the study area along NE 8th Street and two inch fiber runs along NE 4th Street between 116th and 120th Avenues.

Zoning and Permitted Uses

Zoning

The following zoning designations can be found within the study area:

Professional Office District (PO): *Professional Office Districts provide areas for low-intensity office uses. Structures shall have exterior designs which are compatible with surrounding developments, vegetation and topography. The Professional Office District may act as a buffer between residential and more intensively developed properties.*

Office District (O): *Office Districts provide for business, financial and professional services offices, located on arterial or commercial access streets. In the proximity of other major business and commercial districts, this district may serve as a buffer between residential areas and more intensive commercial districts.*

Office and Limited Business District (O): *Office and Limited Business Districts provide areas for the location of integrated complexes made up of offices, hotels or motels, eating establishments and retail sales accessory to permitted uses. Such districts are located in the areas that abut and have convenient access to freeways and major highways.*

General Commercial District (GC): *General Commercial is a mixed retail and commercial designation that provides for the location of a wide variety of business activities that provide goods and services to other businesses and the general public.*

Community Business District (CB): *Community Business Districts serve community markets and provide areas for the location of services and retail outlets, other than Downtown.*

Multifamily Residential Districts (R-20 and R-30): *Multifamily Residential Districts provide areas for attached residential dwellings of low density (10 units per acre) and of moderate density (15, 20, and 30 dwellings per acre). The R-20 and R-30 Districts are intended to be convenient to centers of employment and have primary access to arterial streets.*

Bel-Red

Bel-Red is a major mixed use employment and residential area characterized by transit-oriented, nodal development pattern, over time replacing the area's original low intensity light industrial and commercial past. The City will encourage land uses in the Bel-Red area which promote employment, retail and residential opportunities. More intense uses and greater heights are concentrated in designated nodal development areas along the NE 15th/16th corridor; these areas are intended to be served by high capacity transit. New development in these designated nodal areas is expected to have a transit-supportive and pedestrian-friendly form. The entire Bel-Red area will be distinguished by environmental and community amenities that serve residents and employees in the area, as well as nearby neighborhoods and the entire city. New development is expected to make significant contributions to these amenities, and to the infrastructure needed to support redevelopment.

Redevelopment of the Bel-Red area will occur over decades, and the City encourages a graceful transition of land use over time. Therefore special provisions are appropriate for existing uses that may not be part of the area's long-term envisioned future.

The following zoning designations can be found in the northern portion of the Wilburton Commercial Area:

Bel-Red-Medical Office (Bel-Red-MO): *The purpose of the Bel-Red-MO Land Use District is to*

provide an area for office uses, with an emphasis on medical office.

Bel-Red-Residential (Bel-Red-R): *The purpose of the Bel-Red-R Land Use District is to provide an area for residential uses. Limited retail and service uses are permitted secondary to residential use, in order to provide the amenity of shopping and services within easy walking distance of residential structures.*

Bel-Red-General Commercial (Bel-Red-GC): *The purpose of the Bel-Red-GC Land Use District is to provide an area for a wide variety of business activities that provide goods and services to other businesses and the general public.*

Bel-Red-Commercial/Residential (Bel-Red-CR): *The purpose of the Bel-Red-CR Land Use District is to provide an area for a mix of housing, retail, office, and services. Multiple uses are encouraged on individual sites, in individual buildings and in the district as a whole.*

	Professional Office	Office	Office/Limited Business	General Commercial	Community Business	Medical Institution	Residential		BelRed Medical Office		BelRed Residential		BelRed General Commercial		BelRed Commercial Residential	
Land Use Classification	PO	O	OLB	GC	CB	MI	R-20	R-30	BR-MO-1		BR-R		BR-GC		BR-CR	
Dimensions																
Minimum Setbacks of Structures (feet) Front Yard	30	30	50	15		See Table X.X	20	20	0		0		0		0	
Rear Yard	25	20	30				25	25	0		0		0		0	
Side Yard	20	20	30				5	5	0		0		0		0	
2 Side Yards	40	40	60				15	15								
Minimum Lot Area Acres or Thousands of Sq. Ft.							8.5	8.5								
Dwelling Units Per Acre	10	20	30		30		20	30								
Minimum Dimensions (feet) Width of Street Frontage			200				30	30								
Width Required in Lot			200				70	70								
Depth Required in Lot							80	80								
Maximum in Building Height (feet)	20	30	45	30	45		30	40	Base 45	Max 150	Base 30	Max 45	Base 30	Max 45	Base 45	Max 70
Maximum Lot Coverage by Structures (percent)	35	35	35				35	35	75		75		75		75	
Maximum Impervious Surface (percent)	80	80	80	85	85		80	80	75		75		75		75	
Gross SF/Floor Above 40 ft. (gs/f)									Non Residential 28,000	Residential 28,000/12,000					28,000	
Gross SF/Floor Above 80 ft. (gs/f)									28,000	9,000						
Floor Area Ratio									Base 1.0	Max 4.0	Base 1.0	Max 2.0	Base/Max 1.0		Base 1.0	Max 2.0

Figure 6.37 - Zoning Dimensional Chart

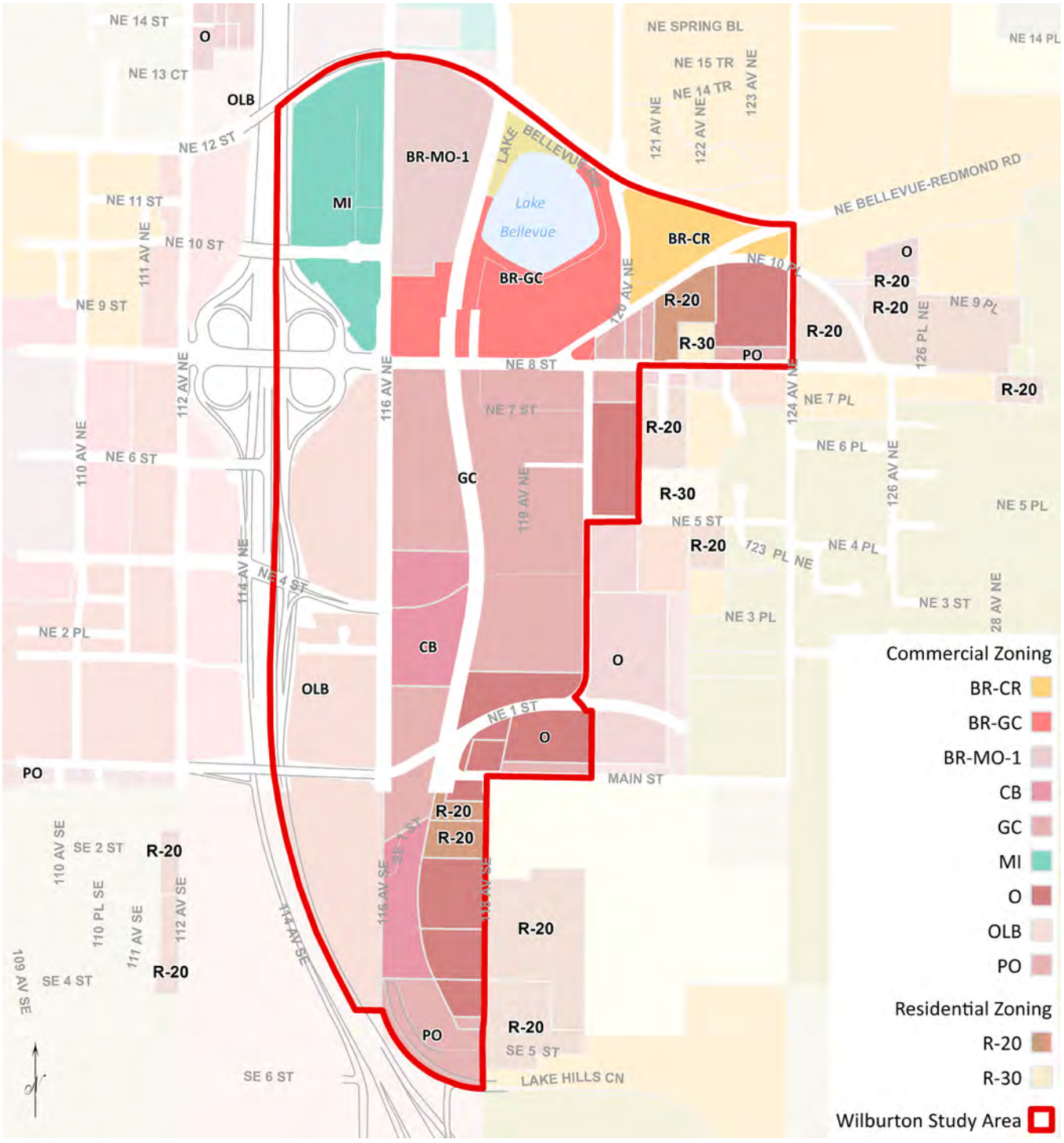


Figure 6.38 - Zoning Map

Medical Institution District (MI)

The Medical Institution (MI) District provides for the location of hospital uses and ancillary uses to the primary hospital use located on the same site or on sites in close proximity. The purpose of the district is to encourage comprehensive long-term master development planning for the properties designated MI and to allow flexible dimensional standards to facilitate development of major medical institutions and provision of the vital public services offered by these institutions. Specific development areas have been established in order to implement the objectives of the Medical Institution District.

Hospital Center Development Area (DA1):
The purpose of the Hospital Center Development Area is to provide an area for the primary hospital and the most intensive ambulatory health care center uses to be located within close proximity. The tallest heights and largest floor plates in the MI district are appropriate in this area. The Hospital Center Development Area is located on the topographically lowest portion of the district adjacent to the freeway where pedestrian orientation is low and heights of the tallest campus structures and largest floor plates are most appropriate. The tallest heights are necessary for the primary hospital towers to accommodate patient bed demand in the region within floor plates that are sized appropriately for patient care delivery. Large floor plates are necessary for hospital diagnostic and treatment uses and ambulatory health care center uses to accommodate adjacencies of multiple operating rooms, interventional radiology rooms and urgent care. The Hospital Center Development Area provides the dimensional flexibility necessary to allow the primary hospital and ambulatory health care center uses to be located in close proximity and benefit from the collocation of complementary uses. Medical office uses may also be appropriate for this area, but do not have the same proximity needs as the ambulatory health care center uses. Gateways on 116th Avenue NE and NE 8th Street and NE 10th Street identify the entry into the district and provide wayfinding cues for identification of individual institutions located within the district.

Medical Office Development Area (DA2):
The purpose of the Medical Office Development Area is to provide an area for medical office and hospital-related uses that are less dependent on immediate access to the primary hospital emergency rooms and patient bed. Taller buildings are appropriate in this area. Building mass variations (i.e.; stepbacks, floor plate limitations) create transitions to less intense land use districts. Appropriate sidewalk widths, pedestrian-sensitive design and amenities and gateways ensure pedestrian orientation to perimeter sidewalks located on 116th Avenue NE and NE 12th Street. A gateway on 116th Avenue NE at NE 12th Street identifies the entry into the district.

Hospital Perimeter Development Area (DA3):
The purpose of the Hospital Perimeter Development Area (DA3) is to provide an area for less intense hospital and ambulatory health care center uses to be located within close proximity to the primary hospital located in the Hospital Center Development Area (DA1). The Hospital Perimeter Development Area is located on a topographically sloping portion of the district adjacent to the Burlington Northern Railroad right-of-way where parking can be accommodated under the building and is appropriately separated from pedestrian ways. More modest heights are contemplated for the less intense hospital uses in the Hospital Perimeter



Legend

DA1 = Development Area 1, Hospital Center Development Area
DA2 = Development Area 2, Medical Office Perimeter Development Area
DA3 = Development Area 3, Hospital Perimeter Development Area

Figure 6.39 - Medical Institution Development Areas

Development Area, but floor plates remain sized appropriately for patient care delivery. Large floor plates are necessary for hospital diagnostic and treatment uses and ambulatory health care uses to accommodate adjacencies of multiple operating rooms, interventional radiology rooms and urgent care. The Hospital Perimeter Development Area provides the dimensional flexibility necessary to allow the less intense hospital uses and ambulatory health care center uses to be located in close proximity and benefit from the collocation of complementary uses. Medical office uses may also be appropriate for this area, but do not have the same proximity needs as the ambulatory health care center uses.

Medical Institution (MI) District Development Area	Minimum Setback					Max. Bldg. Floor Area per Floor Above 40' Stepback	Max Lot Coverage District-Wide	Building Height	Separation Between Towers Above 40' Stepback	Floor Area Ratio
	I-405 Access Ramps/	NE 10th Street	116th Avenue NE/NE 12th Street	I-405	Side/Rear					
Hospital Center (DA1)	30'	0'	0'	50'			75%	75' 100' (Ambulatory Health Care Center) 200' (Hospital)	40' (Hospital)	
Medical Office Perimeter (DA2)		30'	0'			24,000	75%	60' 140' (Medical Office)		
Hospital Perimeter (DA3)			0'		20'		75%	100'		1.0

Figure 6.40 - Medical Institution Dimensional Chart

Permitted Uses

The following pages represent the permitted uses in each zoning district (highlighted in yellow). The permitted uses are exhibited by citywide land use classification (pages 77 - 111) and BelRed uses (pages 112 - 129).

20.10.400 Use chart described – Interpretation.

In Chart 20.10.440, land use classifications and standard Land Use Code reference numbers are listed on the vertical axis. City of Bellevue land use districts are shown on the horizontal axis.

A. If no symbol appears in the box at the intersection of the column and the row, the use is not allowed in that district, except for certain short-term uses (see Temporary Use Permits, Part 20.30M LUC).

B. If the symbol "P" appears in the box at the intersection of the column and row, the use is permitted subject to general requirements for the use and the use district.

C. If the symbol "C" appears in the box at the intersection of the column and the row, the use is permitted subject to the Conditional Use provisions specified in Part 20.30B or 20.30C LUC and to general requirements for the use and the use district.

D. If the symbol "A" appears in the box at the intersection of the column and the row, the use is permitted subject to the Administrative Conditional Use provisions as specified in Part 20.30E LUC and to general requirements for the use and the use district.

E. If the symbol "PD" appears in the box at the intersection of the column and the row, the use is permitted subject to the Planned Unit Development provisions as specified in Part 20.30D LUC and to general requirements for the use and the use district.

F. If a number appears in the box at the intersection of the column and the row, the use is permitted through the applicable review process and subject to the special limitation indicated in the corresponding Note. (Ord. 3530, 8-12-85, §§ 2 – 5; Ord. 3145, 9-27-82, § 20)

20.10.420 Interpretation of land use charts by Director.

A. Director's Authority. In the case of a question as to the inclusion or exclusion of a particular proposed use in a particular use category, the Director shall have the authority to make the final determination. The Director shall make the determination according to the characteristics of the operation of the proposed use and based upon the Director's interpretation of the Standard Land Use Coding Manual, the Standard Industrial Classification Manual and the North American Industry Classification System.

B. Conflict. In the case of a conflict between the Land Use District Descriptions (contained in LUC 20.10.180 through 20.10.395) and the use chart, the use charts contained in LUC 20.10.440 or Chapter 20.25 LUC shall prevail.

C. Appeal. An applicant may appeal the final decision of the Director provided pursuant to subsection A of this section by requesting an interpretation of the use charts contained in LUC 20.10.440 or Chapter 20.25 LUC relating to the inclusion or exclusion of a proposed use. This request for interpretation of the Land Use Code charts will be processed pursuant to Part 20.30K LUC. (Ord. 5876, 5-18-09, § 3; Ord. 3530, 8-12-85, § 6)

20.10.440 Land use charts.

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Manufacturing – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
2 and 3	Manufacturing (1,4)											
21	Food and Beverage Products Mfg.											
22	Textile Products Mfg.											

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Manufacturing – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
23	Apparel, Fabric, Accessories and Leather Goods Mfg.											
24	Lumber and Wood Products Mfg.											
25	Furniture and Fixtures Mfg.											
26	Paper Products Mfg.											
27	Printing, Publishing and Allied Industries											
28	Chemicals and Related Products Mfg.											
31	Rubber Products Mfg.											
314	Misc. Plastic Products Mfg.											
321 322 324 325 327	Light Stone, Clay, and Glass Products Mfg.; Glass, Pottery and China Ceramic Products, Stone Cutting and Engraving											
329	Handcrafted Products Mfg.											
3427	Computers, Office Machines and Equipment Mfg.											
3433 3434 3435 3436 3437	Electrical Equipment Mfg.; Appliances, Lighting, Radio, TV Communications, Equipment and Component Parts											
3491 3492 3493 3495 3497	Fabricated Metal Products Mfg.; Containers, Hand Tools, Heating Equipment, Screw Products, Coating and Plating											
35	Measuring, Analyzing and Controlling Instruments, Photographic, Medical and Optical Goods; Watches and Clocks Mfg.; Computer Software											
3997	Signs and Advertising Display Mfg.											
3999	Misc. Light Fabrication Assembly and Mfg. Not Elsewhere Classified											

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

* Not effective within the jurisdiction of the East Bellevue Community Council.

KEY

P – PERMITTED USE
C – CONDITIONAL USE (see Part 20.30B or Part 20.30C)
PD – PERMITTED subject to planned unit development only. (See Part 20.30D)
A – ADMINISTRATIVE CONDITIONAL USE (see Part 20.30E)
S – Permitted only as a subordinate use to a permitted or special use

Chart 20.10.440

Uses in land use districts

		Manufacturing – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
2 and 3	Manufacturing (1,4)										
21	Food and Beverage Products Mfg.				P 5	S 5	S	S	S		
22	Textile Products Mfg.				P						
23	Apparel, Fabric, Accessories and Leather Goods Mfg.				P	S		S	S		
24	Lumber and Wood Products Mfg.				S	S		S	S		
25	Furniture and Fixtures Mfg.				P	S		S	S		
26	Paper Products Mfg.				S 2						
27	Printing, Publishing and Allied Industries				P	P		S	S		
28	Chemicals and Related Products Mfg.				S 3						
31	Rubber Products Mfg.				C						
314	Misc. Plastic Products Mfg.				P	P		S	S		

		Manufacturing – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
321 322 324 325 327	Light Stone, Clay, and Glass Products Mfg.; Glass, Pottery and China Ceramic Products, Stone Cutting and Engraving				P	P		S	S		
329	Handcrafted Products Mfg.				P	P		P	P		
3427	Computers, Office Machines and Equipment Mfg.				P	P					
3433 3434 3435 3436 3437	Electrical Equipment Mfg.; Appliances, Lighting, Radio, TV Communications, Equipment and Component Parts				P	S		S	S		
3491 3492 3493 3495 3497	Fabricated Metal Products Mfg.; Containers, Hand Tools, Heating Equipment, Screw Products, Coating and Plating				P	S		S	S		
35	Measuring, Analyzing and Controlling Instruments, Photographic, Medical and Optical Goods; Watches and Clocks Mfg.; Computer Software	P	P	P	P	S		S	S	P	P
3997	Signs and Advertising Display Mfg.				P	S		S	S		

		Manufacturing – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
3999	Misc. Light Fabrication Assembly and Mfg. Not Elsewhere Classified				P	S		S	S		

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Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

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(Ord. 6277, 3-7-16, § 1; Ord. 6190, 11-3-14, § 5; Ord. 5876, 5-18-09, § 4; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 3530, 8-12-85, § 7)

KEY

P – PERMITTED USE
C – CONDITIONAL USE (see Part 20.30B or Part 20.30C)
PD – PERMITTED subject to planned unit development only. (See Part 20.30D)
A – ADMINISTRATIVE CONDITIONAL USE (see Part 20.30E)
S – Permitted only as a subordinate use to a permitted or special use

Notes: Uses in land use districts – Manufacturing

(1) Manufacturing uses exclude concrete batch plants and primary metal industries such as foundries, smelters, blast furnaces and rolling mills.

(2) Paper products manufacturing excludes paper and pulp manufacturing in LI Districts.

(3) Manufacture of flammable, dangerous or explosive materials is excluded in LI Districts.

(4) An office is permitted if accessory and subordinate to a manufacturing use.

(5) Food and beverage public tasting rooms are permitted only as a subordinate use to the manufacturing use. (Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4816, 12-4-95, § 401; Ord. 4028, 7-17-89, § 1; Ord. 2945, 2-2-81, § 5)

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Recreation – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
7	Cultural Entertainment and Recreation											
711	Library, Museum			C 1	C 1	C 1	C 1	C 1	C 1	C 1	C 1	C 1
7113	Art Gallery			C	C	C	C	C	C	C	C	C
712	Nature Exhibitions: Aquariums, Botanical Gardens and Zoos											
7212 7214 7222 7231 7232	Public Assembly (Indoor): Sports, Arenas, Auditoriums and Exhibition Halls but Excluding School Facilities											
7212 7214 7218	Motion Picture, Theaters, Night Clubs, Dance Halls and Teen Clubs											
7213	Drive-In Theaters											
	Adult Theaters (7)											
7223 73	Public Assembly (Outdoor): Fairgrounds and Amusement Parks, Miniature Golf, Golf Driving Ranges, Go-Cart Tracks, BMX Tracks and Skateboard Tracks											
73	Commercial Amusements: Video Arcades, Electronic Games											
7411 7413 7422 7423 7424 7441 7449	Recreation Activities: Golf Courses, Tennis Courts, Community Clubs, Athletic Fields, Play Fields, Recreation Centers, Swimming Beaches and Pools (2,11)	C	C	C	C	C	C	C	C	P	P	P
744	Marinas, Yacht Clubs	C	C	C	C	C	C	C	C	C	C	C
7413 7414 7415 7417 7425	Recreation Activities: Skating, Bowling, Gymnasiums, Athletic Clubs, Health Clubs, Recreation Instruction											
7491 7515	Camping Sites and Hunting Clubs	C	C	C	C	C	C	C	C	C	C	C
76	Private Leisure and Open Space Areas Excluding Recreation Activities Above	C	C	C	C	C	C	C	C	P	P	P
	Public/Private Park	C	C	C	C	C	C	C	C	P	P	P
	Stables and Riding Academies	C										
	Boarding or Commercial Kennels	C										
	City Park* (10)	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

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Chart 20.10.440

Uses in land use districts

		Recreation – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
7	Cultural Entertainment and Recreation										
711	Library, Museum	P	P	P				P	P	P	P
7113	Art Gallery	P	P	P				P	P	P	P
712	Nature Exhibitions: Aquariums, Botanical Gardens and Zoos	C	C	C	C	C		C	C	C	C
7212 7214 7222 7231 7232	Public Assembly (Indoor): Sports, Arenas, Auditoriums and Exhibition Halls but Excluding School Facilities			P				P	P	P	P
7212 7214 7218	Motion Picture, Theaters, Night Clubs, Dance Halls and Teen Clubs			P				P	P	P	P
7213	Drive-In Theaters				C	C		C	C		
	Adult Theaters (7)			P				P	P	P	P

		Recreation – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
7223 73	Public Assembly (Outdoor): Fairgrounds and Amusement Parks, Miniature Golf, Golf Driving Ranges, Go-Cart Tracks, BMX Tracks and Skateboard Tracks					C		C	C		
73	Commercial Amusements: Video Arcades, Electronic Games					A		A	A		
7411 7413 7422 7423 7424 7441 7449	Recreation Activities: Golf Courses, Tennis Courts, Community Clubs, Athletic Fields, Play Fields, Recreation Centers, Swimming Beaches and Pools (2,11)	C	C	C		C	C	C	C	C	C
744	Marinas, Yacht Clubs										
7413 7414 7415 7417 7425	Recreation Activities: Skating, Bowling, Gymnasiums, Athletic Clubs, Health Clubs, Recreation Instruction		C 3	C	P 3	P 3	A 9	P	P	C	C
7491 7515	Camping Sites and Hunting Clubs	C	C	C	C	C	C	C	C	C	C
76	Private Leisure and Open Space Areas Excluding Recreation Activities Above	P	P	P	P	P	P	P	P	P	P
	Public/Private Park	P	P	P	P	P	P	P	P	P	P

Recreation – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
	Stables and Riding Academies										
	Boarding or Commercial Kennels										
	City Park* (10)	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C	P/C

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

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KEY

P – PERMITTED USE
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PD – PERMITTED subject to planned unit development only. (See Part 20.30D)
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Notes: Uses in land use districts – Recreation

(1) Cultural activities include only branch libraries in R-2.5, R-3.5, R-4, R-5, R-7.5, R-10, R-15, R-20 and R-30 Districts.

(2) For carnivals, see LUC 20.20.160.

(3) Recreation activities do not include athletic clubs in O, LI and GC Districts.

(4) Limited to a maximum of 2,000 gross square feet per establishment.

(5) Nonresidential uses are permitted in Downtown-R Districts only when developed in a building which contains residential uses.

(6) Excludes zoos.

(7) Adult theaters are subject to the regulations for adult entertainment uses in LUC 20.20.127.

(8) Athletic and health clubs are permitted without administrative conditional use approval if subordinate to a permitted use.

(9) Recreation activities are restricted to health clubs, recreation instruction, and gymnasiums in NB Districts and the total floor area for all combined recreation activity uses may not exceed 5,000 square feet per NB site.

*(10) City parks are generally permitted in all zones. However, the following types of uses or facilities in City parks in single-family or R-10 zones require conditional use approval: lighted sports and play fields, sports and play fields with amplified sound, community recreation centers, motorized boat ramps, and beach parks on Lake Washington, Lake Sammamish, Phantom Lake and Larson Lake. Nonrecreation uses

in City parks in all zones outside the Downtown require conditional use approval, except that the permit requirements for wireless communication facilities shall be as set forth in LUC 20.20.195. For purposes of this requirement, "nonrecreation use" means a commercial, social service or residential use located on park property but not functionally related to City park programs and activities.

(11) See LUC 20.20.190 for additional regulations. (Ord. 6197, 11-17-14, § 3; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5460, 8-4-03, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 5038, 11-17-97, § 1; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4816, 12-4-95, § 401; Ord. 4511, 4-5-93, § 2; Ord. 4422, 9-28-92, § 2; Ord. 4028, 7-17-89, § 1; Ord. 3884, 2-16-88, § 1; Ord. 2945, 2-2-81, § 5)

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Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Residential – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
1	Residential											
	Single-Family Dwelling (3)	P	P	P	P	P	P	P	P	P	P	P
	Two to Four Dwelling Units Per Structure (6)	PD	PD	PD	PD	PD	PD	PD	P	P	P	P
	Five or More Dwelling Units Per Structure (6)	PD	PD	PD	PD	PD	PD	PD	P	P	P	P
12	Group Quarters: Dormitories, Fraternal Houses, Excluding Military and Correctional Institutions and Excluding Secure Community Transition Facilities (16)								C	P	P	P
	Rooming House (17)								P	P	P	P
	Senior Citizen Dwellings (4,7*)	PD 5	PD 5	PD 5	PD 5	PD 5	PD 5	PD 5	P	P	P	P
13 15	Hotels and Motels											
	Congregate Care Senior Housing (4,7*,16)								P	P	P	P
6516	Nursing Home (7*,16)								C	P	P	P
	Assisted Living (4,7*)								C	P	P	P
	Accessory Dwelling Unit (9)	S	S	S	S	S	S	S	S	S	S	S

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

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Uses in land use districts

		Residential – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
1	Residential										
	Single-Family Dwelling (3)	P 15	P 1	S	S	S	P 8	S	S	S	S
	Two to Four Dwelling Units Per Structure (6)		P 1	P			P 8	P 6	P	P	P
	Five or More Dwelling Units Per Structure (6)		P 1	P			P 8	P 6	P	P	P
12	Group Quarters: Dormitories, Fraternal Houses, Excluding Military and Correctional Institutions and Excluding Secure Community Transition Facilities (16)							C	C		
	Rooming House (17)			P				P	P	P	P
	Senior Citizen Dwellings (4,7*)	P	P	P			P 8	P	P	P	P
13 15	Hotels and Motels			P				C	C	P	P
	Congregate Care Senior Housing (4,7*,16)	P	P	P			P	P	P	P	P
6516	Nursing Home (7*,16)	C	P	P			C	P	P	P	P
	Assisted Living (4,7*)	C	P	C			C	P	P	C	C
	Accessory Dwelling Unit (9)	S	S	S	S	S	S	S	S	S	S

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

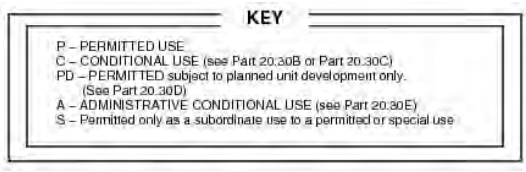
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Ord. 5089, 8-3-98, § 3; Ord. 4999, 7-7-97, § 1; Ord. 4959, 1-6-97, § 1; Ord. 4861, 3-28-96, § 16; Ord. 4816, 12-4-95, § 401; Ord. 4696-A, 11-21-94, § 2; Ord. 4498, 3-15-93, § 1; Ord. 4422, 9-28-92, § 2; Ord. 3530, 8-12-85, § 7)

Notes: Uses in land use districts – Residential

(1) No more than 50 percent of the gross floor area of the structure shall be devoted to residential use in O Districts, unless Conditional Use Permit approval is obtained and the applicable Comprehensive Plan policies do not discourage multifamily uses.

(2) (Deleted by Ord. 4999).

(3) A boardinghouse or bed and breakfast is permitted in a single-family dwelling, provided the requirements of LUC 20.20.140 are met.

(4) An agreement must be recorded with the King County Department of Records and Elections restricting senior citizen dwellings, congregate care senior housing, or assisted living to remain in perpetuity as senior housing.

(5) Through the planned unit development process, senior citizen dwellings may include common dining and recreation facilities.

(6) Multifamily development in Planning Districts A and B of the Crossroads Subarea is not allowed. Multifamily development in Planning District E of the Crossroads Subarea north of NE 8th Street may be allowed through a Council-approved development agreement that is consistent with Chapter 36.70B RCW and includes design guidelines that are consistent with the vision of Comprehensive Plan Policies S-CR-79 and S-CR-81 regarding the creation of mixed-use developments with pedestrian connections, park connections where appropriate, and public open space. Refer to the Crossroads Subarea Planning District Guidelines of the Comprehensive Plan for Planning Districts A, B and E.

(7) In Planning Districts A and B of the Crossroads Subarea and in Planning District E of the Crossroads Subarea north of NE 8th Street, existing legal nonconforming multifamily uses can be converted to senior citizen housing, congregate care senior housing, assisted living or nursing homes. Refer to the Crossroads Subarea Planning District Guidelines of the Comprehensive Plan for Planning Districts A, B and E.*

(8) These residential uses are permitted in NB Districts only if located on the second floor and above the permitted ground floor nonresidential uses.

(9) Accessory dwelling units are permitted only as subordinate to single-family dwellings and are subject to the provisions of LUC 20.20.120.

(10) (Deleted by Ord. 4999).

(11) (Deleted by Ord. 4999).

(12) (Deleted by Ord. 4999).

(13) (Deleted by Ord. 4999).

(14) (Deleted by Ord. 4999).

(15) One single-family dwelling unit, occupying no more than 25 percent of the floor area of the structure, is permitted in the PO District.

(16) See LUC 20.20.190 for additional regulations.

(17) See LUC 20.20.700 for general development requirements for rooming house. (Ord. 6229, 6-1-15, § 1; Ord. 6223, 4-6-15, § 1; Ord. 6197, 11-17-14, § 2; Ord. 5791, 12-3-07, § 4; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5476, 10-20-03, § 1; Ord. 5475, 10-20-03, § 4; Ord. 5404, 8-5-02, § 1; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5234, 7-17-00, § 1; Ord. 5089, 8-3-98, § 3; Ord. 4999, 7-7-97, § 1; Ord. 4959, 1-6-97, § 1; Ord. 4861, 3-28-96, §16; Ord. 4816, 12-4-95, § 401; Ord. 4696-A, 11-21-94, § 2; Ord. 4498, 3-15-93, § 1; Ord. 4422, 9-28-92, § 2; Ord. 4255, 6-3-91, § 1; Ord. 4065, 10-23-89, § 1; Ord. 4028, 7-17-89, § 1; Ord. 2945, 2-2-81, § 5)

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Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Resources – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
8	Resource Production (Minerals, Plants, Animals Including Pets and Related Services)											
81	Agriculture, Production of Food and Fiber Crops, Dairies, Livestock and Fowl, Excluding Hogs	P	P	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 1
	Marijuana Production											
8192	Other Horticultural Specialties: Medical Cannabis Collective Gardens (4)											
821	Agricultural Processing											
	Marijuana Processing											
	Medical Marijuana Cooperative (7)											
8221	Veterinary Clinic and Hospital (5)											
8222	Poultry Hatcheries											
83	Forestry, Tree Farms and Timber Production	P	P	C	C	C	C	C	C	C	C	C
8421	Fish Hatcheries											
85	Mining, Quarrying (Including Sand and Gravel), Oil and Gas Extraction	C	C	C	C	C	C	C	C	C	C	C

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Uses in land use districts

		Resources – Nonresidential Districts									
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		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
8	Resource Production (Minerals, Plants, Animals Including Pets and Related Services)										
81	Agriculture, Production of Food and Fiber Crops, Dairies, Livestock and Fowl, Excluding Hogs	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 1	P 1
	Marijuana Production				A 6						
8192	Other Horticultural Specialties: Medical Cannabis Collective Gardens (4)										
821	Agricultural Processing				P 2						
	Marijuana Processing				A 6						
	Medical Marijuana Cooperative (7)										
8221	Veterinary Clinic and Hospital (5)	P	P		P	P	P 3	P	P		
8222	Poultry Hatcheries				P	P					
83	Forestry, Tree Farms and Timber Production	C	C	C	C	C	C	C	C	C	C
8421	Fish Hatcheries				P						
85	Mining, Quarrying (Including Sand and Gravel), Oil and Gas Extraction	C	C	C	C	C	C	C	C	C	C

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A – ADMINISTRATIVE CONDITIONAL USE (see Part 20.30E)
S – Permitted only as a subordinate use to a permitted or special use

(Ord. 6316, 11-7-16, § 1; Ord. 6277, 3-7-16, § 1; Ord. 6253, 8-3-15, §§ 3, 4; Ord. 6197, 11-17-14, § 4; Ord. 6190, 11-3-14, § 5; Ord. 6132 B-1, 10-21-13, § 2; Ord. 5876, 5-18-09, § 4; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4422, 9-28-92, § 2; Ord. 3530, 8-12-85, § 7)

Notes: Uses in land use districts – Resources

(1) In the R-2.5, R-3.5, R-4, R-5, R-7.5, R-10, R-15, R-20, R-30, NB, PO, O, OLB, F1, F2, F3, LI, GC and CB Districts agriculture is limited to the production of food and fiber crops.

(2) Agriculture processing excludes grain mill products manufacturing and slaughtering in LI Districts.

(3) Veterinary clinics and hospitals are limited to 5,000 square feet per use in NB Districts.

(4) Medical cannabis collective gardens are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses.

(5) See LUC 20.20.130.E for additional regulations.

(6) See LUC 20.20.535 for general development requirements for marijuana uses.

(7) Medical marijuana cooperatives, as authorized under RCW 69.51A.250, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses. (Ord. 6316, 11-7-16, § 1; Ord. 6253, 8-3-15, §§ 3, 4; Ord. 6197, 11-17-14, § 4; Ord. 6132 B-1, 10-21-13, § 2; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4816, 12-4-95, § 401; Ord. 4422, 9-28-92, § 2; Ord. 2945, 2-2-81, § 5)

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
6	Services											
61	Finance, Insurance, Real Estate Services											
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair											
6241	Funeral and Crematory Services											
6262	Cemeteries	C	C	C	C	C	C	C	C	C	C	C
629	Child Care Services (3,4)											
	Family Child Care Home in Residence	P	P	P	P	P	P	P	P	P	P	P

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
	Child Day Care Center								C	C	P	P
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment											
634	Building Maintenance and Pest Control Services											
637	Warehousing and Storage Services, Excluding Stockyards											
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools											
641	Auto Repair and Washing Services (26)											
649	Repair Services: Watch, TV, Electrical, Upholstery											
	Professional Services: Medical Clinics and Other Health Care Related Services											
	Professional Services: Other											
6513	Hospitals											
66	Contract Construction Services: Building Construction, Plumbing, Paving and Landscape											
671	Governmental Services: Executive, Legislative, Administrative and Judicial Functions					C 15						
672 673	Governmental Services: Protective Functions and Related Activities Excluding Maintenance Shops	C	C	C	C	C	C	C	C	C	C	C
	Limited Governmental Services: Protective Functions (21)								P	P	P	P
	Limited Governmental Services: Executive and Administrative, Legislative and Protective Functions (22)											
674 675	Military and Correctional Institutions (27)	C	C	C	C	C	C	C	C	C	C	C
	Secure Community Transition Facility (23,24)											
681	Education: Primary and Secondary (25,27)	A/C	A/C	A/C	A/C	A/C	A/C	A/C	A/C	A/C	A/C	A/C
682	Universities and Colleges (27)	C	C	C	C	C	C	C	C	C	C	C
683	Special Schools: Vocational, Trade, Art, Music, Driving, Barber and Beauty Schools											
691	Religious Activities (27)	C	C	C	C	C	C	C	C	C	C	C

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
692 (A)	Professional and Labor Organizations Fraternal Lodge											
692 (B)	Social Service Providers	A 14	A 14	A 14	A 14	A 14	A 14	A 14	A 14	A 14	A 14	A 14
	Administrative Office – General											
	Computer Program, Data Processing and Other Computer-Related Services											
	Research, Development and Testing Services											
	Marijuana Research (28)											

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

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Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Nonresidential Districts									
		Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (16)	CB	F1	F2	F3
6	Services										
61	Finance, Insurance, Real Estate Services	P	P	P	P 1	P	P	P	P	P	P

		Services – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (16)	CB	F1	F2	F3
62	Personal Services Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair			S	P 2	P	P	P	P	S	S
6241	Funeral and Crematory Services	C	C	C						C	C
6262	Cemeteries	C	C	C	C	C	C	C	C	C	C
629	Child Care Services (3,4)										
	Family Child Care Home in Residence	P	P	P	P	P	P	P	P	P	P
	Child Day Care Center	P	P	P	P	P	P	P	P	P	P
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment	P	P	P	P 5	P	P 17	P	P	P	P
634	Building Maintenance and Pest Control Services				P	P		P	P		
637	Warehousing and Storage Services, Excluding Stockyards				P	P		S	S		
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools			S	P 6	P	A 18	P 7	P 7	S	S
641	Auto Repair and Washing Services (26)				P	P	A 19	P	P		

		Services – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (16)	CB	F1	F2	F3
649	Repair Services: Watch, TV, Electrical, Upholstery				P	P	P	P	P		
	Professional Services: Medical Clinics and Other Health Care Related Services	P	P	P		P	P	P	P	P	P
	Professional Services: Other	P	P	P	P 9	P		P	P	P	P
6513	Hospitals	C	C	C	C	C		C	C	C	C
66	Contract Construction Services: Building Construction, Plumbing, Paving and Landscape				P	P					
671	Governmental Services: Executive, Legislative, Administrative and Judicial Functions	C	C	C				C	C	C	C
672 673	Governmental Services: Protective Functions and Related Activities Excluding Maintenance Shops	C	C	C	C 10	C 10	C	C	C	C	C
	Limited Governmental Services: Protective Functions (21)										
	Limited Governmental Services: Executive and Administrative, Legislative and Protective Functions (22)	P	P	P		P	P	P	P	P	P

		Services – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (16)	CB	F1	F2	F3
674 675	Military and Correctional Institutions (27)	C	C	C	C	C	C	C	C	C	C
	Secure Community Transition Facility (23,24)				C	C					
681	Education: Primary and Secondary (25,27)	A	A	A	A	A	A	A	A	A	A
682	Universities and Colleges (27)	P	P	P	P	P	C	P	P	P	P
683	Special Schools: Vocational, Trade, Art, Music, Driving, Barber and Beauty Schools	P	P	P	P	P		P	P	P	P
691	Religious Activities (27)	P	P	P	P	P	C	P	P	P	P
692 (A)	Professional and Labor Organizations Fraternal Lodge	C	C	P		P		P	P	P	P
692 (B)	Social Service Providers	C	C	P	P	P	P	P	P	P	P
	Administrative Office – General	P	P	P	P 5	P	P	P	P	P	P
	Computer Program, Data Processing and Other Computer-Related Services	P	P	P	P 5	P				P	P
	Research, Development and Testing Services	P	P	P	P 5	P				P	P
	Marijuana Research (28)										

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

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Notes: Uses in land use districts – Services

(1) Finance, insurance, real estate services are permitted only if commercially or industrially related in LI Districts.

(2) Personal services are permitted in LI Districts only if located in a multiple function building or complex.

(3) Refer to Chapter 20.50 LUC for definitions of child care service, family child care home, and child day care center.

(4) A child care service may be located in a community facility in any land use district pursuant to LUC 20.20.170.E.

(5) These uses are permitted in LI Districts only if located in a multiple function building or complex.

(6) Automobile rental and leasing services require administrative conditional use approval and are subject to the decision criteria in LUC 20.20.135.

(7) Rental services are restricted to autos and furniture in CB and F1 Districts and to truck, trailer, and tool rentals, provided the site has two street frontages.

(8) Auto repair and washing services are permitted only if washing services are a subordinate use to a permitted or special use in Downtown-MU Districts.

(9) Professional services are permitted in LI Districts only if located in a multiple function building or complex.

(10) Governmental services include maintenance shops in LI and GC Districts.

(11) Limited to a maximum of 1,500 gross square feet per establishment.

(12) Nonresidential uses are permitted in Downtown-R Districts only if developed in a building which contains residential uses.

(13) Drive-in facilities may be permitted through Design Review, Part 20.30F LUC, at any location in the Downtown-O-2 District, or within 200 feet of NE 4th Street or NE 8th Street in the Downtown-O-1 District; but only if all the following criteria are met:

(a) On-site capacity for vehicle stacking of 10 spaces for one drive-up station and 20 spaces for two or more drive-up stations must be provided.

(b) The design of the vehicular access is compatible with high volume pedestrian walkways and parking access. The vehicular access will not disrupt established retail or service frontages designed to serve pedestrians, nor can the vehicular access lanes be located between the street and the main pedestrian access to the buildings.

(c) The vehicle stacking lanes must be contained within a structured parking area, or be otherwise screened.

(d) Landscaping or screening must be provided to mitigate any adverse effects on nearby property. Perimeter walkways and sidewalks must conform to the requirements of LUC 20.25A.060.

(e) Walk-up banking service, whether manned or electronically activated customer service stations, must be provided on-site during regular daytime business hours for pedestrian business when there is no interior banking service.

(14) These uses are permitted only in Bellevue School District schools, whether under control of the School District or the City.

(a) In the review of the proposed use or uses under the Administrative Conditional Use Permit application, Part 20.30E LUC, the following criteria shall be considered:

(i) Consistency of the proposal with the goals and policies of the Comprehensive Plan.

(ii) Extent to which the physical environment will be modified by the proposal.

(iii) Ability to provide on-site parking facilities to accommodate intended uses under the proposal.

(iv) Extent of additional demand on public utilities and public services resulting from the proposal.

(v) Noise impacts of the proposal.

(vi) Traffic volumes and street classifications in the area of the proposal.

(vii) Compatibility of the proposal with surrounding land uses.

(viii) Impact of the proposal on the visual and aesthetic character of the neighborhood.

In addition, the proposed use or uses shall not be more intensive than if the school were being used as a school.

(b) A master Conditional Use Permit listing a range of permissible uses from those permitted in the land use district as listed in LUC 20.10.440 can be obtained for the entire school by using the conditional use process, Part 20.30B or Part 20.30C LUC. Uses listed in the permit shall be permitted outright and uses not listed but permitted as conditional uses shall obtain a Conditional Use Permit.

(15) Permitted in inactive elementary school facilities. The following criteria shall be considered:

(a) Subsections a.i – viii of Note 14 – Uses in land use districts – Services.

(b) Hours of operation.

(c) Proposed signing.

(16) Other than administrative office use, each individual service use in NB Districts is limited to 5,000 square feet. Administrative office use is limited as follows: when located on the first floor of a building, administrative office use is limited to 5,000 square feet or 25 percent of the first floor footprint, whichever is less; when located above the first floor of a building, administrative office use is allowed without a limit on total aggregate square footage, so long as each individual administrative office use is limited to 5,000 square feet. In no event may administrative office uses exceed more than 50 percent of the total building square footage. Administrative conditional use approval is required for hours of operation between 12:00 midnight and 6:00 a.m. The applicant must meet the decision criteria for an Administrative Conditional Use Permit set forth in Chapter 20.30E LUC, and must demonstrate that: (a) the use will meet the require

ments of the Noise Control Ordinance, Chapter 9.18 BCC; and (b) the use will meet the lighting standards of the Community Retail Design District for all lighting fixtures on the premises that would be lit between the hours of 12:00 midnight and 6:00 a.m. Businesses operating between the hours of 12:00 midnight and 6:00 a.m. on the effective date of City of Bellevue Ordinance No. 4422 are exempt from the ACUP requirements.

(17) Only travel agencies are permitted in NB Districts.

(18) Rental services limited to truck, trailer and tool rentals are permitted in NB Districts with administrative conditional use approval, provided the site has two street frontages.

(19) Auto repair and washing services are permitted with administrative conditional use approval only in NB sites that have two street frontages.

(20) Personal services are permitted only when functionally integrated within a building or complex used primarily as a hotel or motel; office building; university or college; charitable, social service, professional or labor organization; or recreational facility.

(21) Uses are limited to neighborhood community police stations of 1,000 square feet or less.

(22) Uses are limited to 1,000 square feet, except for protective functions which are limited to community police stations of 1,500 square feet or less.

(23) No portion of a property on which a Secure Community Transition Facility is proposed to be located may be within 300 feet of the boundary of any land use district within which the SCTF use is prohibited. The required 300 feet shall be measured in accordance with the policy guidelines established by the Department of Social and Health Services pursuant to RCW 71.09.285(4), now or as hereafter amended.

(24) Secure Community Transition Facilities are subject to the regulations for Secure Community Transition Facilities in LUC 20.20.750.

(25) Primary and secondary educational facilities are an administrative conditional use in all land use districts; provided, that in all residential land use districts and the DNTN-R District a Conditional Use Permit is required for:

(a) The siting of such educational facility on a site not previously developed with an educational facility; or

(b) The addition to or modification of a site previously developed with an educational facility where that addition or modification involves:

(i) An increase of 20 percent or more in the number of students occupying the school. The increase shall be measured against the number of students for which the school was designed prior to the addition or modification, without regard to temporary structures that may have been added to the site over time. If there is no information establishing the number of students for which the school was originally designed, then the increase shall be measured against the average number of students occupying the school in the three academic years immediately preceding the proposed addition or modification; or

(ii) A change in the age group of students occupying the school, or the addition of an age group where such age group was not previously served at the school, except that the addition of students younger than kindergarten age consistent with the definition of school in LUC 20.50.046 shall not be considered a change in the age group of students or an addition of an age group for purposes of this subsection. For purposes of this subsection, age group refers to elementary, middle, junior or high school, as defined and used by the school district operating the school; or

(iii) The addition of facilities or programs that may result in impacts not anticipated at the time the original school was developed, including, for example: development of lighted ballfields or the addition of lighting to existing ballfields; development of an exterior sound amplification system; development of fixed outdoor seating; or a proposal to increase the height of the facility pursuant to LUC 20.20.740.A.3.b.

(26) Battery Exchange Stations are ancillary to Auto Repair and Washing Services, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(27) See LUC 20.20.190 for additional regulations.

(28) Marijuana research uses, as authorized under RCW 69.50.372, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses. (Ord. 6316, 11-7-16, § 1; Ord. 6197, 11-17-14, § 5; Ord. 5989, 2-7-11, § 3; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5432, 1-21-03, § 1; Ord. 5430, 1-21-03, § 2; Ord. 5404, 8-5-02, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4816, 12-4-95, § 401; Ord. 4422, 9-28-92, § 2; Ord. 4176, 11-26-90, § 3; Ord. 4026, 11-27-89, § 1; Ord. 3530, 8-12-85, §§ 8, 9; Ord. 3095, 5-24-82, § 2)

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Residential Districts										
		R-1	**R-1.8**	**R-2.5**	**R-3.5**	**R-4**	**R-5**	**R-7.5***	**R-10**	**R-15**	**R-20**	**R-30**
4	Transportation, Communications and Utilities											
41	Rail Transportation: Right-of-Way, Yards, Terminals, Maintenance Shops	C	C	C	C	C	C	C	C	C	C	C
42 4291	Motor Vehicle Transportation: Bus Terminals, Taxi Headquarters											
4214 422	Motor Vehicle Transportation: Maintenance Garages and Motor Freight Services (23)											
43	Aircraft Transportation: Airports, Fields, Terminals, Heliports, Storage and Maintenance	C 11	C 11	C 11	C 11	C 11	C 11	C 11	C 11	C 11	C 11	C 11
	Accessory Parking (6) (24)	P 3	P 3	P 3	P 3	P 3	P 3	P 3	P 3	P 3	P 3	P 3
46	Auto Parking: Commercial Lots and Garages (24)											
	Park and Ride (5) (24)	C	C	C	C	C	C	C	C	C	C	C

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
475	Radio and Television Broadcasting Studios											
485	Solid Waste Disposal (19)											
	Highway and Street Right-of-Way (24)	P	P	P	P	P	P	P	P	P	P	P
	Utility Facility	C	C	C	C	C	C	C	C	C	C	C
	Local Utility System	P	P	P	P	P	P	P	P	P	P	P
	Regional Utility System	C	C	C	C	C	C	C	C	C	C	C
	On-Site Hazardous Waste Treatment and Storage Facility (7)											
	Off-Site Hazardous Waste Treatment and Storage Facility (8)											
	Essential Public Facility (20)	C	C	C	C	C	C	C	C	C	C	C
	Regional Light Rail Transit Systems and Facilities (25)	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P
	Wireless Communication Facility (WCF): (without WCF Support Structures)	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21
	Communication, Broadcast and Relay Towers Including WCF Support Structures (Freestanding)	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
	Satellite Dishes (18)	P	P	P	P	P	P	P	P	P	P	P
	Electrical Utility Facility (22)	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22

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Chart 20.10.440

Uses in land use districts

Transportation and Utilities – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
4	Transportation, Communications and Utilities										
41	Rail Transportation: Right-of-Way, Yards, Terminals, Maintenance Shops	C	C	C	C	C	C	C	C	C	C
42 4291	Motor Vehicle Transportation: Bus Terminals, Taxi Headquarters				P	P		P	P		
4214 422	Motor Vehicle Transportation: Maintenance Garages and Motor Freight Services (23)				P	C					
43	Aircraft Transportation: Airports, Fields, Terminals, Heliports, Storage and Maintenance	C 11	C 12	C 12	C 12	C 12	C 11	C 12	C 12	C 12	C 12
	Accessory Parking (6)(24)	P	P	P	P	P	P	P	P	P	P
46	Auto Parking: Commercial Lots and Garages (24)			C	C	C		C	C	C	C
	Park and Ride (5) (24)	C	C	C	C	C	C	C	C	C	C

Transportation and Utilities – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
475	Radio and Television Broadcasting Studios	P	P	P	P 10	P 10		P	P	P	P
485	Solid Waste Disposal (19)				C						
	Highway and Street Right-of-Way (24)	P	P	P	P	P	P	P	P	P	P
	Utility Facility	C	C	C	C	C	C	C	C	C	C
	Local Utility System	P	P	P	P	P	P	P	P	P	P
	Regional Utility System	C	C	C	C	C	C	C	C	C	C
	On-Site Hazardous Waste Treatment and Storage Facility (7)			A	A	A	A	A	A	A	A
	Off-Site Hazardous Waste Treatment and Storage Facility (8)				C						
	Essential Public Facility (20)	C	C	C	C	C	C	C	C	C	C
	Regional Light Rail Transit Systems and Facilities (25)	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P	C/P
	Wireless Communication Facility (WCF): (without WCF Support Structures)	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21	14, 16, 21
	Communication, Broadcast and Relay Towers Including WCF Support Structures (Freestanding)	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16	14, 16
	Satellite Dishes (18)	P	P	P	P	P	P	P	P	P	P

Transportation and Utilities – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB	CB	F1	F2	F3
	Electrical Utility Facility (22)	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22	A/C 22

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

* Not effective within the jurisdiction of the East Bellevue Community Council.

(Ord. 6277, 3-7-16, § 1; Ord. 6190, 11-3-14, § 5; Ord. 6102, 2-27-13, § 1; Ord. 6016, 8-1-11, § 1; Ord. 5989, 2-7-11, § 1; Ord. 5876, 5-18-09, § 4; Ord. 5805, 3-3-08, § 7; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5460, 8-4-03, § 1; Ord. 5457, 7-21-03, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 5086, 8-3-98, § 1; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 3530, 8-12-85, § 7)

KEY

P – PERMITTED USE
C – CONDITIONAL USE (see Part 20.30B or Part 20.30C)
PD – PERMITTED subject to planned unit development only. (See Part 20.30D)
A – ADMINISTRATIVE CONDITIONAL USE (see Part 20.30E)
S – Permitted only as a subordinate use to a permitted or special use

Notes: Uses in land use districts – Transportation and Utilities[1]

(1) (Deleted by Ord. 5086).

(2) Intentionally deleted.

(3) Accessory parking is not permitted in residential land use districts as accessory to uses which are not permitted in these districts.

(4) The location of an off-site parking facility must be approved by the Director of the Development Services Department. See LUC 20.25A.050H.

(5) Park and Ride. A park and pool lot or other carpool facility is regulated as a park and ride. A park and ride providing no more than 50 parking spaces, and utilizing the parking area of an existing use shall be regulated as an accessory use under LUC 20.20.200. Any other park and ride requires a Conditional Use Permit.

(6) Accessory parking requires approval through the review process required for the primary land use which it serves pursuant to LUC 20.10.440.

(7) On-site hazardous waste treatment and storage facilities as defined by LUC 20.50.024 are only permitted as administrative conditional use approvals as a subordinate use to a permitted or special use. These facilities must comply with the state siting criteria as adopted in accordance with RCW 70.105.210.

(8) Off-site hazardous waste treatment and storage facilities as defined by LUC 20.50.024 must comply with the state siting criteria as adopted in accordance with RCW 70.105.210.

(9) (Deleted by Ord. 5086).

(10) These uses are permitted only if located in a multiple function building or complex.

(11) Aircraft transportation is limited in these districts to government heliports used exclusively for emergency purposes and regulated pursuant to the terms of LUC 20.20.450.

(12) Aircraft transportation is limited in these districts to government and hospital heliports used exclusively for emergency purposes and regulated pursuant to the terms of LUC 20.20.450.

(13) Design Review approval, Part 20.30F LUC, or a Change of Use Permit is required to establish a commercial parking facility. Refer to LUC 20.25A.050E for additional development requirements.

(14) Wireless communication facilities (WCFs) are not permitted on any residential structure, undeveloped site located in a residential land use district, or site that is developed with a residential use. This note does not prohibit locating WCF: a) on any residential structure or undeveloped site in R-20 or R-30 Land Use Districts; or b) on any nonresidential structure (i.e., churches, schools, public facility structures, utility poles, etc.) or in public rights-of-way in any residential land use district.

(15) Intentionally deleted.

(16) Refer to LUC 20.20.195 for general requirements applicable to wireless communication facilities and other communication, broadcast and relay facilities.

(17) Intentionally deleted.

(18) Refer to LUC 20.20.730 for general requirements applicable to Large Satellite Dishes.

(19) Refer to LUC 20.20.820 for general requirements applicable to solid waste disposal facilities.

(20) Refer to LUC 20.20.350 for general requirements applicable to Essential Public Facilities (EPF).

(21) Antenna and associated equipment used to transmit or receive fixed wireless signals when located at a fixed customer location are permitted in all land use districts and are exempt from the requirements of LUC 20.20.010, 20.20.195 and 20.20.525 so long as the antenna and equipment comply with 47 C.F.R. 1.400, now or as hereafter amended. A building permit may be required to ensure safe installation of the antenna and equipment.

(22) For the definition of electrical utility facility, see LUC 20.50.018, and for reference to applicable development regulations relating to electrical utility facilities, see LUC 20.20.255. For new or expanding electrical utility facilities proposed on sensitive sites as described by Figure UT.5a of the Utilities Element of the Comprehensive Plan, the applicant shall obtain Conditional Use Permit approval under Part 20.30B LUC, complete an alternative siting analysis as described in LUC 20.20.255.D and comply with decision criteria and design standards set forth in LUC 20.20.255. For expansions of electrical utility facilities not proposed on sensitive sites as described by Figure UT.5a, the applicant shall obtain Administrative Conditional Use Permit approval under Part 20.30E LUC and comply with decision criteria and design standards set forth in LUC 20.20.255.

(23) Battery Exchange Stations are ancillary to Motor Vehicle Transportation, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(24) Electric Vehicle Infrastructure, excluding Battery Exchange Stations, is ancillary to motor vehicle parking and highways and rights-of-way, and is permitted through the applicable review process as a component of that use.

(25) Refer to Part 20.25M LUC, Light Rail Overlay District, for specific requirements applicable to EPF defined as a regional light rail transit facility or regional light rail transit system pursuant to LUC 20.25M.020. A conditional use permit is not required when the City Council has approved a regional light rail transit facility or regional light rail transit system by resolution or ordinance, or by a development agreement authorized by Chapter 36.70B RCW and consistent with LUC 20.25M.030.B.1. (Ord. 6102, 2-27-13, § 1; Ord. 6016, 8-1-11, § 1; Ord. 5989, 2-7-11, § 1; Ord. 5805, 3-3-08, § 7; Ord. 5717, 2-20-07, § 2; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5460, 8-4-03, § 1; Ord. 5457, 7-21-03, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 5086, 8-3-98, § 1; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4816, 12-4-95, § 401; Ord. 4654, 6-6-94, § 16; Ord. 4029, 9-5-89, § 2; Ord. 4028, 7-17-89, § 1; Ord. 3903, 4-18-88, § 1; Ord. 3747, 1-20-87, § 1; Ord. 3690, 8-4-86, § 1; Ord. 2945, 2-2-82, § 5)

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Wholesale and Retail – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
5	Trade (Wholesale and Retail) (39)											
51	Wholesale Trade: General Merchandise, Products, Supplies, Materials and Equipment except the following: (1)											
5111 5156 5157 5191 5192	Wholesale Trade: Motor Vehicles, Primary and Structural Metals, Bulk Petroleum (2)											
5193	Scrap Waste Materials, Livestock											
	Recycling Centers	C	C	C	C	C	C	C	C	C	C	C
521 522 523 524	Lumber and Other Bulky Building Materials Including Preassembled Products (3)											
5251	Hardware, Paint, Tile and Wallpaper (Retail)											
5252	Farm Equipment											
53	General Merchandise: Dry Goods, Variety and Dept. Stores (Retail)											
54	Food and Convenience Store (Retail) (27)											
5511	Autos (Retail)											
	Trucks, Motorcycles, Recreational Vehicles (Retail)											
	Boats (Retail)											
552	Automotive and Marine Accessories (Retail)											
553	Gasoline Service Stations (40)											
56	Apparel and Accessories (Retail)											
57	Furniture, Home Furnishing (Retail)											
58	Eating and Drinking Establishments (37)											
59	Misc. Retail Trade: Drugs, Liquor, Antiques, Books, Sporting Goods, Jewelry, Florist, Photo Supplies, Video Rentals and Computer Supplies											
	Adult Retail Establishments (31)											
59	Marijuana Retail Outlet											
5961	Farm Supplies, Hay, Grain, Feed and Fencing, etc. (Retail)											
596	Retail Fuel Yards											

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Wholesale and Retail – Residential Districts										
		R-1	R-1.8	R-2.5	R-3.5	R-4	R-5	R-7.5*	R-10	R-15	R-20	R-30
5996	Garden Supplies, Small Trees, Shrubs, Flowers, Ground Cover, Horticultural Nurseries and Light Supplies and Tools											
5999	Pet Shop (Retail and Grooming)											
	Computers and Electronics (Retail)											

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

* Not effective within the jurisdiction of the East Bellevue Community Council.

KEY

P – PERMITTED USE
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PD – PERMITTED subject to planned unit development only. (See Part 20.30D)
A – ADMINISTRATIVE CONDITIONAL USE (see Part 20.30E)
S – Permitted only as a subordinate use to a permitted or special use

Chart 20.10.440

Uses in land use districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Wholesale and Retail – Nonresidential Districts									
		Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (5)	CB (36*)	F1	F2	F3
5	Trade (Wholesale and Retail) (39)										
51	Wholesale Trade: General Merchandise, Products, Supplies, Materials and Equipment except the following: (1)				P	P					
5111 5156 5157 5191 5192	Wholesale Trade: Motor Vehicles, Primary and Structural Metals, Bulk Petroleum (2)				P	C					

Wholesale and Retail – Nonresidential Districts

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (5)	CB (36*)	F1	F2	F3
5193	Scrap Waste Materials, Livestock										
	Recycling Centers				P	P	P	P	P		
521 522 523 524	Lumber and Other Bulky Building Materials Including Preassembled Products (3)				P 35	P		P	P		
5251	Hardware, Paint, Tile and Wallpaper (Retail)				S 35	P	P	P	P		
5252	Farm Equipment				P 35						
53	General Merchandise: Dry Goods, Variety and Dept. Stores (Retail)							P	P		
54	Food and Convenience Store (Retail) (27)					P	P	P	P		
5511	Autos (Retail)			P 6	A 4, 35	P		C	C		
	Trucks, Motorcycles, Recreational Vehicles (Retail)			P 25	P 7, 35	P					
	Boats (Retail)				P 35	P					
552	Automotive and Marine Accessories (Retail)				P 35	P		P	P		
553	Gasoline Service Stations (40)			A 34	P 34, 35	P	P	P	P	A 34	A 34
56	Apparel and Accessories (Retail)			S		P		P	P	S	S
57	Furniture, Home Furnishing (Retail)				P 11, 35	P		P	P		
58	Eating and Drinking Establishments (37)		P 13	P 14	P 15, 29, 35	P	P 16, 28	P	P	P 14	P 14

		Wholesale and Retail – Nonresidential Districts									
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Professional Office	Office	Office/Limited Business	Light Industry	General Commercial	Neighborhood Business	Community Business	Factoria Land Use District 1	Factoria Land Use District 2	Factoria Land Use District 3
		PO	O	OLB	LI	GC	NB (5)	CB (36*)	F1	F2	F3
59	Misc. Retail Trade: Drugs, Liquor, Antiques, Books, Sporting Goods, Jewelry, Florist, Photo Supplies, Video Rentals and Computer Supplies		P 17	S		P	P 19	P	P	S	S
	Adult Retail Establishments (31)			S				P	P	S	S
59	Marijuana Retail Outlet					A 41, 42		A 41, 42	A 41, 42		
5961	Farm Supplies, Hay, Grain, Feed and Fencing, etc. (Retail)				P 35	P					
596	Retail Fuel Yards				P 35	P					
5996	Garden Supplies, Small Trees, Shrubs, Flowers, Ground Cover, Horticultural Nurseries and Light Supplies and Tools				P 35	P	P 20	P 20	P 20		
5999	Pet Shop (Retail and Grooming)				P 26, 35	P 26	P	P	P		
	Computers and Electronics (Retail)				P 12, 35	P 12		P	P		

Permitted uses in the Evergreen Highlands Design District (EH-A, EH-B, EH-C and EH-D) are listed in LUC 20.25F.010.

Permitted uses in the Office and Limited Business-Open Space District (OLB-OS) are listed in LUC 20.25L.020.

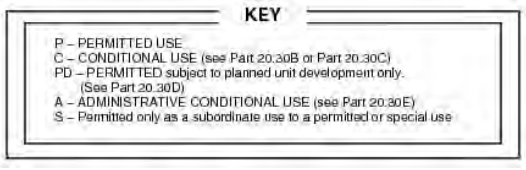
Permitted uses in the Medical Institution District are listed in LUC 20.25J.020.

Permitted uses in the Bel-Red District (BR) are listed in LUC 20.25D.070.

Permitted uses in the Camp and Conference Center District (CCC) are listed in LUC 20.25N.040.

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(Ord. 6316, 11-7-16, § 1; Ord. 6277, 3-7-16, § 1; Ord. 6253, 8-3-15, § 5; Ord. 6190, 11-3-14, § 5; Ord. 5989, 2-7-11, § 2; Ord. 5892, 7-20-09, § 1; Ord. 5876, 5-18-09, § 4; Ord. 5717, 2-20-07, § 2; Ord. 5489, 10-20-03, § 1; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5434, 1-21-03, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4935, 12-2-96, § 1; Ord. 4646, 5-2-94, § 3; Ord. 4516, 4-12-93, § 1; Ord. 4422, 9-28-92, § 2; Ord. 3530, 8-12-85, § 7)



Notes: Uses in land use districts – Wholesale and Retail

(1) Wholesale trade includes sales offices for these goods.

(2) Wholesale trade of motor vehicles, primary and structural metals, and bulk petroleum includes sales offices for these goods and excludes tank farms.

(3) Bulk retail includes sales offices for these goods.

(4) Automobile (retail) is subject to the decision criteria in LUC 20.20.135.

(5) Each individual wholesale and retail use in NB Districts, except retail food stores and miscellaneous retail trade, is limited to 5,000 square feet. Wholesale and retail uses intending to operate between the hours of 12:00 midnight and 6:00 a.m. must obtain administrative conditional use approval. The applicant must meet the decision criteria for an Administrative Conditional Use Permit set forth in Chapter 20.30E LUC, and must demonstrate that: 1) the use will meet the requirements of the Noise Control Ordinance, Chapter 9.18 BCC; and 2) the use will meet the lighting standards of the Community Retail Design District for all lighting fixtures on the premises that would be lit between the hours of 12:00 midnight and 6:00 a.m. Businesses operating between the hours of 12:00 midnight and 6:00 a.m. on the effective date of the ordinance codified in this chapter are exempt from the ACUP requirements.

(6) Retail auto sales are permitted only in the following locations:

a. The west side of 116th Avenue NE between NE 8th Street and the SE 8th Street off-ramp from northbound I-405;

b. Along SE 36th Street west of the ravine located at the approximate alignment of 133rd Avenue SE and east of 132nd Avenue SE; and

c. West of 148th Avenue SE between SE Eastgate Way and Bellevue College, on properties fronting wholly or partially on 148th Avenue SE. Retail auto sales located in this area shall be subject to design review per Part 20.30F LUC, which shall in particular address and control spillover lighting, and associated vehicle inventory storage shall predominantly occur within a building or buildings. Transition area landscape buffers consistent with LUC 20.25B.040.C shall be provided along interior property lines that abut properties located within OLB and LI land use districts.

(7) Motorcycle (retail) requires administrative conditional use approval in LI Districts.

(8) (Deleted by Ord. 5089).

(9) (Deleted by Ord. 5089).

(10) (Deleted by Ord. 5089).

(11) Furniture and home furnishings are limited to uses with on-site warehousing in LI Districts.

(12) Computer supplies are permitted as a subordinate use to computer sales in LI and GC Districts.

(13) Eating and drinking establishments are excluded in transition areas in O Districts.

(14) Eating and drinking establishments are permitted in the OLB, F2 and F3 Districts subject to the following criteria:

(a) Such uses are physically integrated within a structure primarily used as a hotel or motel; office building; charitable, social, professional and labor organization; fraternal lodge; recreational facility or institution such as a public assembly (indoor).

(b) Such uses do not exceed 20 percent of the gross floor area of the structure or structures.

(c) The entire site complex has a unity of design in terms of wall and roof materials, roof slopes and window patterns.

(15) Eating and drinking establishments are permitted in LI Districts only if located in a multiple function building or complex.

(16) Eating and drinking establishments may include liquor sales only if operated under a Class A or C liquor license issued by the Washington State Liquor Control Board. Eating and drinking establishments with other classes of liquor licenses require administrative conditional use approval.

(17) Other retail trade is limited to drugstores only in O Districts.

(18) Intentionally deleted.

(19) Except for drugstores, all miscellaneous retail uses combined cannot exceed 10,000 square feet and each individual use cannot exceed 3,000 square feet.

(20) Garden supplies excludes items such as large trees, rock and bulk supplies which require special handling equipment in NB, CB, F1 and Downtown-MU Districts.

(21) Limited to a maximum of 1,500 gross square feet per establishment.

(22) Limited to a maximum of 3,000 gross square feet per establishment, except for food, retail.

(23) Nonresidential uses are permitted in Downtown-R Districts only when developed within the same project limit and simultaneously with an equal or greater amount of floor area devoted to residential uses.

(24) No on-site outdoor display or inventory storage.

(25) Motorcycles only.

(26) Only pet grooming is permitted in the LI and GC Districts.

(27) Food and convenience stores (retail) must contain at least 75 percent square footage of retail food sales not for consumption on premises.

(28) Drive-in windows are not permitted.

(29) No more than one eating and drinking establishment is permitted in any building.

(30) Limited to a maximum of 15,000 gross square feet per establishment or up to 25,000 gross square feet through a conditional use.

(31) Adult retail establishments are subject to the regulations for adult entertainment uses in LUC 20.20.127.

(32) (Reserved).

(33) (Deleted by Ord. 5089).

(34) Gasoline service stations may include subordinate convenience stores.

(35) Any business which combines two or more permitted retail sales uses and also includes subordinate retail sales uses shall be limited in size to 50,000 square feet.

*(36) Retail uses in CB Districts in the following subareas, as designated in the Comprehensive Plan, are limited in size to 100,000 gross square feet or less: Bridle Trails, Evergreen Highlands, Newcastle, North Bellevue, Northeast Bellevue, Richards Valley, South Bellevue, Southeast Bellevue, and Wilburton; provided, that in CB Districts in the Wilburton Subarea, retail uses may be allowed to exceed 100,000 gross square feet through a Council-approved development agreement that is consistent with Chapter 36.70B RCW and includes design guidelines that (a) address the potential impacts of that scale of retail use, and (b) are consistent with the vision of Comprehensive Plan Policy S-WI-3 regarding the creation of a “retail village” on the commercial area west of 120th Avenue NE.

(37) Microbrewery manufacturing is permitted subordinate to an eating and drinking establishment; provided, that the manufacturing use occupies not more than 50 percent of the total square footage of the combined establishment.

(38) Eating and drinking establishments and retail uses are permitted in the Downtown-OLB District, provided the following criteria are met:

(a) The uses are functionally integrated within a building or complex primarily used as a hotel or motel; office building; university or college; charitable, social service, professional or labor organization; or recreation facility.

(b) The uses do not exceed 30 percent of the total floor area of the building or complex.

(c) Each individual retail use is limited to 15,000 gross square feet in area.

(d) The entire complex achieves a unity of design through the use of similar exterior building materials, colors, and window patterns.

(39) All wholesale and retail uses, which offer shopping carts to customers, shall (a) designate a shopping cart containment area as defined in BCC 9.10.010; (b) display signage around shopping cart corrals and at the perimeter of the shopping cart containment area that provides notice that unauthorized removal of a shopping cart from the premises constitutes theft under RCW 9A.56.270 and unauthorized abandonment of a shopping cart more than 100 feet away from the parking area of a retail establishment or shopping cart containment area is a Class 3 civil infraction as defined in RCW 7.80.120; and (c) display information on each shopping cart that is consistent with the labeling requirements of RCW 9A.56.270 and includes a 24-hour toll-free phone number to report abandoned shopping carts. Abandoned shopping carts or shopping

carts located outside of a shopping cart containment area constitute a public nuisance under BCC 9.10.030(H) and may be abated through the provisions of Chapter 1.18 BCC.

(40) Battery Exchange Stations are ancillary to Gasoline Service Stations, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(41) See LUC 20.20.535 for general development requirements for marijuana uses.

(42) Marijuana retail outlet excludes medical marijuana cooperative. Medical marijuana cooperatives, as authorized under RCW 69.51A.250, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses. (Ord. 6316, 11-7-16, § 1; Ord. 6253, 8-3-15, § 5; Ord. 6169, 7-14-14, § 1; Ord. 6108, 4-15-13, § 1; Ord. 5989, 2-7-11, § 2; Ord. 5892, 7-20-09, § 1; Ord. 5866, 4-6-09, § 1; Ord. 5717, 2-20-07, § 2; Ord. 5587, 3-7-05, § 3; Ord. 5489, 10-20-03, § 1; Ord. 5480, 10-20-03, § 2; Ord. 5475, 10-20-03, § 4; Ord. 5434, 1-21-03, § 2; Ord. 5403, 8-5-02, § 3; Ord. 5385, 7-15-02, § 5; Ord. 5089, 8-3-98, § 3; Ord. 4979, 3-17-97, § 1; Ord. 4973, 3-3-97, § 301; Ord. 4935, 12-2-96, § 1; Ord. 4816, 12-4-95, § 401; Ord. 4654, 6-6-94, § 17; Ord. 4646, 5-2-94, § 3; Ord. 4516, 4-12-93, § 1; Ord. 4422, 9-28-92, § 2; Ord. 4176, 11-26-90, § 3; Ord. 4117, 1-16-90, § 1; Ord. 4028, 7-17-89, § 1; Ord. 3884, 2-16-88, § 1; Ord. 3813, 7-20-87, § 1; Ord. 2966, 1-18-82, § 2)

* Not effective within the jurisdiction of the East Bellevue Community Council.

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[1] *Code reviser's note: Ordinance 6016 amends these notes and unintentionally omits the amendments made by Ordinance 5989. At the city's request, the amendments of Ordinance 5989 have been retained.*

The Bellevue Land Use Code is current through Ordinance 6316, passed November 7, 2016.
Disclaimer: The City Clerk's Office has the official version of the Bellevue Land Use Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

City Website: http://www.bellevuewa.gov/ (http://www.bellevuewa.gov/)
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a. Discontinuance. If an existing development is discontinued or abandoned for a period of 12 months with the intention of abandoning that use, any subsequent development shall thereafter conform to the regulation of the district in which it is located. Discontinuance of an existing development for a period of 12 months or greater constitutes prima facie evidence of an intention to abandon.

b. Accidental Destruction. When an existing development is damaged by fire or other causes beyond the control of the owner, the existing development may be re-constructed. The existing development may be repaired and/or reconstructed in its original configuration. Changes to the footprint and exterior proposed as part of the repair and/or reconstruction must conform to this code. (Ord. 5874, 5-18-09, § 1)

20.25D.070 Land Use Charts.

The following charts apply to Bel-Red. The use charts contained in LUC 20.10.440 do not apply within the Bel-Red land use districts.

Chart 20.25D.070

Residential Uses in Bel-Red Land Use Districts.

		Residential – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR-RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
1	Residential (1)							
	Single-Family Dwelling		P 2/		P 2	3	P 2	P
	Two to Four Dwelling Units Per Structure		P/P	P	P	3	P 2	P
	Five or More Dwelling Units Per Structure (5)		P/P	P	P	3	P 2	P
12	Group Quarters: Dormitories, Fraternal Houses, Excluding Military and Correctional Institutions, and Excluding Secure Community Transition Facilities							
	Rooming House (6)		P	P	P		P	P
13 15	Hotels and Motels	P/P	P/P	P		P	P	
	Congregate Care Senior Housing (1)	P/P	P/P	P	P		P	
6516	Nursing Home (1)	P/P	P/P	P	P		P	
	Assisted Living (1)	P/P	P/P	P	P		P	
	Accessory Dwelling Unit (4)	P/	P/		P		P	P

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C LUC)

A – Administrative Conditional Use (see Part 20.30E LUC)

Notes: Uses in land use districts – Residential.

(1) An agreement shall be recorded with the King County Department of Records and Elections restricting senior citizen dwellings, congregate care senior housing, or assisted living to remain as senior housing for the life of the project.

(2) A minimum density of 10 units per acre shall be achieved for new single-family dwelling units. This requirement does not apply to work-live units.

(3) Work-live units are the only housing permitted in BR-GC.

(4) Accessory dwelling units may be established in existing or permitted (P) single-family structures subject to the performance criteria of LUC 20.20.120.

(5) Bicycle parking shall be provided pursuant to LUC 20.25D.120.G.

(6) See LUC 20.20.700 for general development requirements for rooming house.

Chart 20.25D.070

Manufacturing Uses in Bel-Red Land Use Districts.

		Manufacturing – Bel-Red Districts						
STD LAND USE CODE REF	**LAND USE CLASSIFICATION**	**Bel-Red Medical Office/Node**	**Bel-Red Office Residential/Nodes**	**Bel-Red Residential Commercial Nodes**	**Bel-Red Residential**	**Bel-Red General Commercial**	**Bel-Red Commercial Residential**	**Bel-Red Office Residential Transition**
		BR-MO/ MO-1	**BR-OR/ OR-1 OR-2**	**BR- RC-1 RC-2 RC-3**	**BR-R**	**BR-GC**	**BR-CR**	**BR-ORT**
2 and 3	Manufacturing (1, 2, 5)							
21	Food and Beverage Products Mfg. (3)					P 4	P 4	
22	Textile Products Mfg.					P 4	P 4	
23	Apparel, Fabric, Accessories, and Leather Goods Mfg.					P 4	P 4	
24	Lumber and Wood Products Mfg.							
25	Furniture and Fixtures Mfg.					P 4	P 4	
26	Paper Products Mfg.					P4	P4	
27	Printing, Publishing, and Allied Industries					P		
28	Chemicals and Related Products Mfg.							
31	Rubber Products Mfg.							
314	Misc. Plastic Products Mfg.					P 4	P 4	

		Manufacturing – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
321 322 324 325 327	Light Stone, Clay, and Glass Products Mfg.: Glass, Pottery, and China Ceramic Products, Stone Cutting and Engraving (except Concrete Batch Plant)					P 4	P 4	
	Concrete Batch Plant							
329	Handcrafted Products Mfg.					P 4	P 4	
3427	Computers, Office Machines, and Equipment Mfg.					P 4		
3433 3434 3435 3436 3437	Electrical Equipment Mfg.: Appliances, Lighting, Radio, TV Communications, Equipment and Component Parts					P 4		
3491 3492 3493 3495 3497	Fabricated Metal Products Mfg.: Containers, Hand Tools, Heating Equipment, Screw Products, Coating and Plating					P 4		
35	Measuring, Analyzing and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks Mfg.	P				P 4	P 4	
3997	Signs and Advertising Display Mfg.					P		

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Manufacturing – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
3999	Misc. Light Fabrication, Assembly and Mfg. Not Elsewhere Classified					P		

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C LUC)

A – Administrative Conditional Use (see Part 20.30E LUC)

Notes: Uses in land use districts – Manufacturing.

(1) Permitted manufacturing uses shall not include primary metal industries such as foundries, smelters, blast furnaces, rolling mills, and concrete batch plants. The Director may in consultation with the Fire Marshal modify the requirements of this note for a limited scale manufacturing use if the Director determines that the modification will not create an unreasonable threat to human health and the environment. A "limited scale manufacturing use" is one that is size-restricted to 20,000 square feet or less.

(2) The manufacture of flammable, dangerous, or explosive materials is excluded.

(3) Microbrewery manufacturing is permitted as a component of an eating and drinking establishment; provided, that the manufacturing use occupies not more than 50 percent of the total square footage of the combined establishment.

(4) The manufacturing use located in this land use district shall not exceed 20,000 square feet.

(5) New outdoor storage associated with this permitted manufacturing use shall comply with applicable performance criteria for that use and the Landscape Development Requirements as set forth in LUC 20.25D.110.

Chart 20.25D.070

Transportation and Utilities Uses in Bel-Red Land Use Districts.

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
4	Transportation, Communications and Utilities							
41	Rail Transportation: Right-of-Way, Yards, Terminals, Maintenance Shops	C/C	C/C	C	C	C	C	C

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
42 4291	Motor Vehicle Transportation: Bus Terminals, Taxi Headquarters					C		
4214 422	Motor Vehicle Transportation: Maintenance Garages and Motor Freight Services (15)	C/	C/			C		
43	Aircraft Transportation: Airports, Fields, Terminals, Heliports, Storage and Maintenance	C 1	C 1					
	Accessory Parking (2, 3, 16)	P/P	P/P	P	P 4	P	P	P
46	Auto Parking Commercial Lots and Garages (5, 16)	/P	/P	P				
	Park and Ride (6, 16)		C/C	C				
475	Radio and Television Broadcasting Studios							
485	Solid Waste Disposal (7)							
	Highway and Street Right-of-Way (8, 16)	P	P/P	P	P	P	P	P
	Utility Facility	C	C/C	C	C	C	C	C
	Local Utility System	P	P/P	P	P	P	P	P
	Regional Utility System	C	C/C	C	C	C	C	C
	On- and Off-Site Hazardous Waste Treatment and Storage Facilities							
	Essential Public Facility (9)	C	C/C	C	C	C	C	C
	Regional Light Rail Transit Systems and Facilities (17)	C/P	C/P	C/P	C/P	C/P	C/P	C/P

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Transportation and Utilities – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
	Operations and Maintenance Satellite Facility (OMSF)	18	18		18	18		
	Wireless Communication Facility (WCF): (without WCF Support Structures)	10, 11, and 12	10, 11, and 12	10, 11, and 12	10, 11, and 12	10, 11, and 12	10, 11, and 12	10, 11, and 12
	Communication, Broadcast and Relay Towers Including WCF Support Structures (Freestanding)	10, 11	10, 11	10, 11	10, 11	10, 11	10, 11	10, 11
	Satellite Dishes (13)	P	P/P	P	P	P	P	P
	Electrical Utility Facility (14)	A C/A C	A C/A C	A C	A C	A C	A C	A C

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C LUC)

A – Administrative Conditional Use (see Part 20.30E LUC)

Notes: Uses in land use districts – Transportation and Utilities.

(1) Aircraft transportation is limited in these districts to government and hospital heliports used exclusively for emergency purposes and regulated pursuant to the terms of LUC 20.20.450.

(2) Accessory parking requires approval through the review process required for the primary land use which it serves pursuant to Chart 20.25D.070.

(3) The location of an off-site parking facility shall be approved by the Director. See LUC 20.25D.120.

(4) Accessory parking is not permitted in the BR-R land use district as accessory to any use that is not permitted in BR-R.

(5) Commercial lots and garages are only permitted to accommodate short-term parking (four hours or less). Parking structures are required to meet the performance standards contained in LUC 20.25D.120.D.

(6) A park and pool lot or other carpool facility is regulated as a park and ride. A park and ride providing no more than 50 parking spaces, and utilizing the parking area of an established use, shall be regulated as an accessory use under LUC 20.20.200. Any other park and ride requires a conditional use permit.

(7) Solid waste disposal facilities may be continued as an existing use pursuant to LUC 20.25D.060, provided all requirements in LUC 20.20.820 are met.

(8) Design is required to meet the standards contained in LUC 20.25D.140 and the 2008 Transportation Department Design Manual as currently adopted or subsequently amended or superseded.

(9) Refer to LUC 20.20.350 for general requirements applicable to Essential Public Facilities (EPF).

(10) Wireless communication facilities (WCFs) are not permitted on residential structures, sites developed with a residential use, or on undeveloped sites located in the BR-R land use district. This note does not prohibit locating a WCF on nonresidential structures (i.e., churches, schools, public facility structures, utility poles, etc.) or in public rights-of-way in any BR land use district.

(11) Refer to LUC 20.20.195 for general requirements applicable to wireless communication facilities and other communication, broadcast, and relay facilities.

(12) Antennas and associated equipment used to transmit or receive fixed wireless signals when located at a fixed customer location are permitted in all land use districts and are exempt from the requirements of LUC 20.20.010, 20.20.195 and 20.20.525 so long as the antenna and equipment comply with 47 C.F.R. 1.4000, now or as hereafter amended. A building permit may be required to ensure safe installation of the antenna and equipment.

(13) Refer to LUC 20.20.730 for general requirements applicable to Large Satellite Dishes. In BR-OR, BR-OR-1, BR-OR-2, BR-RC-1, BR-RC-2, BR-RC-3, BR-CR, and BR-R, only the provisions of LUC 20.20.730.B and 20.20.730.C shall apply.

(14) For the definition of Electrical Utility Facility see LUC 20.50.018 and for reference to applicable development regulations relating to electrical utility facilities see LUC 20.20.255. For new or expanding electrical utility facilities proposed on sensitive sites as described by Figure UT.5a of the Utilities Element of the Comprehensive Plan, the applicant shall obtain Conditional Use Permit approval under Part 20.30B LUC, complete an alternative siting analysis as described in LUC 20.20.255.D and comply with decision criteria and design standards set forth in LUC 20.20.255. For expansions of electrical utility facilities not proposed on sensitive sites as described by Figure UT.5a, the applicant shall obtain Administrative Conditional Use Permit approval under Part 20.30E LUC and comply with decision criteria and design standards set forth in LUC 20.20.255.

(15) Battery Exchange Stations are ancillary to Motor Vehicle Transportation, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(16) Electric Vehicle Infrastructure, excluding Battery Exchange Stations, is ancillary to motor vehicle parking and highways and rights-of-way, and is permitted through the applicable review process as a component of that use.

(17) Refer to Part 20.25M LUC, Light Rail Overlay District, for specific requirements applicable to EPF defined as a regional light rail transit facility or regional light rail transit system pursuant to LUC 20.25M.020. A Conditional Use Permit is not required when the City Council has approved a regional light rail transit facility or regional light rail transit system by resolution or ordinance, or by a development agreement authorized by Chapter 36.70B RCW and consistent with LUC 20.25M.030.B.1.

(18) Refer to LUC 20.25D.105 for specific requirements applicable to EPF defined as an Operations and Maintenance Satellite Facility (OMSF) pursuant to LUC 20.25D.020. An OMSF is permitted through approval of a Master Development Plan and associated Design Review (Process II) when the application conditions of LUC 20.25D.105.C have been met. When the application conditions of LUC 20.25D.105.C have not been met, an OMSF shall require approval through a Conditional Use Permit (Process I) and shall meet the requirements of LUC 20.20.350 in addition to the requirements of LUC 20.25D.105.D.

Chart 20.25D.070

Wholesale and Retail Uses in Bel-Red Land Use Districts.

		Wholesale and Retail – Bel-Red Districts						
STD LAND USE CODE REF	**LAND USE CLASSIFICATION**	**Bel-Red Medical Office/Node**	**Bel-Red Office Residential/Nodes**	**Bel-Red Residential Commercial Nodes**	**Bel-Red Residential**	**Bel-Red General Commercial**	**Bel-Red Commercial Residential**	**Bel-Red Office Residential Transition**
		BR-MO/ MO-1	**BR-OR/ OR-1 OR-2**	**BR- RC-1 RC-2 RC-3**	**BR-R**	**BR-GC**	**BR-CR**	**BR-ORT**
5	Trade (Wholesale and Retail) (1, 7, 15)							
51	Wholesale Trade: General Merchandise, Products, Supplies, Materials and Equipment except the following:					P 2		

		Wholesale and Retail – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
5111 5156 5157 5191 5192	Wholesale Trade: Motor Vehicles, Primary and Structural Metals, Bulk Petroleum							
5193	Scrap Waste Materials, Livestock							
	Recycling Centers		P/			P	P	
521 522 523 524	Lumber and Other Bulky Building Materials Including Preassembled Products		P 3/			P	P 3	
5251	Hardware, Paint, Tile and Wallpaper (Retail)		P 3/	P 3	P 4	P	P 3	
5252	Farm Equipment							
53	General Merchandise: Dry Goods, Variety and Dept. Stores (Retail)		P/P 2	P 2	P 4	P	P	
54	Food and Convenience Store (Retail) (5,6)	P/P	P/P	P	P 4	P	P	P 4
5511	Autos, Motorcycles (Retail)					P	A 7	
	Trucks, Recreational Vehicles (Retail)					P 2		
	Boats (Retail)					P 2		
552	Automotive and Marine Accessories (Retail)					P 2		
553	Gasoline Service Stations (8,16)		P/			P	P	
56	Apparel and Accessories (Retail)	P/P 2	P/P	P	P 4, 13, 14	P 2	P	
57	Furniture, Home Furnishing (Retail)		P/P	P	P 4, 13, 14	P	P	

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Wholesale and Retail – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
58	Eating and Drinking Establishments (3, 6)		P/ P 9	P 9	P 4, 13, 14	P	P	P
59	Misc. Retail Trade: Drugs, Liquor, Antiques, Books, Sporting Goods, Jewelry, Florist, Photo Supplies, Video Rentals and Computer Supplies		P/ P 3	P 3	P 4, 13, 14	P	P 2	P
	Adult Retail Establishments (10)		P/P			P	P	
59	Marijuana Retail Outlet	A 17, 18, 19	A 17, 18	A 17, 18		A 17, 18	A 17, 18	A 17, 18
5961	Farm Supplies, Hay, Grain, Feed and Fencing, etc. (Retail)					P 2		
596	Retail Fuel Yards							
5996	Garden Supplies, Small Trees, Shrubs, Flowers, Ground Cover, Horticultural Nurseries and Light Supplies and Tools (11)		P/ P 3	P 3	P 4, 13, 14	P	P	
5999	Pet Shop (Retail, Pet Day Care, and Grooming) (12)			P 3	P 4, 13, 14	P	P	
	Computers and Electronics (Retail)		P/ P 3	P 3		P	P	

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C)

A – Administrative Conditional Use (see Part 20.30E)

Notes: Uses in land use districts – Wholesale and Retail.

(1) Wholesale trade excludes tank farms.

(2) This individual use is limited in size to no greater than 20,000 square feet per establishment.

(3) Any new business which combines three or more permitted retail sales uses shall be limited in size to 50,000 square feet. This Note does not apply to uses that exceed the size limit but are documented existing uses pursuant to LUC 20.25D.060.

(4) All permitted retail, service, and recreation uses combined shall not exceed 10,000 square feet, except as provided for in Notes (13) and (14) below.

(5) Food and Convenience Stores (Retail) shall contain at least 75 percent square footage of retail food sales not for consumption on premises.

(6) Drive-in windows are not allowed except as regulated by LUC 20.25D.060, Existing Conditions.

(7) See LUC 20.25D.100, Automobile and Motorcycle Sales, Leasing, and Rental, for applicable performance criteria.

(8) Gasoline service stations may include convenience stores.

(9) Microbrewery manufacturing is permitted as a component of an eating and drinking establishment; provided, that the manufacturing use occupies not more than 50 percent of the total square footage of the combined establishment.

(10) Adult retail establishments are subject to the regulations for adult entertainment uses in LUC 20.20.127.

(11) Garden Supplies excludes items such as large trees, rock, and bulk supplies which require special handling equipment.

(12) See LUC 20.20.130 for general requirements applicable to this use.

(13) In any existing development meeting the definition of LUC 20.25D.060, all permitted retail, service, and recreation uses combined may occupy any part of the existing development; provided, that no individual use shall exceed 10,000 square feet.

(14) In any new residential building, all permitted retail, service, and recreation uses combined may occupy the ground floor without size limitation; provided, that no individual use shall exceed 10,000 square feet. A single building is considered residential for the purposes of this Note if more than 50 percent of the gross floor area is devoted to residential uses.

(15) All wholesale and retail uses, which offer shopping carts to customers, shall (a) designate a shopping cart containment area as defined in BCC 9.10.010; (b) display signage around shopping cart corrals and at the perimeter of the shopping cart containment area that provides notice that unauthorized removal of a shopping cart from the premises constitutes theft under RCW 9A.56.270 and unauthorized abandonment of a shopping cart more than 100 feet away from the parking area of a retail establishment or shopping cart containment area is a Class 3 civil infraction as defined in RCW 7.80.120; and (c) display information on each shopping cart that is consistent with the labeling requirements of RCW 9A.56.270 and includes a 24-hour toll-free phone number to report abandoned shopping carts. Abandoned shopping carts or shopping carts located outside of a shopping cart containment area constitute a public nuisance under BCC 9.10.030(H) and may be abated through the provisions of Chapter 1.18 BCC.

(16) Battery Exchange Stations are ancillary to Gasoline Service Stations, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(17) See LUC 20.20.535 for general development requirements for marijuana uses.

(18) Marijuana retail outlet excludes medical marijuana cooperative. Medical marijuana cooperatives, as authorized under RCW 69.51A.250, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses.

(19) Marijuana retail outlet that is allowed as an administrative conditional use pursuant to this section is permitted in BR-MO-1 only.

Chart 20.25D.070

Services Uses in Bel-Red Land Use Districts.

		Services – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
6	Services							
61	Finance, Insurance, Real Estate Services (10)	P 9/P 9	P/P	P	P 1, 11, 12	P	P	P

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
62	Personal Services: Laundry, Dry Cleaning, Barber and Beauty, Photography Studio and Shoe Repair	P/P	P/P	P	P1, 11, 12	P	P	P
6241	Funeral and Crematory Services	C/C				C		
6262	Cemeteries							
629	Child Care Services (2, 3)							
	Family Child Care Home in Single-Family Residence	P/			P	P	P	P
	Child Day Care Center	P/P	P/P	P	A 1	P	P	
	Adult Day Care	P/P	P/P	P	A 1	P	P	
63	Business Services, Duplicating and Blue Printing, Steno, Advertising (Except Outdoor), Travel Agencies and Employment (10)	P/P	P/P	P		P	P	P
634	Building Maintenance and Pest Control Services					P	P	
637	Warehousing and Storage Services, Excluding Stockyards		P/			P		
639	Rental and Leasing Services: Cars, Trucks, Trailers, Furniture and Tools (4)					P		
641	Auto Repair and Washing Services (13)		P/P 5	P 5		P	P	

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
649	Repair Services: Watch, TV, Electrical, Computer, Upholstery					P	P 6	
	Professional Services: Medical Clinics and Other Health Care Related Services (10)	P/P	P/P	P		P	P 6	P
	Professional Services: Other (10)		P/P			P	P 6	P
6513	Hospitals (10)	/C						
66	Contract Construction Services: Building Construction, Plumbing, Paving and Landscape					P		
671	Governmental Services: Executive, Legislative, Administrative and Judicial Functions (10)	A/A	A/A				A	A
672 673	Governmental Services: Protective Functions and Related Activities Excluding Maintenance Shops (10)	A/A	A/A	A	A	A	A	A
	Limited Governmental Services: Executive and Administrative, Legislative and Protective Functions (10)	P/P	P/P	P	P 7	P	P	P
674 675	Military and Correctional Institutions	/C				C		

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Services – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
	Secure Community Transition Facility							
681	Education: Primary and Secondary (8, 10)	/A	A/A	A	A	A	A	A
682	Universities and Colleges (10)	A/P	A/P	P		A	A	
683	Special Schools: Vocational, Trade, Art, Music, Driving, Barber and Beauty Schools (10)	P/P	P/P	P	P 6	P	P	P 6
691	Religious Activities	P/P	P/P	P	A	P	A	A
692 (A)	Professional and Labor Organizations, Fraternal Lodge	A/A	A/A	A		P	A	A
692 (B)	Social Service Providers	P/P	P/P	P	P	P	P 6	P
	Administrative Office – General (10)	P 9 /P 9	P/P	P 9		P	P 9	P
	Computer Programming, Data Processing and Other Computer Related Services			P 9		P 9	P	P
	Research, Development and Testing Services			P 9		P 9	P	P
	Marijuana Research (14)							

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C)

A – Administrative Conditional Use (see Part 20.30E)

Notes: Uses in land use districts – Services.

(1) All permitted retail, service, and recreation uses combined shall not exceed 10,000 square feet, except as provided for in Notes (11) and (12) below.

(2) Refer to Chapter 20.50 LUC for definitions of child care service, family child care home, and child day care center.

(3) A child care service may be located in a community facility in any land use district pursuant to LUC 20.20.170.E.

(4) See LUC 20.25D.100, Automobile and Motorcycle Sales, Leasing, and Rental, for applicable performance criteria.

(5) Auto repair and washing services are permitted as a subordinate use pursuant to LUC 20.20.840 only if located in a structured parking area.

(6) This use is limited in size to no greater than 20,000 square feet.

(7) Uses are limited to community police stations of 1,500 square feet or less.

(8) Refer to LUC 20.20.740 for general requirements applicable to public and private schools. Schools located in the BR-ORT land use district are considered to be in a Transition Area for the purposes of applying the above-referenced section. All Bel-Red land use districts are considered to be nonresidential for the purposes of applying LUC 20.20.740.

(9) Limited to 0.5 floor area ratio (FAR).

(10) Bicycle parking shall be provided pursuant to LUC 20.25D.120.G.

(11) In any existing development meeting the definition of LUC 20.25D.060, all permitted retail, service, and recreation uses combined may occupy any part of the existing development; provided, that no individual use shall exceed 10,000 square feet.

(12) In any new residential building, all permitted retail, service, and recreation uses combined may occupy the ground floor without size limitation; provided, that no individual use shall exceed 10,000 square feet. A single building is considered residential for the purposes of this note if more than 50 percent of the gross floor area is devoted to residential uses.

(13) Battery Exchange Stations are ancillary to Auto Repair and Washing Services, and are permitted through the applicable review process as a component of that use. Operators of Battery Exchange Stations must comply with federal and state law regulating the handling, storage, and disposal of batteries.

(14) Marijuana research uses, as authorized under RCW 69.50.372, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses.

Chart 20.25D.070

Recreation Uses in Bel-Red Districts.

		Recreation – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
7	Cultural Entertainment and Recreation							
711	Library, Museum	P	P	P	A 1	P	P	
7113	Art Gallery		P/P	P	P 2, 8, 9	P	P	
712	Nature Exhibitions: Aquariums, Botanical Gardens and Zoos (3)					C	C	
7212 7214 7222 7231 7232	Public Assembly (Indoor): Sports Arenas, Auditoriums and Exhibition Halls but excluding School Facilities		A/A			A	A	

		Recreation – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
7212 7214 7218	Motion Picture Theaters, Night Clubs, Dance Halls and Teen Clubs		P/P	P		P	P	
7213	Drive-In Theaters							
	Adult Theaters (4)		P/P			P		
72233	Public Assembly (Outdoor): Fairgrounds and Amusement Parks, Miniature Golf, Golf Driving Ranges, Go-Cart Tracks, BMX Tracks and Skateboard Tracks					A	A	
73	Commercial Amusements: Video Arcades, Electronic Games			A		A	A	
7411 7413 7422 7423 7424 7441 7449	Recreation Activities: Golf Courses, Tennis Courts, Community Clubs, Athletic Fields, Play Fields, Recreation Centers, Swimming Beaches and Pools (5)	A/	A/A	A		A	A	
744	Marinas, Yacht Clubs							
7414 7415 7417 7425 7413	Recreation Activities: Skating, Bowling, Gymnasiums, Athletic Clubs, Health Clubs		P/P	P		P	P	
7491 7515	Camping Sites and Hunting Clubs							

		Recreation – Bel-Red Districts						
STD LAND USE CODE REF	LAND USE CLASSIFICATION	Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
76	Private Leisure and Open Space Areas Excluding Recreation Activities Above	P	P/P	P	C	P	P	P
	Private Park	A	A/A	A	A	A	A	
	Stables and Riding Academies						A	
	Boarding or Commercial Kennels					A 6	A 6	
	Public Park	P	P/P	P	P 7	A	A	P 7

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C LUC)

A – Administrative Conditional Use (see Part 20.30E LUC)

Notes: Uses in land use districts – Recreation.

(1) This individual use is limited in size to no greater than 20,000 square feet.

(2) All permitted retail, service, and recreation uses combined shall not exceed 10,000 square feet, except as provided for in Notes (1), (8), and (9) of this Recreation Use Chart.

(3) Excludes zoos.

(4) Adult Theaters are subject to the regulations for adult entertainment uses in LUC 20.20.127.

(5) For carnivals, see LUC 20.20.160.

(6) See LUC 20.20.130 for general requirements applicable to this use.

(7) Public parks are generally permitted in all districts. However, the following types of uses or facilities in public parks require Administrative Conditional Use approval when located in the BR-R or BR-ORT land use districts: lighted sports and play fields, sports and play fields with amplified sound, and community recreation centers. Nonrecreation uses in public parks located in the BR Land Use Districts require conditional use approval, except that the permit requirements for wireless communication facilities shall be as set forth in LUC 20.20.195. For purposes of this note, “nonrecreation use” means a commercial, social service or residential use located on park property but not functionally related to park programs and activities.

(8) In any existing development meeting the definition of LUC 20.25D.060, all permitted retail, service, and recreation uses combined may occupy any part of the existing development; provided, that no individual use shall exceed 10,000 square feet.

(9) In any new residential building, all permitted retail, service, and recreation uses combined may occupy the ground floor without size limitation; provided, that no individual use shall exceed 10,000 square feet. A single building is considered residential for the purposes of this note if more than 50 percent of the gross floor area is devoted to residential uses.

Chart 20.25D.070

Resource Uses in the Bel-Red Districts.

STD LAND USE CODE REF	LAND USE CLASSIFICATION	Resources – Bel-Red Districts						
		Bel-Red Medical Office/Node	Bel-Red Office Residential/Nodes	Bel-Red Residential Commercial Nodes	Bel-Red Residential	Bel-Red General Commercial	Bel-Red Commercial Residential	Bel-Red Office Residential Transition
		BR-MO/ MO-1	BR-OR/ OR-1 OR-2	BR- RC-1 RC-2 RC-3	BR-R	BR-GC	BR-CR	BR-ORT
8	Resource Production (Minerals, Plants, Animals Including Pets and Related Services)							
81	Agriculture, Production of Food and Fiber Crops, Dairies, Livestock and Fowl, Excluding Hogs					P (1)	P (1)	
	Marijuana Production							
8192	Other Horticultural Specialties: Medical Cannabis Collective Gardens (3)							
821	Agricultural Processing							
	Marijuana Processing							
	Medical Marijuana Cooperative (4)							
8221	Veterinary Clinic and Hospital (2)		P/P	P		P	P	P
8222	Poultry Hatcheries							
83	Forestry, Tree Farms and Timber Production							
8421	Fish Hatcheries							
85	Mining, Quarrying (Including Sand and Gravel), Oil and Gas Extraction							

Existing uses in the Bel-Red District are regulated pursuant to LUC 20.25D.060.

Key

P – Permitted Use

C – Conditional Use (see Parts 20.30B and 20.30C LUC)

A – Administrative Conditional Use (see Part 20.30E LUC)

Notes: Uses in land use districts – Resources.

(1) Agriculture production is limited to the production of food and fiber crops.

(2) See LUC 20.20.130 for general requirements applicable to this use.

(3) Medical cannabis collective gardens are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses.

(4) Medical marijuana cooperatives, as authorized under RCW 69.51A.250, now or as hereafter amended, are prohibited in Bellevue. See LUC 20.20.535 for general requirements applicable to marijuana uses.

(Ord. 6316, 11-7-16, §§ 7, 8; Ord. 6281, 3-21-16, § 2; Ord. 6253, 8-3-15, §§ 6 – 8; Ord. 6223, 4-6-15, § 2; Ord. 6197, 11-17-14, § 19; Ord. 6132 B-1, 10-21-13, § 3; Ord. 6102, 2-27-13, § 3; Ord. 6016, 8-1-11, § 3; Ord. 5989, 2-7-11, §§ 5, 6, 7; Ord. 5892, 7-20-09, § 2; Ord. 5874, 5-18-09, § 1)

20.25D.080 Dimensional Requirements.

A. General.

This subsection (Chart 20.25D.080.A, Dimensional Requirements in Bel-Red Districts) sets forth the dimensional requirements for each land use district in the Bel-Red Subarea. The Dimensional Requirements of Chart 20.20.010 do not apply in the Bel-Red Land Use Districts. Each structure,

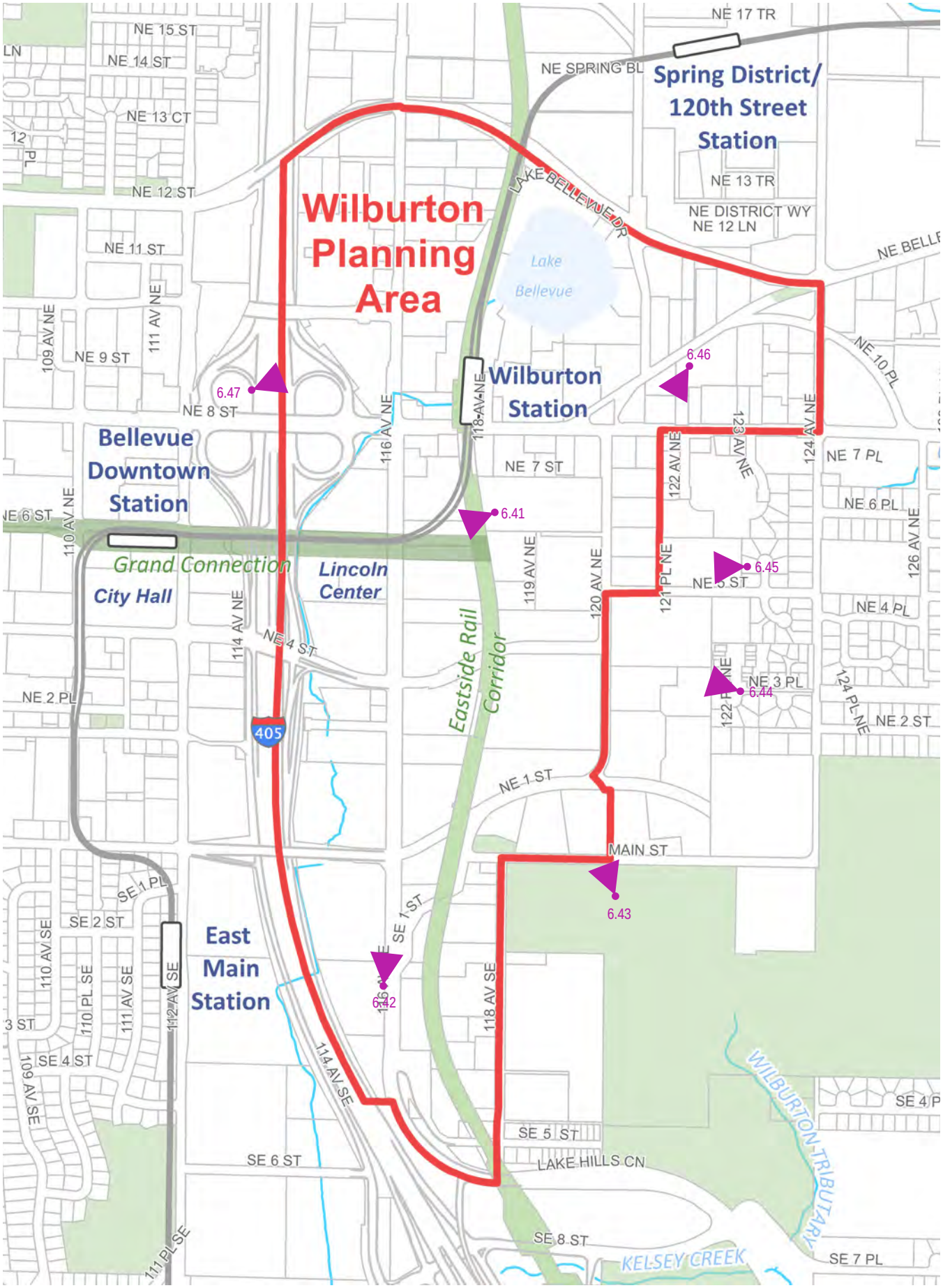
development, or activity in a Bel-Red Land Use District shall comply with these requirements except as otherwise provided in this section. If a number appears in a box at the intersection of a column and a row, the dimensional requirement is subject to the special limitation indicated in the corresponding Note.

Chart 20.25D.080.A

Dimensional Requirement in Bel-Red Districts.

Bel-Red Land Use District (19)	Tower Type (1) (17)	Minimum Setbacks/Stepbacks (3) (5) (7) (8) (10)			Gross SF/Floor Above 40 ft. (gsf/f) (16) (20) (21)	Gross SF/Floor Above 80 ft. (gsf/f) (16) (20) (21)	Maximum Impervious Surface/ Lot Coverage (6)	Building Height (4) (22)		Floor Area Ratio (4) (9)	
		Front	Rear	Side				Base	Max.	Base	Max.
MO-1 OR-1 RC-1	Nonresidential Residential	0 (2)	0 (14)	0 (14)	28,000 28,000/12,000	28,000 9,000	75%	45	150	1.0	4.0
OR-2 RC-2	Nonresidential Residential	0 (2)	0 (14)	0 (14)	28,000 28,000/12,000	28,000 9,000	75%	45	125	1.0	4.0
RC-3 (15)	Nonresidential Residential	0 (2)	0	0	28,000 28,000	NA	75%	45 (13)	70 (13)	1.0	4.0
CR (15)	Nonresidential Residential	0 (2)	0	0	28,000 28,000	NA	75%	45 (13)	70 (13)	1.0	2.0
R	Nonresidential Residential	0 (2)	0	0	NA	NA	75%	30	45	1.0	2.0
MO OR	Nonresidential Residential	0 (2)	0	0	28,000 28,000	NA	75%	70	70	1.0	1.0
GC	Nonresidential Residential	0 (2)	0	0	NA	NA	75%	45	45	1.0	1.0
ORT	Nonresidential Residential	20	30	20	NA	NA	75%	45 (11)	45 (11)	0.75	0.75
All	Parking (12) (18)				NA	NA	75%	30	30	0.5	0.5

Notes: Chart 20.25D.080.A Dimensional Requirement in Bel-Red Districts.


Wilburton Planning Area
Spring District/ 120th Street Station
Wilburton Station
Bellevue Downtown Station
City Hall
Grand Connection
Lincoln Center
East Main Station
Eastside Rail Corridor
Lake Bellevue
LAKE BELLEVUE DR
NE SPRING BL
NE 17 TR
NE 13 TR
NE DISTRICT WY
NE 12 LN
NE 15 ST
NE 14 ST
NE 13 CT
NE 12 ST
NE 11 ST
NE 9 ST
NE 8 ST
NE 7 ST
NE 6 ST
NE 7 PL
NE 6 PL
NE 5 ST
NE 4 PL
NE 3 PL
NE 2 PL
NE 2 ST
NE 1 ST
NE 10 PL
MAIN ST
SE 1 PL
SE 2 ST
SE 4 ST
SE 5 ST
SE 6 ST
SE 8 ST
SE 7 PL
LAKE HILLS CN
KELSEY CREEK
WILBURTON TRIBUTARY
405
109 AV NE
111 AV NE
110 AV NE
116 AV NE
118 AV NE
119 AV NE
120 AV NE
121 PL NE
122 AV NE
123 AV NE
124 AV NE
126 AV NE
114 AV NE
110 AV SE
111 AV SE
112 AV SE
109 AV SE
110 PL SE
111 PL SE
114 AV SE
118 AV SE
6.41
6.42
6.43
6.44
6.45
6.46
6.47

Oblique Images



Figure 6.41



Figure 6.42



Figure 6.43



Figure 6.44



Figure 6.45

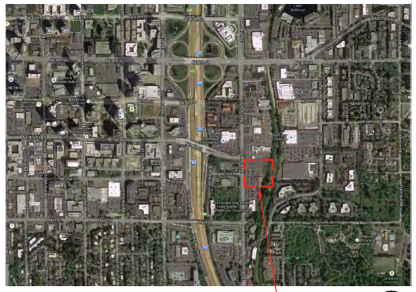


Figure 6.46



Figure 6.47

Potential Future Developments



VICINITY MAP

PROJECT DESCRIPTION:

THE PROJECT PROPOSES A FOUR STORY 421,428 SF MIXED USE BUILDING CONSISTING OF RETAIL, MEDICAL OFFICE AND ENTERTAINMENT, INCLUDING 3 FLOORS OF PROPOSED PARKING FOR 682 CARS (190 AT L1 & 299 AT L2 & 190 AT L4).

KING COUNTY PARCEL NUMBERS
PARCEL A 332505-9042 (133,278 SF)
PARCEL B 332505-9041 (71,643 SF)



BELLEVUE SOUTH
200 116TH AVE NE
BELLEVUE, WA 98004

PRE-APPLICATION SUBMITTAL
DECEMBER 14, 2016

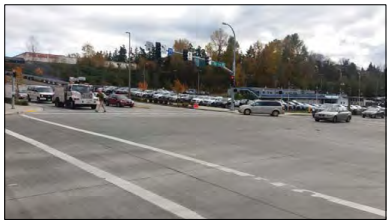
SHEET INDEX

1	COVER, VICINITY MAP, PROJECT DESCRIPTION	12	NORTH AND WEST ELEVATIONS
2	SITE CONTEXT PHOTOS	13	SOUTH AND EAST ELEVATIONS
3	SITE PLAN	14	CONCEPT VIEWS
4	PERIMETER SECTIONS	15	CONCEPT VIEWS
5	PERIMETER SECTIONS	16	BUILDING SECTION
6	IMPERVIOUS DIAGRAMS		SITE SURVEY
7-11	FOOR PLANS		

FULLER•SEARS ARCHITECTS
1411 Fourth Ave., Suite 1306
Seattle, WA 98101
Tel. 206.682.6170



1-NW Corner looking east



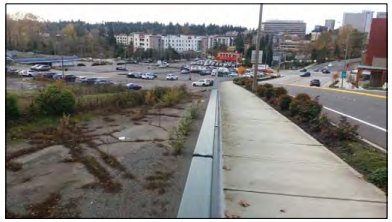
2-NW Corner looking SE



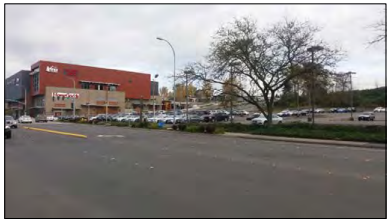
3-Along 116th Ave looking south



4-Along 116th Ave looking north



5-Along NE 4th looking west



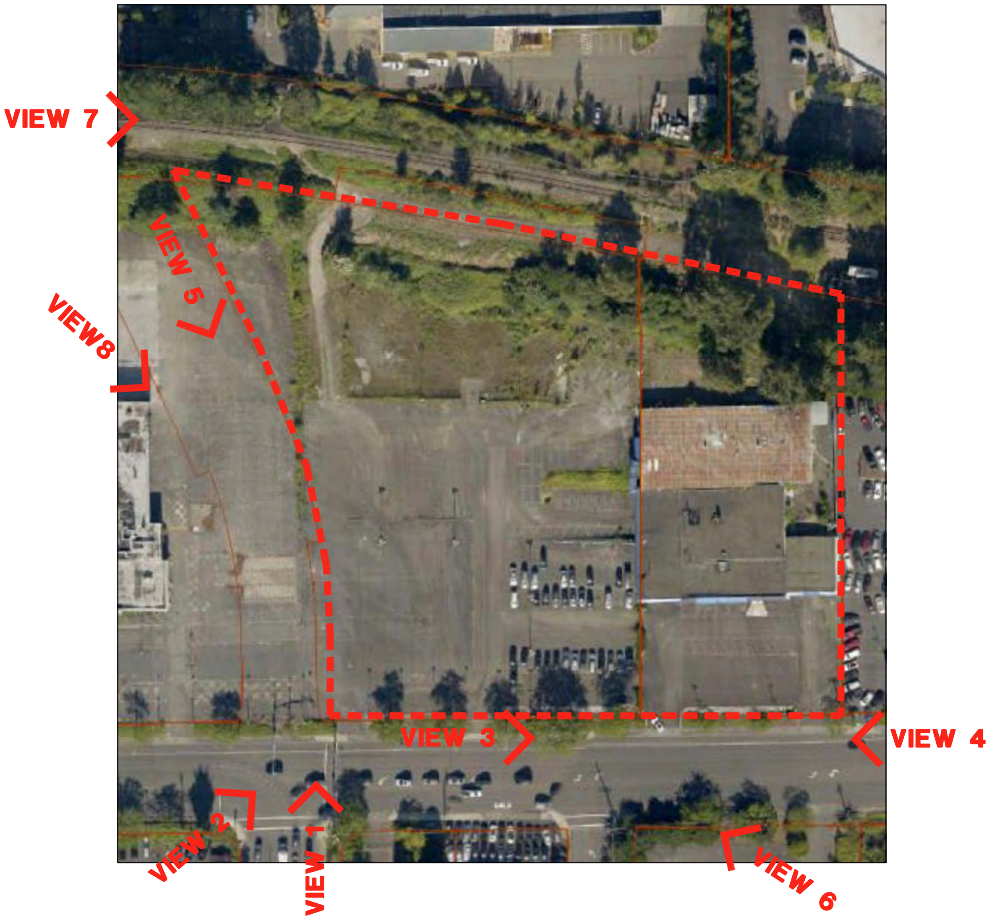
6-From 116th Ave looking NE



7-Future trail looking south



8-From NE 4th looking SW



N EXISTING SITE AERIAL



FULLER·SEARS ARCHITECTS

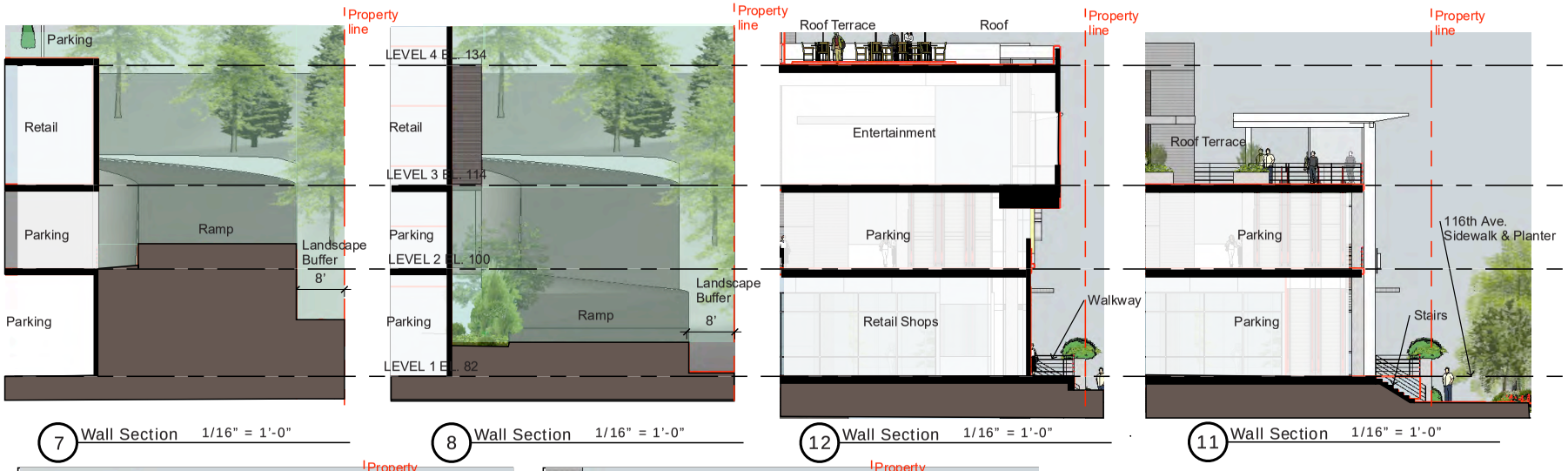
DECEMBER 14, 2016

PERIMETER SECTIONS

BELLEVUE SOUTH - BELLEVUE, WA

PRE-APPLICATION SUBMITTAL

KG INVESTMENT MANAGEMENT

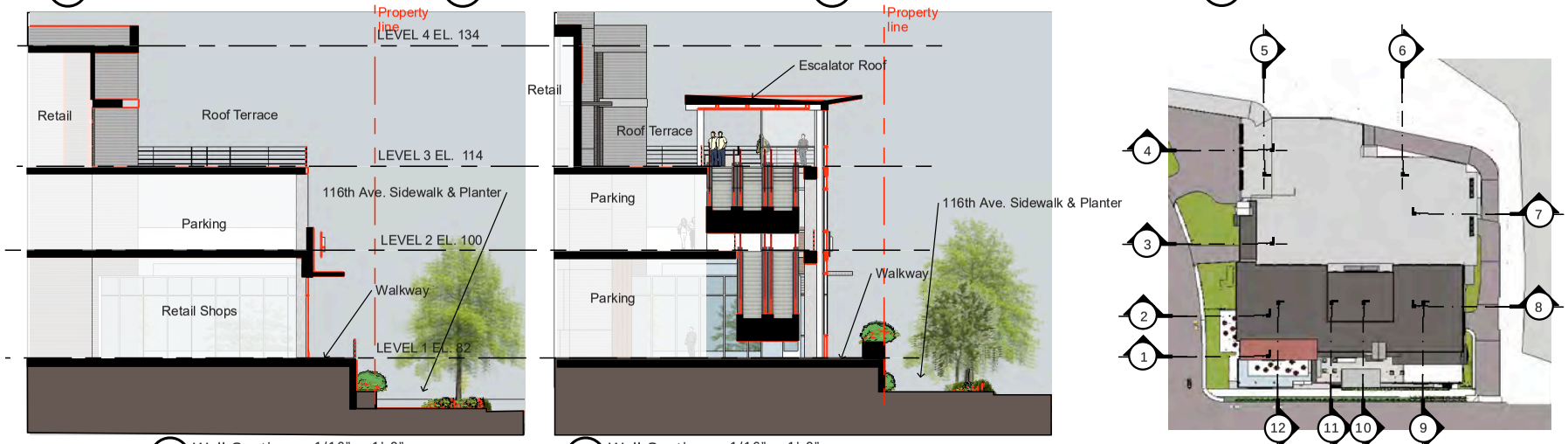


7 Wall Section 1/16" = 1'-0"

8 Wall Section 1/16" = 1'-0"

12 Wall Section 1/16" = 1'-0"

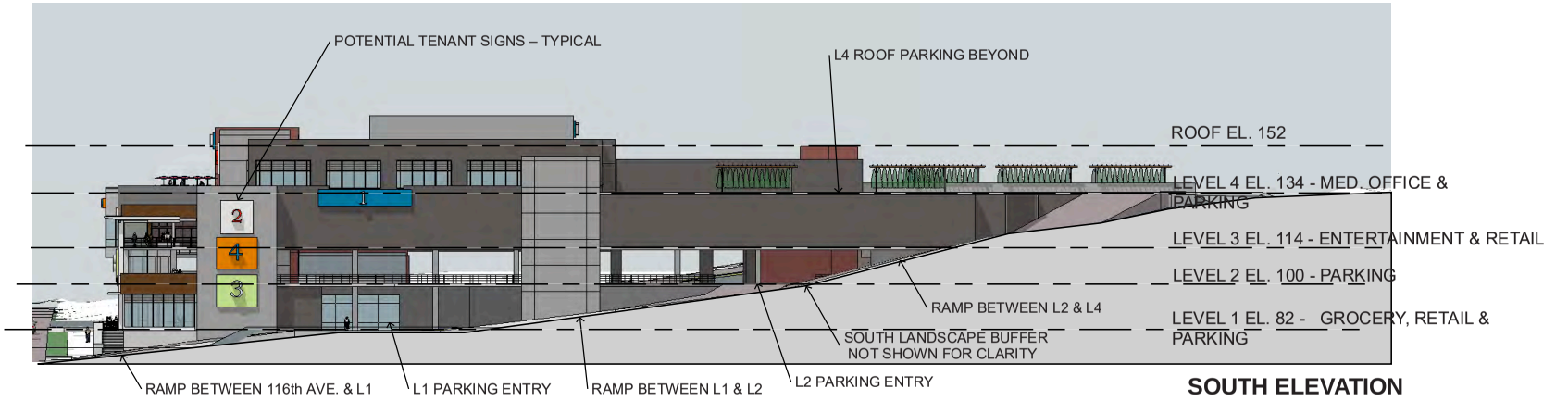
11 Wall Section 1/16" = 1'-0"



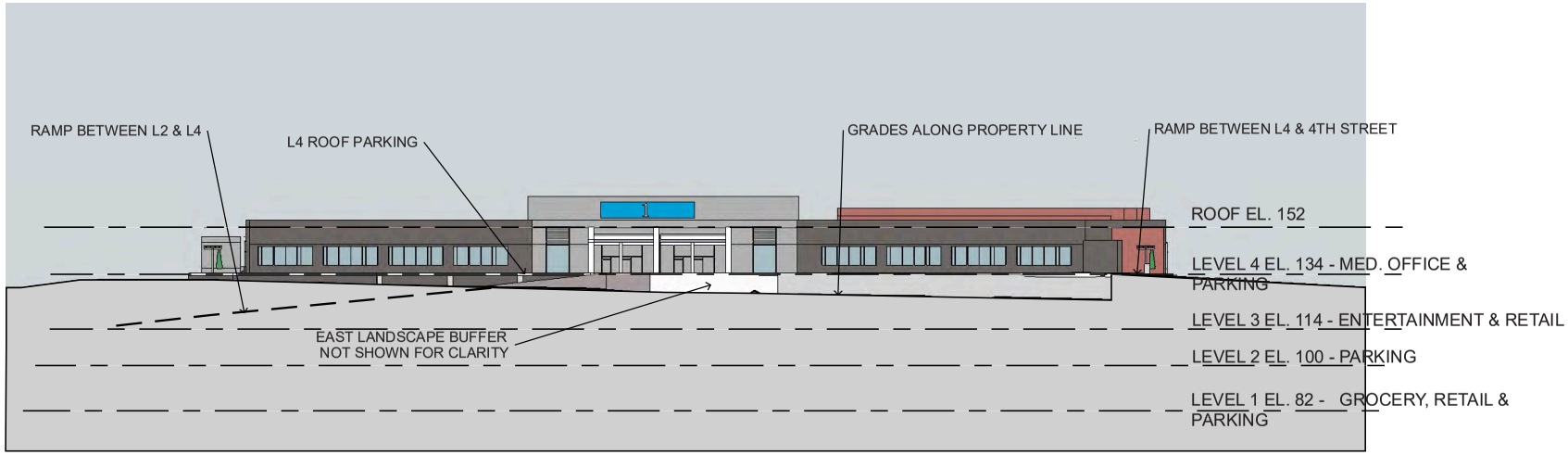
9 Wall Section 1/16" = 1'-0"

10 Wall Section 1/16" = 1'-0"

PERIMETER SECTIONS



SOUTH ELEVATION



EAST ELEVATION

FULLER • SEARS ARCHITECTS

ELEVATIONS

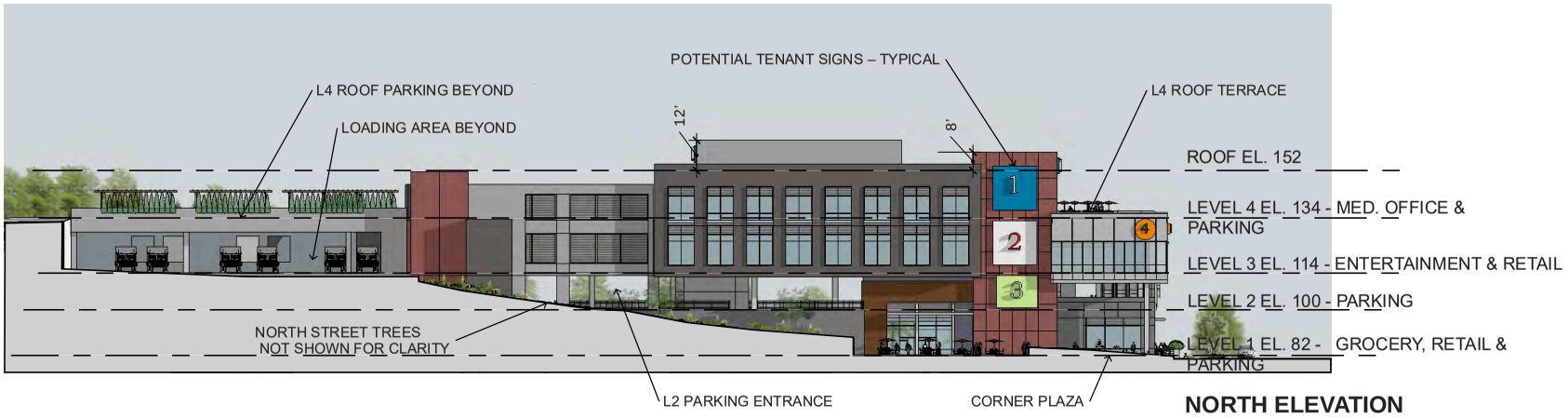
1" = 40'-0"

DECEMBER 14, 2016

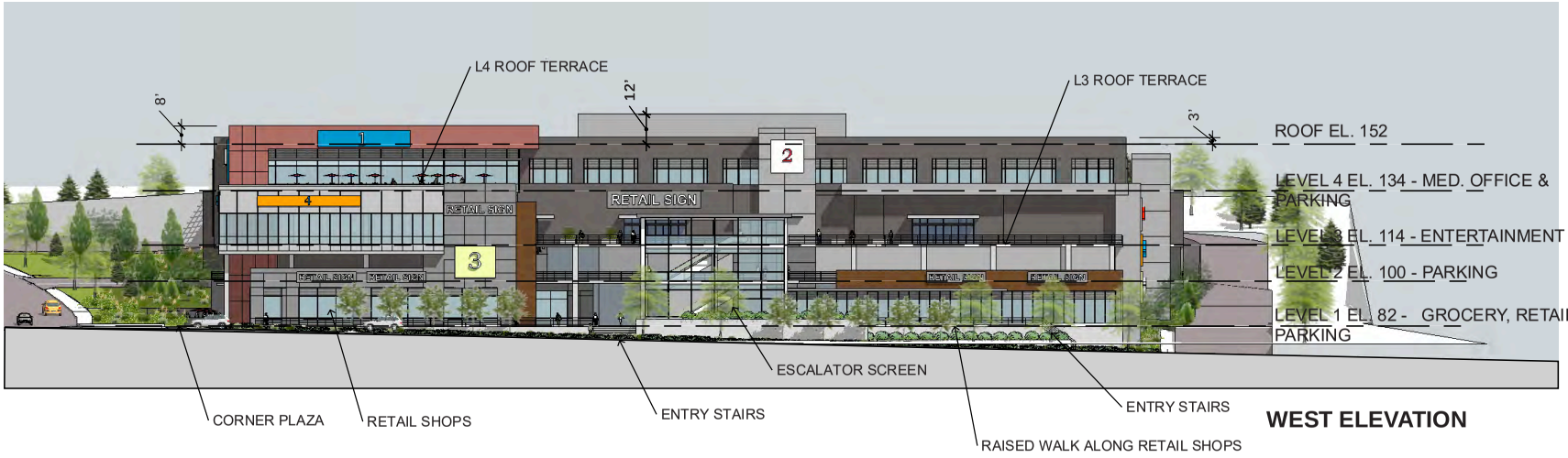
BELLEVUE SOUTH - BELLEVUE, WA

PRE-APPLICATION SUBMITTAL

KG INVESTMENT MANAGEMENT 12



NORTH ELEVATION



WEST ELEVATION

FULLER·SEARS ARCHITECTS

ELEVATIONS

1" = 40'-0"

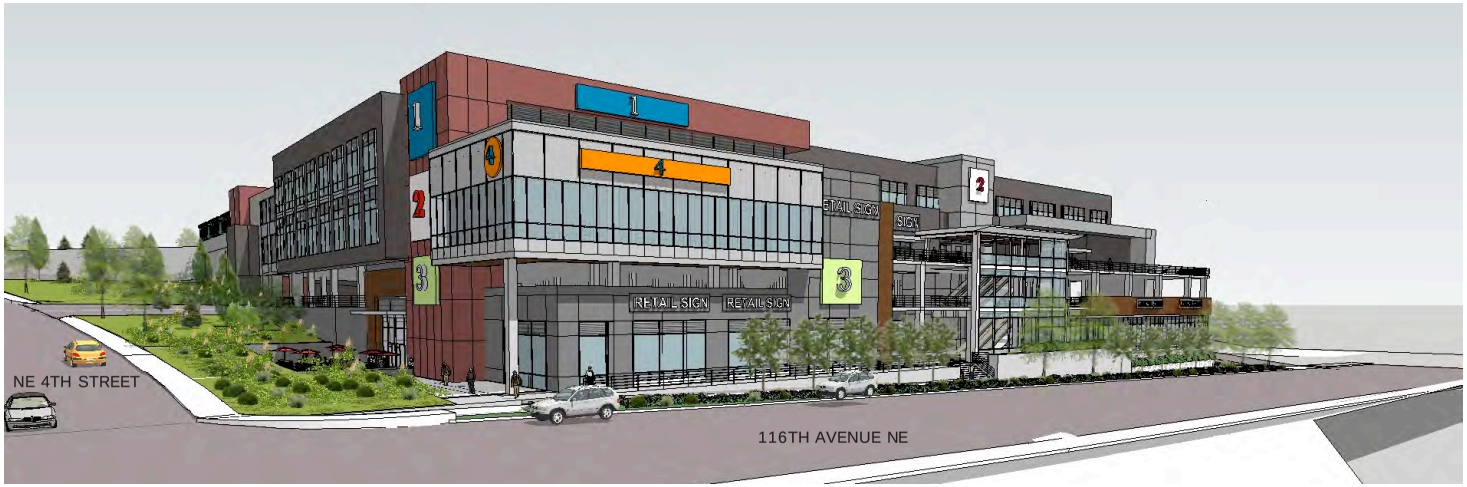
DECEMBER 14, 2016

BELLEVUE SOUTH - BELLEVUE, WA

PRE-APPLICATION SUBMITTAL

KG INVESTMENT MANAGEMENT

13



VIEW WEST ON FOURTH STREET



VIEW NORTH ALONG 116TH AVE.

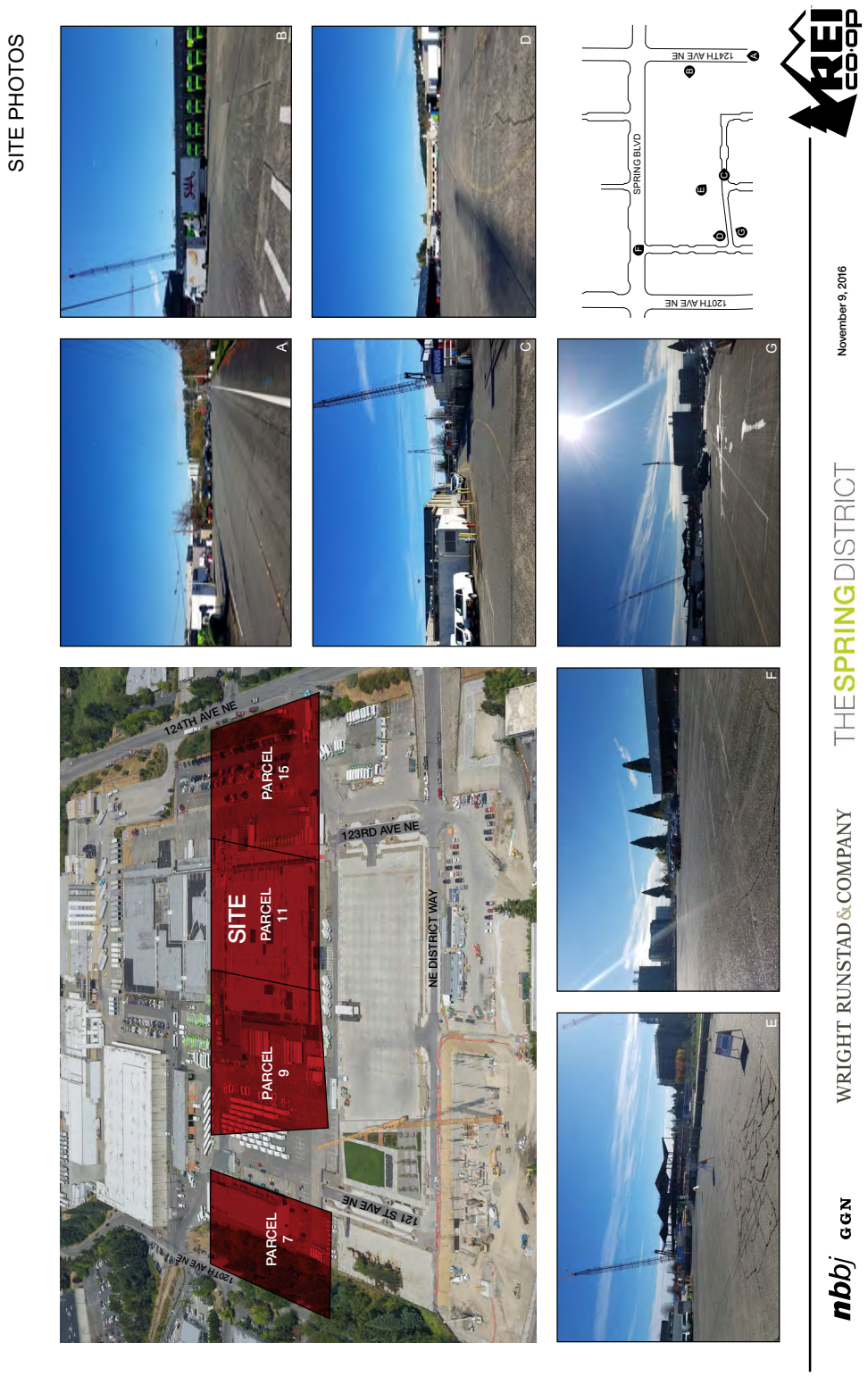


VIEW DOWN FOURTH STREET

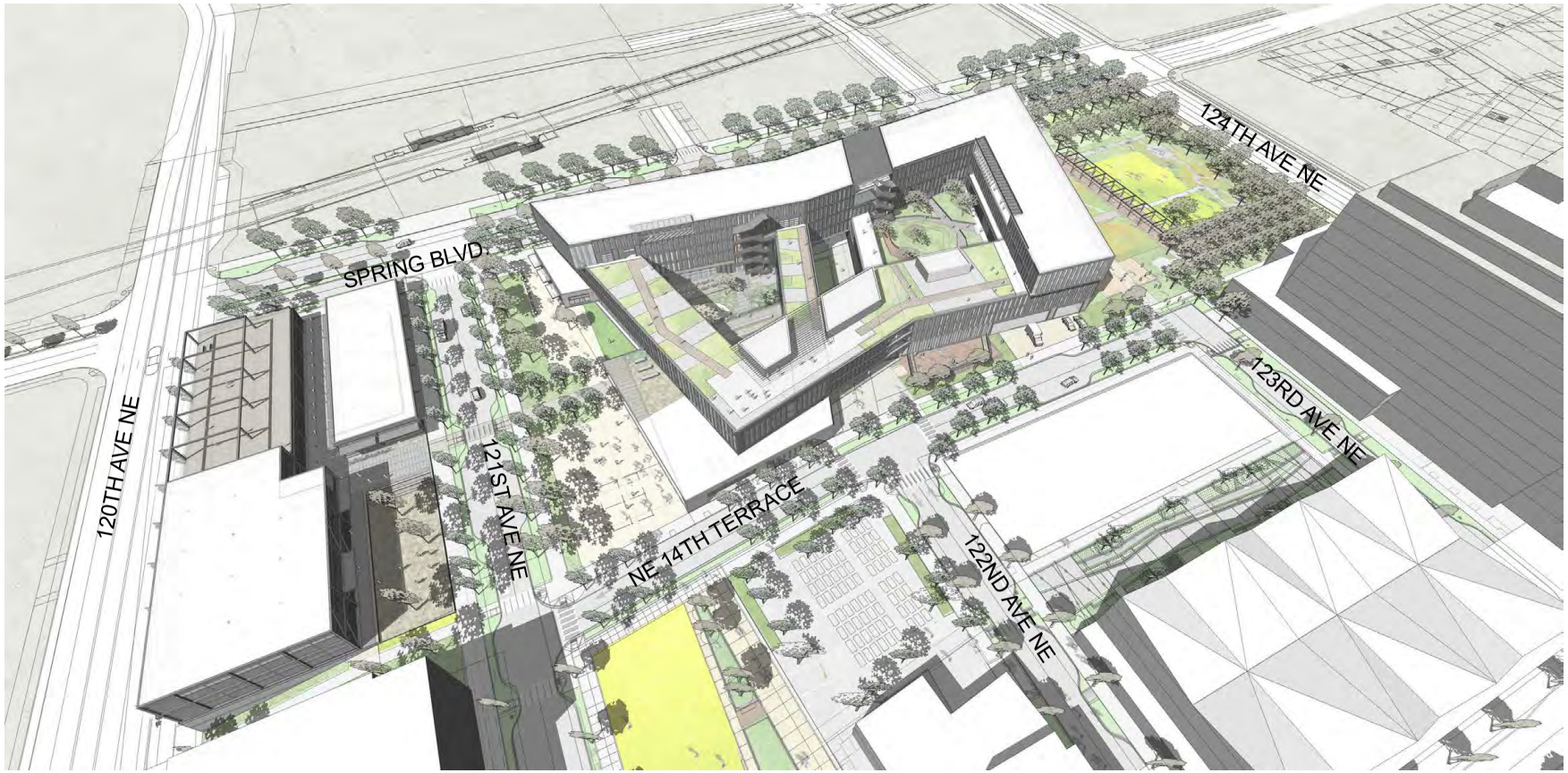


VIEW SOUTH ALONG 116TH AVE.

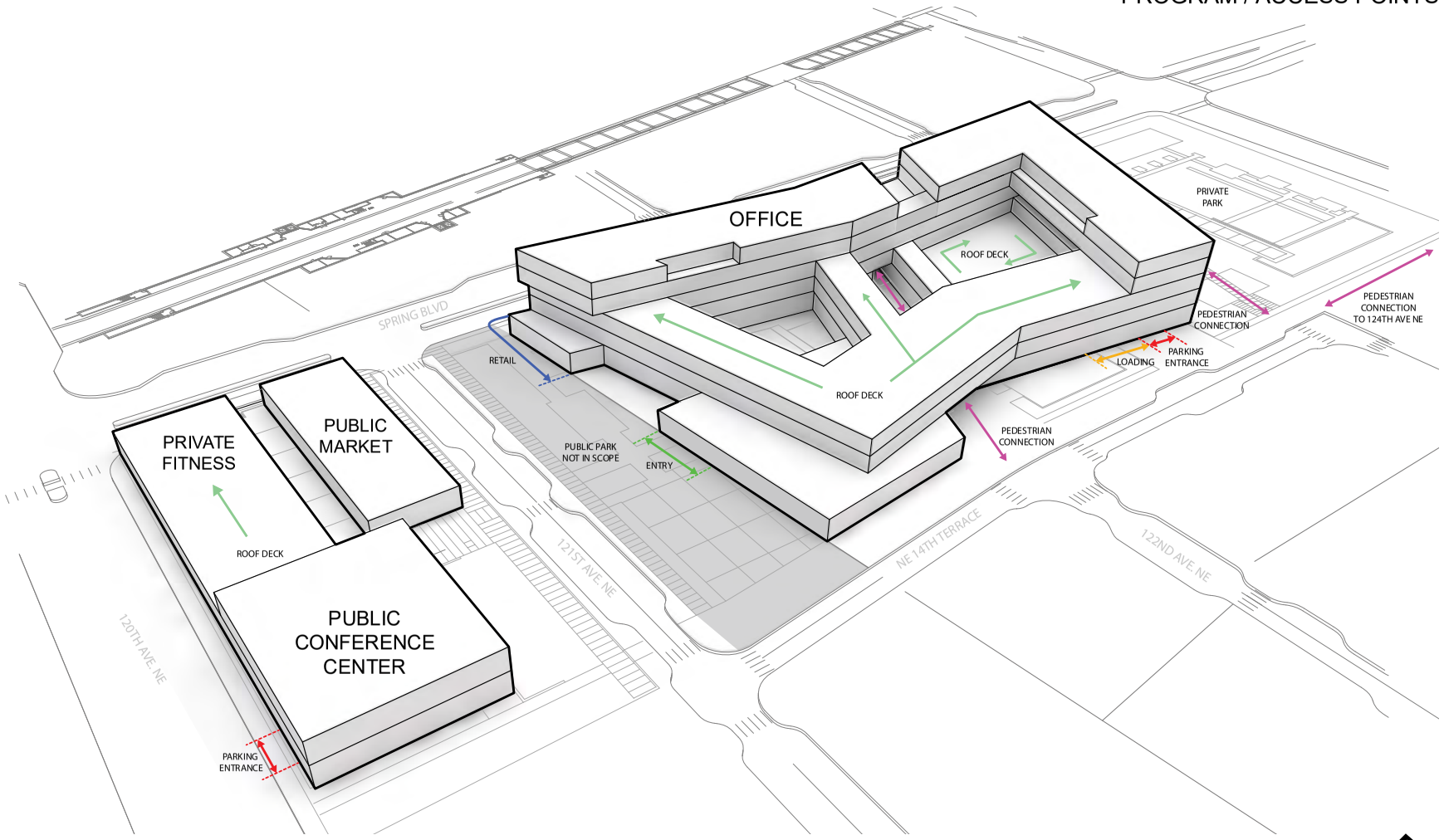
REI Corporate Headquarters - Spring District



OVERALL MASSING
(FOR REFERENCE ONLY)



PROGRAM / ACCESS POINTS



VIEW LOOKING SOUTH
(FOR REFERENCE ONLY)



VIEW LOOKING NORTHEAST
(FOR REFERENCE ONLY)



VIEW LOOKING SOUTHEAST
(FOR REFERENCE ONLY)



CONFERENCE CENTER & MARKET
(FOR REFERENCE ONLY)



CONFERENCE CENTER
(FOR REFERENCE ONLY)



MARKET
(FOR REFERENCE ONLY)



Adoped and Existing Plans

Wilburton/N.E. 8th Street Subarea Plan

Goal:

- **To separate residential, recreational, and open space areas from commercial areas and to protect open space.**
- **To improve pedestrian accessibility and attractiveness of commercial areas for residents of Bellevue.**
- **To support the provision of commercial services in Wilburton that complement Downtown, such as large retail and auto sales; that provide mixed-use opportunities; and that provide convenient shopping for the adjacent neighborhoods.**

Discussion: The Wilburton/NE 8th Subarea Plan seeks to support the residential and non-residential uses in the subarea by protecting residential, recreation and open space areas from encroachment of commercial and other non-residential uses (except for those normally permitted in residential areas, such as parks, churches, schools, utilities, and home occupations). Non-residential development, such as retail activity, medical uses and auto sales, should be concentrated in existing non-residential areas. While this vision seeks to protect residential areas from encroachment, it supports integrating residential uses with commercial development (i.e. mixed-use) in some commercial areas.

Overview

The settlement history of Wilburton dates to the turn of the century when farms, a logging mill, a railroad and a commercial area near 116th and N.E. 8th Street were established. With the openings of the floating bridges in 1940 and 1963, there was rapid growth of homes during the 1950s and 1960s in the area. Wilburton was annexed to the City between 1964 and 1967.

Today the Wilburton Subarea is centrally located in Bellevue. Access to I-405 and the Downtown makes the Subarea a desirable place to live and work. Jobs, stores, schools, and community parks are convenient and accessible. Combined, these amenities have greatly enhanced the quality of life for both the residents and business owners.

The Wilburton Subarea encompasses approximately 1,600 acres. Its boundaries are generally I-405 to the west, Bellevue-Redmond Road to the north, 148th to the east, and the Lake Hills Connector to the south. It is comprised of commercial areas

along the I-405, 116th Avenue N.E., and N.E. 8th Street corridors while large areas of single-family residences make up the remainder of the Subarea. Multifamily development is mostly confined to the N.E. 8th Street corridor, along the 118th Avenue S.E. and 122nd Avenue N.E. and west of 140th north of N.E. 8th Street. Recreational open space includes the Glendale Golf Course, Kelsey Creek Park, and Wilburton Hill Park.

The I-405 business corridor, Lake Bellevue area, and the NE 8th Street corridor is home to Overlake Hospital, Group Health, Auto Row, and a variety of retail uses. Many of the retail areas may be ready for redevelopment as they evolve from older suburban commercial strips to emerging urban areas. The area east of approximately 120th Avenue features large, single-family neighborhoods, some with large lots that may provide opportunities to subdivide and add new housing.

As of the 2000 Census about 8,900 people live, and approximately 10,400 people work, in the Wilburton/NE 8th Subarea. There are about 1,250 units of single-family housing and 3,120 units of multifamily housing. Wilburton Hill Park provides over 100 acres of open space, sports fields, and a botanical garden.

Protecting residential neighborhoods from increased commercial development and traffic, enhancing existing retail areas, and establishing clear boundaries between differing land uses are the Subarea's major issues.

Land Use

Policies

POLICY S-WI-1. Protect residential areas from impacts of other uses by maintaining the current boundaries between residential and non-residential areas.

> *Discussion: This plan establishes appropriate areas for non-residential uses. Beyond these areas, non-residential uses, except for those normally permitted in residential areas, (such as parks, churches, schools, utilities, and home occupations) should not be permitted to encroach into residential areas. This does not limit the potential for development that mixes residential uses with commercial, institutional or other uses in areas that are predominately non-residential.*

POLICY S-WI-2. Support the provision of commercial services in Wilburton that complement Downtown such as large retail and auto sales; mixed use opportunities; and services that provide convenient shopping for the adjacent neighborhoods. Implement this through zoning and development regulations.

> *Discussion: The Wilburton/NE 8th Street subarea includes a variety of commercial areas.*

The eastern portion of the subarea includes small commercial sites that primarily serve the immediate neighborhood.

The western portion of the subarea includes more intense commercial areas between 116th and 120th Avenues and near Lake Bellevue that serve the broader community. Some of these areas may be ready for redevelopment into new commercial or mixed uses.

The area west of the BNSF corridor is appropriate for auto and motorcycle sales, large retail uses, office and hotel uses.

The vision for the area on the west side of 120th Avenue, between NE 8th Street and the existing Home Depot property is for the development of a "retail village" that is an inviting, attractive, and pedestrian friendly retail area comprised of a mixture of community-oriented and neighborhood-oriented retail and residential uses.

POLICY S-WI-3. Support the long term development of a "retail village" in the commercial area on the west side of 120th Avenue to provide a transition from more intense commercial areas to the west and the residential area to the east. Designate the area west of 120th Avenue NE between NE 8th and about NE 4th Streets, and on the east side of 116th Avenue from about NE 4th to SE 1st Streets General Commercial/Community Business (GC/CB). Without access improvements, the area remains appropriate for General Commercial uses. As NE 4th Street (East Bellevue Transportation Plan project #582) is extended to increase access to the area, Community Business uses are appropriate.

Discussion: The intent is to increase transportation capacity as redevelopment occurs. It is recognized that the complexity of construction and property ownership may require phasing of the street project. Phasing may be accepted through a development agreement that assures adequate right of way and timely completion of the entire connection.

The extension of NE 4th Street may occur as a city-funded capital project, associated with private development, or through an alternative financing mechanism, such as a local improvement district. If private financing is used, the city may facilitate methods of allowing others in the district to contribute as redevelopment occurs, such as through latecomers agreements.

POLICY S-WI-4. Recognize the area between I-405 and the BNSF corridor, and between NE 8th Street and SE 1st Street, as appropriate for a 75-foot height limit. Increased heights limits for the portion of this area east of 116th Avenue should be limited to those areas rezoned for more intense uses consistent with Policy S-WI-3 or future subarea plan amendments.

POLICY S-WI-5. Explore the potential for transit supportive land use designations for the area between I-405 and the BNSF corridor and NE 4th and NE 8th Streets.

Discussion: This policy signals the future potential for this area and its opportunity

for a unique use especially given its relationship to future transit.

POLICY S-WI-6. Retail auto and motorcycle sales are appropriate along Auto Row in GC, CB and OLB districts on both sides of 116th Avenue from the SE 8th Street exit off I-405 to NE 8th Street.

Discussion: The 116th Avenue Corridor between the SE 8th Street exit off I-405 and NE 8th Street is regionally known as "Auto Row", an area of dealerships featuring cars of domestic and foreign automobile manufacturers. Maintaining this area as a place to purchase and service automobiles enhances the convenience for the citizens of Bellevue and preserves an important retail function. Although the west side of this corridor is designated OLB with specific freeway-oriented urban design objectives, auto sales shall be permitted along with modified landscape standards for retail auto sales only. All other design standards shall apply.

POLICY S-WI-7. Provide for medical institution development within the area bounded by NE 8th and NE 12th Streets, 116th Avenue NE and I-405

Discussion: The medical institution use in this area provides a vital public service for the Eastside community. The City should facilitate development of a long-term master plan that addresses the continued evolution and updating of this facility. Special dimensional standards are appropriate to accommodate the needs of the major medical institution and related uses, provided the facility provides a high quality of design that recognizes this site as a prominent community landmark. Building and site design should create a visual identity for the facility that contributes to the streetscape, is compatible with adjacent and nearby neighborhoods, and is sensitive to views from the freeway and views of the skyline. Design should also create a visually pleasing and safe environment for the public, incorporating features such as public spaces, gateways, streetscape improvements, and safe pedestrian linkages.

POLICY S-WI-8. Encourage developers of property located on the south side of N.E. 8th Street between 124th and 126th Avenues N.E., the adjacent single-family neighbors, and city staff to harmoniously resolve landscape screening issues in the Transition Area buffer.

POLICY S-WI-9. A Multifamily Low-density designation is appropriate for the area north of the Lake Hills Connector, south of Wilburton Hill Park, and east of the Wilburton Addition as shown on the Land Use Plan *(Figure S-WI.1)*. The density should not exceed five dwelling units per acre in compliance with the Land Use Code Section 20.25H.100 Density/Intensity Calculations. No access should be permitted from east of the site.

POLICY S-WI-10. The area between the Burlington Northern Railroad tracks and 118th Avenue S.E., if extended to the north, and approximately 190 feet north

of S.E. 5th Street and south of the Main Street extension is appropriate for Office and Multifamily Medium-density residential uses in accordance with the Land Use Plan *(Figure S-WI.1)*. Proposed projects within the area should be subject to design review to insure that structures are residential in design, height, and bulk. Properties north of Main Street need not be residential in design, height, and bulk if access and orientation are to N.E. 1st Street and if the structures are visually screened from properties to the south.

POLICY S-WI-11. The Wilburton Addition area along both sides of S.E. 4th and 5th Streets and east of 118th Avenue S.E. is appropriate for Multifamily Medium-density uses in accordance with the Land Use Plan *(Figure S-WI.1)*. Proposed development should be subject to design review to encourage preservation of significant views from the adjacent park land and to encourage structures which are similar in design, height, and bulk to structures along the western portion of 118th Avenue S.E..

Appropriate mitigation measures should be required of development to ensure that traffic does not significantly impact neighborhoods to the east. Mitigation measures may include traffic diverters and signalization.

POLICY S-WI-12. The Galeno property adjacent to and north of Main Street at 124th Avenue N.E. is appropriate for Single-family Medium-density in accordance with the Land Use Plan *(Figure S-WI.1)*. Traffic impacts associated with development of this property should be mitigated by the developers.

POLICY S-WI-13. The WISC (Wilburton Instructional Service Center) property at Main Street and 124th Avenue is appropriate for Single-family High- density use in accordance with the Land Use Plan *(Figure S-WI.1)*. Density should not exceed four dwelling units per acre and traffic impacts associated with future development of the area should be mitigated by the developer.

POLICY S-WI-14. The City-owned land (exclusive of the West Slope area) between 118th Avenue S.E., Main Street, 128th Avenue S.E. and approximately S.E. 5th Street is appropriate for park uses and should be designated public facility/park in accordance with the Land Use Plan *(Figure S-WI.1)*. Appropriate mitigation measures should be required of development to ensure that traffic does not significantly impact the neighborhoods to the east. Mitigation measures may include traffic diverters and signalization.

POLICY S-WI-15. The land east of 118th Avenue S.E. commonly referred to as the “West Slope” is appropriate for Multifamily Medium-density uses in accordance with the Land Use Plan *(Figure S-WI.1)*. Thirty percent of the dwelling units should be for moderate income families/ seniors. A child care center for not less than 40 children should be developed adjacent to the multifamily use. Design of this center

should be complementary to the multifamily use. Appropriate mitigation measures should be required of development to ensure that traffic does not significantly impact the neighborhoods to the east. Mitigation measures may include traffic diverters and signalization. Development should be subject to design review to encourage the preservation of significant views westward from the park and to encourage development that is similar in design, height, and bulk to structures along the western portion of 118th Avenue S.E.. Development of the site should include trail easements from the adjacent park land to 118th Avenue S.E.. Location of these easements should be designated by the Parks Department.

Natural Determinants

Policies

POLICY S-WI-16. Protect and enhance streams, drainage ways, and wetlands in the Kelsey Creek Basin.

POLICY S-WI-17. Prevent development from intruding into the floodplain of Kelsey Creek.

POLICY S-WI-18. Development should not interfere with Lake Bellevue as a drainage storage area identified in the City's Storm Drainage Plan.

Residential Development

Policies

POLICY S-WI-19. Enhance the cohesiveness of established single-family and multifamily residential areas.

> *Discussion: Neighborhood cohesiveness can be enhanced by: improving nonmotorized systems along streets and between properties, siting neighborhood identification signs, and encouraging community clubs, facilities, and centers.*

POLICY S-WI-20. Encourage multifamily development to provide adequate play areas and other amenities for families.

POLICY S-WI-21. The impacts of traffic and the building scale of non-residential uses (such as churches and schools) located in residential areas should be considered during development review.

> *Discussion: The visual impression of the size (height and bulk) of these buildings should be compatible with the development in the surrounding neighborhood.*

POLICY S-WI-22. Seek affordable and "work force" housing in new mixed use developments through regulatory and incentive approaches.

Discussion: The area west of 120th Avenue NE may be an appropriate location for housing when it is rezoned to CB due to its proximity to Downtown and convenient access. The City Council initiated a citywide workforce/affordable housing work program on October 15, 2007. Housing development capacity created as part of a change in zoning in this area should be consistent with the citywide workforce/affordable housing provisions derived through this work program.

"Affordable" housing is defined in the Glossary as that which is affordable to a family that earns up to 80 percent of median income. "Work force" housing is considered to be housing affordable to a family that earns up to 120 percent of median income.

Circulation

Policies

POLICY S-WI-23. No extension of 124th Avenue south of Main Street should be permitted.

POLICY S-WI-24. Preserve the safety of residential streets and the livability of local neighborhoods by discouraging non-local traffic with traffic management methods.

Discussion: The neighborhoods that lie between Kelsey Creek Park and the commercial development along 120th Avenue N.E. are concerned about traffic growth on their residential streets due to: the development of Kelsey Creek and Wilburton Parks, cutthrough traffic generated by commercial developments, and traffic avoiding I-405.

POLICY S-WI-25. Improve local access, street system connectivity and traffic flow by providing additional east-west transportation connections, including an arterial street connection at NE 4th Street between 116th and 120th Avenues and HOV and non-motorized access at NE 6th Street between Downtown and 120th Avenue NE.

POLICY S-WI-26. Require new commercial developments to provide internal streets and adjoining lot connections, where appropriate, to reduce arterial street connections and turning movements.

POLICY S-WI-27. Coordinate off-street biking and walking facilities with on-street walking and biking facilities to provide safe connections to destinations such as schools, parks, shopping, and transit service.

POLICY S-WI-28. Improve arterial streets to provide enhanced pedestrian and bicycle access, safety and comfort throughout the non-residential areas of the subarea.

POLICY S-WI-29. Make use of available right of way space to develop north and south bicycle lanes or additional traffic lanes on 116th Avenue NE if use of the auto delivery zone is discontinued.

POLICY S-WI-30. Where capital projects are not imminent, encourage the City to make interim improvements for nonmotorized transportation.

Discussion: Nonmotorized facilities along the following routes are a high priority:

- *126th Avenue N.E. from N.E. 8th Street to N.E. 7th Street,*
- *N.E. 7th Street from 126th Avenue N.E. to 128th Avenue N.E.,*
- *128th Avenue N.E./S.E. from N.E. 7th Street, and*
- *S.E. 7th Street between 128th Avenue S.E. and the Lake Hills Connector.*

Sidewalks are preferred along this route, but if a sidewalk project is not imminent, then interim facilities are supported.

Interim nonmotorized improvements can be accomplished in several ways from the addition of a shoulder in conjunction with a street resurfacing project to modifications to the channelization (or street painting configurations). Interim nonmotorized improvements should be designed so that they cannot be used for parking. The Neighborhood Enhancement Program when available would be a funding source for interim improvements.

POLICY S-WI-31. Recognize the transportation and recreation uses under consideration for the BNSF rail corridor when considering public and private improvements adjacent to the corridor and preserve the opportunity for future multi-modal transportation use and access.

Discussion: The Port of Seattle has proposed acquiring the rail corridor from Burlington-Northern Sante Fe (BNSF) for future use as a regional pedestrian/bicycle trail and/or a transportation/rail corridor. As development adjacent to the corridor occurs, the design and placement of streets, driveways, infrastructure, and buildings should take the potential future use of the rail corridor into account so as to avoid inherit conflicts.

Parks, Recreation, and Open Space

Policies

POLICY S-WI-32. Retain the parks in the Subarea and ensure that they remain park facilities (including Wilburton Hill and Kelsey Creek Parks).

POLICY S-WI-33. Retain and develop open spaces for a variety of purposes.

Discussion: In addition to recreation, both active and passive, parks serve to preserve views, define neighborhoods, and provide relief from pavement and development.

POLICY S-WI-34. The City strongly encourages the continuation of the golf course use at the Glendale Golf Course.

POLICY S-WI-35. Prepare designs for proposed parks with the participation of the community affected and served.

POLICY S-WI-36. Support continuation of the Lake-to-Lake Trail through Wilburton.

Discussion: The trail should connect from the N.E. 4th Street interchange at I-405 to the Wilburton Hill Park to Kelsey Creek Park to the Lake Hills Greenbelt and Richards Valley.

POLICY S-WI-37. The City should consider acquisition of surplused school district sites which might be appropriate for park and recreation uses.

POLICY S-WI-38. Encourage development of the Highland-Glendale site, located on the northeast corner of N.E. 8th Street and 134th Avenue N.E., as a park facility.

Discussion: If this property is developed as a park, safe and obvious pedestrian access should be encouraged from surrounding apartments to this property. It may be appropriate to trade this site for another park site, north of N.E. 8th Street, which would better serve the multifamily community in this area of Wilburton.

POLICY S-WI-39. Support implementation of the Wilburton Hill Park Master Plan, including neighborhood park elements.

Community Design

Policies

POLICY S-WI-40. Retain, reveal, and enhance the views of prominent land forms, vegetation, watersheds, drainage ways, Downtown and significant panoramas in the Subarea.

Discussion: Within the Subarea, there are numerous views, some of which are the view west from NE 8th Street and NE 5th Street on the ridge between 122nd and 123rd Avenues, the view south from the Lake Hills Connector north of SE 8th Street, the view east from SE 4th Street toward Kelsey Creek Park and the view

from SE 1st Street and Main Street at the power line right-of-way at 136th Avenue. As development or public improvements occur, efforts should be made to provide public access to these viewing areas. Impacts to significant views may be minimized by encouraging alternative building orientation, roof designs, and the location of rooftop equipment during the design review process.

POLICY S-WI-41. Improve the appearance of public streets by completing the sidewalk system and adding pedestrian amenities such as benches, bus shelters, public art, and landscape barriers where appropriate.

POLICY S-WI-42. Develop street tree plans for arterial streets and non-residential areas. Investigate ways to encourage property owners to implement the City's street tree plan.

POLICY S-WI-43. Encourage the undergrounding of utility distribution lines in developed areas and require the undergrounding of utility distribution lines in new developments when practical.

POLICY S-WI-44. Utilities should be provided to serve the present and future needs of the Subarea in a way that enhances the visual quality of the community (where practical).

NE 8th Street Corridor

POLICY S-WI-45. Develop an entrance in the N.E. 8th Street corridor to create a sense of entry to the corridor.

Discussion: The existing Burlington Northern crossing lights and the change in grade at that point act as an entrance. A pedestrian entrance encouraged by this policy should be located as near as possible to the crossing lights to enhance and to increase its presence in the corridor. An entrance may include (on both sides of N.E. 8th Street): district signage, major landscaping, pedestrian shelters, and structures of a large enough scale to signify entry into Wilburton and into the Downtown and I-405.

POLICY S-WI-46. Consistent with future transportation improvements, enhance the traffic island and the eastern corner where old Bellevue-Redmond Road intersects with N.E. 8th Street, as major focal points.

Discussion: These focal points are suitable for major landscaping, public art, pedestrian shelters, special paving, and historical markers as well as islands for pedestrians to cross from one side of N.E. 8th Street to the other. The scale of these features should have a large enough presence to balance the expanse of the N.E. 8th Street arterial and to be easily identified in the corridor.

POLICY S-WI-47. Pedestrian walkways should be clear and continuous from surrounding residential areas to the corridor, through the corridor, and from the sidewalks to the entrances of buildings.

POLICY S-WI-48. Promote pedestrian amenities which include the provision of sidewalks, street trees, landscape strips, and bus passenger shelters. Building facades should have awnings, windows, offsets, and material texture or color that add interest for the passing motorist and pedestrian. Signage should be integrated with building design.

Discussion: The commercial corridor along N.E. 8th Street is along a wide arterial and the sidewalk and street landscaping dimensional requirements should be greater than the current development standards for N.E. 8th Street. Street trees should be the same as street trees planted along N.E. 8th Street east of 120th Avenue N.E. Other landscaping should include hardy, pollution resistant, evergreen shrubs that are planted to form a solid band of separation (except driveway cuts and utilities) between the sidewalk and the street for the entire length of the corridor. The purpose of the landscaping is to protect pedestrians and provide a more comfortable pedestrian environment.

The CIP #PW-W/B-29 for this section of N.E. 8th Street will include curb, gutter, and an eight-foot sidewalk along the curb. Where feasible, the sidewalk should be set back a minimum of four feet from the curb to allow for landscaping and street trees. The City should provide the best landscaping and pedestrian improvements possible, allowing for flexibility so that as redevelopment occurs or as additional funding is procured, this policy can be implemented.

POLICY S-WI-49. Allow flexibility for commercial buildings to be sited near frontage property lines.

POLICY S-WI-50. Apply the Public Places and Connections policies from the Urban Design Element of the Comprehensive Plan and the attached Conceptual Design Plan *(Figure S-WI.2)* to the N.E. 8th Street Corridor.

Discussion (Policies S-WI-34 through 39): The N.E. 8th Street corridor between 116th Avenue N.E. and 122nd Avenue N.E. (see Conceptual Design Plan, Figure S-WI.2.) is an area in a state of transition from an older suburban commercial strip to urban development. This corridor is a highly visible entry because it is the major passage for traffic between Downtown/I-405 and the east part of Bellevue. It is important to encourage cohesive, overall development and street improvements in the corridor. The enhancement of the corridor's appearance and function will help make it an identifiable district and an amenity to the community. This corridor should be an attractive and comfortable environment for the pedestrian to use when walking between Wilburton and Downtown.

Auto Row Corridor - 116th Avenue NE and 120th Avenue NE

POLICY S-WI-51. Encourage buildings developed in the Auto Row area, bounded by I-405, NE 8th Street, 120th Avenue NE, and SE 5th Street, to enhance the area's urban design character and pedestrian environment. Buildings should be sited near the street front, with limited intervening surface parking, and include street oriented pedestrian entrances. Where buildings are visible from streets and pedestrian corridors they should be designed with visual interest and landscaping.

POLICY S-WI-52. Provide aesthetic and landscaping enhancements on 116th Avenue NE consistent with its designation as a Boulevard (see Urban Design Element).

POLICY S-WI-53. Provide enhanced street edge landscaping and, where appropriate, landscaped medians on 120th Avenue NE between NE 8th Street and NE 1st Street to soften the impact of commercial areas on the residential area to the east.

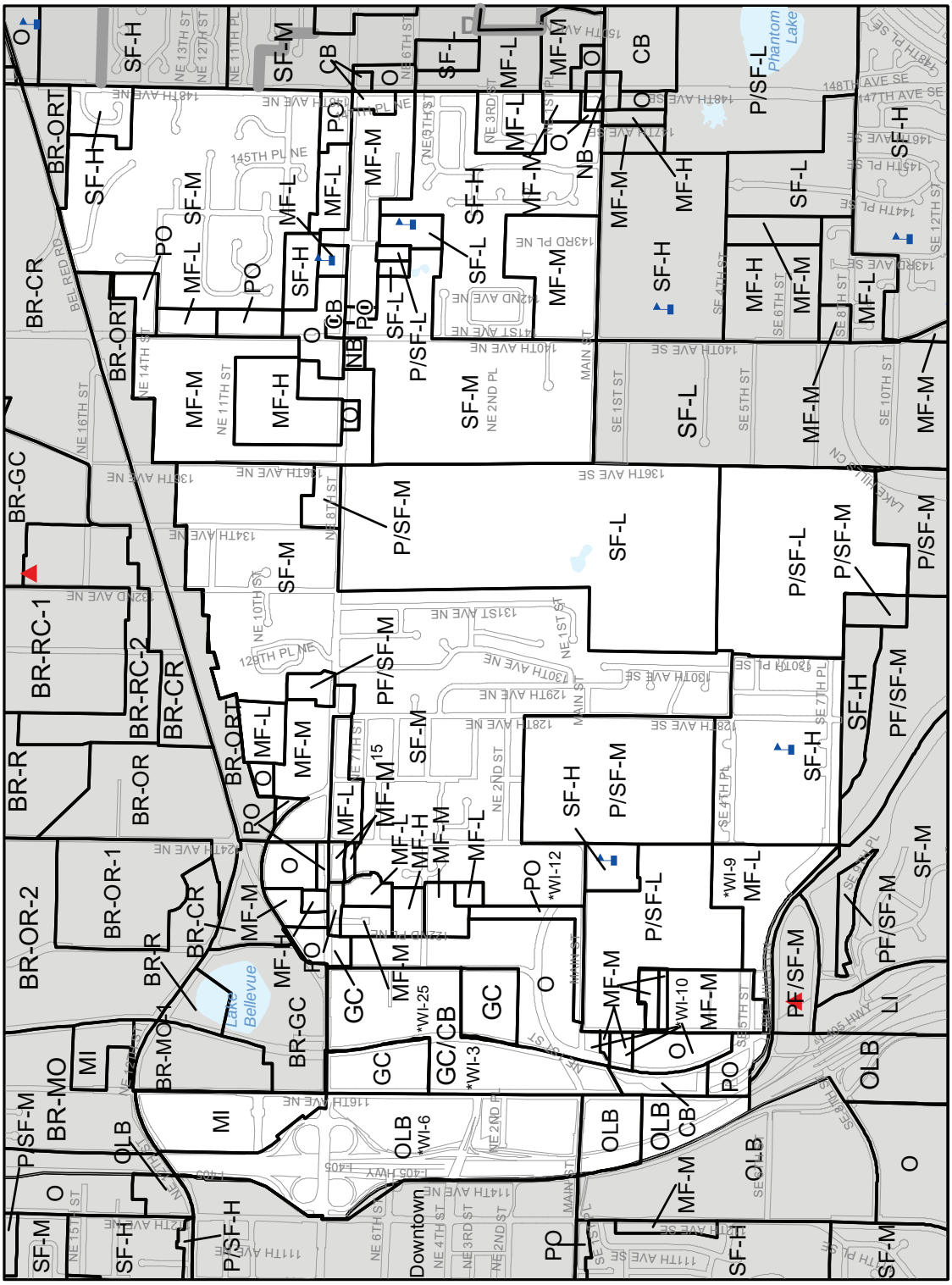


FIGURE S-WI.1

Wilburton/NE8th Land Use Plan

SF Single Family
MF Multi Family
-L Low Density
-M Medium Density
-H High Density
-UR Urban Residential

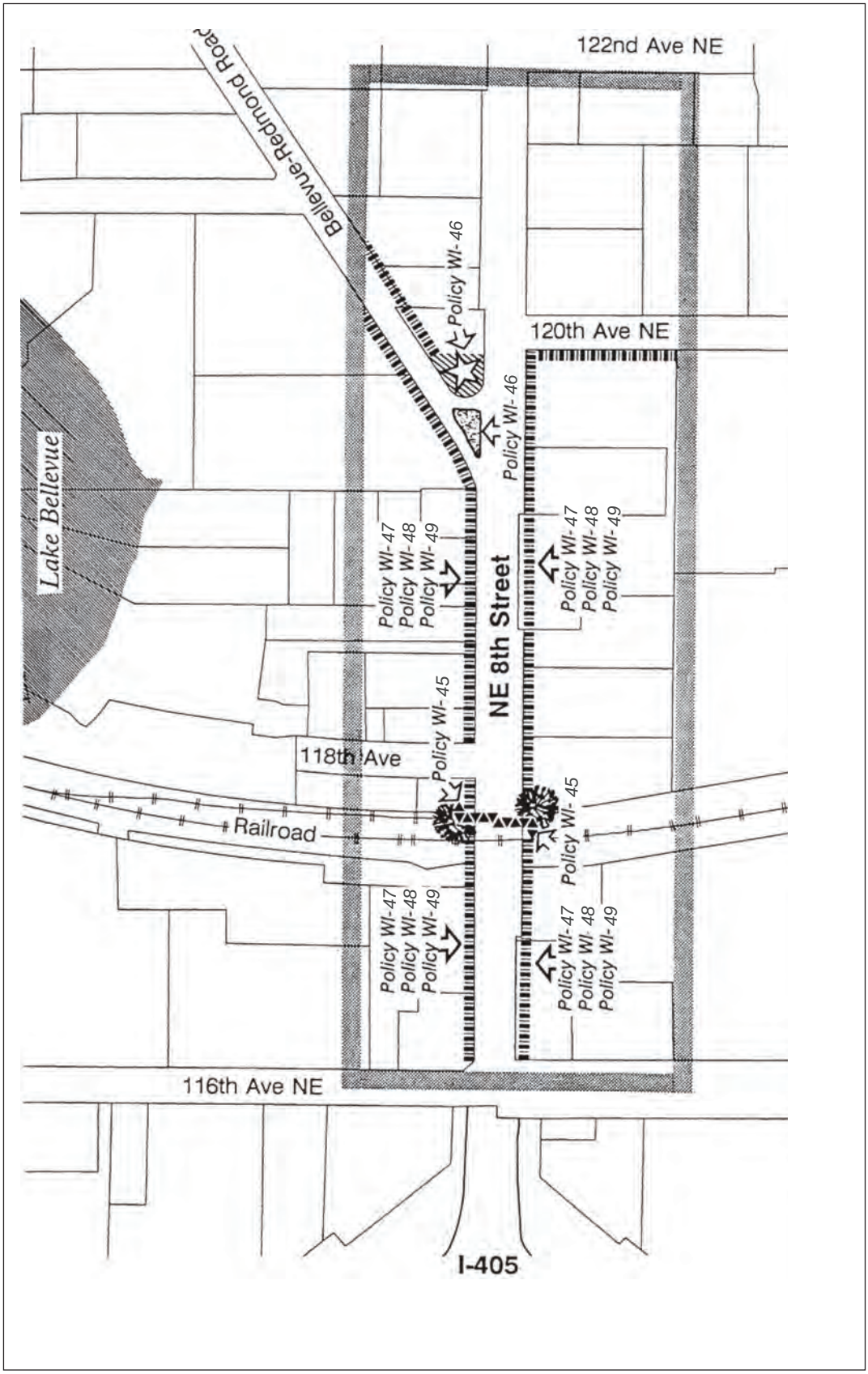
PO Professional Office
O Office
OLB Office, Limited Business
OLB-OS Office, Open Space
NB Neighborhood Business
CB Community Business

GC General Commercial
LI Light Industrial
PF Public Facility
P Park

[15]R-15 density limit
Fire Stations
Public Schools
Planning Districts
Bellevue City Limits (2008)
Lakes

N

Figure S-WI.2 *NE 8th Street Corridor Conceptual Design Plan*



Reference Materials

116th Avenue NE Streetscape Plan

116TH AVENUE NE STREETSCAPE PLAN

MAIN STREET TO NE 8TH STREET



SEPTEMBER 2015

TABLE OF CONTENTS

Introduction and Purpose **3**

1. Existing Conditions **4-7**
- Existing Conditions – 116th Avenue NE 4
- Existing Conditions – Superblocks 6

2. Overall Vision **8-17**
- Vision – What kind of place should this be? 8
- Development Scale for District – Big Box 10
- Development Scale for District – Compact Mixed Use 12
- Development Scale for District – Stadium 14
- Stadium Development – Surrounding Entertainment 16
- Outstanding Questions for Development 17

3. 116th Avenue NE Streetscape **18-39**
- 116th Avenue NE Streetscape Concept – Overview 18
- 116th Avenue NE Streetscape Concept – Urban Boulevard 19
- Conceptual 116th Avenue NE Streetscape 20
- 116th Avenue NE - An Urban Boulevard 22
- Pedestrian Realm Alternatives Sections 23
- How does the Building Realm relate to the Pedestrian Realm? 24
- How does the Street Realm relate to the Pedestrian Realm? 25
- Local Urban Boulevard Examples 27
- Mid-Block Crossings 28
- Driveway Interfaces for Development 29
- Site Furnishings – Benches and Bike Racks 30
- Site Furnishings – Receptacles and Tree Grates 31
- Site Furnishings – Streetscape Lighting and Street Name Signs 32
- Site Furnishings – Accent Lighting 33
- Site Furnishings – Paving Materials 34
- Low Impact Development Opportunities 35
- Vegetation – Street Trees and Accent Trees 36
- Vegetation – Shrubs, Perennials, Grasses, and Groundcovers 37
- Summary 39

Appendix A: Existing Document Review **40-47**
- City of Bellevue Comprehensive Plan 40
- City of Bellevue Pedestrian and Bicycle Transportation Plan 42
- Wilburton Subarea Plan 44
- Environmental Best Management Practices & Design Standards 45
- Bellevue Land-Use Code 46
- Downtown Transportation Plan Update 46
- Bellevue Light Rail Best Practices Report 46
- NE 6th St Extension Design Report 47
- NE 4th St Extension Construction Plans 47
- Current/Recent Development Plans (Target, Chick-fil-A, REI) 47

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INTRODUCTION AND PURPOSE

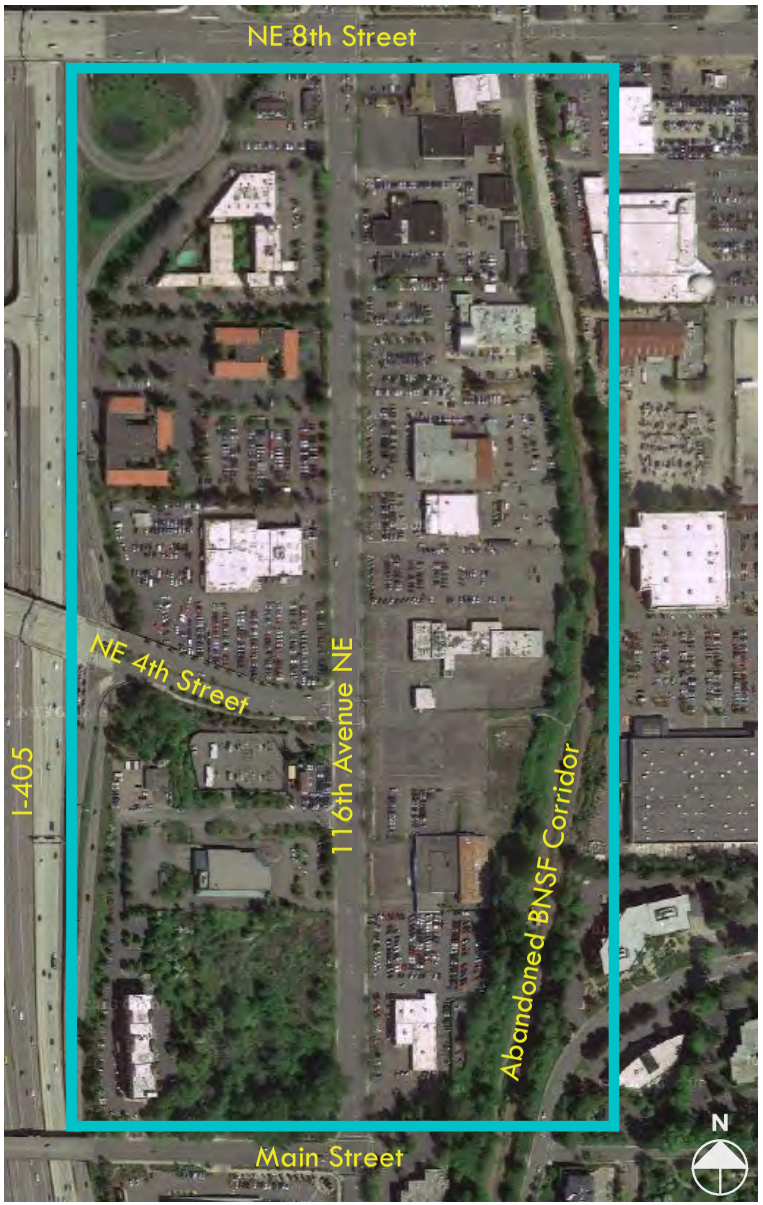
The 116th Avenue NE Streetscape Plan establishes a vision for the street in a relatively underdeveloped area east of Downtown. The study area is bounded by Main Street along the south, NE 8th Street along the north, I-405 along the west and the abandoned BNSF railway tracks along the east side.

The 116th Avenue NE Streetscape Plan builds upon a review of various existing City of Bellevue studies and planning documents that address the future redevelopment of the area. This initial step will help advance the redevelopment process, create better public spaces, and generate a greater sense of community pride and economic vitality within the area. The documents reviewed were:

- City of Bellevue Comprehensive Plan
- Wilburton Subarea Plan
- City of Bellevue Pedestrian and Bicycle Transportation Plan Report
- Environmental Best Management Practices & Design Standards Manual – Streetscape
- Bellevue Land-Use Code
- Downtown Transportation Plan Update
- Bellevue Light Rail Best Practices Report
- NE 6th St Extension Design Report
- NE 4th St Extension Construction Plans
- Current Development Plans

The study is divided into three sections:

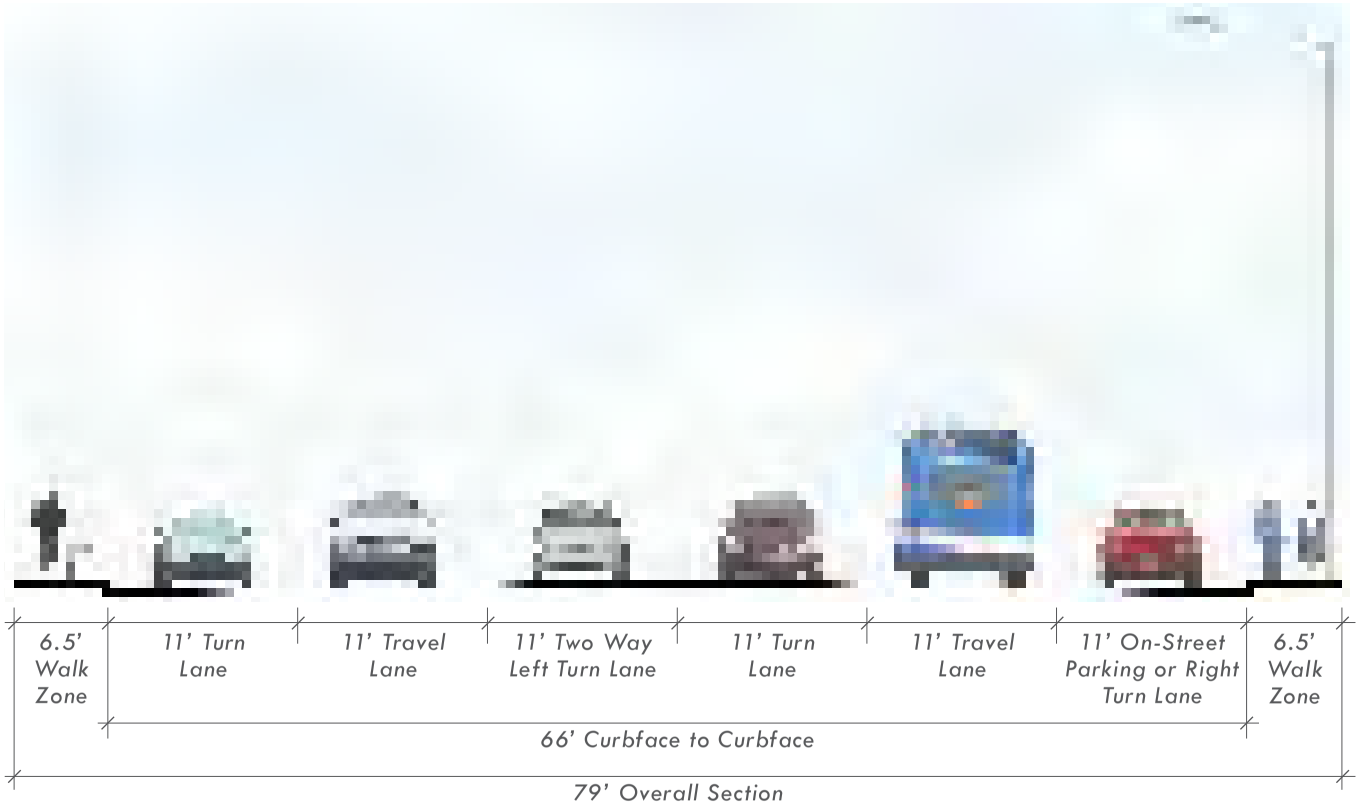
1. Existing Conditions
2. Overall Vision
3. 116th Avenue NE Streetscape



1. EXISTING CONDITIONS AND DOCUMENT REVIEW

EXISTING CONDITIONS – 116TH AVENUE NE

The existing street measures 66' from curbface to curbface. The corridor has 6.5' continuous sidewalks with the exception of new sidewalks at NE 4th Street. Street lights are located on the east side of the roadway, and the only vegetation is located behind the sidewalk.



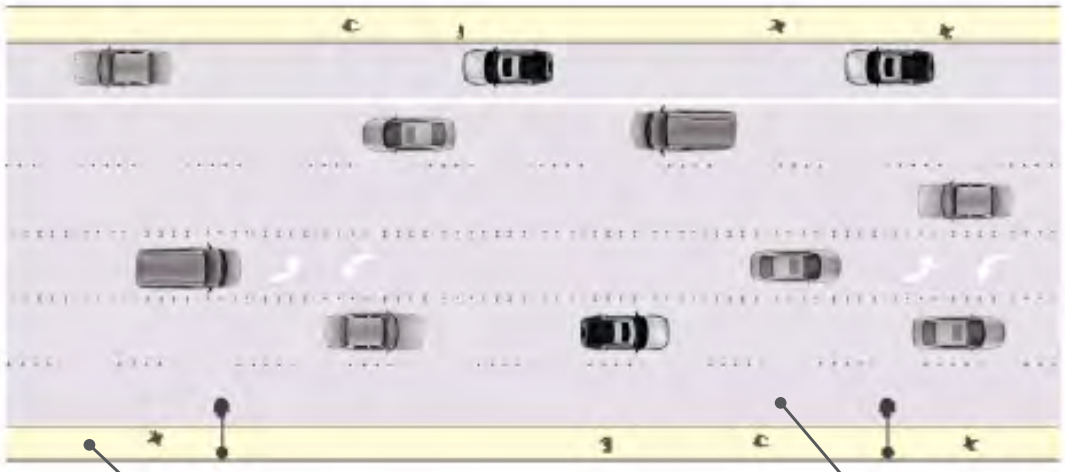
Section View

Typical Cross Section

EXISTING CONDITIONS – 116TH AVENUE NE



116th Ave NE at the Chevrolet dealership, looking south



Plan View

116th Avenue NE Typical Plan View



116th Ave NE at Main St, looking north



116th Ave NE at NE 4th St, looking north



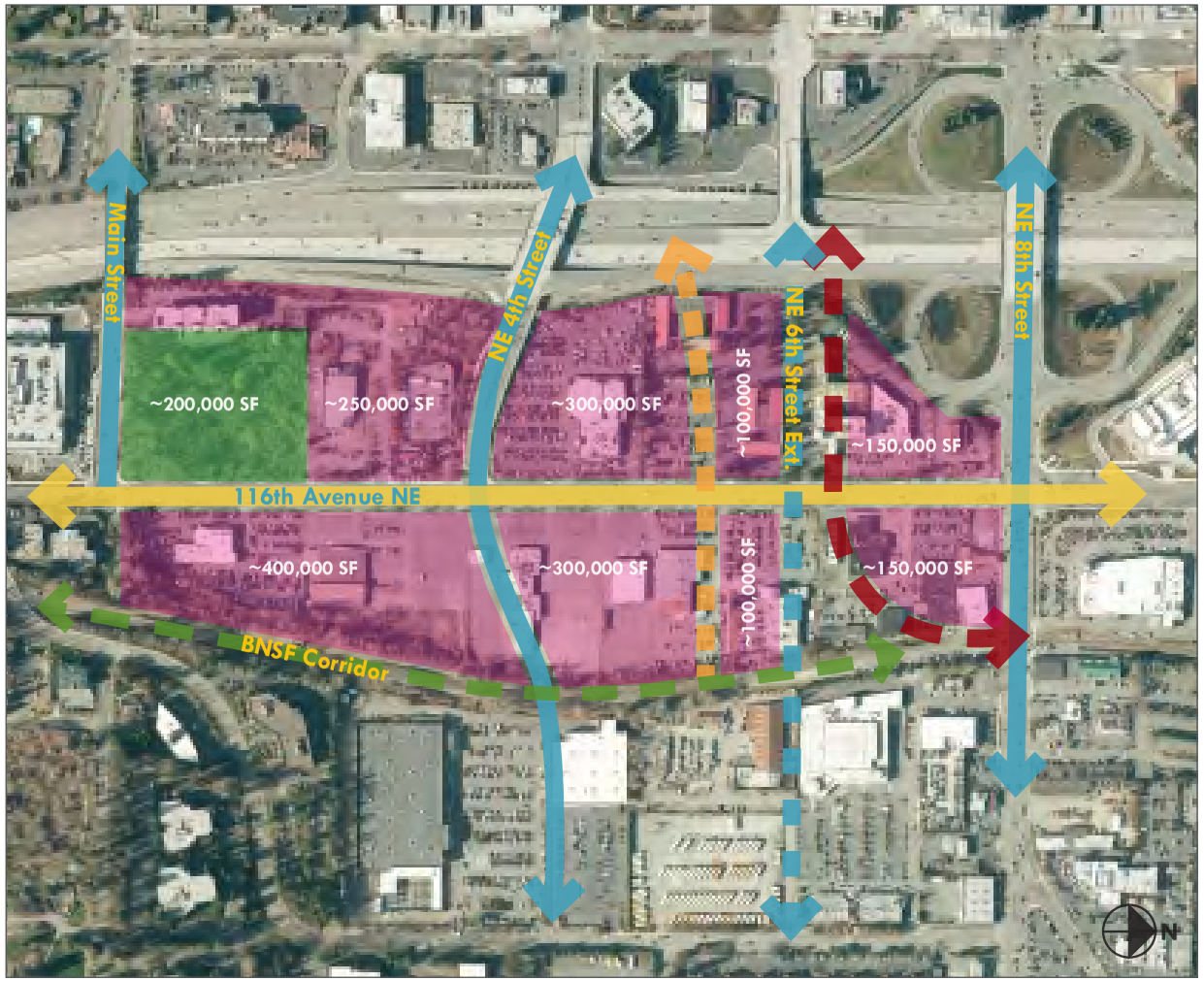
116th Ave NE at the Bellevue Auto House, looking north

EXISTING CONDITIONS – SUPERBLOCKS

The current scale of development is auto-oriented, with large parking lots or dealer display lots facing/abutting the street and buildings set back from sidewalk.

With the NE 4th Street extension and future NE 6th Street extension, the interior grid of public streets/right-of-way is lacking and results in very large parcels of land (superblocks lengths of 500-1000'). These large parcels lend themselves to be developed in an auto-oriented manner unless an internal system of streets and pedestrian walkways/open space is introduced.

Ideally, internal circulation should be designed to reflect a more urban block system (300-400'), with pedestrian-friendly streets that lead to parking lots or buildings and provide comfortable inviting connections within each large parcel.



Approximate sizes of 116th Ave NE superblocks



For Scale Reference:
Four City Blocks
(~160,000 sf)
Portland

116th Ave NE

Cross Street Connections

Light Rail Connection (Future)

Grand Connection (Future)

BNSF Trail Corridor (Future)

Commercial Space

Green Space

EXISTING CONDITIONS – SUPERBLOCKS



Vacant Lot



Chevrolet / Volvo Dealerships



Wetland and Hampton Inn and Suites



Autonation Bellevue

2. OVERALL VISION

VISION – WHAT KIND OF PLACE SHOULD THIS BE?

Based upon review of existing City of Bellevue planning documents and the stated urban design and placemaking themes included within them, the following overall vision is identified for the 116th Avenue NE Study Area:

"A COMPACT, MULTI-MODAL DISTRICT THAT COMPLEMENTS – BUT DOESN'T COMPETE WITH – DOWNTOWN BELLEVUE, WITH A MIX OF LAND USES THAT SUPPORT THE DISTRICT, ADJOINING NEIGHBORHOODS, AND TRANSIT"

compact

multi-modal

transit-oriented

urban

pedestrian-friendly

special opportunity area

VISION – WHAT KIND OF PLACE SHOULD THIS BE?

A compact, pedestrian-oriented district humanizes the scale of the urban fabric and allows for free circulation within and between developments. At the street level, the pedestrian realm is friendly and welcoming, with wide sidewalks, street trees, plantings, benches, and other amenities.

Buildings are set up close to the sidewalk, with pedestrian-scale details and welcoming facades facing toward the street. The following pages briefly examine three development scenarios: Big Box, Compact Mixed Use and Stadium within the context of the superblocks along 116th Avenue.



Pearl District, Portland



Juanita Village, Kirkland





Amazon Campus, Seattle



Downtown Portland



Downtown Kirkland

distinctive district
friendly
thriving business
people scale
welcoming

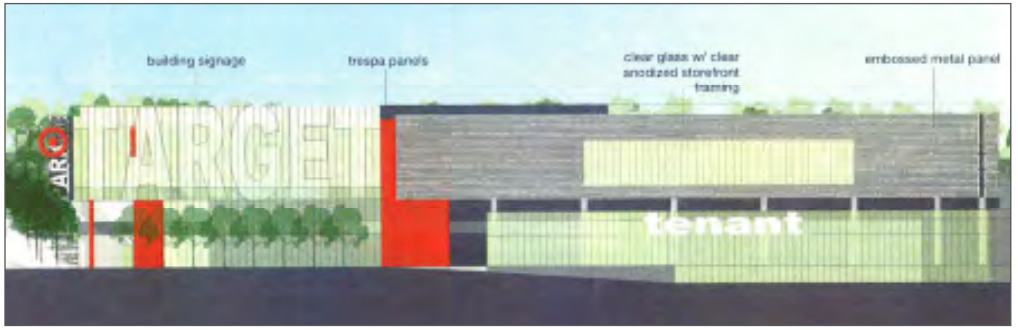
DEVELOPMENT SCALE FOR DISTRICT – BIG BOX DEVELOPMENT



Big box retail uses are large scale, auto-oriented developments that can fit within the large super blocks/parcels. Retail frontage typically faces parking lots and because of this developments would typically minimize access and pedestrian amenities along 116th. Although recent development proposals have developments built to the sidewalk, they remain largely auto-oriented. The proposals hint at a pedestrian friendly facade, but access is limited to rear store thresholds via parking which discourages the pedestrian experience.



Proposed REI frontage



Proposed Target frontage

116th Ave NE

Cross Street Connections

Light Rail Connection (Future)

Grand Connection (Future)

BNSF Trail Corridor (Future)

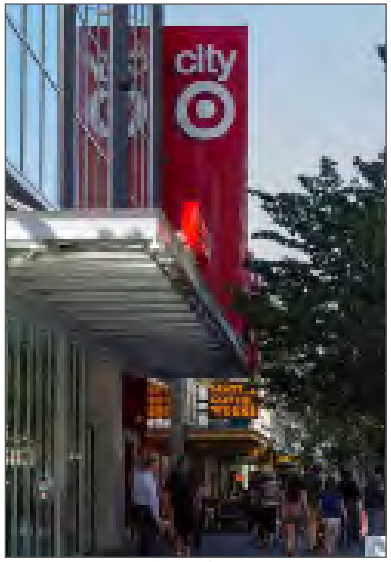
Big Box with Parking

DEVELOPMENT SCALE FOR DISTRICT – BIG BOX DEVELOPMENT

The pedestrian experience can be enhanced with direct retail access along 116th Avenue NE, pedestrian friendly building materials and transparent facades, on-street parking, and wide walkways.



REI, Redmond



City Target, Seattle



Target, Northgate



REI, Seattle



Trader Joe's, New York



Trader Joe's, Ballard

DEVELOPMENT SCALE FOR DISTRICT – COMPACT MIXED USE DEVELOPMENT



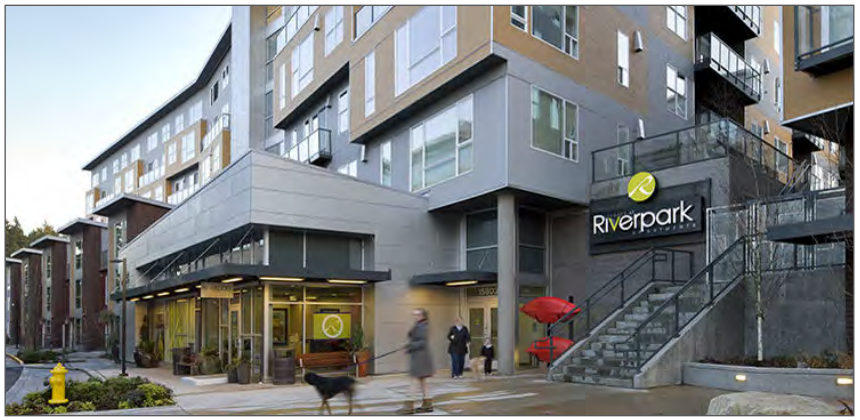
Compact, mixed use developments would further divide up the super block/parcels into more refined urban fabric. Typically these developments would provide pedestrian amenities along 116th Avenue NE, such as landscape buffers, seating opportunities and variations in paving materials. 116th would act as a gateway boulevard for access to an ideal scale fabric.



Juanita Village, Kirkland



Downtown Portland



Riverpark Development used for scale comparison

116th Ave NE

Cross Street Connections

Light Rail Connection (Future)

Grand Connection (Future)

BNSF Trail Corridor (Future)

Riverpark Development

DEVELOPMENT SCALE FOR DISTRICT – COMPACT MIXED USE DEVELOPMENT

Compact, mixed use developments create unique and distinct districts that function as part of a larger city. Since larger roadways, such as 116th Avenue NE, act as an entrance to these districts there is a need for a high level of pedestrian friendliness along the streetscape, which then sets the tone for the pedestrian experience within this area.



South Lake Union, Seattle



Downtown Portland



Fremont, Seattle



Juanita Village, Kirkland



Eddy Street Commons, South Bend



Downtown Redmond

DEVELOPMENT SCALE FOR DISTRICT – STADIUM DEVELOPMENT



Stadium development, in this example Basketball or Hockey sized stadiums, fits within the superblock scale along 116th Avenue NE and can provide a special destination for the city. The relation to 116th would be wide pedestrian scale promenade access.



Moda Center, Portland



Staples Center, Los Angeles



Moda Center used for scale comparison

116th Ave NE

Cross Street Connections

Light Rail Connection (Future)

Grand Connection (Future)

BNSF Trail Corridor (Future)

Moda Center

DEVELOPMENT SCALE FOR DISTRICT – STADIUM DEVELOPMENT

Stadiums require a grander scale of infrastructure to carry not only mass amounts of vehicular traffic but pedestrian traffic as well. Pedestrian access would comprise wide promenades, wide sidewalks, large plazas, and outdoor event spaces. 116th would function as a primary feeder for vehicular access, but speeds may be reduced to compensate pedestrian flow.



Staples Center, Los Angeles



Chesapeake Energy Arena, Oklahoma City



American Airlines Arena, Miami



Banker's Life Fieldhouse, Indianapolis



Barclays Center, Brooklyn

STADIUM DEVELOPMENT - SURROUNDING ENTERTAINMENT

Most stadium developments tend to support the development of a vibrant entertainment district, with destinations ranging from restaurants, retail, open space, and inter-connected pedestrian travel ways. This type of district typically develops adjacent to or within walking distance of the stadium.



Pedestrian entertainment adjacent to Staples Center, Los Angeles



Pedestrian entertainment adjacent to Sprint Center, Kansas City



Pedestrian entertainment adjacent to Banker's Life Fieldhouse, Indianapolis

OUTSTANDING QUESTIONS FOR DEVELOPMENT

Interim Condition and Adaptability:

As new development occurs along the 116th corridor a major challenge will be addressing how the streetscape responds to its interim existing condition. This leads to a number of outstanding questions:

- How will a new development, whether it be big box, compact mixed use, or a stadium, interface with the existing street and auto land uses on either side of 116th before the entire streetscape vision in established?
- Will there be an opportunity for certain developments to share driveways (in the case of sharing a driveway with an auto dealership)?
- Will each developer be required to develop only their frontage, per the future vision?
- Can different parcels develop different land uses and still create a pedestrian friendly environment?
- Will developers be allowed different frontage standards for different landuses?

Future Overpass Conditions:

In the near future, NE 6th Street, Light Rail, and the Grand Connection will be constructed over 116th Avenue NE. This leads to a number of outstanding questions:

- How will the streetscape look and feel when three new bridges fly over the street and parcels?
- Will the Grand Connection have a spur that lands somewhere along 116th, and will it land on the street or at a particular development?
- What treatments, including art and inviting elements, should be incorporated at the overpasses to encourage pedestrian activity and safety along the street?

3. 116TH AVENUE NE STREETSCAPE

116TH AVENUE NE STREETSCAPE CONCEPT – OVERVIEW

The proposed streetscape concept for 116th Avenue NE (between Main Street and NE 8th Street) assumes two considerations: *1) its current classification* and *2) its overall land use development.*

1) Current Classification:

The 116th Avenue NE corridor is classified as a ***Boulevard*** within the Environmental Best Management Practices & Design Standards Manual Streetscape Design Category system. Boulevards provide visually appealing connections between activity centers and open space with a ***parkway-like aesthetic*** including planted medians, wide planters, and large trees. In more urban settings, trees may be soldiered in planting strips or tree grates, and large trees should be grouped whenever possible to form interconnected canopies and visually reinforce the parkway appearance.

2) Overall Land Use Development:

This 116th Avenue NE study area will develop as a ***compact, multi-modal district*** that complements - but doesn't compete with Downtown Bellevue - with a mix of medium to large businesses that supports the district and adjoining neighborhoods.

In addition there are a number of assumptions and questions about this development.

Assumptions:

- The current 5 lane roadway will not be widened.
- The number of driveway entrances along 116th Avenue NE will be reduced and access management will be used in the future to restrict the number turning movements.
- New development will have "Zero" setback for new buildings along the corridor with no parking lots or drives between the roadway and buildings.
- New development will provide a variety of destinations; 116th Avenue NE is the gateway to these destinations.
- Pedestrian and bicycle amenities, including bike lanes, wide sidewalks, and landscaping, will be included.

116TH AVENUE NE CONCEPT - *URBAN BOULEVARD*

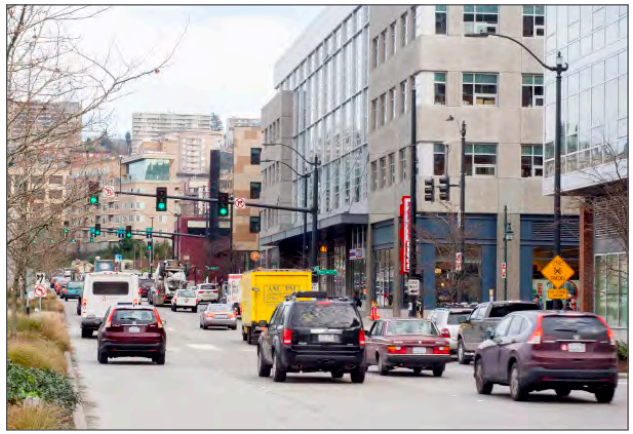
The streetscape concept is to create an ***urban boulevard that is the gateway to a compact, pedestrian-oriented district***. An example of this type of boulevard quality is Mercer Street in the South Lake Union neighborhood of Seattle. Mercer Street is a gateway to the Amazon Campus, future mixed-use developments, and a large number retailers including cafes, restaurants, shops, and banks. The traffic volume along 116th Avenue NE is, and should remain, much lower than the volumes along Mercer Street, but the quality of streetscape and its characteristics hints at the level of detail for the 116th corridor.



Mercer Street - South Lake Union Seattle (9th Avenue N to Fairview); ~1450 LF

Mercer Street Characteristics:

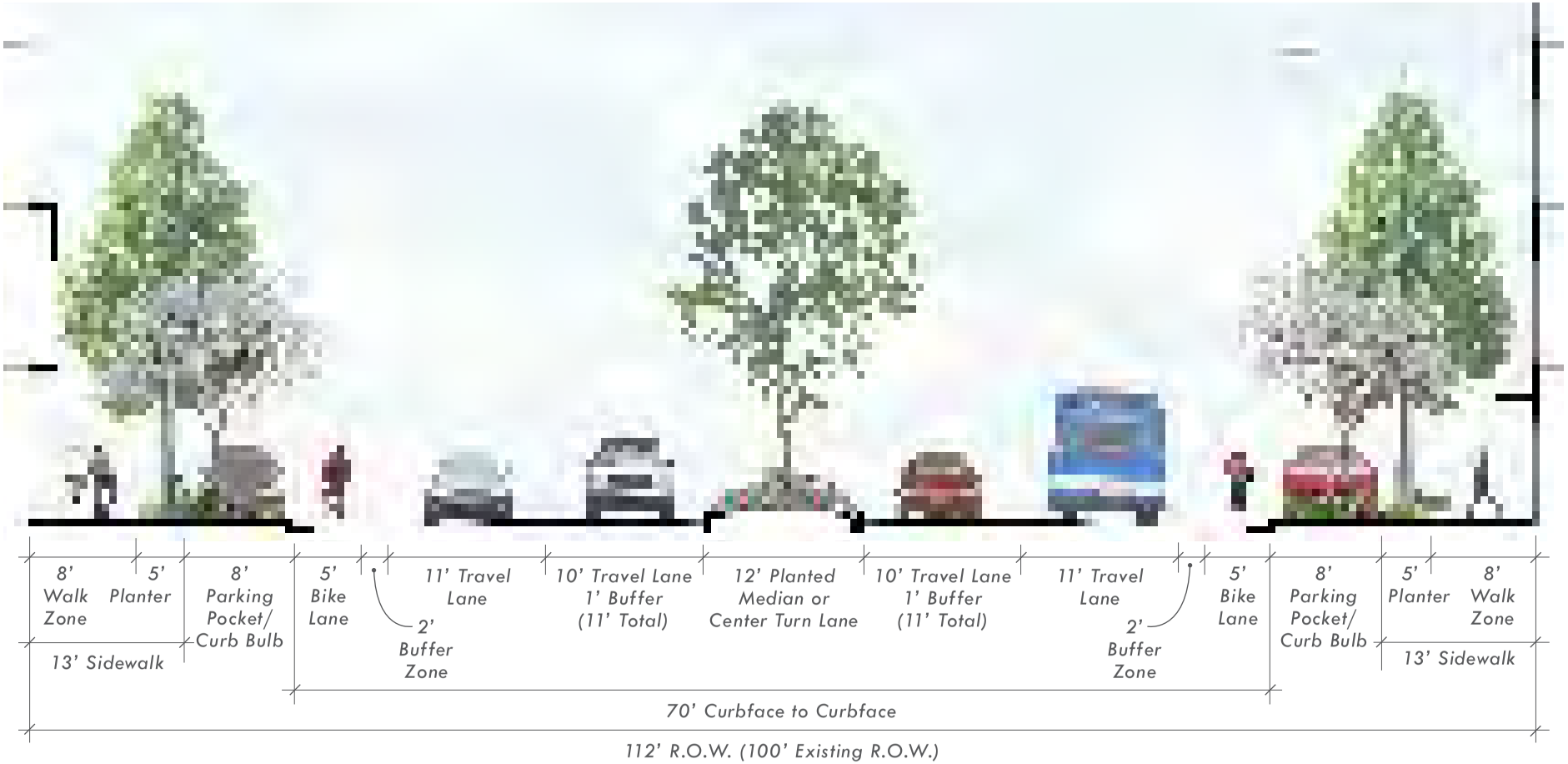
- Center median with decorative plantings and art
- Wide sidewalks with pedestrian amenities
- Parking pockets (creates buffer for pedestrians)
- Wide crosswalks (at intersection and mid-block locations) allow for pedestrian connectivity and comfort on arterial street





CONCEPTUAL 116TH AVE NE STREETSCAPE

The proposed conceptual streetscape measures 70' from curbface to curbface, with 13' to 21' sidewalk zones including a 5' zone for planters, street trees, public amenities, and roadway and pedestrian luminaires. A median with decorative plantings and art will be located where feasible between intersections. The streetscape will have 5' bike lanes with a 2' protective buffer, and parking pockets, located by individual developments.

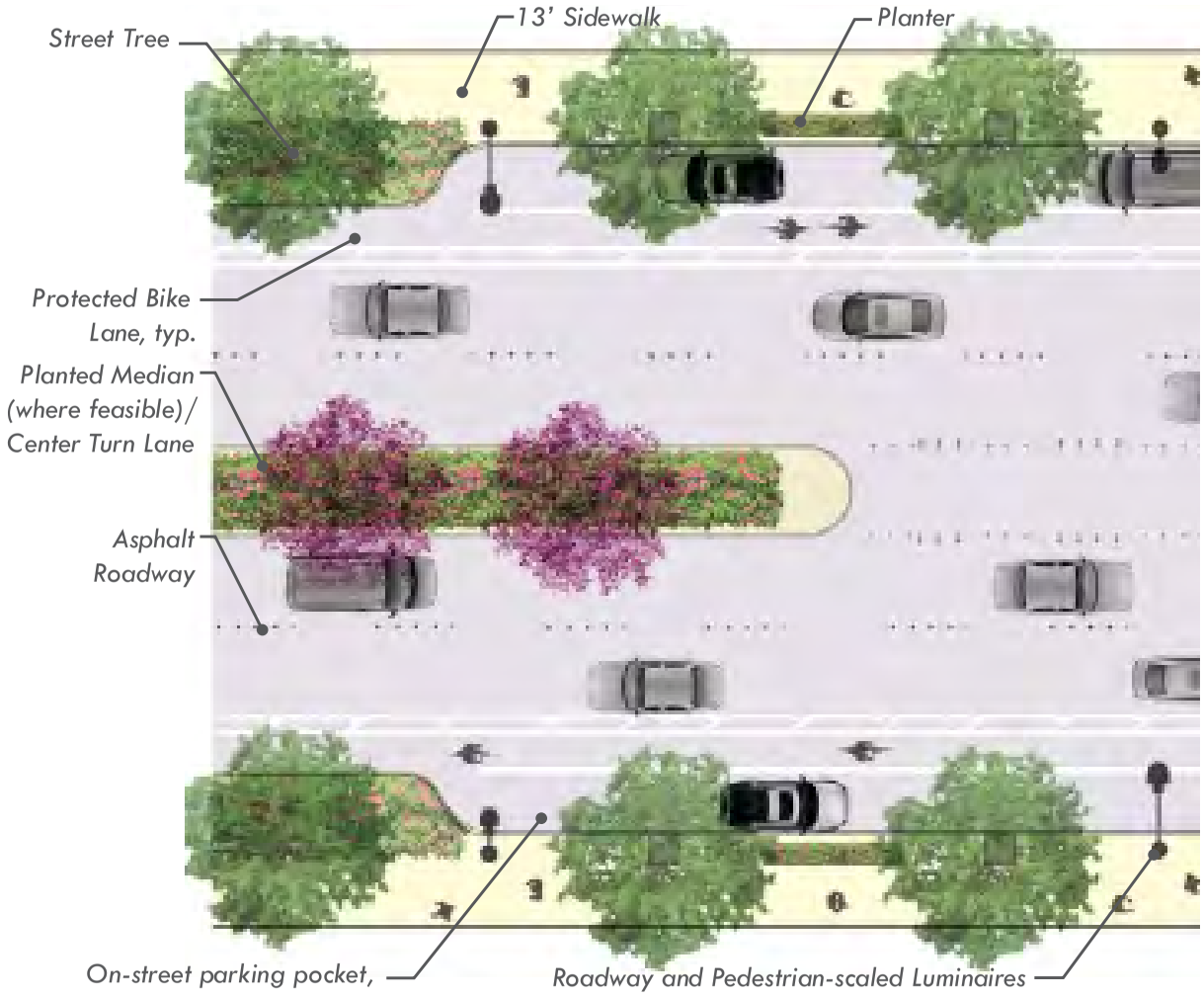


Section View

116th Avenue NE at Main Street, looking north

CONCEPTUAL 116TH AVE NE STREETSCAPE

An alternate streetscape layout is to incorporate a two-way cycle track rather than buffered bike lanes, which would reduce the cross section of the road. In both cases, the design speed should reflect the posted speed to make the streetscape as safe and friendly as possible.



Plan View

116th Avenue NE



Plan View

Alternate Layout – Cycle Track

116TH AVENUE NE - AN URBAN BOULEVARD

An urban boulevard can act as a gateway to the surrounding landuses, present the entire district in a visually distinct and appealing way, and help activate the pedestrian environment that occurs along the building realm.



"ACTIVATE THE STREETSCAPE"

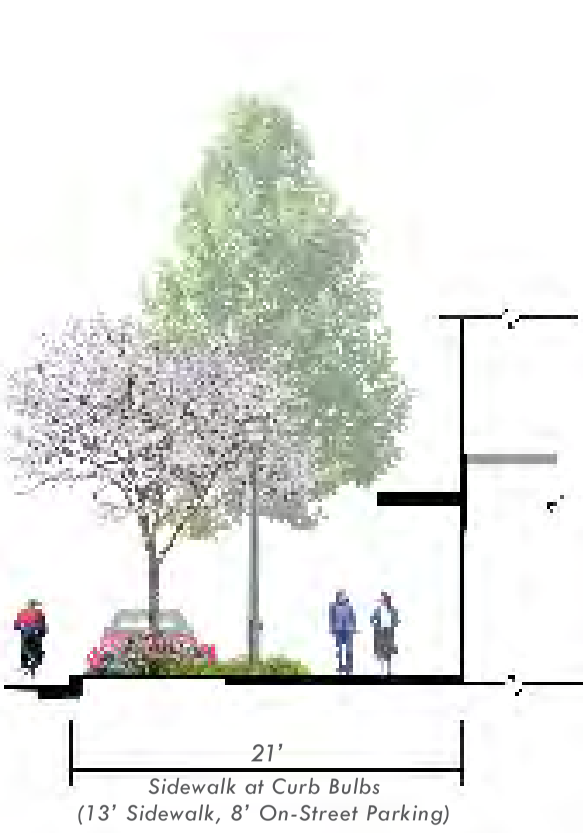
PEDESTRIAN REALM ALTERNATIVES SECTIONS

The pedestrian realm in both big box and compact mixed use development scenarios would have 13' sidewalks, complete with planter and walking zones. An additional 8' for parking pockets and curb bulbs, where applicable, would further fluctuate the curbline. A stadium development would achieve maximum width for pedestrian access with a 21' sidewalk. Trees in grates still allow for pedestrian accessibility while softening the streetscape, and 8' taxi loading zones would be located by entrances.



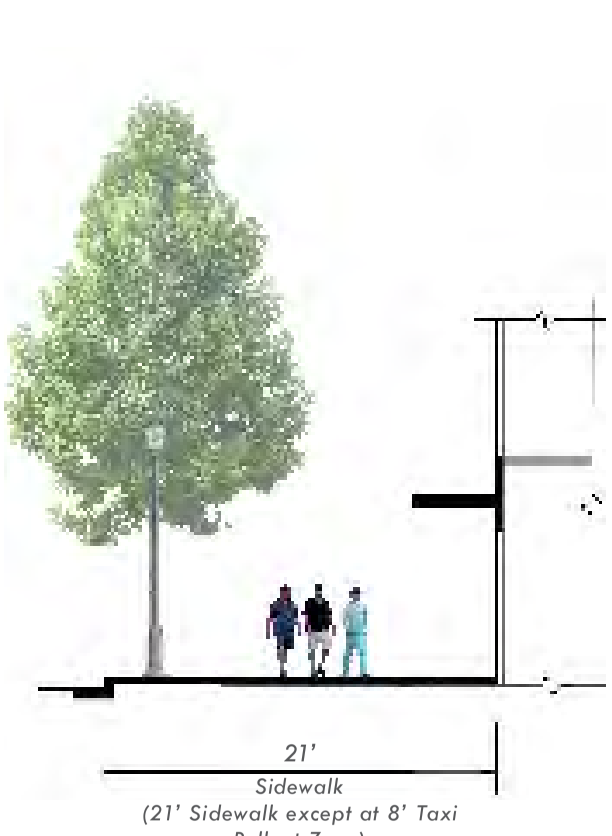
21'
Sidewalk at Curb Bulbs
(13' Sidewalk, 8' On-Street Parking)

<u>Section View</u>
Big Box Development



21'
Sidewalk at Curb Bulbs
(13' Sidewalk, 8' On-Street Parking)

<u>Section View</u>
Compact Mixed Use



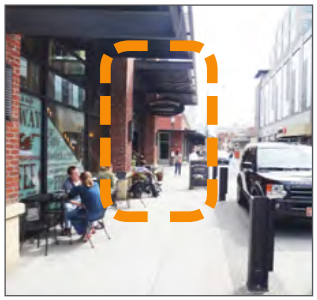
21'
Sidewalk
(21' Sidewalk except at 8' Taxi Pullout Zone)

<u>Section View</u>
Stadium

HOW DOES THE *BUILDING REALM* RELATE TO THE *PEDESTRIAN REALM*?

The buildings along 116th should support pedestrian activity. It is important to establish a proper relationship between buildings and the pedestrian realm - the pedestrian experience along a boulevard is exponentially enhanced with pedestrian friendly and inviting architecture. Buildings activate the street through the use of human-scaled materials, such as first floor canopies for weather protection, art, material textures, and materials themselves - brick, glass, metals, concrete, etc.

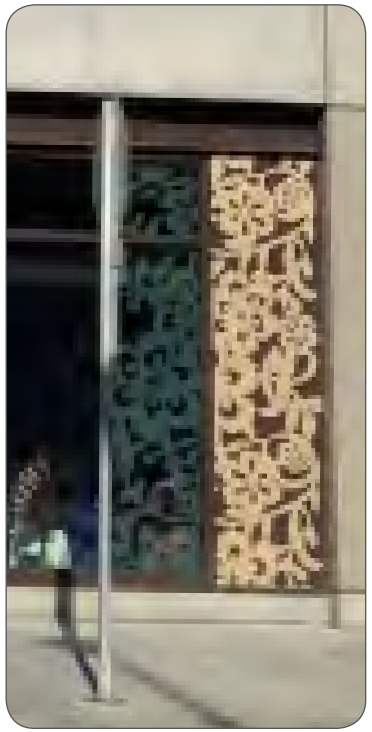












HOW DOES THE *STREET REALM* RELATE TO THE *PEDESTRIAN REALM*?

The street realm should support pedestrian activity. Landscaping that provides interest and buffers pedestrians from traffic, furniture, appropriate sidewalk width, on-street parking, outdoor dining opportunities, and art have a direct effect on pedestrian activation along the street.













HOW DOES THE *STREET REALM* RELATE TO THE *PEDESTRIAN REALM*?

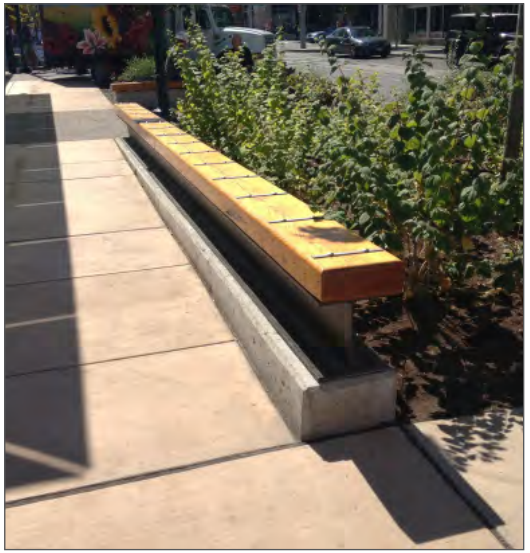












LOCAL URBAN BOULEVARD EXAMPLES

Local examples of urban boulevards in urban districts include a range of amenities such as center medians, on-street parking (parking lanes and parking pockets), landscape planters (act as a natural pedestrian buffer), wide sidewalks, zero building setbacks, building entrances, activated storefronts, and pedestrian amenities.



Burnside Street, Portland (5 lanes + on-street parking & median)



98th Avenue NE, Kirkland (5 lanes + parking pockets & bike lane)



SW 1st Avenue, Portland (4 lanes + median, parking, & bike lane)



Mercer Street, Seattle (6 lanes + on-street parking & median)

MID-BLOCK CROSSINGS

Due to the width and speeds of 116th Avenue NE, mid-block crossings would require a signal system to allow pedestrians to safely cross the street. With the approximate lengths between Main and 4th at 1,050 feet and between 4th and 8th at 1,550 feet, mid-block crossings would greatly benefit pedestrians and calm traffic speeds.



Signalized mid-block crossing, WA-99, Shoreline



RRFB mid-block crossing, 98th Avenue NE, Kirkland

DRIVEWAY INTERFACES FOR DEVELOPMENT

Driveway interfaces vary with each potential development scenario. Driveway approaches service big box developments and lead directly to parking, radius returns service compact mixed used developments and lead to a smaller street network, and restricted access driveway approaches service stadium developments.



Typical driveway interface for Big Box developments



Typical roadway/drive interface for Compact Mixed Use developments



Typical driveway interface for Stadium developments

SITE FURNISHINGS – BENCHES AND BIKE RACKS

Assuming the redevelopment of 116th Avenue NE pushes for a contemporary look the site furnishings in this document illustrate examples of a contemporary, urban, pedestrian theme, with durable, low-maintenance materials. The selected materials are for example only, and are by no means a standard.





***Rest** bench, aluminum (Form + Surfaces)*



***Rest** bench, aluminum and wood (Form + Surfaces)*



***Oahu** bike rack (Sportworks)*



***Tofino** bike rack (Sportworks)*

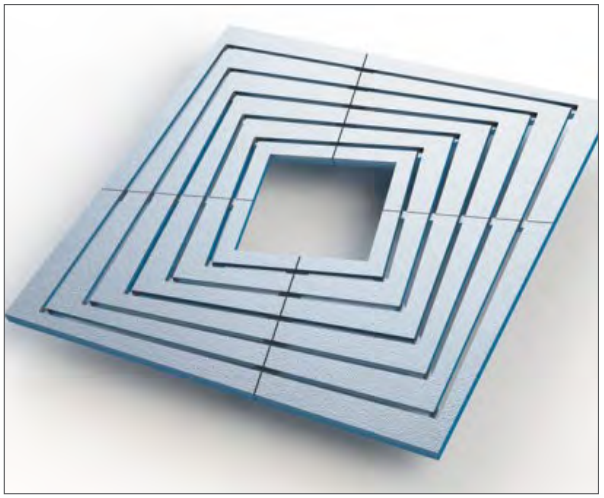
SITE FURNISHINGS – RECEPTACLES AND TREE GRATES

Receptacles that compensate for both litter and recycling are convenient for pedestrians and city maintenance crews. Tree grates should allow for accessibility while maintaining functionality and follow a contemporary look.





Divisadero *tree grate (Iron Age Design)*



Vertigo *tree grate (Ironsmith)*



Dispatch *receptacle (Form + Surfaces)*

SITE FURNISHINGS – STREETSCAPE LIGHTING AND STREET NAME SIGNS

Contemporary LED luminaire fixtures on decorative poles and bases will add to the streetscape aesthetic and reduce maintenance and operating costs. New street name signs will add to the contemporary look of the corridor while providing an additional layer of unity along the streetscape.





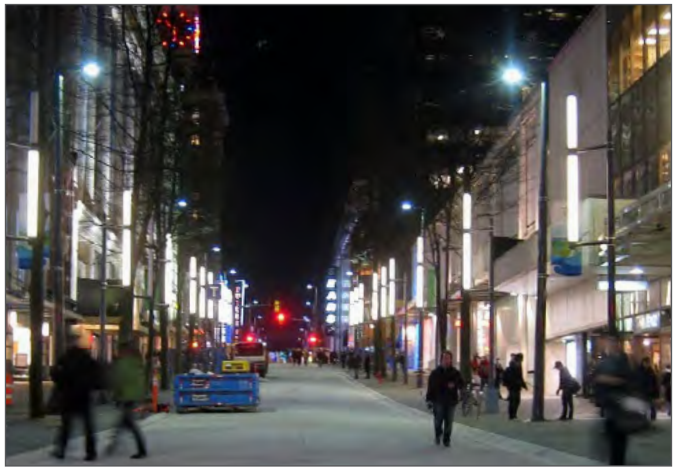
Warp9 *led luminaire fixture (Kim Lighting)*



Conceptual street name sign

SITE FURNISHINGS – ACCENT LIGHTING

Accent lighting, both freestanding and pavement inlays, further define and humanize pedestrian spaces while contributing to the overall contemporary look of the streetscape.


Examples of vertical accent lighting that expresses crisp, clean, contemporary lines and complements the urban aesthetic

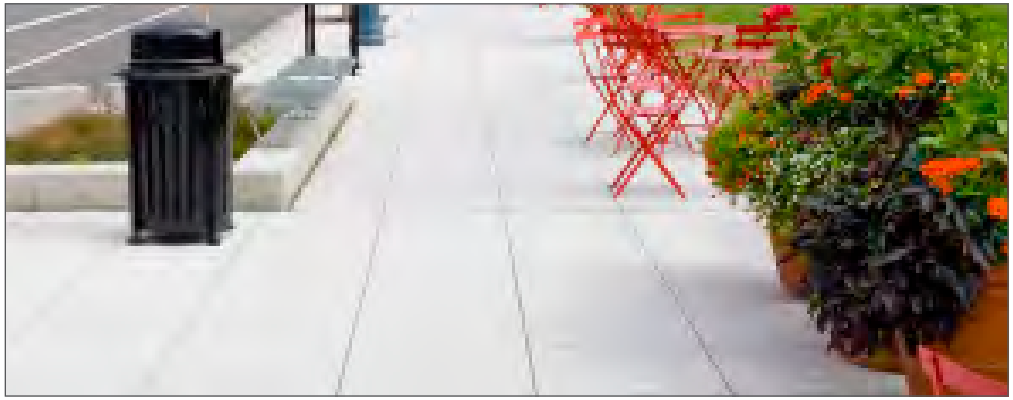


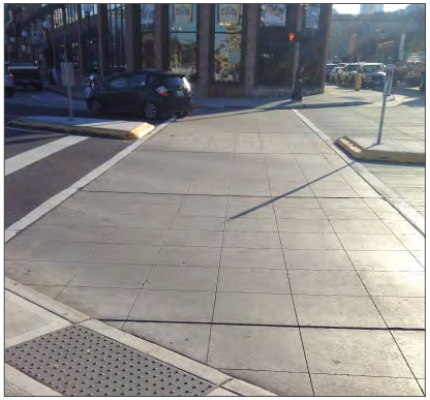


Examples of in-pavement accent lighting that helps to define pedestrian space and enhance the urban aesthetic

SITE FURNISHINGS – PAVING MATERIALS

Cement concrete sidewalks and crosswalks with maximum scoring patterns of 2' x 2' provide an ideal sidewalk fabric for urban spaces. Decorative pavements, especially in locations of special opportunities, are encouraged to contribute to a contemporary, pedestrian friendly space.





Example of scored cement concrete sidewalks and crosswalk with 2' x 2' grid pattern











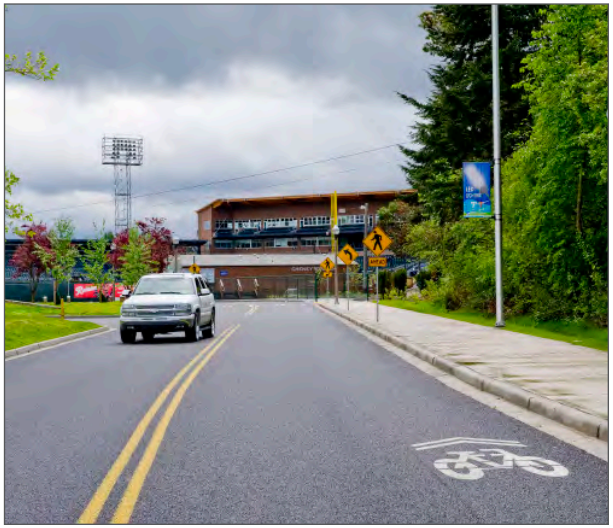
Examples of decorative pavement options (accent pavers and cement concrete with various finishes)

LOW IMPACT DEVELOPMENT OPPORTUNITIES

Opportunistic low impact development measures for 116th Avenue NE include, but are not limited to, the use of rain gardens, porous pavements, vegetated curb bulbs, silva cells, and filterra units.



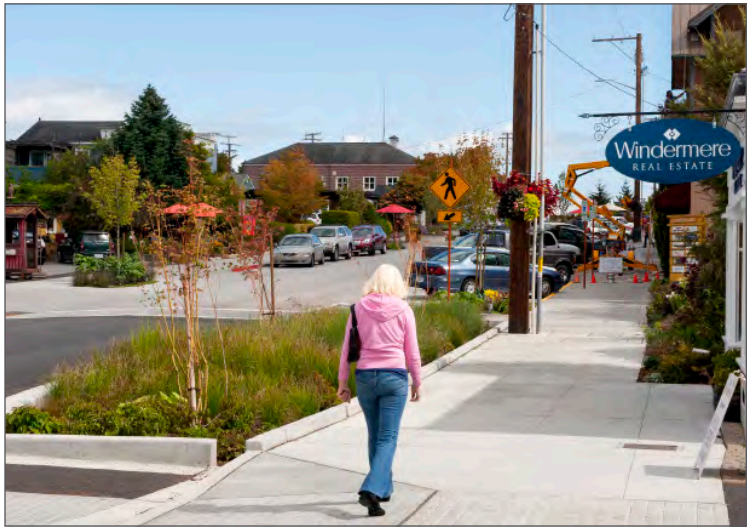
Example of a rain garden in a curb bulb



Example of porous asphalt pavement



Example of porous on-street parking



Example of a rain garden in a curb bulb



Example of porous paver band

VEGETATION – STREET TREES AND ACCENT TREES

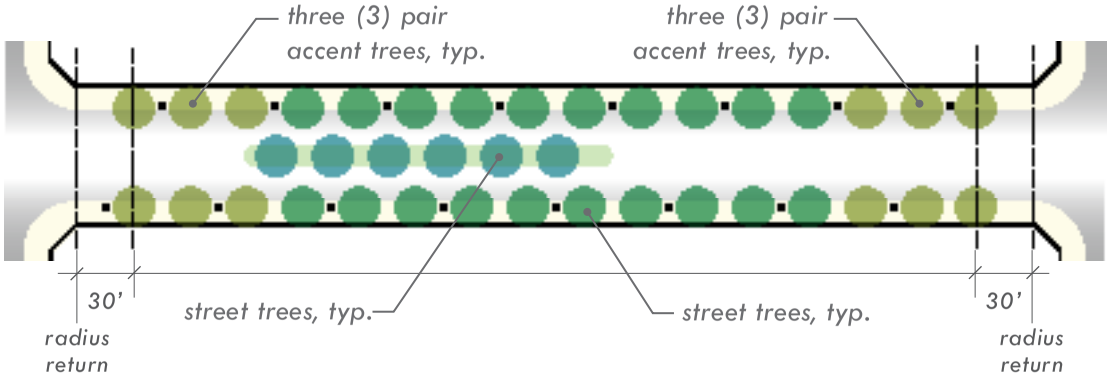
Street and accent trees shall be located where possible along the streetscape. Trees will provide aesthetic interest and additional canopy cover along sidewalks, and help unify the corridor.

STREET TREE SPECIES *(2" caliper min.)*

- Acer x freemanii 'Sienna'/ Sienna Glen Maple
- Pyrus calleryana 'Aristocrat'/ Aristocrat Pear
- Ginkgo biloba 'Magyar/ Magyar Ginkgo

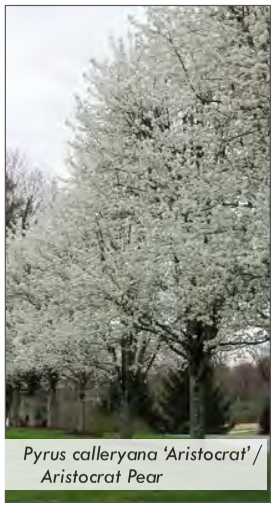
ACCENT TREE SPECIES *(2" caliper min.)*

- Prunus 'Berry'/ Cascade Snow Cherry
- Malus 'Tschonoskii'/ Tschonoskii Crabapple
- Cornus x 'Starlight'/ Starlight Dogwood
- Styrax japonicus 'JFS-D'/ Snowcone Japanese Snowbell



STREET TREE LAYOUT


Acer x freemanii 'Sienna'/ Sienna Glen Maple


Pyrus calleryana 'Aristocrat'/ Aristocrat Pear


Ginkgo biloba 'Magyar'/ Magyar Ginkgo


Prunus 'Berry'/ Cascade Snow Cherry


Malus 'Tschonoskii'/ Tschonoskii Crabapple


Cornus x 'Starlight'/ Starlight Dogwood


Styrax japonicus 'JFS-D'/ Snowcone Japanese Snowbell

VEGETATION – SHRUBS, PERENNIALS, GRASSES, AND GROUNDCOVERS

The plantings along 116th Avenue NE should complement the streetscape with a variety of color and textures, and consider the low mature heights needed for sight distances along the corridor.


Abelia sp./ Abelia


Achillea millefolium/ Common Yarrow


Arctostaphylos uva-ursi/ Kinnikinnick


Armeria maritima/ Sea Thrift


Berberis thunbergii/ Japanese Barberry


Calluna vulgaris/ Scotch Heather


Coreopsis verticillata/ Tickseed


Cornus stolonifera/ Red-Twig Dogwood


Deschampsia cespitosa/ Tufted Hair Grass


Echinacea purpurea/ Coneflower


Festuca idahoensis/ Idaho Fescue


Fothergilla gardenii/ Dwarf Fothergilla


Fragaria chiloensis/ Beach Strawberry


Geum sp./ Avens


Hebe sp./ Hebe


Helianthemum sp./ Sunrose

VEGETATION – SHRUBS, PERENNIALS, GRASSES, AND GROUNDCOVERS


Hemerocallis sp./ Daylily


Lavandula angustifolia/ English Lavender


Liriope muscari/ Lilyturf


Mahonia nervosa/ Low Oregon Grape


Nandina domestica/ Heavenly Bamboo


Ophiopogon japonicus/ Mondo Grass


Pennisetum alopecuroides/ Fountain Grass


Polystichum munitum/ Sword Fern


Potentilla fruticosa/ Shrubby Cinquefoil

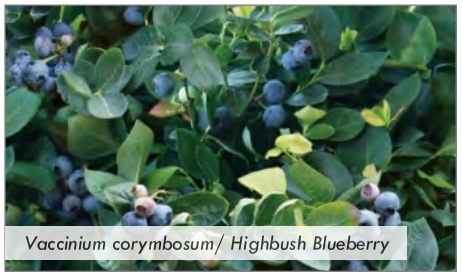

Sedum sp./ Stonecrop


Sesleria autumnalis/ Autumn Moor Grass


Spiraea betulifolia/ Birch-Leaf Spirea


Spiraea japonica/ Japanese Spirea


Thymus praecox/ Creeping Thyme


Vaccinium corymbosum/ Highbush Blueberry


Weigela florida/ Weigela

SUMMARY

Building upon a review of various existing City of Bellevue studies and planning documents that address future redevelopment, meetings with city staff, and development scenarios the 116th Avenue NE Streetscape Plan establishes a vision for the street as an ***urban boulevard***. The underdeveloped 116th corridor is located just east of Downtown - bounded by Main Street along the south, NE 8th Street along the north, I-405 along the west and the abandoned BNSF railway tracks along the east - and currently functions as an auto-oriented corridor.

This document will serve as an aid in the advancement of the redevelopment process, establish better public and pedestrian spaces, and increase community pride and economic vitality along the 116th Avenue NE corridor.

The concept for 116th Avenue NE focuses on maintaining the corridor's classification as a boulevard, but redeveloping the street to have a ***parkway-like aesthetic*** including, but not limited to, planted medians, wide planters and sidewalks, parking pockets, bike lanes, benches, art, and zero building setbacks.

The study area adjacent to the street is envisioned to develop as a ***compact, multi-modal*** district that complements Downtown Bellevue. This district will support a mix of medium to large commercial and retail business that supports the district and surrounding community.

A ***compact, pedestrian-oriented*** district humanizes the scale of this area and the 116th Avenue NE streetscape acts a ***gateway boulevard*** into the district.

APPENDIX A: EXISTING DOCUMENT REVIEW

CITY OF BELLEVUE COMPREHENSIVE PLAN

The Comprehensive Plan emphasizes for the 116th Avenue Study area to provide ***mobility options***, encourage environmentally and contextually sensitive development (in terms of both aesthetics and compatible land uses), efficient use of urban land, strengthening residential neighborhoods, and incorporating strong urban design that ***creates good "people places"***. The urban fabric should be "attractive, lively and gracious", blending the natural and built environments and providing compatible transitions between different land uses and different land use intensities. ***Existing open space should be preserved***, and new parks and other public spaces should be developed in order to help define and enhance neighborhood character and provide visual relief and buffering between land uses.

Redevelopment

The design of new developments should incorporate and blend with the character of the surrounding community while at the same time creating iconic or aesthetically pleasing visual reference points. In particular, developments along the I-405 corridor should provide an attractive entrance to the city. Buildings should feature visual, auditory and tactile variety, ***particularly at the street level***, and interesting or distinctive rooflines are encouraged where they would enhance the neighborhood skyline. In addition, ***buildings should be sited at or near the back of the sidewalk*** as long as this would not diminish sidewalk width or pedestrian accessibility; ***the visual impact of parking should be reduced***, and the visual ***prominence of pedestrian facilities*** should be increased. Green building features such as solar, green roofs and walls, and water conservation are encouraged.

Mixed-use development is encouraged, where appropriate, in order to enable people to live closer to where they work, provide more affordable workforce housing, and reduce people's reliance on short vehicle trips.

Adjacent developments should relate and connect, continuing design quality and site function from site to site and providing for pedestrian and vehicular circulation within and between large commercial blocks.

Developments adjacent to parks and other public open space should complement these spaces and encourage their use. In addition, public and semi-public spaces of various scales should be included in new developments. These spaces should connect visually and physically to their surroundings, provide diverse programming options, and feature elements which provide rain cover, access to sunlight, seating, landscaping and security for site users.

Streets

Streets should be designed with an emphasis on moving people and goods, not just cars, and they should be visually appealing for all of these user groups. Roadway corridors ***should establish/reinforce neighborhood or district identity*** and provide continuity; city and/or neighborhood gateways should be established at key locations or intersections. The streetscape should include elements such as lighting, seating, street trees and plantings, trash and recycle receptacles, bike racks and public art where appropriate. The scale of pedestrian facilities and the level of pedestrian amenities should be in line with the expected level of use based on the density of surrounding developments and other land uses. Significant trees and vegetation should be preserved, and enhancing the existing tree canopy through new plantings is a key goal. Street trees and plantings should provide visual continuity to roadway corridors and neighborhoods. Street trees should be provided with adequate rooting space to ensure healthy canopy growth. New landscape plantings should reflect an ***"urban" character***, and the plant palette should emphasize native plants and Northwest "adapted" plants with low water and maintenance needs.

CITY OF BELLEVUE COMPREHENSIVE PLAN

Roadway designations for 116th Ave NE:

- "Boulevard" – provide a distinct identity and reinforce the image of a "City in a Park"
  1. Elements include: gateways, street trees & plantings, median plantings, special lighting, wide/ separated sidewalks, crosswalks, seating, special signage (street names, wayfinding), decorative paving, public art, special design at designated intersections (entry points into district or where enhanced pedestrian amenities are warranted)
  2. Improvements can be funded through a combination of public and private investment
- Major Arterial (also includes NE 4th St, NE 8th St)
- Part of designated pedestrian system
- Part of designated bike network
- Within Mobility Management Area #4 (Wilburton)

References – Comprehensive Plan (2010)

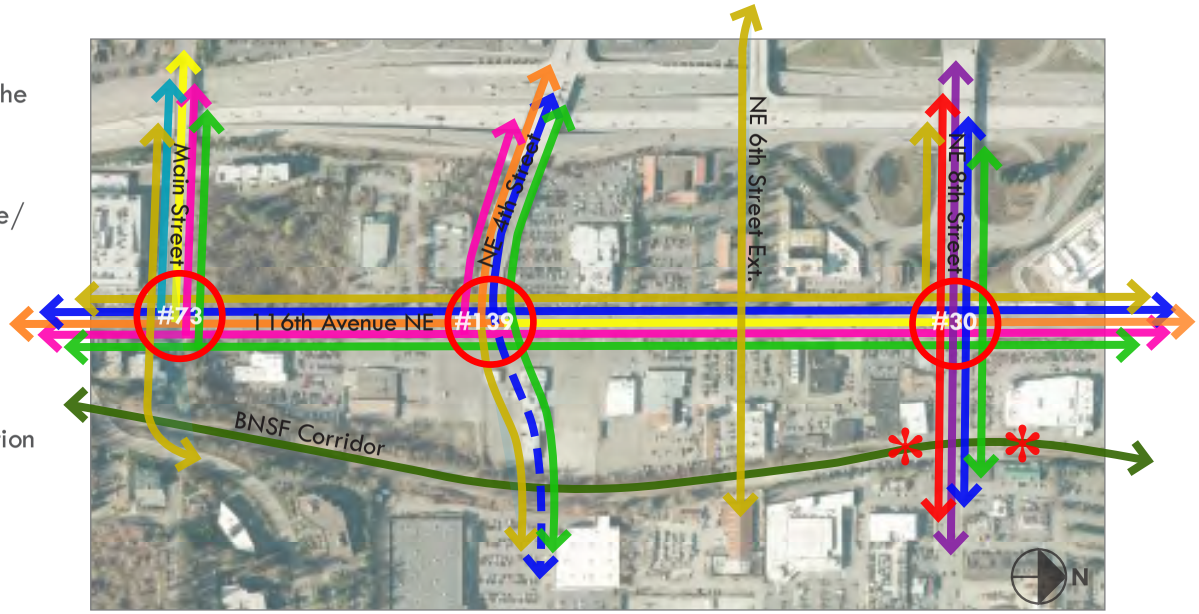
Land Use Policies: *LU-1, **LU-7** thru LU-9, LU-15, LU-16, **LU-27***

Housing Policies: ***HO-11**, HO-13, HO-18*

Transportation Policies: *TR-1, TR-3, TR-5, TR-7, **TR-8**, TR-24, **TR-25**, **TR-34.1**, TR-43, TR-56, TR-75.19, TR-76, TR-77, TR-79, TR-84*

*Environmental Policies: EN-7, EN-17 thru EN-19, EN-20, **EN-27**, EN-32, EN-37, EN-39*

*Urban Design Policies: UD-1 thru UD-7, UD-9, UD-11, UD-14 thru UD-18, UD-21, UD-28, UD-30, **UD-38 thru UD-40**, **UD-42** thru UD-45, UD-48, UD-52, UD-54, UD-55, **UD-57**, UD-58*



Roadway and transit designations

KEY

- *Major Arterial*
- *Minor Arterial*
- *Pedestrian System*
- *Primary Bicycle Network*
- *Other Bicycle Network*
- *System Intersection (Numbered)*
- *Transit – Principal Corridor*
- *Transit – Minor Corridor*
- *Transit – Local Access*
- *1000 Peak Hour Transit Riders*
- *500 Peak Hour Transit Riders*

CITY OF BELLEVUE PEDESTRIAN & BICYCLE TRANSPORTATION PLAN REPORT

The goal of the 2009 Pedestrian & Bicycle Transportation Plan Report is to ***increase the mode-share of non-motorized trips*** within Bellevue to 20% by 2030, as prescribed in the Growth Management Act Destination 2030 regional plan. In addition, the plan outlines goals to ***reduce bike-car and pedestrian-car accidents***, ***increase pedestrian and bicycle trips***, construct 25 miles of sidewalk, and complete two north-south and two east-west bike routes (including one each through downtown) that connect with the larger regional trail system.

There is an emphasis on ***completing links/filling gaps*** and ***providing system connectivity*** within the existing network, and on projects which address pedestrian/bicycle safety, provide access to transit or community activity centers (parks, libraries, schools, shopping, etc.), or serve concentrations of residents with special accessibility needs. Pedestrian and bicycle facility design should be ***context-sensitive*** and provide effective wayfinding and route signage and amenities such as lighting, seating street trees and plantings, receptacles, bike racks, and public art. Interim improvements should be considered where feasible, and crossing improvements, including at mid-block locations where justified by traffic studies, should be constructed. New developments should include ***internal pedestrian circulation*** both within the development and between adjacent developments, and adequate setbacks should be secured to ensure space within the right-of-way for required pedestrian and bicycle facilities. In addition, the development review process should be used to secure easements/land dedications for non-motorized trails. Driveways should be consolidated and kept to a minimum, and pedestrian facilities should be separated from the roadway with planting and street trees (where appropriate).

Planned pedestrian projects for 116th Ave NE and intersecting streets:

- New 8ft-wide sidewalk with 4ft-wide planter on Main St (north side) from Bellevue Way to 116th Ave NE – high priority
- New 6ft-wide sidewalk with 4ft-wide planter on NE 4th St extension (north and south sides) from 116th Ave NE to 120th Ave NE – low priority (constructed as part of current street project)

Planned bicycle projects for 116th Ave NE and intersecting streets:

- Westbound bike lane on Main Street (north side) from 116th Ave NE to Bellevue Way – high priority (part of priority bike corridor EW-3, Lake-to-Lake Trail)
- Northbound and southbound bike lanes on 116th Ave NE from Main St to Northup Way – medium priority
- Eastbound and westbound bike lanes on NE 4th St extension from 116th Ave NE to 120th Ave NE – low priority
- Southbound wide bike shoulder on 116th Ave NE (west side)/Lake Hills Connector (south side) from Main St to 140th Ave SE – high priority (part of priority bike corridor EW-3, Lake-to-Lake Trail)

Planned shared-use projects for 116th Ave NE and intersecting streets:

- Off-street trail on Main Street (south side) from 116th Ave NE to Bellevue Way – high priority (part of priority bike corridor EW-3, Lake-to-Lake Trail)
- Off-street trail on future NE 6th St extension from 112th Ave NE to 120th Ave NE – medium priority
- Off-street trail in BNSF corridor – medium priority (part of priority bike corridor NS-3, BNSF Trail)
- Off-street trail as extension of Main St from 116th Ave NE to BNSF corridor – low priority

References – Pedestrian & Bicycle Transportation Plan Report (2009)

Ped/Bike: ***PB-2***, *PB-4, PB-5, PB-7, PB-8, PB-10 thru PB-12,* ***PB-18***, TR-70, ***TR-79***, *TR-80*

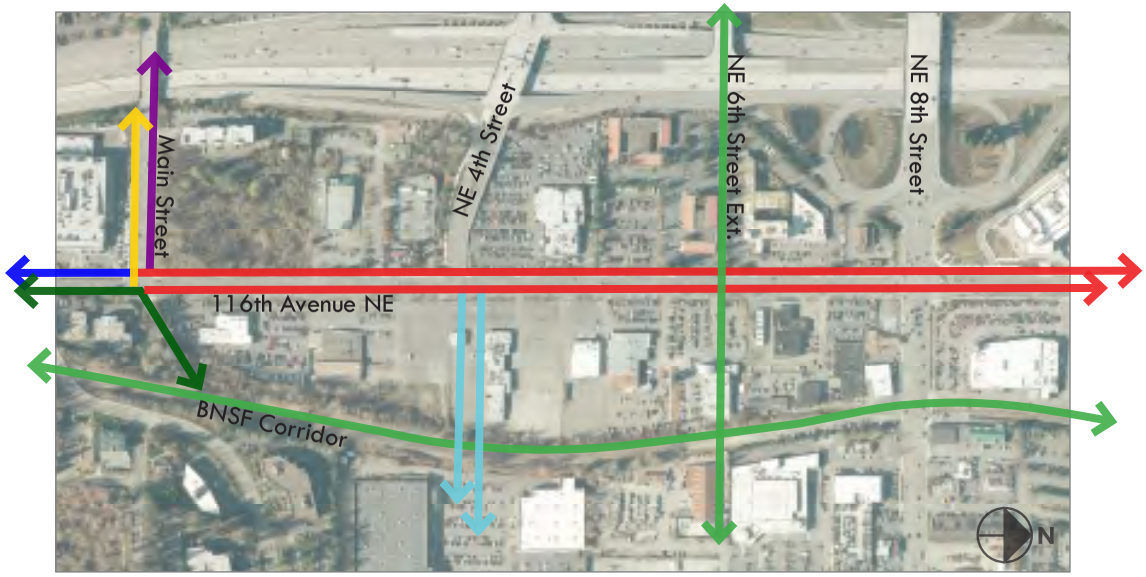
Graphics

Bicycle Priority Corridors: p. 92

Bicycle & Pedestrian (Streetscape) Facility Typologies: p. 96-101

Bicycle & Pedestrian Project Lists: p. 116, p. 119, p. 151, p. 154, p. 164, p. 166

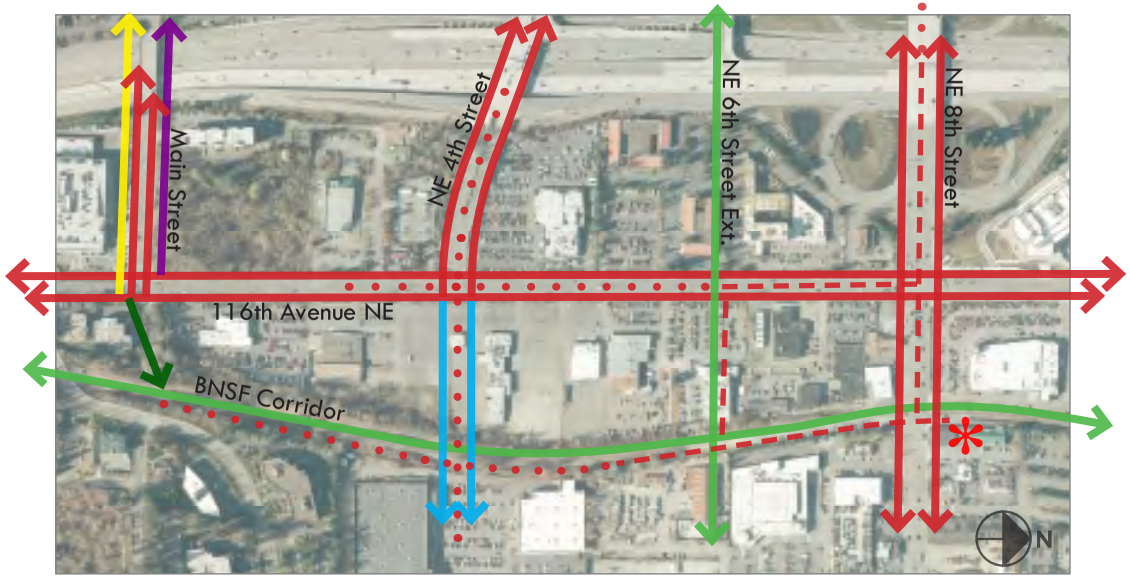
CITY OF BELLEVUE PEDESTRIAN & BICYCLE TRANSPORTATION PLAN REPORT



Planned bicycle projects by type and priority

KEY

- *Bike Lane – Low Priority*
- *Bike Lane – Medium Priority*
- *Bike Lane – High Priority*
- *Wide Bike Shoulder - High Priority*
- *Off-Street Trail – Low Priority*
- *Off-Street Trail – Medium Priority*
- *Off-Street Trail – High Priority*



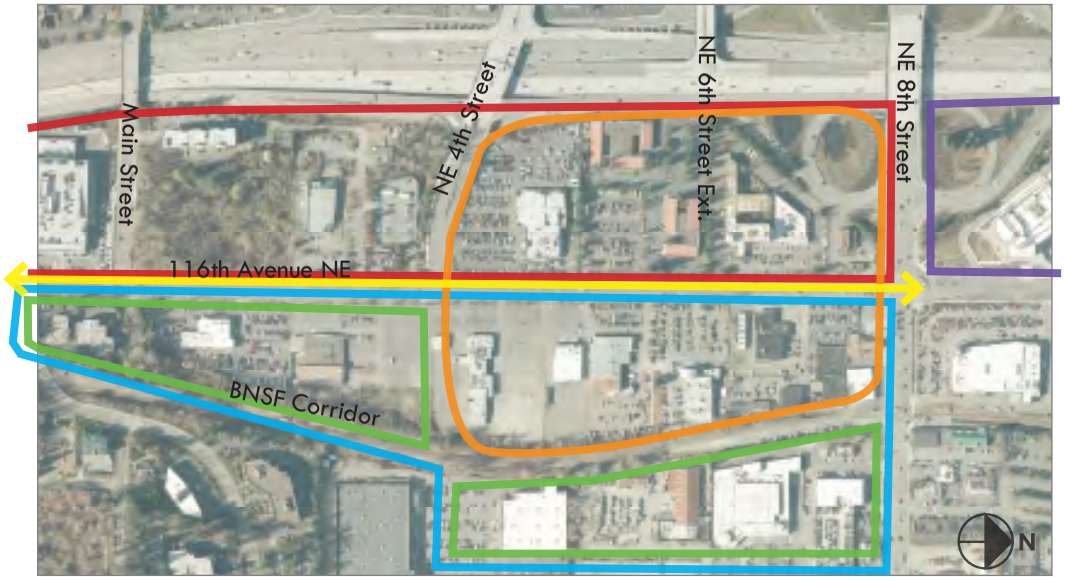
Planned pedestrian projects by type and priority

KEY

- *Sidewalks – Low Priority*
- *Sidewalks – High Priority*
- *Sidewalks – Existing*
- *Off-Street Trail – Low Priority*
- *Off-Street Trail – Medium Priority*
- *Off-Street Trail – High Priority*
- *Future Lightrail Station*
- *<1/4 Mile Walk to Lightrail*
- *1/4 Mile to 1/2 Mile Walk to Lightrail*

WILBURTON SUBAREA PLAN – SPECIAL OPPORTUNITY DISTRICT

The subarea plan vision for the 116th corridor is as a ***"complement to downtown"*** with a mix of retail and other commercial services that serve both the adjacent residential areas (community businesses that provide convenient local shopping) as well as the I-405 corridor (hotels, offices, etc). ***Given the corridor's proximity to Downtown, I-405, future light rail stations and Grand Connection, and the BNSF trail, there is future potential and opportunity for transit supportive land use designations (policy S-WI-5)***. Emphasis is placed on protecting residential areas by keeping them separated from commercial areas, although mixed-use is specifically allowed/encouraged within predominantly commercial areas (but not residential areas). New commercial development should be pedestrian-accessible and ***feature attractive urban design and amenities***, such as wide sidewalks, street furniture, street trees and planters, and pedestrian-scale building detailing such as awnings, windows, and material/texture/color changes; in addition, development should ***incorporate internal vehicle/pedestrian circulation and connections between adjacent parcels*** (where appropriate, per policy S-WI-26) in order to reduce scale of the large "superblocks" and reduce arterial congestion. Buildings should be encouraged to be built with zero setback from the ROW and limited/no intervening surface parking. Emphasis of roadway/ trail design and private development should be on creating safe connections to community services (schools, parks, shopping, etc) via multi-modal transportation (bike, walk, public transit).



Designated land uses

KEY

- *"Auto Row"*
- *Office and Limited Business*
- *Transit Supportive*
- *General Business*
- *General Commercial*
- *Medical*

Zoning/land use for 116th Ave NE:

- Area west of 116th (to I-405) zoned Office and Limited Business (OLB) – 75ft height limit
- Area east of 116th (to BNSF corridor) zoned General Commercial (GC), transitions to Community Business (CB) – 75ft height limit
- Area between NE 6th and NE 8th is appropriate for Transit Supportive development (possible future "Wilburton Village" retail/mixed-use development between BNSF corridor and 120th)
- Area north of NE 8th zoned for Medical/Institutional – 150ft height limit
- "Auto Row" will likely redevelop over time; additional ROW from removal of auto-loading zones may be used for bike lanes, pedestrian facilities and landscaping

References – Wilburton Subarea Plan (2010)

Land Use Policies: *S-WI-1 thru S-WI-7*, ***S-WI-22***

Circulation Policies: *S-WI-25 thru S-WI-29, S-WI-31*

Community Design Policies: *S-WI-41 thru S-WI-45, S-WI-48*, ***S-WI-49, S-WI-51, S-WI-52***

ENVIRONMENTAL BEST MANAGEMENT PRACTICES & DESIGN STANDARDS MANUAL – STREETSCAPE

The trees and landscaping within the public Right-of-Way are an ***integral component of the urban forest and community ecosystem*** and are essential to the City's efforts to maintain the ***beauty and livability*** of Bellevue. The streetscape environment should be attractive and functional and should link the public streets together with this urban forest. The 116th Ave NE corridor is classified as a ***Boulevard*** within the Streetscape Design Category system. Boulevards provide ***visually appealing connections*** between activity centers and open space with a ***parkway-like aesthetic*** including planted medians, wide planters, and large trees.

The primary designated street tree for the 116th Ave NE corridor is Liquidambar styraciflua/ Sweet Gum, however Boulevard streets can also include a greater variety of trees (including variation in form/size) and vegetation. In more urban settings, trees may be soldiered in planting strips or tree grates, and large trees should be grouped whenever possible to form interconnected canopies and visually reinforce the parkway appearance. All street trees and plantings must be sited to ***provide adequate sight distance*** visibility at locations such as intersections and crosswalks, and trees must be limbed up to 8ft height above sidewalks and 14ft height above the roadway. Trees should be provided with adequate soil volume to allow for healthy root growth and to reduce the likelihood of pavement damage; the use of structural soil and root barrier should be considered, and irrigation is recommended.

Trees and landscape within the 116th Ave NE falls into the "Streetscape" management category and requires the greatest level of maintenance; the Parks & Community Services Department assumes management responsibility for improvements within the right-of-way made through either CIP projects or through private development. The Streetscape Management chapter of the Environmental Best Management Practices & Design Standards Manual provides guidance on tree species selection and standards for nursery stock as well as planting details and soil requirements.



Sweet Gum trees in summer and fall

References – EBMP&DS Manual (2012)

Category 4 "Boulevard" Streetscapes: *p. 95-96*

Designated Street Trees: *p. 107-108*

BELLEVUE LAND USE CODE

The 116th Avenue NE Study Area is primarily zoned as Office and Limited Business (OLB; west side of 116th Ave NE) and General Commercial (GC; east side of 116th Ave NE), with the latter being transitioned to Community Business (CB) as Auto Row redevelops. The OLB and GC designations are not conducive to a compact, multi-modal district.

New developments are required to complete street frontage improvements prior to being issued a Certificate of Occupancy; these improvements may include street widening/channelization and new curb, gutter, sidewalk, storm drainage, street lighting/traffic signal equipment, utilities, landscape planter, street trees, and irrigation. Maintenance of frontage improvements is the responsibility of the property owner unless it has been accepted by the City. Street trees should be consistent with the City's designated street tree list; existing trees and vegetation within the ROW should be preserved or replaced.

OTHER DOCUMENTS REVIEWED

Downtown Transportation Plan Update:

The population of downtown Bellevue is expected to grow by more than 175% by 2030, and downtown employment is expected to grow by 65% during the same timeframe. Under currently programmed "baseline" scenario, roadway capacity within the downtown area is anticipated to be sufficient (within adopted LOS standards) through 2030, but significant improvements will be required in pedestrian and bicycle facilities as well as transit. This baseline includes the recently constructed NE 4th Street extension and the planned NE 6th Street extension. A significant emphasis of the Plan update is on improving pedestrian, bicycle and transit access to into downtown, with a goal to increase transit coverage from 86% to 97% by 2030 (assumes construction of East Link lightrail, introduction of Rapid Ride service and some changes to existing transit routes); in addition, a frequent bus route is recommended on 116th Ave NE to serve the Hospital district. Recommended pedestrian improvements include new crosswalks, mid-block crossings (all mid-block locations within downtown are considered candidates), and through-block connections in all new developments.

Bellevue Light Rail Best Practices Report:

The East Link project will bring lightrail into downtown Bellevue, connecting on to Bel-Red, Overlake and Redmond. The Hospital station is just to the north of the 116th Avenue NE study area, and will have a significant impact on how 116th Avenue NE redevelops. The foundation of the report is the idea that lightrail should connect "somewhere to somewhere", that is: the area around the stations should feel like a place (as opposed to an island) and a destination for working, living and recreating. More densely populated land uses increase transit ridership, and mix of land uses (retail, entertainment, housing, employment) support all-day ridership, both of which are important goals for a successful lightrail system.

The second major focus of the report is on context-sensitive design, which encourages station designs that integrate with the community. The report recommends that city code be amended to include design standards for commercial/multi-family buildings adjacent to stations to incorporate features such as street-facing entrances, convenient neighborhood retail, pedestrian areas and public/semi-public open space, weather protection, landscaping and street trees. Given that the lightrail will cross 116th Avenue NE on an elevated track, it will be important to address the visual impacts and potential loss of connectivity that this could cause within the study area.

OTHER DOCUMENTS REVIEWED

The approximate distance people will walk to reach lightrail is estimated at half a mile, or about ten minutes, therefore the pedestrian environment within this radius of the station is particularly important in order to encourage ridership. Important improvements include direct sidewalk routes which are well-lit, ADA-accessible and provide clear wayfinding; safe pedestrian crossings; traffic calming at intersections; and bike lanes and well-signed bicycle routes. In addition, intermodal transfers (bus-to-rail, bike-to-rail) should be encouraged with good wayfinding at bus stops and secure short- and long-term bicycle storage. The relative value of the lightrail investment can be increased by simultaneously investing in these enhancements to the surrounding community, and planned CIP projects within the vicinity of stations should be accelerated in order to coordinate construction with the planned lightrail construction.

NE 6th Street Extension Design Report:

The NE 6th Street extension provides new 2-4 lane roadway crossing of I-405 between downtown Bellevue and 120th Avenue NE with HOV/transit access lanes to/across I-405 as well as a 14' multi-use trail separated from traffic by a crash-rated barrier and landscaping plantings. The East Link lightrail alignment runs parallel and adjacent to the NE 6th Street extension, on the north side of the roadway, before turning north to enter the BNSF corridor just to the east of 116th Avenue NE. Both the NE 6th Street extension and the East Link lightrail will be elevated above 116th Avenue NE with no provisions for vehicle access; pedestrian and bicycle access may be accommodated with a stair/ramp system. The design would incorporate gateway elements reflecting the character of downtown Bellevue and creating a landmark structure along the I-405 corridor. The grade separation over 116th Avenue NE presents a challenge to prevent the streetscape from feeling broken up by large visual barriers and limiting circulation between and within the large superblocks along the corridor.

NE 4th Street Extension Construction Plans:

The NE 4th Street extension, which was constructed in 2014, employs a 5-lane section with center turn lane, 5' bike lanes in both directions, 4' planters and 8' sidewalks. Due to the grade difference between 116th Ave NE and 120th Ave NE, as well as the crossing at the BNSF rail/trail corridor, the roadway is elevated atop a retaining wall for much of the segment between 116th Ave NE and the BNSF corridor. This grade separation, combined with the curved alignment which shifts the roadway to the north, creates challenges for developing the adjacent parcels to the north and south and integrating new development with the streetscape.

Current/Recent Development Plans (Chick-fil-A, REI, Target):

The development plans currently in review (2015) for the 116th Ave NE corridor reflect the current auto-oriented development scale.

- Chick-fil-A: plans show a large setback with intervening parking and no frontage improvements within the ROW (no buffer plantings and 6' sidewalk against the back of curb).
- REI: plans reflect a more urban aesthetic, with no setback from the sidewalk and frontage improvements both against the building face (landscaping, benches, small plaza areas) and between the curb and sidewalk (planting strip, street trees). The building facade has some pedestrian-scale details, including awnings, recessed plaza/seating areas and windows, but lacks a street-facing entrance on either 116th Ave NE or NE 4th St.
- Target (not currently active): plans reflect a more urban aesthetic, with no setback from the sidewalk and some frontage improvements within the ROW (5' sidewalk with landscape buffer and site furniture). The building facade appears to lack pedestrian-scale details, but faces toward 116th Ave NE with a entrance on the street and site furniture.

Eastside Rail Corridor Master Plan (Wilburton Segment)

4.3 WILBURTON SEGMENT

The Wilburton Segment begins at I-90 to the south and extends to 108th Avenue NE in Kirkland, where the ERC trail will connect to the Cross Kirkland Corridor. This is a complex segment with multiple highway crossings including a new bridge crossing over I-405, the longest wooden railway trestle in the Pacific Northwest, and Sound Transit's East Link light rail line located in a portion of the corridor.

Large sections in this segment are limited to a single alternative because of the major structures that constrain the corridor and the need to share the corridor with light rail. The complexity of planned improvements in and around the corridor also changes the planning context for the trail. Decisions made by the City of Bellevue, Sound Transit, and private developers of adjacent properties may have a strong influence on the final location and character of the trail through this segment. However, the final location of the trail within the planning envelope would likely not be determined until the design phase.

The trail plan for this segment is described from its southern terminus at I-90, heading north toward its northern terminus at 108th Avenue NE. The segment description includes an overview of the major elements along with the anticipated treatments for the overall trail corridor.

WILBURTON SEGMENT

CROSSING I-90

Today, most Eastside residents experience the ERC bridge over I-90 as something they see from the highway—typically as a surface covered in graffiti. Nearly 100,000 cars per day drive under the ERC bridge. Despite its neglected appearance, the bridge is a remarkable structure supported by massive steel girders and spanning many lanes of the highway. The only practicable alternative for crossing I-90 is to retrofit the bridge as a trail, and the crossing would likely become one of the trail's landmark locations.

The bridge is a pony truss structure, where the railbed is supported between two large plate girders. The railbed is located at the bottom edge of the girders, which essentially create walls on either side. From the existing grade of the railbed, the girders extend almost 6 feet high creating an interesting space for a crossing that is isolated from the heavy traffic below. The railbed, as it crosses the bridge, is not wide enough to accommodate the preferred design for the trail, although it provides adequate width to safely meet the needs of the trail for the short length of the bridge. Depending on decisions about the preferred width of the trail as it crosses the bridge and the method for connecting the I-90 Trail to the ERC trail, the ERC trail could either be built at a reduced width inside the bridge structure, or at full width using a new platform and railings at the top of the girders. The I-90 bridge is a prominent visual feature as it crosses the highway and is a potential location for public art along the corridor when it is modified for use as a trail.



The sidewalls on the ERC bridge crossing I-90 are structural, and cannot be modified. The trail may be developed at the current level of the tracks, but at substandard width, or built at the top of the sidewalls at the full recommended width. Building the trail level with the top of the sidewalls would simplify the future connection to the I-90 Trail.

WILBURTON SEGMENT

CONNECTING THE ERC TRAIL AND I-90/ MOUNTAINS TO SOUND GREENWAY TRAIL

The I-90/Mountains to Sound Greenway Trail (I-90 Trail) is a high-volume nonmotorized route connecting Bellevue to Mercer Island and Seattle. The I-90 Trail is planned to continue through Factoria and Eastgate, and eventually connect to Issaquah. There is a strong interest in constructing a connection between the I-90 Trail and the ERC trail that does not require a street crossing and meets high standards for trail design, including grade. The grades are challenging with the ERC bridge over I-90 and approaches on either side far above the I-90 Trail. The preferred concept for the connection would construct two elevated trail connections between the corridors (King County Parks 2015). North of I-90, a long bridge would ramp up from the current boardwalk to cross over 118th Avenue SE, then connect to the ERC trail. South of I-90, a bridge would connect the ERC trail to the existing location of the I-90 Trail between the highway mainline and exit ramps (see Figure 4-10).

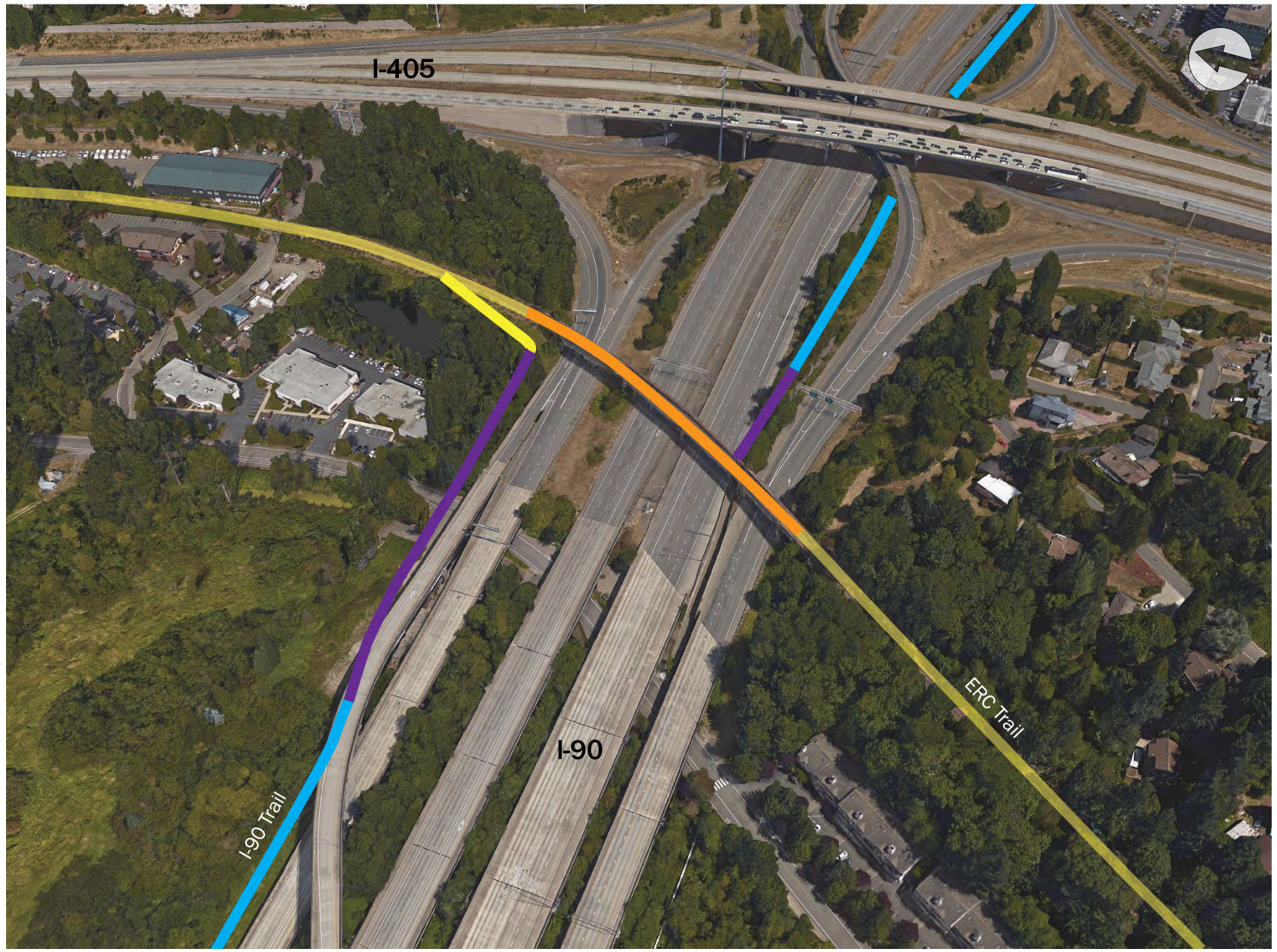


FIGURE 4-10. I-90/MOUNTAINS TO SOUND GREENWAY TRAIL CONNECTION

WILBURTON SEGMENT

I-90 TO I-405

The ERC is located in the middle of a hillside for this section, with I-405 uphill from the corridor and the lowlands of Mercer Slough at the foot of the hill. This section includes both existing structures and right-of-way constraints that make the development of two alternatives impractical. The planning envelope is generally 30 feet wide and follows the railbed. In addition to the I-90 bridge, a small trestle crossing SE 32nd Street would be renovated for the trail. In some locations, this section of the trail offers dramatic views to Mercer Slough to the west, and there may be opportunities to provide locations for rest spots and viewpoints. The potential for gateways and connections to 118th Avenue SE is described later in this section.

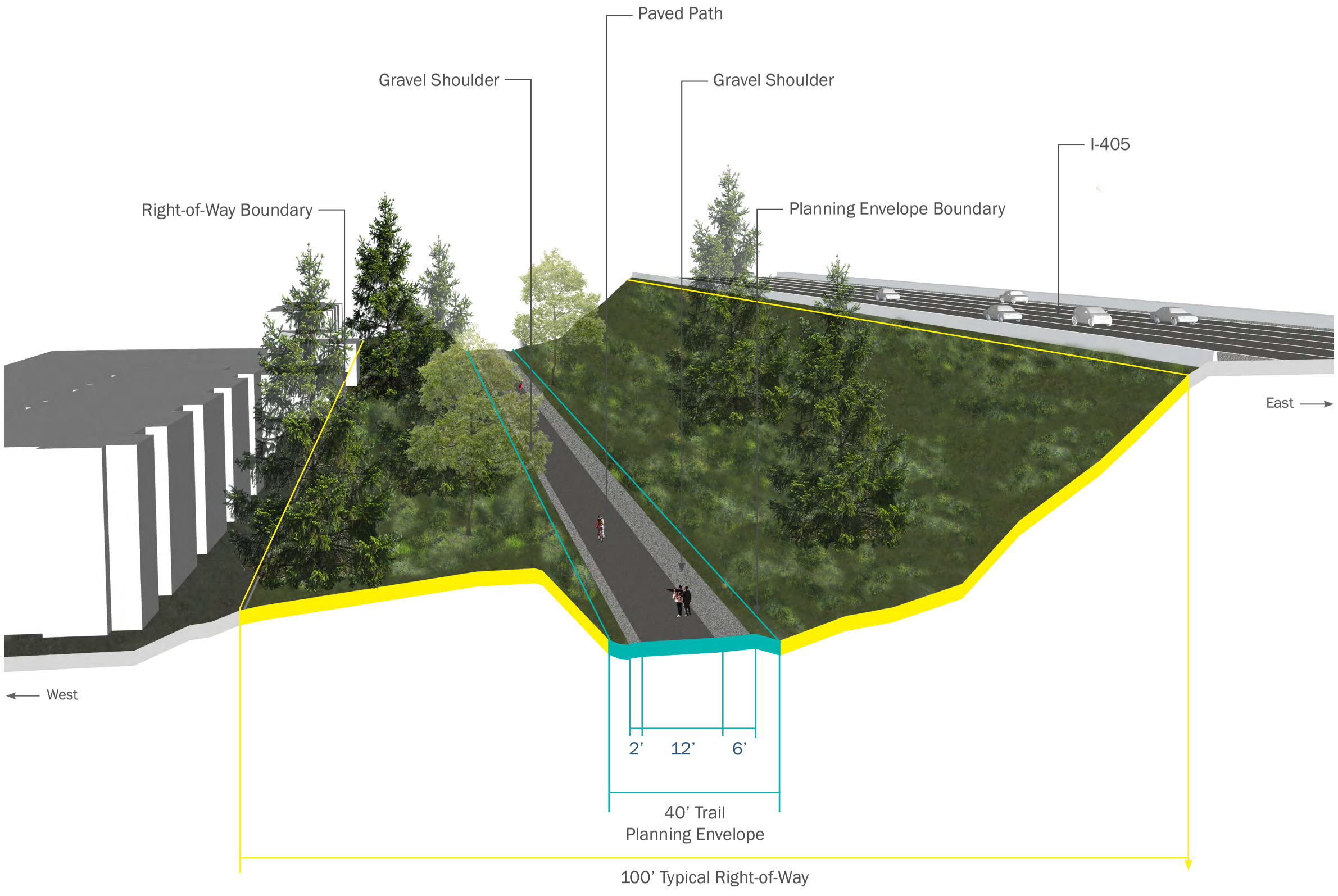


FIGURE 4-11.
WILBURTON SEGMENT SECTION 1

WILBURTON SEGMENT

CROSSING I-405—THE WILBURTON GAP

The “Wilburton Gap” is a section of the corridor where a railroad bridge over I-405’s southbound lanes was removed during the most recent highway widening project. As a condition for removal of the old railroad bridge, the Washington State Department of Transportation (WSDOT) agreed to provide a replacement bridge for the trail. The final location and character of the bridge will be negotiated by King County, WSDOT, and the City of Bellevue. Options for a new bridge range from a simple trail bridge to a wider structure that would include a trail with a landscaped buffer to separate trail users from traffic noise, provide views, and function as a wildlife corridor over the highway.

After crossing over the southbound lanes of I-405, the corridor passes under the highway’s elevated northbound lanes. Less than one-quarter mile after the undercrossing, the corridor arrives at the Wilburton Trestle.



Closing the “Wilburton Gap” over the southbound lanes of I-405 will require a new bridge in this general location.

WILBURTON SEGMENT

WILBURTON TRESTLE

The Wilburton Trestle is an iconic part of the ERC and will be renovated as a trail bridge. The trestle would likely be one of the most popular destinations along the trail; it would be a place that draws visitors as a destination itself, where trail users would want to linger to enjoy the views and excitement of the elevated structure.

Built in 1904, the trestle is almost 1,000 feet long and over 100 feet high at its highest point. As the largest trestle in the Pacific Northwest, construction of this trestle was a major achievement at the turn of the 20th century. The trestle has been recommended as eligible for listing on the National Register of Historic Places.

Surfacing for the trestle will be smooth and wider than the typical trail paving. Extra space will be added toward the edges of the structure so that users can continue on their way over the bridge in the center, while others wishing to stop and enjoy the views can stand at the edges of the trestle without impeding trail traffic. The paving design will likely include detailing, possibly including changes in material, surfacing, or color, to show a difference between the center travel area and the slow areas at the edges. A wider trail design for the trestle will also benefit trail users who may be worried about the height of the structure and feel safer at the center. Railings will complement the trestle structure and support comfortable viewing at the edge.

Special design features or artistic elements are likely to be included in the final trestle design. Opportunities include special viewing decks that might extend out from the edges of the trestle, railing, or signage design inspired by the trestle’s unique structure; design elements inspired by the Kelsey Creek Corridor; or other special design features to reinforce the significance of the structure as part of the trail.





WILBURTON SEGMENT

WILBURTON NEIGHBORHOOD—LAKE HILLS CONNECTOR TO NE 8TH STREET

The Wilburton neighborhood is one of the most dynamic urban locations along the trail. In the next 20 years the car sales lots and small retail stores that have surrounded the ERC for decades are likely to redevelop into mid-rise mixed-use buildings and larger destination retail outlets. In part, this change is expected to be driven by evolving office, residential, and retail markets in Bellevue. The change will also be supported by significant investments in infrastructure and complementary changes in planning designations for the area. Beginning in the vicinity of NE 6th Street, this is also where the corridor will be developed to accommodate both trail and high-capacity transit.

The City of Bellevue is making substantial capital investments to improve connections between downtown and the Wilburton neighborhood across I-405. The City has recently completed an extension to NE 4th Street that crosses the ERC, connecting across I-405 and extending directly into the Wilburton neighborhood. This extension is expected to reduce traffic on SE 1st Street and provides a new connection up the hill between 116th Avenue NE and the ERC. Additionally, the City plans to connect NE 6th Street to the ERC. This street corridor will include a shared use path between the ERC and downtown Bellevue. A final possible link to the ERC is a project concept called the "Grand Connection," which would be a dedicated nonmotorized route connecting the ERC, Downtown Park, and Meydenbauer Bay.



The location and character of the trail within the planning envelope, and the treatment for crossing major roads (NE 4th Street, NE 6th Street, and NE 8th Street) will likely remain uncertain until the City of Bellevue's land use planning process for Wilburton is completed, and the long-term vision for Sound Transit is set with the selection of projects for ST3. For preliminary planning purposes, the discussions below focus on having the trail cross over NE 4th Street, at-grade across NE 6th Street, and over NE 8th Street.

Although this is a complex section of the trail corridor and there is some uncertainty regarding the final design, it is also a section of the trail that will become a signature urban element for this neighborhood.

On-Railbed and Off-Railbed Alternatives from the Lake Hills Connector to NE 8th Street

This Master Plan includes both on-railbed and off-railbed alignments between the Lake Hills Connector and NE 6th Street. The off-railbed alignment is located to the west of the railbed to accommodate possible future extension of the Sound Transit light rail line southward. Both alignments include a challenging at-grade crossing at SE 1st Street, which would require reconstruction of a section of the roadway to provide a refuge median for trail users and other traffic-calming elements.

Between SE 1st Street and the NE 6th Street extension, the ERC slopes steeply downhill west of the railbed. In this situation, the Off-Railbed Alternative could be developed at a lower elevation to follow the underlying grade, or built up to more closely match the existing railbed elevation. Several considerations will influence the final design of the Off-Railbed Alternative within the planning envelope:

- If the trail is developed at a lower elevation than the railbed it will extend the length of ramps necessary to cross over NE 4th and 8th Streets.
- If the trail is developed at an elevation nearer the existing railbed, construction will require costly retaining walls on the west side, which will also affect aesthetics.
- Either selection, at higher or lower elevation, will have implications for the urban design connections with adjacent land uses and Bellevue's proposed Grand Connection route to downtown and Meydenbauer Bay.

For the Master Plan, the Off-Railbed Alternative assumes that the trail elevation will be high, either at or near the current elevation of the railbed.

Crossing NE 4th, NE 6th, and NE 8th Streets

The major streets in the Wilburton neighborhood are the highest volume road crossings in the ERC. The ERC does not cross these roads at existing intersections where there are already crossing signals and markings; therefore, at-grade crossings would require new dedicated pedestrian signals, markings, and signage for safety. In early planning for the ERC trail, King County and the City of Bellevue anticipated new trail bridges would be built over NE 4th and NE 8th Streets, with an at-grade crossing for NE 6th Street. The grade connection at NE 6th Street would allow an important connection between the ERC and the planned shared use path connecting to downtown Bellevue along the NE 6th Street corridor. These crossing configurations are carried through this Master Plan in considering costs and potential impacts. However, there are potential options for crossing NE 4th and 6th Streets that may be explored in the design process. The NE 8th Street crossing is more complex, where the trail needs to be developed in coordination with Sound Transit's East Link bridge to the Wilburton Station, and the high traffic volumes on the street make an at-grade trail crossing challenging or even infeasible.

NE 4th and NE 6th Streets

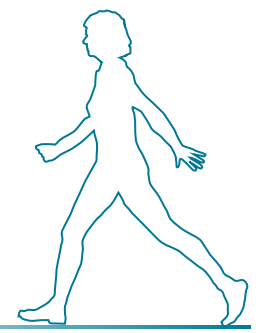
In considering these crossings, cost is an important factor, with grade-separated crossings likely to be more expensive than at-grade crossings, There are also considerations for trail performance and urban design that would likely be more important than cost in the long term. Because of the long approach ramps necessary for a grade-separated crossing over NE 4th Street, the trail would be separated from future neighboring developments for much of its run through the neighborhood. The trail experience would also include a series of uphill and downhill grade transitions. If a grade-separated crossing is developed, it seems likely that complementary at-grade routes would also need to be developed parallel to the main trail to allow local circulation and graceful connections to adjacent businesses. It is conceivable that, as future design advances, crossing options for NE 4th and NE 6th Streets will be revisited with potential outcomes, such as an at-grade crossing of NE 4th Street or a grade-separated crossing of NE 6th Street.



FIGURE 4-12. STREET CROSSINGS AND CONNECTIONS BETWEEN SE 1ST STREET AND NE 8TH STREET

PERFORMANCE REQUIREMENTS FOR THE NE 4TH, NE 6TH, AND NE 8TH STREETS SECTION OF THE CORRIDOR ARE TO:

- *Provide safe and convenient crossings for trail users*
- *Maintain functioning traffic flow on major arterials*
- *Develop strong multimodal connections among the ERC trail, Wilburton light rail station, and nearby RapidRide bus stop*
- *Provide access between the trail corridor and sidewalks for each of the streets*
- *Develop an at-grade trail intersection between the ERC trail and the planned NE 6th Street trail*
- *Create a strong location for connecting with the "Grand Connection" nonmotorized route to downtown Bellevue and Meydenbauer Bay*
- *Provide trail facilities to minimize conflicts between longer-distance through users and local pedestrians*
- *Create a vibrant, attractive corridor that emphasizes connection to existing and future retail, services, and workplaces along the corridor*
- *Support an exceptional trail experience for users*



NE 8th Street

Through the master planning process, treatment of the ERC crossing at NE 8th Street has been the subject of additional analysis. This crossing is one of the most complex locations for planning the trail. When it was still active, the railroad relied on a dedicated traffic signal to cross NE 8th Street. At that time trains were infrequent and there was significantly less car and truck traffic on the roadway. Today, NE 8th Street is the busiest road in central Bellevue, carrying over 40,000 vehicles per day, and is anticipated to grow to over 50,000 vehicles per day by 2024. Because of the traffic volumes on the road, an at-grade trail crossing at the location of the ERC corridor was not considered because of anticipated traffic impacts.

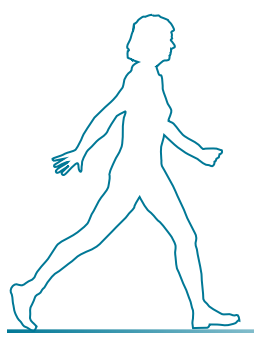
The NE 8th Street crossing is also complex because Sound Transit's East Link light rail line and Wilburton Station are located in the ERC corridor at the crossing location, and the trail is expected to support very high use through the crossing due in part to the strong transit connection. The light rail line will cross the road on an elevated guideway and the Wilburton Station will be accessed via an elevated platform on the north side of the road. Based on Sound Transit's current designs, the ERC trail would be located on the west side of the ERC. Given the space constraints and planned Sound Transit structures, the master planning process considered but rejected several options for the crossing, including an undercrossing (tunnel) and a crossing using the existing crosswalk at 116th Avenue NE:

- An undercrossing was rejected due to the impracticality of relocating utilities currently located in the road right-of-way. Various utilities are buried under the road, including some very large water and sewer facilities. It is not feasible to construct a tunnel underneath the utilities; instead, the utilities would need to be relocated underneath the trail tunnel. In addition, the Eastside Interceptor sewer line crosses NE 8th Street running north-south, complicating the options for relocating utilities under the road. The City of Bellevue has determined that relocation is not feasible. Even if it were technically feasible, the cost would be very high, and the construction process would disrupt traffic on NE 8th Street.
- An at-grade crossing alternative that would route trail users to the existing signal at NE 8th Street and 116th Avenue NE was rejected due to lack of directness, potential parking and circulation impacts, and potential impacts on traffic operations at the intersection. From a trail user's perspective, crossing at the intersection would add approximately 1,000 feet to the distance required to cross the road, or approximately 4 extra minutes of travel time for a typical walker. To get trail users to the intersection, the additional right-of-way needed along NE 8th Street would likely affect parking and circulation at adjacent businesses. Given the volumes of trail users that could be crossing at the intersection, traffic operations at the signal could worsen.

Consistent with the early planning vision, this Master Plan proposes a dedicated trail bridge that would provide a direct connection across NE 8th Street for trail users and Sound Transit commuters. The bridge would connect to a new proposed pedestrian corridor between the Wilburton Station and Bellevue's emerging hospital district on the north side of NE 8th Street, and include a ramp system on the south side of NE 8th Street to allow access to the sidewalk. The bridge could also include elevators and stairs to provide a direct connection between the elevated bridge, the Wilburton Station pedestrian plaza, and sidewalks along NE 8th Street.

The crossing is complex, requiring a "weave" where the ERC trail would need to cross under the elevated Sound Transit line as it enters the ERC corridor from the west (Figure 4-13). The ERC right-of-way varies near the NE 8th Street crossing, reducing to 25 feet at the narrowest. On the south side of NE 8th Street, the Sound Transit structure and trail bridge would not fit inside the existing ERC right-of-way. Based on planning-level analysis, construction of the bridge would require purchase of additional right-of-way in both the southwest and northwest quadrants of the crossing.

To make the street connection, if stairs and elevators are included in addition to complementary at-grade routes developed parallel to the main trail, the project could require acquisition of part or all of an existing building on the south side of the crossing.



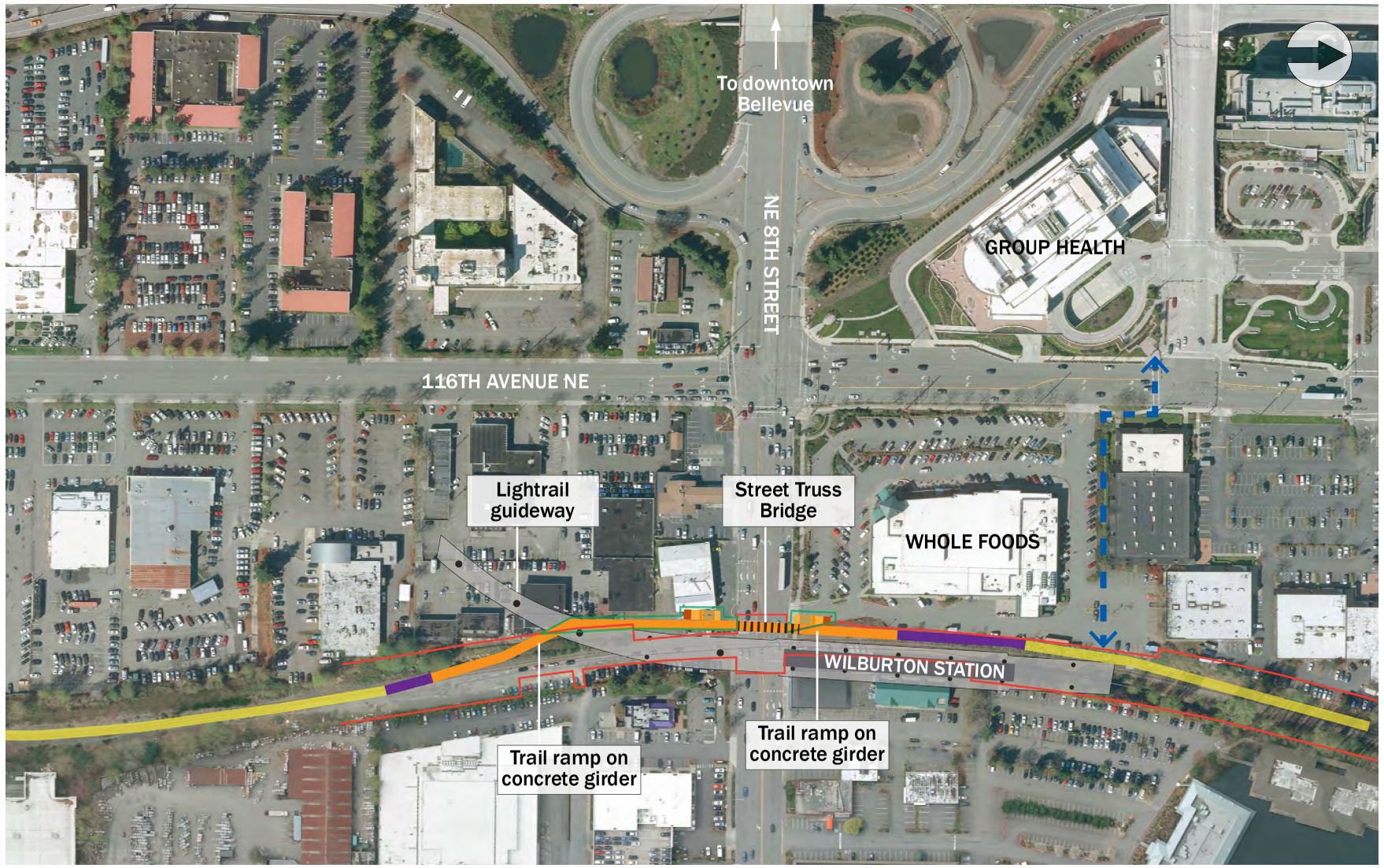


FIGURE 4-13. EASTSIDE RAIL CORRIDOR TRAIL MASTER PLAN - CONCEPTUAL NE 8TH STREET CROSSING STUDY

WILBURTON SEGMENT

NE 8TH STREET TO SR 520—BEL-RED AND THE SPRING DISTRICT

The section of the ERC between NE 8th Street and SR 520 is relatively flat and generally 100 feet wide. Unlike the majority of the corridor considered in this Master Plan, 1.1 miles of the ERC is owned by Sound Transit through the most complex part of the neighborhood. Sound Transit's East Link and OMSF projects include tracks, a station, and a maintenance facility that will use parts of the ERC and the adjacent properties.

Sound Transit's East Link project will begin construction in 2016, including the new Wilburton Station, which will be located just north of NE 8th Street. The tracks to serve the station will connect over I-405 and enter the ERC south of NE 8th Street, then continue north past NE 12th Street where the route will curve to the east through the Spring District and eventually to Redmond.

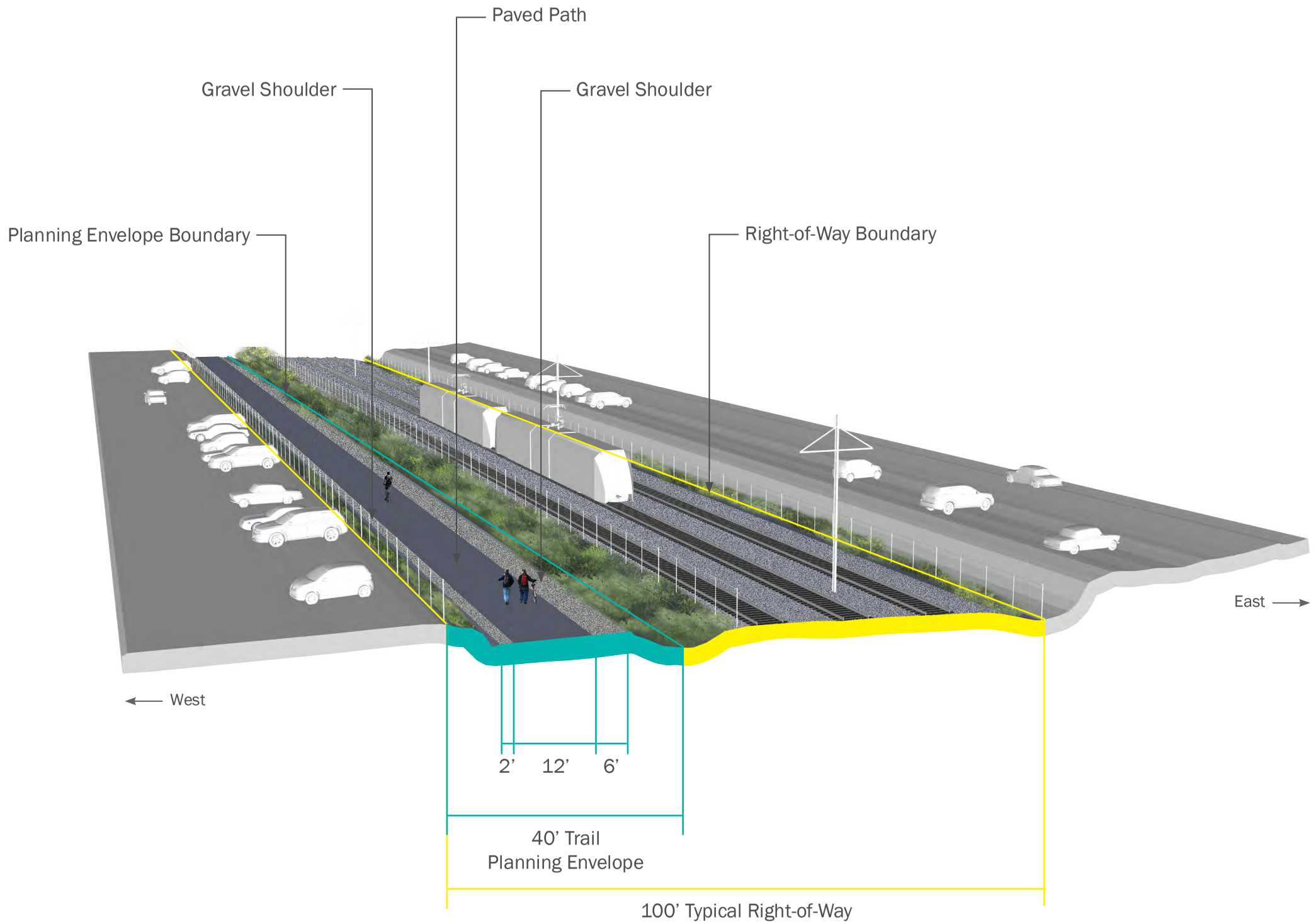


FIGURE 4-14.

WILBURTON SEGMENT SECTION 2

Sound Transit's Operations and Maintenance Satellite Facility (OMSF) is located on the east side of the corridor north of NE 12th Street. Several storage tracks for light rail vehicles may be located on the east side of the corridor in this area, with the ERC trail on the west edge.

ULI National Advisory Panel Report

A ULI Advisory Services Panel Report

Wilburton Commercial Area
Bellevue, Washington

May 15–20, 2016



A ULI Advisory Services Panel Report

Wilburton Commercial Area
Bellevue, Washington

Envisioning a Vibrant Future for Bellevue

May 15–20, 2016

Urban Land Institute

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THE MISSION OF THE URBAN LAND INSTITUTE is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI is committed to

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both the built and natural environments;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Established in 1936, the Institute today has more than 39,000 members worldwide, representing the entire spectrum of the land use and development disciplines. Professionals represented include developers, builders, property owners, investors, architects, public officials, planners, real estate brokers, appraisers, attorneys, engineers, financiers, academics, students, and librarians.

ULI relies heavily on the experience of its members. It is through member involvement and information resources that ULI has been able to set standards of excellence in development practice. The Institute has long been recognized as one of the world's most respected and widely quoted sources of objective information on urban planning, growth, and development.

Cover photos: Steven Gu, ULI.

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About ULI Advisory Services

THE GOAL OF THE ULI ADVISORY SERVICES program is to bring the finest expertise in the real estate field to bear on complex land use planning and development projects, programs, and policies. Since 1947, this program has assembled well over 600 ULI-member teams to help sponsors find creative, practical solutions for issues such as downtown redevelopment, land management strategies, evaluation of development potential, growth management, community revitalization, brownfield redevelopment, military base reuse, provision of low-cost and affordable housing, and asset management strategies, among other matters. A wide variety of public, private, and nonprofit organizations have contracted for ULI's advisory services.

Each panel team is composed of highly qualified professionals who volunteer their time to ULI. They are chosen for their knowledge of the panel topic and screened to ensure their objectivity. ULI's interdisciplinary panel teams provide a holistic look at development problems. A respected ULI member who has previous panel experience chairs each panel.

The agenda for a five-day panel assignment is intensive. It includes an in-depth briefing day composed of a tour of the site and meetings with sponsor representatives; a day of hour-long interviews of typically 50 to 75 key community representatives; and two days of formulating recommendations. Long nights of discussion precede the panel's conclusions. On the final day on site, the panel makes an oral presentation of its findings and conclusions to the sponsor. A written report is prepared and published.

Because the sponsoring entities are responsible for significant preparation before the panel's visit, including sending extensive briefing materials to each member and arranging for the panel to meet with key local community members and stakeholders in the project under consideration, participants in ULI's five-day panel assignments are able to make accurate assessments of a sponsor's issues and to provide recommendations in a compressed amount of time.

A major strength of the program is ULI's unique ability to draw on the knowledge and expertise of its members, including land developers and owners, public officials, academics, representatives of financial institutions, and others. In fulfillment of the mission of the Urban Land Institute, this Advisory Services panel report is intended to provide objective advice that will promote the responsible use of land to enhance the environment.

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ULI WOULD LIKE TO THANK the city of Bellevue for allowing the panel to assist in the future vision of the Wilburton Area. In particular, the panel would like to thank Community Development Program Manager Bradley Calvert, Planning Director Dan Stroh, and Director Chris Salomone from the city of Bellevue's Planning and Community Development Department, who aided the panelists' understanding of the challenges and opportunities surrounding the Wilburton study area, as well as providing necessary data and information to help the panel make these recommendations.

The panel would also like to thank all the approximately 60 stakeholders who participated throughout the panel process and gave their enthusiasm, thoughts, and insights for the study area.

Contents

ULI Panel and Project Staff 6

Background and the Panel's Assignment 7

Market Potential 11

Opportunities and Vision 15

Design Opportunities and Strategy 20

Implementation 27

Conclusion 35

About the Panel 36

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Background and the Panel's Assignment

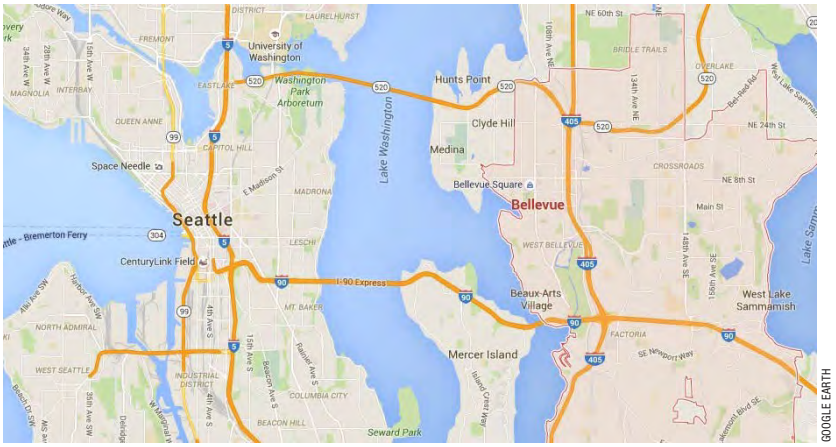
LOCATED ON THE EAST SIDE of Lake Washington, Bellevue is a thriving city that has long been regarded as a great place to live and work. Bellevue enjoys the nearby natural amenities of the Cascade Mountains, a high-performing public school district, and a vibrant and growing technology employment sector. Home to approximately 12,000 residents and 50,000 jobs, the Bellevue downtown has enjoyed strong growth in recent years, with a large concentration of high-quality retail and Class A office space, complemented with a more recent influx of residential apartments and condominiums.

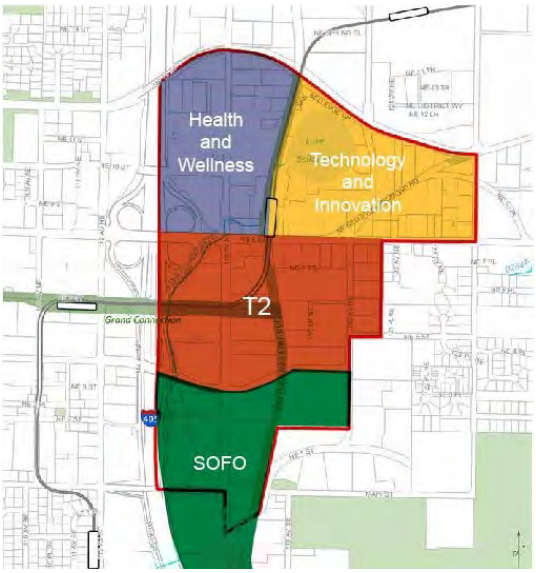
Bellevue is often described as a "City in a Park." The powerful descriptor reflects the importance of community places in parks and open space, enhanced by the creation of a new waterfront park, completion of Downtown Park, and new placemaking and mobility opportunities such as the Grand Connection, which is planned to tie the existing city amenities into the Eastside Rail Corridor (ERC) and further enhance the connectivity of Bellevue's natural and green assets.

> *"Bellevue is a prosperous and vibrant international city with innovative and entrepreneurial businesses and a high quality of life for its residents."*
>
> —City of Bellevue Economic Development Plan, July 2014
>
> *"Bellevue welcomes the world. Our diversity is our strength. We respect our past while looking to the future."*
>
> —City of Bellevue Vision Statement

Referred to throughout this report as the study area, the extended Wilburton commercial area presents a unique opportunity to refine the role and function of parks within the urban setting. Envisioning streets as linear parks with expanded opportunities for integrated water quality management, increasing the city's tree canopy, and integrating active uses will expand the value of parks within the overall community. The Wilburton study area offers the potential

The Central Puget Sound region, including both Seattle and Bellevue.





THE CITY OF BELLEVUE

Outlined in red is the panel's initial study area as proposed by the city of Bellevue. After further evaluation, the study area was expanded farther south to include other properties such as the Bellevue Lexus dealer. One key panel recommendation is creating four districts in the Wilburton commercial area that highlight different functions.

to change the paradigm in offering meaningful and engaging public open space to better serve the area's growing and culturally diverse population.

Recent years have seen a significant shift in the cultural makeup of the community, and diversity is now a leading platform of the city's economic development that is largely centered on demographic shifts created by a large influx of international professionals to support the technology sector. These demographic shifts require the city to address not only cultural diversity but also economic diversity and affordability for all of these communities.

Study Area and Surrounding Context

The Wilburton study area is located east of downtown and presents a significant development opportunity for the greater Bellevue community. The area has long served the role as a service sector—with its "Auto Row," large-format retail and commercial uses, hotels, health, and services. Although the study area lies just on the other side of Interstate 405, the freeway creates a physical barrier, impeding a physical connection between the study area and the rest of the city.

To help overcome this impediment, the city has in recent years upgraded NE Eighth Street and extended NE Fourth Street east to 120th Avenue NE. Although these projects enhance connectivity and will aid in automobile traffic issues, the roads will create additional challenges at the pedestrian scale. In addition, plans exist to extend NE Sixth Street into the study area and aid the dispersion of traffic.

Other emerging districts surrounding the study area are also moving toward dense urbanization. North of the study area, BelRed aims to accommodate future city growth, capitalizing on light rail and its proximity to the ERC. Directly east of the study area is the Wilburton Hill community, a largely single-family residential neighborhood. Because of its particular location, the Wilburton study area has the opportunity to integrate with these different districts as well as develop its own distinct set of characteristics and role within the broader regional setting.

The Panel's Assignment

Starting to explore the potential of the area, the city of Bellevue has asked ULI to answer the following questions and determine recommendations for the future vision of the Wilburton commercial area:

- The study area is uniquely positioned to create new growth and innovation for Bellevue and the surrounding region. What goals and guiding principles should be included in the visioning for the study area?
- How can the study area complement, rather than directly compete with, downtown Bellevue and BelRed?
- How can the study area embrace and interface with the Grand Connection, light rail, and the Eastside Rail Corridor?
- As an emerging international gateway, how can the study area capitalize on international investment as well as establish greater international prominence?
- How can the study area capitalize on the existing suite of assets, including the Medical District, the downtown business core, and forthcoming changes in the BelRed

district that include the Global Innovation Exchange (GIX) partnership with the University of Washington and Tsinghua University?

- What leading edge solutions can the study area provide to local and regional challenges such as affordable housing, sustainability, and innovative workspaces and developments?

Opportunities for Wilburton

Based on the stakeholder interviews, briefing material, and on-site research, the panel found the structural framework of the city and outlying residential community very strong. The community values and economic circumstances have enabled a prosperous and high-quality urban environment. However, several areas for improvement observed in Wilburton are addressed in the following sections.

Affordability

One of the challenges resulting from the success and prosperity the city has enjoyed is lack of affordability of both residential housing and commercial space. The high costs of land in the area limit the availability of workforce housing opportunities or many commercial opportunities for smaller innovation or service space within the area. Although the concentration of higher-value corporate commercial office space and residential choices should proceed at market rate within the downtown and adjacent areas, Bellevue's lack of affordable housing can stunt future growth. Wilburton offers an opportunity to provide more diversity of choice, which should be one of the objectives within the district.

Diversity and Culture

Although demographics indicate that cultural diversity has increased within Bellevue, little evidence of this diversity is reflected in the built environment, which has been described as culturally homogeneous. Promoting additional cultural and recreational facilities, integrating culturally diverse public art, hosting cultural events and activities within parks, open space, facilities, and the public realm would help showcase the cultural richness of this diverse community.

Complete Community

The Wilburton study area has the opportunity of creating a self-sustaining complete community with a full range of uses. The city and stakeholders have suggested that ample capacity for growth exists within the downtown area and simply expanding downtown functions to the east side of Interstate 405 would be remiss. The panel recommends adopting smart zoning controls and incentives to promote a sustainable economic center and support future development in the district. Moreover, integrating community and recreation facilities and smaller-scaled "main street" retail and active streets by following a "complete streets" code would help sustain and cater to the lifestyle-oriented needs of the medical and technology employment base.

Complementing Existing Catalytic Growth Drivers

With its existing medical cluster and potential technology cluster, the Wilburton study area can provide strong employment drivers complementing those existing in downtown. This development vision encourages the greatest opportunity to provide resilience and long-term sustainability. These sectors show significant strength, and the panel strongly recommends against an additional "silver bullet" such as a stadium or other catalytic development, which would only detract from the need and opportunity that currently exist.

Infrastructure

From what the panel learned and observed, multimodal infrastructure bridging downtown and the study area is lacking. The city needs to address this gap to foster the necessary market for growth in the study area. The enhancement of key road and pedestrian connections as well as other public realm improvements will entice private sector investors and developers to follow the public lead.

Summary of the Panel's Recommendations

On the basis of these observations and initial thoughts for the Wilburton study area, the panel streamlined several key recommendations to focus on for the planning process. With its goals of attracting a vibrant workforce, the city now needs to expand its appeal and urban offerings to a young, tech-savvy cohort, as well as to address the real need of affordability for the large service sector that is currently not being met.

Within this setting, the following summarizes the key recommendations that are described throughout this report:

- *Build off existing strength.* No silver bullet exists for success in the Wilburton study area. However, building on the strong foundation and new transportation options in the area, the city of Bellevue can create a strong economic engine in Wilburton.
- *Develop the Wilburton study area as a complete center that can serve the existing catalytic drivers in the area.* The panel recognizes the great anchor institutions and changes coming to the area and urges the city to capitalize them. With these different industries—medical, technology innovation, and downtown commercial—the Wilburton area can foster and promote a diverse economy.
- *Enhance the city's role as entrepreneur.* To foster the innovative and entrepreneurial spirit the city is seeking, the panel recommends making business opportunities in Bellevue, starting with the Wilburton study area, easier through clarity of leadership, collaboration, transparency, and accountability.
- *Manage the area through the establishment of a four-district framework with supporting operating structure and guidelines.* As mentioned previously, with the Wilburton area supporting different industries and anchor institutions, the panel recommends subdivision of the Wilburton study area to focus on different concentrations of land use priorities, scale, and opportunities, including the following:
  - *The Health and Wellness Cluster:* This district is anchored on the two hospitals located in the study area. With a new light-rail station located in the area, this district will continue to serve and expand as a medical hub for the region.
  - *The Technology Incubator District (TID):* With the upcoming GIX campus nearby, this district fosters the innovative spirit sought out by the city. In addition, GIX housing for students and for the startup work force can be developed here.
  - *Transit- and Trail-Oriented Development (T2) District:* This district is the mixed-use heart of Wilburton, taking advantage of trail-oriented development of the ERC and its junction with the Grand Connection. The potential for transit-oriented development opportunities as well as light-rail development makes this area extremely desirable.
  - *The South of Fourth Street (SoFo) District:* Currently where a portion of Auto Row is located, this district has the potential for more compact development. A consolidation of Auto Row into a modern, vertical automotive sales facility with a shared parking garage for inventory is encouraged to better incorporate this district with the rest of the area.

Market Potential

AN EXAMINATION OF THE surrounding region indicates that the socioeconomic forces and demographic changes affecting the greater Seattle/Bellevue market will shape the development opportunities in the Wilburton study area. Since 1980, the three-county Central Puget Sound area (King, Pierce, and Snohomish counties) has been growing by 36,000 jobs per year, resulting in annual population growth of 45,000 people living in about 18,000 households. Today, this region has 3.7 million people living in 1.4 million households, and 2.5 million are employed in the region. The estimate is based on the U.S. Bureau of Economic Analysis and Bureau of Labor Statistics job reports.

The city of Bellevue currently has 136,000 people living in 57,000 households. Since 1980, Bellevue's population has increased annually by 1,200 people in 530 households, both through new development and annexation. Since 2010, this annual increase has more than doubled

Socioeconomic Characteristics

Central Puget Sound Market	Historical growth (since 1980)	Historical growth (since 2010)	Current	Projected annual growth
Employment		36,000	2.5 million	53,000
Population		45,000	3.7 million	75,000
Households		18,000	1.4 million	23,000
Bellevue Market				
Population	1,200	2,600	136,000	2,650
Households	530	1,060	57,000	1,050

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Housing Starts

Central Puget Sound Market	Historical annual average	Projected annual average	
Single family	12,000 units	12,600 units	
Multifamily	9,000 units	11,600 units	
Bellevue Market			
Single family	200 units	350 units	
Multifamily	560 units	850 units	
		Downtown Bellevue	**East of I-405**
Townhouses and condominiums	—	70 units	50 units
Rental apartments	—	330 units	130 units

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to 2,600 people in 1,060 households. Of significance today, 12,000 people live in downtown Bellevue, but more important, over 50,000 people are employed in downtown Bellevue, demonstrating the tremendous number of people who are commuting daily into Bellevue to take advantage of job opportunities.

Regional Job Growth Projections

During the next decade, the greater Central Puget Sound region is projected to grow by 53,000 jobs per year, fueling annual population increases of more than 75,000 people in 23,000 households. Historically since 1980, the Central Puget Sound region has averaged annually the construction of almost 12,000 single-family units and 9,000 multifamily units, while Bellevue has averaged annually the construction of 200 single-family units and 560 multifamily units. In the last three years, Bellevue has averaged annually the construction of almost 800 multifamily units. During the next decade, the Central Puget Sound region is estimated to average annual demand for 12,600 single-family units, 3,000 townhouses and condominiums, and 8,600 rental units. The ULI panel estimates that the city of Bellevue will average annual demand for 1,200 residential units, including 150 townhouses and condominiums and 700 rental apartments. Of the total multifamily demand, approximately 45 percent, or 70 townhouses and condominiums and 330 rental apartments, is projected to be in the Bellevue downtown environs, with 50 townhouses and condominiums and 130 rental apartments east of I-405. With the introduction of light rail in 2023, the annual residential demand could increase to 275 units.

The balance will be single-family attached units. The demand distribution is based on historical trends of the U.S. Census Bureau survey of total housing units and building permit activity. Projected out ten years, total future demand is based on historical building permit activity and employment estimates.

Potential Office and Commercial Market

As of 2016, the Central Puget Sound office market includes 190.2 million square feet, of which 7.7 million square feet is vacant, as reported by CoStar, and 48.7 million square feet is on the Eastside with 9.7 million square feet in Downtown Bellevue. This space has a vacancy of 9.9 percent. During the last three years, the Central Puget Sound region constructed an average of 4.2 million square feet of office space; in 2016, this market has 7.7 million square feet under construction. During the next decade,

Commercial Construction

Location	Historical inventory (square feet)	Projected annual demand (square feet)
Central Puget Sound		
Office	190.2 million	4.0 million
Retail	91.0 million	1.9 million
Bellevue		
Office	9.7 million	400,000
Retail	2.7 million	63,000
Wilburton		
Office	—	160,000
Retail	—	63,000

ULI/THK Associates Inc.

Commercial Construction—Hotel

Under development	Number of hotels	Number of rooms
Seattle/Bellevue	24	5,393
Downtown Bellevue	3	600
Projected annual demand		
Bellevue	—	260
Wilburton	—	75

ULI/THK Associates Inc.

this market is projected to deliver 4.0 million square feet annually, 1.0 million square feet on the Eastside and 400,000 square feet in Bellevue. The ULI panel estimates that the Wilburton study area will capture 40 percent of this projected office demand in Bellevue, and annually it will enjoy a market for 160,000 square feet. With the introduction of light rail, the demand for office space could grow to 250,000 square feet per year.

Demand for office space is based on the assumption that each new employee occupies 200 square feet. Annual employment growth for office employees is estimated to be 20,936 per year in the three-county area. The Eastside currently captures 25 percent of office space demand. The panel believes that the Wilburton study area will roughly double its historic capture rate within the Eastside market in the future.

As of 2016, the Central Puget Sound region has over 91 million square feet of retail space, or 25 square feet per capita, which is similar to the national average. The current vacancy factor is a very healthy 2.6 percent. Of the total retail square footage, 10.9 million square feet is on the Eastside with a vacancy rate of 2.1 percent, and 2.7 million square feet is in Bellevue with a vacancy factor of 4.2 percent. In the last three years, the Central Puget Sound region has delivered an annual average of 750,000 square feet of retail space and during the next decade is projected to deliver 1.9 million square feet per year with 300,000 square feet on the Eastside. With the demographic shift, this estimate is based on the assumption of 25 square feet of new retail per person.

The Bellevue area has an extremely high median household income of over $94,000, approximately $22,000 of which is available for retail expenditures. Realizing the projected population and household growth, the ULI panel estimates that Bellevue should experience demand for the construction of approximately 63,000 square feet of retail space per year. Within the Wilburton study area, housing could increase by 275 units per year, which suggests demand for 15,500 square feet of retail space per year, or an additional 155,000 square feet of retail space over a decade to service growth in the Wilburton study area. In addition to multifamily residential, office, and retail development, another strong area of potential for the Wilburton study area is hotel development. The Central Puget Sound market area has a very vibrant hotel market, which today is operating at 80 percent occupancy, and this occupancy is up over the 72 percent occupancy realized in 2014 and 2015. Today, 24 hotels are under development in the Central Puget Sound market, and these projects will add almost 5,400 rooms.

Downtown Bellevue today has approximately 2,500 hotel rooms and three hotels and 600 rooms under construction. On the basis of projected hospitality employment in the Bellevue market for the next decade, this area should enjoy a market for 260 new hotel rooms per year; of this total, 75 rooms per year could be added in the Wilburton study area for a total of 750 rooms during a ten-year projected period. Of the four proposed districts, the medical district, the technology incubator district, and the I-405 frontage district would be logical locations for future hotel development in the Wilburton study area.

Recommended Land Use for 20-Year Buildout

Land use	Annual absorption	Acres	Stories	Density	Units or square feet	Residents or employees
Townhouses/condos	75 units	25	6–8	60 units/acre	1,500 units	3,400 residents
Rental apartments	175 units	35	8–10	100 units/acre	3,500 units	6,100 residents
Office	250,000 sq ft	40	6–8	4:1	5,000,000 sq ft	21,800 employees
Retail	15,500 sq ft	10	1		310,000 sq ft	900 employees
Hotel	75 rooms	20	6–8	75 rooms/acre	1,500,000 sq ft	3,000 employees
Total developable acreage		**130**				
Right-of-way, open space, and community space		107				
Total study area		**237**			**5,000 units**	**9,500 residents**
					6.8 million commercial sq ft	**25,700 employees**

ULI/THK Associates Inc.

Wilburton Study Area Market Issues

These market demand estimates suggest a number of issues regarding sustainability, affordability, and the vision that should be put in place for the Wilburton study area. The panel recommends the following for the current and future Wilburton study area market.

Based on interviews conducted and recent land transactions, the panel found that landowners in the study area are anticipating very aggressive land prices, ranging up to $100 to $150 per square foot—and maybe higher. The panel does not find the projected annual absorptions and current rents justify such high land prices in the Wilburton study area. The high land prices will result in slow and scattered development, which in turn will make infrastructure improvements very expensive.

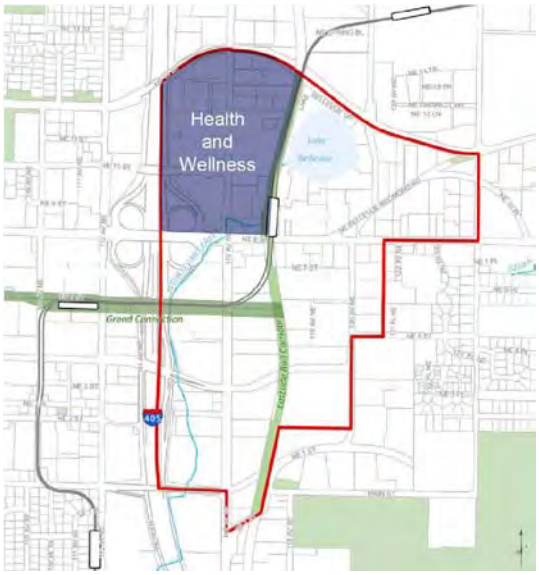
In addition, the land parcels currently in the Wilburton study area are scattered and divided in ownership, not lending themselves to large-scale projects as currently configured. Land assemblage to achieve meaningful parcel sizes will be very difficult; however, it is necessary to ensure sustainable growth in the area. Strategies for this recommendation are discussed later in the report.

Even greater pressure will exist for workforce housing. Bellevue today is unique, with 50,000 employees working downtown and only 12,000 people living downtown. Stakeholder interviews and on-site research indicate major downtown employers are having difficulty recruiting employees because of the shortage of workforce housing. The panel believes this situation will only get worse, and it needs immediate attention by the city of Bellevue.

Opportunities and Vision

THE WILBURTON STUDY AREA presents real, tangible opportunities for the city of Bellevue. It is a release valve for the high price of real estate in downtown, enabling the city to pursue a vision that caters to technology-focused millennials and young families seeking a more affordable, vibrant, active urban lifestyle. As mentioned in the summary of the panel's recommendations, no single "silver bullet," such as a new 18,000-seat arena and entertainment venue or business-as-usual with Auto Row and big-box stores, will result in the immediate transformation of the Wilburton study area. Building upon the strengths of the existing uses and the future improvements planned for the area, however, will allow Wilburton to become a valuable community asset.

The panel recommends four districts to better address Wilburton's development strategy and design opportunities. These districts are based on their proximity to existing or future uses as well as their internal connectivity. The panel sees the following opportunities and suggests the following proposed visions for each district.



ITN

The Health and Wellness District, highlighted in purple, is bounded on the north by NE 12th Street and on the south by NE Eighth Street. This district is strongly identified by the regional medical services that Overlake and Group Health hospitals provide.



ITN

The current facilities in the Health and Wellness District comprise the old Group Health medical center, the designer furniture shopping outlet, and a Whole Foods Market. With the incoming new light-rail station and redevelopment of the medical institutions by Kaiser Permanente, an opportunity exists to link these three areas.

Health and Wellness District

This district is anchored on the two hospitals located in the study area and can expand as a medical hub for the region.

Opportunities

The panel identified the following assets and opportunities for the Health and Wellness District:

- Two established regional medical facilities;
- Nearby Seattle Children's Hospital;
- Many colocated medical service firms in low-rise office buildings;
- Future presence of Kaiser Permanente (acquiring Group Health);
- Growth of Bellevue College (formerly Bellevue Community College) from a two-year to a four-year degree program with increased medical training; and
- Proximity to GIX in the BelRed Spring District.

Vision

The proposed Health and Wellness District vision is centered on leveraging the existing regional medical services cluster and making the principles of healthy living manifest in the built form and the public realm.

This vision can be achieved by focusing on the redevelopment of underused land and structures in the district into modern, flexible medical office facilities to support the growth of existing activities. Similar to what is being achieved in cities such as Memphis, Tennessee, these new facilities will meet the needs of an aging population, serve a more diverse city, and increase the proportion of young families in the neighborhood. This growth will also increase the demand for housing for medical staff, short-term accommodations for patients and their families, and convenience restaurants and retail.

As health and wellness services within the district grow, a steady supply of trained medical workers must be ensured. Fortunately, Bellevue College is currently expanding its medical degree programs and is a potential and valuable partner in solving these future workforce needs. The establishment of a district campus would provide stronger educational and internship or employment opportunities, solidifying this relationship between the college and the district employers. Moreover, this district needs to establish a cutting-edge, cross-district collaboration with the proposed abutting Technology Incubator District and nearby GIX. With the increasing use of robotics in the medical field, possible collaborations between the two institutions are numerous.

To connect all the dots, Bellevue must take advantage of the opportunity to complement what is already happening within the medical facilities and turn them from closed to open medical systems. From complete streets to strong connections with the ERC, the panel encourages the incorporation of safe pedestrian and biking infrastructure to connect the medical facilities.



SKYSCRAPER PAGE

St. Jude Children's Research Hospital in Memphis, Tennessee, and its $1.2 billion medical campus expansion plan highlight the investment in regional medical facilities. The vision of the new Kaiser Permanente medical campus can draw on examples such as Memphis to meet the needs of Bellevue's changing demographics.

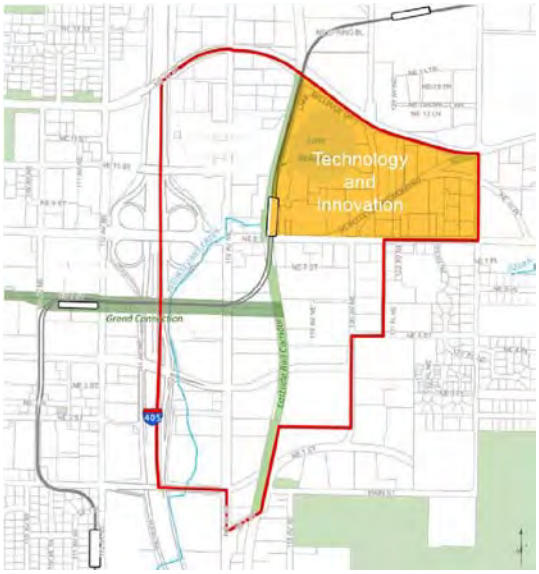
Technology Incubator District (TID)

North of NE Eighth Street and east of the ERC, the TID fosters the spirit of innovation sought by the city.

Opportunities

The panel identified the following opportunities for the TID:

- Future GIX located to the north in Bel-Red;
- Access to older building stock;
- Increasing need for associated housing and office spaces for technology entrepreneurs; and
- Location abutting both the Health and Wellness District and GIX.



ULI

The Technology Incubator District (TID), highlighted in yellow, is bounded on the north by NE 12th Street, on the south by NE Eighth Street, and on the east by the proposed Sound Link light-rail line. This district stands out for its proximity to the Spring District and the development of the GIX campus.



ULI

The construction of the Spring District and GIX facilities will create an opportunity for the TID to come to fruition. Other areas of opportunity include Lake Bellevue and the properties around it.

Vision

The proposed TID vision revolves around its location abutting both the future GIX and the growing regional medical cluster in the Health and Wellness District to service the needs and provide the cross-pollination of ideas for a growing population of technology entrepreneurs.

The Wilburton study area already has plenty of diverse building stock for varied commercial uses. The existing low-cost building stock can be converted to affordable creative, incubator, and maker space. This use will greatly benefit the GIX instructors, graduates, and associated individuals seeking places to cater to the spillover need for innovation space from the Spring District.

This district will also require a mix of housing types and price points as these students grow from struggling entrepreneurs to seasoned professionals. The city will need to encourage the establishment of restaurants and services targeting these technology entrepreneurs.

Moreover, it is imperative to facilitate this link with the Health and Wellness District. Doing so will create a meeting place for the exchange of ideas between Bellevue College and the GIX, which is a partnership between the University of Washington, Microsoft, and Tsinghua University. In particular, the GIX focuses on innovation and entrepreneurship in the fields of science, technology, engineering, and math. This exchange has the potential to create everything from Microsoft's next acquisition to a medical device of the future.

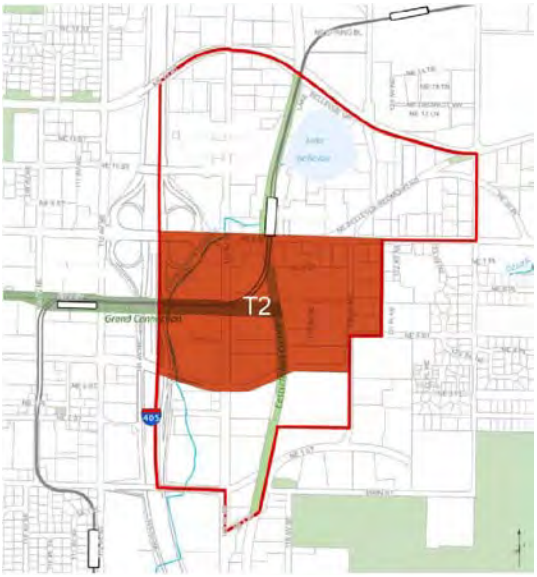
Transit- and Trail-Oriented Development (T2) District

This T2 District takes advantage of trails, transit, and the Grand Connection interface with the ERC.

Opportunities

The panel identified the following opportunities for the T2 District:

- Future Wilburton Light-Rail Station;
- Future active bike/pedestrian recreation on the ERC;
- Future eastern landing area of the Grand Connection;
- Underused land parcels;
- Existing publicly owned land;
- NE Eighth Street and NE Fourth Street connections from downtown and to the east; and
- Proposed NE Sixth Street extension to Wilburton.



ULI

The Transit- and Trail-Oriented (T2) District, highlighted in red, is bounded on the north by NE Eighth Street and on the south by NE Fourth Street. As the endpoint of the Grand Connection and proposed light-rail station, this district provides a meeting point for different transit modes.



ULI

Linking the Grand Connection and the light-rail station, the T2 District is an essential meeting point in Wilburton. The connection to the waterfront (right) will provide a new walkable amenity to the district.

Vision

The proposed T2 vision emanates from the future Wilburton Station and nexus of the Grand Connection and Eastside Rail Corridor that will allow the district to exemplify all aspects of a trail- and transit-oriented development.

Much as is being achieved in Portland, Oregon's Pearl District, creating a strong live/work/play environment reflected in the built form and public realm is important. It not only requires the provision of infrastructure for a smart, connected, and sustainable neighborhood, but it also requires the provision of publicly accessible space for arts and an embrace of the city's growing cultural diversity.

Development in this district should be focused within the quarter- and half-mile radius of the new light-rail station, incentivizing increased densities bridging the high-rise buildings in downtown and the low-rise single-family houses to the east of the study area. Constructing a variety of housing types at different price points is imperative to accommodate the city's diversifying workforce and young families. The establishment of an elementary school, with a potential partnership with the growing international school, will meet the needs of young families expected to move to the area. To attract and retain the creative class in Bellevue, the city needs to create different working environments for all stages of company growth.

The intersection of the Grand Connection and the ERC presents an opportunity to create a keystone feature of this neighborhood. To accommodate the demand that will emerge with the creation of this intersection, Bellevue should locate a food, beverage, and retail destination at the Grand Connection eastern landing area. Whether food trucks or brick-and-mortar locations, this destination will enhance the intersection of the ERC and the Grand Connection, which is a pivotal location along the City in the Park's "green necklace." Furthermore, all abutting developments should have frontage toward the ERC. To fully embrace a healthy, active lifestyle, the city needs to implement a complete streets program on NE Eighth Street and the proposed NE Sixth Street extension. Last, to release the traffic on the NE Eighth Street interchange, the half-intersections at Main Street and NE Tenth Street must be finalized.



WIKI COMMONS

The Pearl District in Portland, Oregon, is an example of creating a strong live/work/play environment.

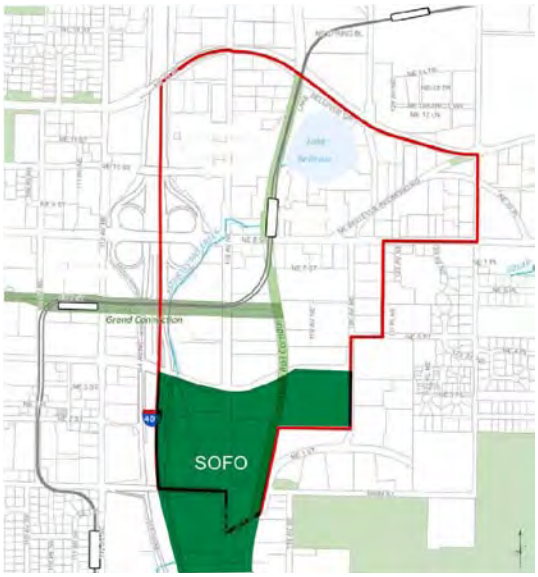
South of Fourth (SoFo) District

Currently the location of a portion of Auto Row, the SoFo District can consolidate more compact vertical development.

Opportunities

The panel identified the following opportunities for SoFo:

- Proximity to the Bellevue Botanical Garden;
- Large land parcels;
- Grade change from the ERC and NE 116th Avenue;
- Desire to increase allowable height and density;
- Established regional automotive sales presence; and
- Permanent wetland easement.



ULI

The South of Fourth (SoFo) District, highlighted in green, is bounded on the north by NE Fourth Street and on the south by the Master Builders Association. The panel highlights the present Auto Row and other parcels such as the school district parking lot as potential areas for denser, mixed-use development.



ULI

The SoFo District expands the study area to include the Lexus car dealership. With Auto Row, an opportunity exists to incorporate mixed-use elements and densification of the automobile dealerships to free land for other uses.

Vision

The proposed SoFo vision grows out of the existing uses for the area but seeks to create a more urban version of Auto Row and the local big-box retail while embracing the existing natural resources of the district.

This area of Wilburton possesses some of the largest parcels in the study area. To create a more walkable urban feel, establishing a finer grain of development will be necessary, similar to what has happened in Vancouver and Washington, D.C. In the North of Massachusetts Avenue (NoMa) neighborhood in Washington, D.C., traditional big-box stores such as Walmart have developed a new, compact version of their stores for the urban environment, encouraging mixed use, such as residential apartments, above.



POPVILLE.COM

Traditionally presented in a large box-store format, the Walmart in NoMa, Washington, D.C., is a compact version housed in a mixed-use building.

As part of this finer-grained development, a concerted effort should be made to consolidate Auto Row. This can be achieved through the construction of a modern, vertical automotive sales facility with a shared parking garage for inventory, which is common across land-constrained areas in parts of Asia. In Chicago, Berman's Infiniti dealership is another example of an urban model for auto dealerships. In addition, to maximize sales, a unified regional branding effort among all automotive dealership owners should be strongly considered.

Even with the predominance of big-box retail and automotive dealerships, SoFo has great environmental amenities that must be embraced. The ERC should be linked to the wetlands in the district and adjacent botanical gardens. The existing grade change from the ERC to NE 116th Avenue provides development opportunities, and the city should mandate frontage on both levels. Moreover, the wetlands could be improved upon and maintained to become a public amenity, as seen in Shanghai.

Design Opportunities and Strategy

OVER THE YEARS, THE WILBURTON neighborhood's identity has focused on its automobile-centric uses with excellent freeway access. With the construction of Interstate 405 as a dividing line between east and west, Wilburton developed away from the high density of downtown, instead building a low- to random-rise mixture of housing, office, retail, medical, and automobile dealership uses. Because of historic growth patterns, Wilburton lacks a sense of place, or as one person indicated, "there is no focus to this neighborhood." To address this, the panel recommends both building upon the strong existing urban patterns and imagining a new future based on forces that are underway from both civic and transportation investments as well as market demand.

The New Districts

Creating districts in the Wilburton study area will increase legibility and showcase the unique qualities found in this neighborhood. The panel expanded the initial study area to incorporate several parcels in the south that had similar uses as other parcels along NE 116th Avenue as the open-space rail corridor and I-405 come closer together. The expanded study area is approximately 237 acres, inclusive of all parcels, open space, and road rights-of-way. Throughout the process, the panel has heard repeated reference to the "wedding cake" form that suggests downtown is the top tier of the cake and that surrounding districts would step down to lower tiers. The panel discourages plans to remake the Wilburton study area as "Downtown East." Although considerable development densities and intensities are yet unrealized in Wilburton, a careful modeling of potential building massing and form should be studied to help guide actual floor/area ratio (FAR) recommendations. Descriptions of the proposed districts follow.

Health and Wellness District

The Group Health and Overlake medical centers plus associated medical office and support services are a strong and desirable community need stretching north of NE Eighth Street. The panel believes redevelopment of parcels in that area to support medical needs is warranted, and greater commercial intensities to allow FARs of 4.0 and greater are justified. The parcels in that area are within a short walking distance of the proposed Wilburton light-rail line station north of Eighth Street and just east of NE 116th Avenue, and within visibility and easy access from Interstate 405. The panel believes that higher densities in the area should be permitted, particularly around the medical centers for supporting office and clinical users. The city should test several parcels to analyze a 4.0 yield and higher to determine what footprints and resulting heights are both possible and marketable for potential developers working within the medical office space.

The parcel to the north of the Whole Foods Market that is currently occupied by low-rise buildings with surface parking lots is a prime location for increased commercial intensity with a wellness focus, particularly given the short walking distance to the future Wilburton light-rail transit (LRT) station. As that parcel is redeveloped, direct and easy access from NE 116th Avenue to the station should be addressed, compared to the current proposed solution adjacent to the Whole Foods parking lot.

Technology Incubator District

This district includes approximately 59 acres of buildings with wide-ranging types of uses and forms in irregular parcel shapes and configurations. Land parcels south of NE 12th Street, north of NE Eighth Street, and east of the ERC are areas that can be repurposed for other uses, such as small incubators for technology and related industries, housing in varying densities, and community-

serving retail facilities. With the development of the Spring District directly north of NE 12th Street, the panel is optimistic that space will be in demand over time for entrepreneurial activity as a result of the GIX mission. The TID has the potential to become the place that nurtures a culture of home-grown, local innovation and where small companies can grow over time. The aged building stock that surrounds Lake Bellevue provides opportunities to be transformed into low-rent startup spaces. The lands just north of the Wilburton LRT station and south of Lake Bellevue are ripe for higher-density development and should be subject to a higher FAR that could be between 4.0 and 6.0. That density could taper downward moving from west to east.

Because of the space's proximity to the light-rail station, the city should be bold in its thinking and allow creative responses to achieve higher yields. The current low-rise automobile land use patterns are outdated, particularly the approach to those fronting Lake Bellevue. Although the development community may not come forward with mid-rise proposals, the city should not have in place restrictive FARs that would discourage active regeneration of a long neglected part of Bellevue that is within walking distance of downtown.

Finally, Lake Bellevue is a missed opportunity on many fronts: it has no public access, has little view access, and exhibits a development pattern that is wasteful considering a large body of water in an urban context. The panel recommends a separate study be undertaken with the property owners to vision its future anew.

Because of the private housing surrounding the water, Lake Bellevue has no public access point. The panel recommends a separate study to examine this missed opportunity.



ULI

T2 District

The greatest opportunity within the study area to effect change is on lands south of NE Eighth Street to NE Fourth Street and includes approximately 69 acres. These lands are in the middle of the Grand Connection's easterly terminus, as well as within easy walking distance of the Wilburton LRT station. In addition, parcel sizes south of NE Eighth Street are larger and more conducive to land assembly and allow more creativity in defining a new character. The city and the public school district own several parcels that provide the catalyst for change, and the private sector will presumably follow the public sector lead with significant reinvestment for parcels on both sides of NE 116th Avenue. The lands subject to change within the T2 District include approximately 33 acres.

The panel recommends FARs in this region be between 4.0 and 6.0, depending on proximity to the LRT station. As noted in the name of the district, the panel also recommends buildings front the ERC trail where feasible, and the city should explore some instances where a smaller access road parallels the ERC to avoid back-on conditions. A more fine-grained road system both east and west of the ERC should be planned and constructed to achieve better vehicular and pedestrian connectivity while alleviating short trips on NE 116th and NE 120th avenues.

SoFo District

SoFo is an opportunity for the city to revisit Wilburton's important contribution to Bellevue, financially supporting the city by providing automobile dealerships and other larger retail establishments such as Home Depot. The SoFo District includes approximately 62 acres and is outside the quarter-mile walking radius of the Wilburton LRT station, though it is within the walking radius of the East Main LRT station that will be located west of the study area across I-405. The area includes a wetland associated with Sturtevant Creek and has excellent freeway visibility.

The panel assumes that approximately 33 acres would be subject to redevelopment with a lower FAR between 0.75 and 2.0. Locating other uses such as hotels, restaurants, and entertainment is important in the SoFo District as well, particularly for the parcels that are east of NE 116th Avenue fronting the ERC. As noted earlier, the panel recommends that SoFo be extended in a southerly direction to include the Lexus dealership and several other parcels. Since the ULI panel met, the city has expanded the study area to include an additional 48 acres south of the original boundary.

Public Realm and Open Space

The Wilburton study area will be defined in the future by its unique linear park and open-space connections to the greater Seattle area. The panel supports the Grand Connection as a bold and visionary idea to bridge the interstate and provide a world-class connective artery. In addition, Wilburton includes the ERC, a proposed regional trail connection that aims to have more than 4,000 nonvehicular trips a day for the Wilburton segment. The intersection of these two key open spaces provides an unparalleled opportunity to create a community gathering space for Wilburton, Bellevue, and visitors as well.

The Grand Connection is planned to span I-405 between NE Fourth Street and NE Sixth Street. The panel understands that the actual horizontal and vertical footprints of the connection have not yet been determined; however, the panel recommends that the connection not be directly attached to the 35-foot-high LRT bridge as a simple appendage and that alignments that bend slightly south of NE Sixth Street, lower in height while avoiding impact to the vertical clearance necessary for high-occupancy-vehicle (HOV) lanes and that provide some decking function of the freeway, be considered. Maximizing the opportunity for the crosswalk and decking can be achieved at a lower elevation while helping mitigate freeway noise. The city-owned Lincoln Center parcel in the T2 District is an ideal place to receive the connection before heading eastward to 116th Avenue. The area below the connection on the Lincoln parcel could be used for a city-owned parking structure that services the Wilburton Center District. As the connection moves eastward of 116th Avenue, the iconic public artery could open onto a grand plaza that intersects with the ERC. Uses surrounding the plaza could include higher-density housing with ground- and second-level supporting retail, restaurants, and civic uses. To the east of the ERC, and also fronting the plaza, could be a magnet school, YMCA, and additional mixed-use buildings. The school site could be located on the School District property that currently houses the bus parking yard. The bus parking could be relocated to another site or combined within a multilevel and multipurpose structure.

The ERC traverses the entire length of the study area with multiple opportunities for trail-oriented development and places to have east–west open-space connections. The panel recommends that connections be made not only at the Grand Connection but also at several locations in SoFo, and several locations within the Health and Wellness and TID Districts. Connections made to the botanical gardens within SoFo are important as a regional destination and only a short bicycle ride from the T2 East Plaza. In general, pedestrians and cyclists should have direct and easy access to move laterally (east and west) within the Wilburton neighborhood. The panel recommends that the ERC should have grade-separated access at NE Fourth and NE Eighth streets, with well-signed and well-lit ways to access the Wilburton LRT station.

Expose the Station Area

The panel is concerned that the proposed station location is placed behind the Whole Foods Market, negatively affecting the station's visibility, connectivity, and transit-oriented opportunities. Although the panel understands the placement of the station in a central location along the straight right-of-way owned by Sound Transit was a critical decision, efforts will need to be made to enhance this location, given its constraints. Redeveloping land parcels east of the station for multimodal access and higher density is critical. Long-term redevelopment of Lake Bellevue and lands north of the Whole Foods Market is needed to allow greater commercial intensities.

Placemaking Opportunity

Effective placemaking will have a huge impact on Wilburton. As the neighborhood is redeveloped, the design of the neighborhood shapes its new character. Instead of large distances between streets, the city should focus on making smaller blocks to encourage walkability. Instead of a neighborhood that lacks open space and a walkable public realm, the potential to create a connected system will provide amenities to residents and a destination for tourists. Instead of a place with no legibility or cohesion, one with defined edges and districts will reinforce the neighborhood's identity. Strong leadership and bold, visionary planning are necessary to spur these placemaking initiatives.

Mobility and Connectivity

As the center of an important regional transportation keystone, Wilburton suffers from traffic congestion and other negative transportation externalities. The panel supports the city's steps toward improving this situation and suggests the following site-specific recommendations.

Existing North–South Road Network

The Wilburton commercial area is bounded by a major north–south corridor, the I-405 freeway, on the west and within the district currently bisected by north–south roads such as major arterials 116th, 120th, and 124th streets. Existing streets within the area are significant arteries carrying relatively high volumes of traffic. Currently, intersections in the study area are operating at level of service B and are projected to reach level of service C in 2021. Each of these corridors presently divides the community rather than unifying it, and many are devoid of significant placemaking or identity characteristics. The panel supports the newer projects proposed by the city, such as the extension of Fourth Street through the district to the east, which will incorporate pedestrian- and multimodal-friendly design features, including comfortable sidewalks, separation from the roadway with landscaped parkways, and bike lanes.

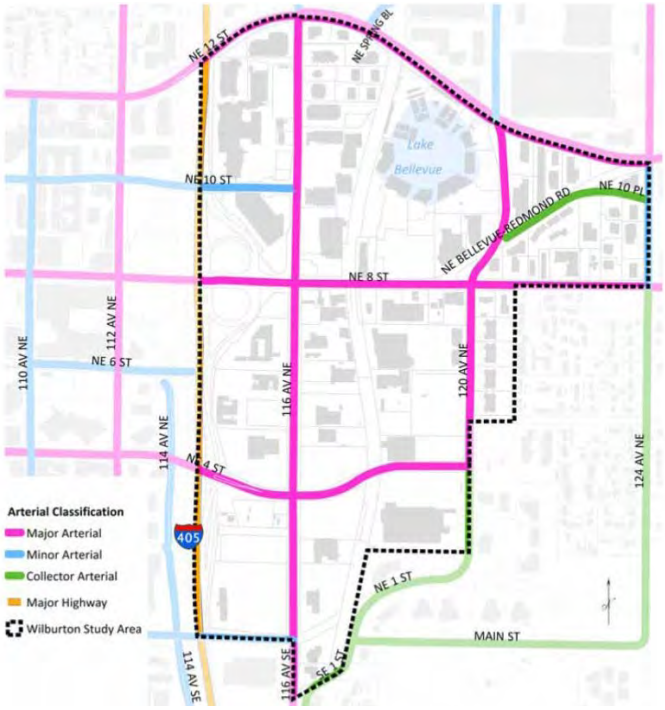


ALAN FOLKS, ULI

The study area includes important mobility and connectivity elements that serve the entire city. The map highlights the panel's vision for future green space and walkways throughout Wilburton.

Existing East–West Road Network

East–west major roadways in Bellevue are 12th Street on the north and Eighth, Sixth, Fourth, and Main streets. Presently, access over I-405 can occur at 12th, Tenth, Eighth, Fourth, and Main streets. None of these connections are pedestrian- or bicycle-friendly, especially the Eighth Street connector, which requires navigating over two cloverleaf freeway ramps on a street that carries more than 45,000 vehicles on an average weekday with no signalized pedestrian crossing, as well as King



ULI

The existing east–west road network highlights the important vehicle arteries throughout the study area.



SOUND TRANSIT

The proposed track and stations for the Sound Transit East Link Light Rail show opportunities to reconnect Wilburton with the rest of Bellevue and Seattle.

County Metro's RapidRide B-Line service with ten-minute headways in the peak hours. A bus stop also is located on Eighth Street immediately east of the future Sound Transit Wilburton station.

The panel recommends replacing the traditional cloverleaf interchange at I-405 and Eighth Street with a single-point urban interchange design. This would reduce the footprint of the interchange and free developable land on both sides of the freeway, as well as improve I-405's interface with both the downtown and Wilburton communities in Bellevue and the pedestrian experience of Eighth Street.

Sixth Street has been identified for potential extension east from its terminus at the HOV lanes located within the I-405 right-of-way. That project is intended to extend Sixth Street east at least to 116th Street. The panel supports extending Sixth Street to the east farther than 116th to the ERC. This would allow it to serve as a central spine of the core Wilburton commercial area, break down the existing large-block structure of the area, and provide another connection from the ERC former BNSF right-of-way into the Wilburton area. Sixth Street is also proposed in future to carry frequent bus service, which will turn north on 120th to Eighth Street and then head east.

Sound Transit's East Link Light Rail

The proposed Sixth Street extension will be flanked by Sound Transit's East Link rail alignment running parallel to it from the downtown Bellevue station east on the north edge of Sixth Street. The light-rail alignment turns toward the north east of 116th Street, still in an elevated condition, and proceeds north to the Wilburton station adjacent to the ERC.

The Wilburton station area is in a constrained location, with the high-volume Eighth Street on its south, the east (back) edge of the Whole Foods Market and its parking lot on the west, and the ERC and low-scale disconnected development to its east. The confluence of the ERC, with its future flow of pedestrians and cyclists, directly adjacent to light rail and bounded by a high-volume vehicular roadway, makes the access issues surrounding this station acute. The Overlake Hospital and Group Health facilities are located in the medical district to the west of the station area, and those facilities' employees and patients are obvious identified users of the light-rail system. At-grade access between the station and the medical facilities is less than desirable. Redevelopment of sites on the east side of 116th Street in the future must facilitate better access for pedestrians to and from the medical facilities.

Pedestrian connectivity through the TID can be facilitated both west to the Wilburton area station and north to the Spring District station, through the Spring District development itself.

Bicycle Facilities

Bicycle facilities in the Wilburton commercial area are virtually nonexistent. A small segment of dedicated lanes is provided on the newly constructed Fourth Street between 116th Street and the ERC. However, during the site visit, the narrow width of the bike lanes as well as the high speed of vehicles made the road an unattractive route for bikers.

The 116th Street Streetscape Plan calls for the redesign of 116th from Main Street to Eighth Street into an "urban boulevard that is the gateway to a compact, pedestrian-oriented district," compared to Mercer Street in the South Lake Union District of Seattle. Redesign of 116th calls for

- A 13-foot sidewalk on each side of the street;
- An eight-foot parking lane in each direction against the curb protected with bulb-outs at intersections;
- A five-foot bike lane in each direction, with two-foot buffers for each bike lane;
- Two travel lanes in each direction; and
- A 12-foot median/center turning lane.



WIKI COMMONS

The bike lanes in Portland, Oregon, have the ideal buffers and width that Bellevue's bike infrastructure plans should adopt.

With this design, the panel recommends switching the location of the buffers from outside the bike lanes to between the bike lanes and the parking, and increasing the width of the bike lanes from two to three feet by reducing the median width to ten feet.

A two-way cycle track has also been considered for 116th Street. Cycle tracks, or protected bike lanes, provide the greatest separation of bicycles from vehicles and therefore increase bicycle rider safety. They have been proven to increase the safety of all street users more than other types of bicycle facilities. Separated cycle tracks would be an appropriate device to use on the central spine of the Wilburton commercial area, with the new emphasis the panel suggests on multimodal accessibility in this area that is so enticing to employers such as REI and technology innovators, and the millennial generation on the whole. However, the difficulty of turn movements at intersections from within two-way cycle tracks makes those facilities less desirable than one-direction cycle tracks. Assuming the cycle track solution proves feasible and desirable in Wilburton, the panel suggests that single-direction cycle tracks would be preferable and possible, with a narrowing of the proposed median and placement of bike lanes against the curb with parking protected buffers outboard of them.

Pedestrian Facilities

Although the city has not adopted a complete streets policy, current street projects do incorporate complete streets principles, as in evidence in the Wilburton study area's Fourth and 120th street projects previously referenced. Nonetheless, the city should adopt a complete streets policy to ensure that every street redesign project in Wilburton provides safe access for all road users, whether walking, biking, driving, or taking transit. Furthermore, the high-volume arterials in the district should be augmented where possible by a finer-grained network of local connections within development areas, which will be smaller in scale and more pleasant, lower-stress facilities on which to walk and bike.

Health and Healthy Corridors

Research by ULI and others increasingly shows that healthy places provide opportunities for healthy lifestyles that rely less on vehicular travel and provide more opportunities for walking and biking. These healthy places also are in greater demand from both today's aging populations, who may lose their ability or desire to drive, and today's younger populations, who place less emphasis on personal vehicle ownership. Increased demand for such healthy opportunities has been shown to drive economic values up and to support reduction in greenhouse gas emissions.

Active Transportation and Real Estate: The Next Frontier

Fifty percent of U.S. residents say that walkability is a top priority or a high priority when considering where to live, according to the Urban Land Institute's *America in 2015* report, and, according to the U.S. Census, bicycling has become the country's fastest-growing form of transportation for commuters.

Research shows that the built environment (including buildings, streets, and neighborhoods) has a profound impact on health outcomes. An *American Journal of Preventative Medicine* study found that people who live in neighborhoods with shops and retail establishments within walking distance have a 35 percent lower risk of obesity.



Bicycling can also reduce energy consumption and greenhouse gas emissions. The European Cyclists Federation found that, if levels of cycling in the European Union were equivalent to those found in Denmark, where the average person cycles almost 600 miles (965 km) each year, bicycle use alone would achieve 26 percent of the 2050 greenhouse gas reduction targets set for the transportation sector.

A 2009 nationwide study by CEOs for Cities, a cross-sector organization that develops ideas to make U.S. cities more economically successful, found that "houses located in areas with above-average walkability or bikability are worth up to $34,000 more than similar houses in areas with average walkability levels."

Today, bike trails, bike lanes, bike-share systems, and other forms of active transportation infrastructure are helping spur a new generation of "trail-oriented development." This trend reflects the desire of people around the world to live in places where driving an automobile is just one of a number of safe, convenient, and affordable transportation options. The Urban Land Institute's *America in 2015* report found that, in the United States, over half of all people (52 percent) and 63 percent of millennials would like to live in a place where they do not need to use a car very often; half of U.S. residents believe their communities need more bike lanes.

Source: Urban Land Institute, *Active Transportation and Real Estate: The Next Frontier* (Washington, D.C.: Urban Land Institute, 2016), 2–3, 11–12.

Implementation

THE PANEL OUTLINES SOME POLICY and planning strategies to achieve the objectives suggested in this report. By implementing a framework as described in the following sections, the city can use a careful balance of regulatory incentive and leadership capacity to drive change in the Wilburton study area.

Organizational Leadership and Development

To advance these goals, the city requires senior-level leadership to set economic strategy, assemble staff supports, negotiate public/private partnerships, hold the authority required to garner stakeholder attention, and be accountable for outcomes. The panel recommends several positions are needed to create more concentrated points of contact for the successful redevelopment of the Wilburton study area.

- *Establish the position of assistant city manager for special opportunities.* The panel believes that creating a respected high-level position with a familiar title is the best way to gain the traction and accountability necessary to advance this multifaceted and highly complex project, as well as future special projects of high priority to the city leaders. This role should be equal in responsibility to the other existing assistant city manager positions and be directly accountable for the redevelopment of the Wilburton study area. This person should be skilled in building public/private partnerships, serving as a convener and leading collaboration among disparate interests, negotiating land swaps and developing financing plans for land acquisition and infrastructure development, leading staff and working across agencies to achieve creative solutions, and exploring best practices and cutting-edge solutions to public sector obstacles to redevelopment across the district. The new assistant city manager for special opportunities will provide leadership to bring external stakeholders together and leverage the contributions of all stakeholders in a way that supports enhanced economic opportunity for Bellevue.
- *Establish a chief innovation officer position.* The city recognizes that innovation companies are an important and growing part of the Bellevue economy and therefore has doubled-down on the concept of promoting innovation within the study area. The ULI panel supports the creation of an Innovation District close to GIX in the Spring District and the Medical District. These assets will continue to support an already thriving innovation ecosystem for Bellevue, but the panel believes that a truly thriving innovation economy requires a government that is similarly innovative. The panel recommends creating a chief innovation officer position that reports directly to the city manager. The chief innovation officer can be responsible for out-of-the-box thinking that relates to business development in new and inventive ways, driving collaboration among and between government agencies, and identifying technology solutions that enable a more effective and efficient service delivery system.
- *Bring Code for America to Bellevue.* Code for America is a nonprofit organization that brings technology-savvy volunteer teams to government jurisdictions to work with the local staff to identify technology-based solutions for improved government operations. The intent is to bridge the divide between private sector and public sector technology capabilities that improve operational and service efficiencies, enable data-driven decision making, and open greater opportunities for citizen engagement. The fellowships are traditionally one year in length, and the panel recommends bringing Code for America to support the Wilburton redevelopment strategy.



FLICKR / CLINT MCMAHON

One popular way to encourage civic engagement is through public art instillations. The "Before I Die" public art installation created by artist Candy Chang is a global initiative to create a space where people can reflect and start a dialogue with others on their life aspirations.

- *Develop a public engagement strategy.* Hire a consultant to assist the city in developing a public engagement strategy that places a high priority on engaging diverse cultural and socioeconomic interests. With a rapidly changing demographic profile and a motto of "Bellevue Welcomes the World," the city should be expected to have a variety of reliable, consistent, and creative mechanisms available to reach and engage diverse interest groups in a way that is effective and measurable and that is well aligned with the city's goals.

- *Use public benchmarking for planning and infrastructure projects.* A large number of planning processes and strategies are being developed or under consideration within city government, and the panel heard a moderate degree of confidence in government to deliver the goals realized in these plans from residents, local businesses, and stakeholders. This news is very positive; however, the panel interviews revealed that key stakeholders are not always informed about the projects or plans important to them. The panel heard varied and sometimes conflicting ideas about the plans and goals to reconnect NE Sixth Street across I-405 to the study area. Even more of a disconnect existed about the status and schedule of the project. To improve transparency around city-commissioned studies and infrastructure plans and to harness the energy of willing and able external validators and stakeholders throughout the community, the panel recommends that the city create a single, user-friendly webpage that houses status updates on all studies and plans and offers links to more information, including staff contacts, for those who wish to gain more information about a particular planning initiative.

- *Celebrate milestones.* The city should be applauded for recognizing the opportunity to redevelop a 237-acre swath of land and for its forward thinking in undertaking this endeavor to plan for the future of a whole new neighborhood within the subject area. The panel hopes the community will be enthusiastic about the decade-long objectives and opportunities laid out in this report; however, the panel recognizes that residents may experience "planning fatigue" if they are continually asked to participate in the process without seeing any immediate progress. To counter this challenge, the panel recommends working with government, business, and community leaders to celebrate the small milestones achieved throughout the project term. Whether they are land acquisitions completed, ground broken, trail sections completed, businesses opened or expanded, private/public partnerships reached, or other exciting developments along the way, the city needs to keep the community excited about and engaged in the overall redevelopment vision for the area. The panel recommends a comprehensive, long-term communication strategy specific to the study area that can be led by the assistant city manager for special opportunities.

Planning and Policy

During stakeholder interviews, the panel heard from a variety of individuals that the policies governing development in Bellevue lacked clarity and were inconsistent in application. In some cases, the panel heard that policies may not even officially exist but are applied anyway. Although the panel believes that these instances may be well intentioned, the practice of implementing policies inconsistently or applying erroneous policies without a formal means of doing so creates opportunities for confusion and possibly even appeals of city decisions. To drive the city's goal of maximizing sustainability, becoming a more welcoming location for visitors, pedestrians, and cyclists, and fostering a unique redevelopment environment in the study area, local government must establish clear, predictable

policies that will drive desired outcomes and knit together the fabric of a consistent, cutting-edge sustainable urban environment.

- *Rezoning:* The city has a track record of adopting zoning districts for areas of the community that require special guidance on development consistent with adopted policies and goals for the area. The panel suggests that the Wilburton study area will require special zoning. This may take the form of a hybrid form-based code, similar to those already being used in other parts of Washington state, which could incorporate graphic orientation and street frontage type/site configuration provisions from form-based models with use provisions only for use specifications that are very important to the community, together with development standards (e.g., height and parking) and design guidelines tied to the specific districts within Wilburton.
- *Street standards:* The panel recommends that the city develop and adopt a complete streets ordinance. Although street projects completed today in Bellevue incorporate some of its elements, complete streets policies seek to ensure that integrated, connected networks of streets are created in communities that are safe and accessible for all people, regardless of age, ability, income, ethnicity, or chosen mode of travel. Complete streets policies not only ensure that the design of streets facilitates travel by all modes, including walking and biking, but they also require commitment in maintenance and funding decisions to ensure that complete streets are built and endure over the long term.
- *Pilot and demonstration projects:* The panel encourages the city to participate in pop-up urbanism initiatives and projects. Many cities across the country are finding they no longer need to wait for public realm projects to be fully budgeted for permanent construction. Jurisdictions are now experimenting with temporary projects demonstrating possible improvements, bringing people

The 116th Street Streetscape Plan

An example of special zoning can be found in the 116th Street Streetscape Plan. This plan already contains some guidance that will be appropriate to build on in an effort to ensure that development in the Wilburton study area supports the healthy, innovative, vibrant lifestyle that Bellevue residents, visitors, and workers will demand. Direction about reducing the number of driveway access points, as well as restricting turning movements off the street into parcels, zero setbacks for new development, and prohibition of parking lots or drives between the roadways and the buildings are a few of the items from the 116th Street plan that would be worth considering.

Historic Los Angeles Broadway Corridor

In downtown Los Angeles, a streetscape master plan was developed for a mile-long stretch of the Broadway corridor within the Historic Broadway Theater District. The plan called for "road dieting," or reducing the roadway width from five lanes to three, and creating on-street parking and loading, while freeing up space for pedestrian use and programming of outdoor dining areas and the like.

Instead of waiting for the project to be constructed piecemeal as developer projects occurred along the street or finding tens of millions of dollars for constructing the whole project at one time, the city council allocated just under $2 million to remake and narrow the street using paint, planters, and removable vertical delineators and adding movable furniture. The project was completed and opened in just a few months and has been a huge success.

The Los Angeles Broadway Corridor.



LOS ANGELES ATHLETIC CLUB

to new spaces, and testing solutions on the ground with community member input.

- *Housing:* The city—including government leaders and staff, residents, and the business community at large—acknowledges the need for additional workforce housing production to feed the labor demands of the local economy and meet the needs of residents across the full socioeconomic spectrum in Bellevue, yet policy has not kept up with this principle. The city operates a Multifamily Housing Property Tax Exemption program and offers a strategic range of affordable housing incentives in different parts of the city. How effective those policies have been in producing new affordable housing units in Bellevue is unclear, and the panel believes the city requires bold new policies to support unit production of the type and scale required to support sustainable economic growth in the area.
  - *Define workforce housing.* In this context, workforce housing should mean residential units reserved for residents making between 50 percent and 80 percent of Area Median Income.
  - *Establish as-of-right housing production in the Technology Innovation, Health and Wellness, and T2 districts.* "As-of-right" housing refers to developments meeting certain conditions that are not subjected to discretionary review by local decision-making bodies. This should be done in accordance with established FAR limitations and design guidelines.
  - *Require the creation of 10 percent workforce housing units in every multifamily housing project in the study area.* The panel recommends that the payment in lieu of production policy be eliminated for housing projects within the study area in favor of putting new workforce housing units on line to serve the greater economic interests of the community.
  - *Publish an annual update on the number of units under active permit review in the Wilburton study area.* These numbers need to include the number of units permitted but not yet constructed, as well as the number of units constructed. This reporting will give local governmental leaders the ability to monitor the effectiveness of the city's housing policy to produce near-term results in the study area and to consider adjustments that may be necessary as the real estate market evolves, new infrastructure is constructed, and development patterns change.
- *Planning:* Clear, concise, and predictable planning and permitting requirements are required to achieve the city's desired outcomes in the subject area. Understanding what is likely to be approved, how much it will cost, and how long it will take to obtain the approval is paramount to attracting investor interest in the study area.
  - *Adopt a mandatory complete streets policy.* All municipal projects as well as private development projects that modify any public way will need to adhere to the policy to ensure a consistent design and track patterns.
  - *Continue to track and publish permitting times associated with each permit category.* As noted in the Development Services Oversight Reports on the city website, this process will not only create transparency and predictability for applicants, but also provides the city with data to inform policy and process changes aimed at improving efficiencies.
  - *Foster the necessary environment to encourage medium-sized and small businesses to locate in existing buildings.* This will require the easing of restrictions on repurposing of existing space for housing, work/live lofts, and other unique housing options that meet the market preferences of millennials and the creative economy and have the potential to offer less expensive real estate options for various users. To achieve this goal, the panel recommends the city work to reduce the average permit times for certain categories within the subject area, including the following:

- Addition to Existing Structure for a Medium Commercial Project, which currently takes an average of 348 days or 49.8 weeks to permit;
- Change of Use for a Tenant Improvement, which currently takes an average of 91 days or 13.0 weeks to permit; and
- Design Review or Site Plan Approval, which currently takes an average of 312 days or 44.6 weeks to complete.

- *Appoint the assistant city manager for special opportunities or a designee to serve as a permitting ombudsman.* A smooth, coordinated review of projects in the Wilburton study area needs to be facilitated. The objective is to remove bureaucratic or regulatory barriers and speed the local review process for projects within the study area, while prioritizing multifamily mixed-income projects that produce workforce housing units and commercial spaces that serve the medical and innovation clusters.
- *Explore a pre-permitting model for key parcels within the district.* This will help landowners attract tenants or private investment to further the objectives of each unique district of Wilburton. This tool will expand the levers currently available to the city, which is currently limited to development agreements.
- *Adopt form-based code.* Creating a unique pedestrian-friendly experience for Bellevue will achieve the desired character of each district within the study area. This tool enables the city to drive outcomes such as engaging first-floor areas that look and feel like retail spaces but do not require retail uses in places where the market does not support them. Form-based code is being used elsewhere in the region and could be particularly useful in achieving the goals of the study area.
- *Engage in a planning exercise for Lake Bellevue.* This study needs to address the current and future land uses around the lake, seeks to improve the environmental integrity of the waterbody and associated streams, and considers public access to this natural amenity.

Strengthen the Workforce

A consistent theme heard repeatedly by the ULI panel is that a talented and educated workforce is Bellevue's most treasured asset, but the ULI panel also heard that although access to information technology talent is strong, other sectors such as medical, retail, and tourism do not have the same access to talent required of their business. In the city's business survey 41 percent of businesses state they have had difficulty retaining or finding talent, and half of all retail businesses and 61 percent of tourist-related businesses have difficulty retaining or finding talent. The medical sector was not specifically identified in the business survey, but ULI heard anecdotally from the industry that workforce attraction and retention is an ongoing concern.

- *Establish an academia-industry-government consortium.* The innovation economy thrives on connections between government, academia, and industry. If one leg of the three-legged-stool model is broken, the free flow of innovation is tempered. The first objective of the consortium, led by the assistant city manager for special opportunities, is to address the current and long-term workforce needs of local employers by using the consortium to support enhanced collaboration between academia, employers, and the city. The agenda of the consortium is expected to grow over time to encompass the full range of needs of a local and regional innovation economy.
- *Support the creation of a Bellevue College School of Nursing in the Health and Wellness District.* As our population ages and life expectancy grows, the demand for well-trained nurses and medical support staff increases nationwide. This reality presents an opportunity for Bellevue College to serve an active role in feeding the growing medical needs of the community by locating close to the medical district and enabling opportunities for market-driven educational programming and hands-on

learning for area students. Bellevue College already offers a multitude of health-related training and degrees and leveraging that higher-education capacity and intellectual capital to support the growth and development of the medical cluster in the Health and Wellness District makes good sense.

- *Pay attention to talent retention.* The city of Bellevue operates a high-performing public school system that churns out talented and well-prepared young people every year. Coupled with the emergence of GIX and the availability of current and future specialized training programs in the area, the city should focus on student retention as a mechanism to feed future workforce demands. A well-established means of doing so is to support local internship programs. The panel recommends the city partner with the Bellevue Chamber of Commerce to establish internship placement goals of 250 high school and college students per year to be placed in internship programs in local companies and city government. The Chamber of Commerce can establish a web portal that markets the program, solicits resumes of prospective student participants, and promotes participating businesses. The city can also recognize participating businesses in an annual public event at Downtown Park. Bellevue and the chamber can look to some good examples in other parts of the country such as the Greater Boston Chamber's Intern Hub (https://internhub.internships.com/join).

Run by the Greater Boston Chamber of Commerce, the Intern Hub provides an online portal for students to find internships with participating businesses.



INTERN HUB

Land Assembly and Phasing

The panel recognizes that the Wilburton study area, despite including many larger parcels, currently offers fractured parcel ownership with disparate interests in redevelopment. Whereas some landowners wish to redevelop their parcels in the near term, others are prepared to sell under the right circumstances or see no incentive for change. The challenge of finding ways to conduct land assembly requires creativity. The panel recommends that the city use all available levers to create transformational redevelopment opportunity in the subject area, including getting started on the public projects to generate energy for the private market to understand.

- *Phase the Grand Connection.* A key element of the city's Grand Connection vision is to construct a pedestrian overpass spanning I-405 into downtown. The panel supports that vision and encourages the city to continue working toward that end; however, the regulatory and cost burdens associated with the freeway overpass are significant. The panel believes the city can benefit from a phased infrastructure development approach that enables near-term construction of the Grand Connection on the easterly side of I-405 in the study area to unlock redevelopment of the T2 District immediately, while pursuing design, permitting, and financing of the proposed I-405 pedestrian deck on a parallel but separate track. The panel recommends the city begin to acquire the necessary land and funding required to begin the Grand Connection construction immediately and to create a phasing plan that enables incremental activation. To do so, the panel recommends the city explore every financing method available for land acquisition and construction of not only the Grand Connection but also other related public uses, including a public park, school, and YMCA facility. The financing methods may include bonds and traditional capital investments by the city,

establishing a municipal services district and creating a tax levy to support the construction of public resources, local and regional foundation support, and public/private partnerships. The panel notes that it is important that the city keep confidential the specific parcels it is looking to acquire to avoid artificially inflating the real estate value of those parcels.

- *Begin construction of the Eastside Rail Corridor.* Similar to the Grand Connection, the panel believes a benefit exists in commencing with near-term construction of the ERC in sections as funding is made available. The goal is to make the full 46-mile connection at the conclusion of the project, but the panel strongly recommends that the city, through the assistant city manager for special opportunities, seek the formation of a public/private partnership to financially support this endeavor, beginning with REI, whose corporate interests are uniquely aligned with the city's goals and objectives of the trail and the Health and Wellness District.
- *Relocate or repurpose the school bus parking lot.* The school district bus parking and maintenance facility is located on a key parcel in the T2 District. The panel recommends the city work with the school district to explore opportunities to relocate that facility and share space with the existing metro parking and maintenance facility to the north of the study area or the planned Sound Transit maintenance facility in the Spring District.
- *Explore partnerships.* The panel recommends the city explore partnerships with organizations such as Forterra for assistance assembling land for public purposes and driving land costs down to make affordable housing construction feasible and attractive in a way that encourages private investment.
- *String together the open-space system.* Create public access links between existing and planned public open spaces from the Botanical Garden to Lake Bellevue and beyond, including links to the Grand Connection and the ERC to create a wonderful environmental and recreational experience for residents and tourists alike. The city can further enhance this experience by integrating locally sourced technology applications such as virtual reality solutions to the public spaces, thus creating a unique user experience that can be found only here in Bellevue.

Ease of Doing Business and Supporting Entrepreneurship

Creating an attractive business climate requires a careful balance of predictability and flexibility that many governments struggle to achieve. The most productive and innovative cities set rules that are generally applicable and protect the common good but are not so rigid in their application that they seem unreasonable and turn business opportunities away.

- *Simplify use codes for business operation.* The panel heard anecdotally that business have actually been turned away because they do not fit squarely into one of the city's use boxes. In a place that prioritizes innovation, for the city to recognize the impossibility of defining every potential use that currently exists and is yet to come is important. The panel recommends the city simplify its use codes and create flexibility around their application.
- *Enable pop-up business program.* The panel recommends the city create a program that offers temporary permits for pop-up businesses to use empty storefronts or vacant lots. Innovative programs such as these enable landlords to secure rents on a short-term basis and invite the creative class and innovation companies to test ideas in retail format before investing in a longer-term space commitment. These entities bring a spirit of fun and whimsy to city centers that can help define the character that is expected to come to the Wilburton study area. A variety of pop-up programs throughout the country can serve as examples for the city, such as the OPEN Program in San Antonio, Texas, which offered a holiday-themed focus; a newer program in Akron, Ohio, that offers tenants longer-term rentals up to six months; or Pop Up! Downtown KCK in Kansas City, Kansas.

- *Enable street-based businesses.* Conduct a comprehensive review of the city's regulations, bylaws, and ordinances to enable food trucks, street vendors, sidewalk dining, and other mobile, street-based performance, entertainment, and retail to enliven the streets of the study area and create a destination for residents throughout Bellevue and the region.

- *Develop entrepreneurship.* Working through the previously referenced academia-industry-government consortium, establish programs and supports specifically intended to promote entrepreneurship opportunities, with particular emphasis in supporting the immigrant, minority, women, and low-income communities. These segments of the population are the least likely to know how to navigate a preexisting governmental and market structure to seek financing, government approvals, and even available real estate, yet these populations have a significant degree of value to add to building a unique and diverse cultural character and experience within the study area.

- *Drive startups and incubators.* Bellevue already offers opportunities for startups and innovators to convene, share ideas, and put business plans into action. The panel strongly encourages the city to continue to promote incubators, coworking spaces, and informal meet-ups, and tie those assets together in a way that makes them easily navigable for new innovators to find. The New York City Economic Development Corporation maps existing incubators and coworking spaces, as well as available commercial spaces for would-be and growing entrepreneurs. The panel encourages the city to undertake a similar effort that applies specifically to the study area plus the Spring District, to foster a climate of innovation in the places where land uses are expected to follow. This would fall under the purview of the chief innovation officer.

- *Establish a digital gaming institute.* Working with local, state, and regional legislators, area colleges, gaming companies, GIX, startups, and other interested stakeholders, the city should seek to establish a statewide or regionally significant digital gaming institute in the study area. The goal of the institute is to drive collaboration and foster growth of the city's existing gaming sector. An example of this concept is MassDIGI, a digital gaming institute in the Commonwealth of Massachusetts.

Conclusion

THE PANEL HAS LEARNED from the community and market data that the Wilburton study area will not and should not be a second downtown Bellevue but its own unique district of the city. With medical centers and an incoming global educational institute, many old and new anchors will help push this area toward new economic growth. The following are the overall recommendations for the study area:

- *Build off existing strength.* Emphasis on the area's strengths, building strong foundations, and investing in new transportation options are key to creating a strong economic engine in Wilburton.
- *Develop Wilburton study area as a complete center that can serve the existing catalytic drivers in the area.* The city needs to capitalize on these different industries—medical, tech innovation, downtown commercial—for this diverse economy to prosper.
- *Support the city as entrepreneur.* Business opportunities in Bellevue and the Wilburton study area need to have clear leadership, collaboration, transparency, and accountability to foster entrepreneurial spirit.



FTN

The Bellevue panelists.

- *Manage the area through the establishment of a four-district framework with supporting operating structure and guidelines.* Each district—TID, T2, Health and Wellness, and SoFo—emphasizes the unique characteristics of the area that will drive future growth.

The panel looks forward to seeing the city of Bellevue work with the Wilburton anchor institutions, businesses, and stakeholders to begin the city's next chapter.

About the Panel

Andrew Irvine

Panel Chair
Denver, Colorado

Irvine is a principal and director of urban design and landscape architecture at RNL. He is an energetic, creative, and hands-on professional with a passion for design, strong communication skills, and a proven track record in building, motivating, and managing interdisciplinary teams. His proven ability in delivering high-quality projects and in achieving a high level of client satisfaction is key to his senior leadership role in the firm and on large projects.

Before his current position, Irvine was a senior landscape architect at EDAW Inc. with a broad range of project experience throughout the United States and Australia. He has specialized skills in site planning, master planning, and urban design guidelines. His range of projects includes major infrastructure, urban renewal, public domain, and traditional park design. He has worked on a numerous planning projects that include significant experience with transportation and waterfront development. Irvine also has completed projects that have incorporated comprehensive open space networks and ecological restoration areas into planned communities.

He has served on seven of the Urban Land Institute's national Advisory Service panels and on one international panel. He has degrees in landscape architecture and environmental design.

Dan Conway

Denver, Colorado

Conway is a real estate marketing and research authority specializing in residential, commercial/industrial, and golf course developments. He has had over 40 years of experience as an urban land economist. Conway is a frequent guest speaker for economic associations and trade organizations and is a member and frequent speaker to the Urban Land Institute. He has been a real estate and urban land economic honorarium instructor at the University of Colorado and at the University of Denver. He has published many articles including the *CCIM Magazine* piece "Market Analysis, the Road to Profit, Prosperity and Peace of Mind." Conway's other professional and community activities have included membership on the board of directors of a federally chartered national bank and as a member of the Mile High Transplant Bank. He also participated on the Archbishop's Inner City Sun School Committee to assess the future needs of elementary education in the inner city of Denver.

For the last 25 years as president and director of economics and market research for THK Associates, Conway has conducted numerous residential, commercial, industrial, and golf course economic feasibility and market studies, socioeconomic impact assessments, and financial planning studies in all 50 of the United States, as well as a number of foreign countries. Projects of particular interest include an international market center and industrial market analysis for the Dove Valley Business Air Park in Arapahoe County, a residential and related uses market analysis for several major developments in Douglas County including the 1,342-acre Parker City site, and numerous golf course feasibility studies throughout the country. Specific communities where Conway has completed a wide range of research and analysis include Las Vegas and Reno, Nevada; Oxnard, Palm Springs, and Carmel, California; Kansas City, Missouri; Oklahoma City and Tulsa, Oklahoma; Austin, Texas; Albuquerque and Santa Fe, New Mexico; Seattle, Washington; and Phoenix and Tucson, Arizona.

Most recently, Conway has gained recognition as a sought-after speaker on the golf course development circuit. His numerous presentations at the Crittenden Golf Development Expos have been widely attended and universally applauded. His book *The Cost and Revenues of a Unique Golf Club* has furthered his reputation as one of the industry's leading authorities. Under Conway's guidance, THK Associates completes over 75 golf course feasibility studies and golf driving range market studies and appraisals each year.

Allen Folks

Sacramento, California

Folks is a registered landscape architect and urban designer with experience in urban revitalization and community planning assignments. In 32 years of practice, he has been responsible for a variety of assignments. including the preparation of plans for new towns and existing communities, transit-oriented development areas, reuse of military bases, design of corporate and civic campuses, and public open-space planning. He usually directs teams of engineers, environmental scientists, and economists to solve urban problems that have a creative vision and are economically feasible. Before joining Ascent, a multidisciplinary practice headquartered in Sacramento, California, in 2016, Folks spent over 28 years working at EDAW and AECOM in the San Francisco, Sacramento, and Singapore offices. During the period 2012 to 2015, he led the AECOM Southeast Asia Business Line for Buildings and Places with management responsibility for over 110 staff in Singapore, Jakarta, Kuala Lumpur, and Manila.

Folks has been involved with the revitalization of urban environments in many cities in the western United States and within Southeast Asia. He has prepared urban design plans for specific areas or neighborhoods within Portland, Sacramento, San Francisco, and Salt Lake City, as well as Singapore, Kuala Lumpur, Ho Chi Minh City, and Manila. In many of those assignments, the focus was on developing a meaningful public realm as the organizing armature for private sector investment. Folks has led community visioning exercises for public sector agencies and developer-led consortiums.

Folks is a member of the American Planning Association, the American Society of Landscape Architects, and the Urban Land Institute. He has served as the District Council Chair for Sacramento and has been a member on several national product councils, including most recently the Transit-Oriented Development Council. He has lectured in the United States and Asia on the benefits of transit-oriented development and livable cities. Folks is a guest lecturer at the University of California at Davis. He has participated in 12 ULI Advisory Services panels to assist in solving downtown and neighborhood redevelopment issues. He is a graduate of Temple University and the University of Pennsylvania.

April Anderson Lamoureux

Boston, Massachusetts

Lamoureux is president of Anderson Strategic Advisors LLC, a consulting firm that specializes in land use and development, government incentives, and building productive public/private partnerships that grow economies. Since starting her firm in 2013, she has helped her private sector clients secure more than $25 million in grants and incentives, and she has helped her municipal clients identify and implement key economic development strategies and local government reforms to support economic growth. Lamoureux has spent her career working to increase the effectiveness and efficiency of government and to assist businesses to successfully manage their interactions with government at all levels. She has held executive management roles within the administrations of Massachusetts governors Deval Patrick and Mitt Romney, served as the Pioneer Institute's director of public affairs and director of the Center for Urban Entrepreneurship, and served in senior staff roles within the Massachusetts state legislature.

Lamoureux has extensive experience navigating federal, state, and local government regulations, with particular

expertise in land use and development, and she specializes in economic development strategy and incentives, infrastructure financing tools, public/private partnerships, and government relations. During her tenure in the public sector, she served as the state's permitting ombudsman where she was responsible for breaking down silos within government and enhancing interagency collaboration to support economic growth and improved government efficiency. She served as Massachusetts's first state regulatory ombudsman, where she implemented a comprehensive regulatory reform agenda that eliminated or streamlined hundreds of state regulations across all secretariats of the state government. She created and implemented the Chapter 43D Expedited Local Permitting Program enabling six-month local permitting in more than 80 cities and towns, and she created and implemented the MassWorks Infrastructure Program, a $350 million infrastructure grant program to support housing and economic development projects.

She was a 2013 judge for the nationally recognized Pioneer Institute Better Government Competition, and she sits on the Milton Hospital Board of Overseers. She is active in her local government, serving as an elected member of the Planning Board and Town Meeting in her hometown of Milton, Massachusetts.

Zane Segal

Houston, Texas

Segal is a developer, landowner, marketing consultant, and licensed real estate broker. He is knowledgeable about commercial, residential, hospitality, transit-oriented, and mixed-use properties in historic, urban, suburban, and resort areas. He has 38 years of experience in venture management, construction, project development, and brokerage on a range of property types, including investment land, development sites, custom homes, townhouses, condominiums, apartments, hotels, retail centers, office buildings, subdivisions, and sports facilities, as well as master-planned projects incorporating several uses.

He received a BS in humanities with a minor in visual design from the Massachusetts Institute of Technology and an MFA in cinema from the University of Southern California. Segal has studied graduate-level architecture and planning at the University of Houston and was initially licensed in Texas as a real estate agent in 1982 and as a broker in 1998. For his own account, Segal is currently developing two single-family subdivisions with 250 lots and a Sun Club & Resort and is joint venturing a mixed-use, urban-density, suburban project with 350 loft units above 14,700 square feet of retail and restaurants. He has been a principal/managing venturer for significant properties in Houston's center city and in suburban areas to the west, northeast, and southeast of the city core. He has brokered many multifamily, single-family, investment, and commercial sites and arranged financing for a major resort.

At its 2008 Fall Meeting, ULI conferred upon Segal the Robert M. O'Donnell Award for outstanding contributions to the success of its Advisory Services program. He has chaired five and served on 11 additional national ULI Advisory Services panels, as well as chairing ULI Houston's first two Technical Assistance Program panels and participating on others. Segal served on the ULI Houston board for eight years, as vice chairman of membership and of advisory services. Having participated on the committees of the first three ULI Houston Urban Marketplaces, he also instigated and led its initial Suburban Marketplace, the first such conference held by any ULI district council. He served on the Houston Planning Commission's Mixed-Use/TOD Committee, chaired its task force on urbanizing the suburbs, and engaged in numerous other community visioning and planning efforts. Segal has often spoken, written for publication, and been quoted by the media on real estate, development, urbanity, and the arts.

Jamie Simchik

Boston, Massachusetts

Simchik is a principal planner with Fort Hill Places in Boston. Fort Hill Places is a division of the Fort Hill Com-

panies, a full-service architectural, engineering, and urban planning firm with offices in Massachusetts and Florida. Fort Hill Companies strives to identify key opportunities to improve architecture, infrastructure, and the urban form to promote livable, vibrant communities. Before this current role, Simchik was the founding principal of Simchik Planning & Development, an urban/transportation planning and real estate development consulting firm. He was also a public engagement assistant with Regina Villa Associates undertaking public outreach for transportation and infrastructure capital improvement projects in Massachusetts. In addition, Simchik was a research planner with Connor Holmes, an urban planning consulting firm in South Australia, collaborating on a variety of projects for government and private clients.

Simchik is a member of the ULI Boston Infrastructure Council and the ULI Urban Development/Mixed-Use Product Council (Purple Flight) as well as an active ULI Boston UrbanPlan volunteer. He is a ULI Michigan Larson Center for Leadership Class of 2015 alumnus and has participated in two ULI Technical Assistance Panels (West Dearborn, Michigan, and Westfield, Massachusetts). He has a master of urban planning, master of business administration, and graduate certificate in real estate development from the University of Michigan.

Melani Smith

Los Angeles, California

Smith has built and led vision-driven urban design and planning practices in southern California, most recently in her over 11 years as principal, president/CEO of Melendrez in downtown Los Angeles. She has successfully led teams of designers delivering cutting-edge, accessible, and engaging urban open-space projects, including infill open space, a freeway cap park, and the first freeway closure/open-space conversion feasibility study in southern California. She has also led many multimodal complete streets, transit facilities, transit-oriented development, and station area visions, first-mile/last-mile access, and pop-up urbanism projects.

Smith also engages in numerous civic and professional activities and has spoken at a wide range of professional conferences locally and nationally. She is an invited member of Mayor Garcetti's Great Streets Technical Advisory Committee and the Mayor's Design Advisory Panel. She was a planning commissioner in the city of Long Beach from 2007 to 2014. She has cochaired the Central City Association's Downtown 2030 Committee in Los Angeles for the past three years. She is cochairing the California State American Planning Association conference in Pasadena, California, in 2016. Finally, she is an active ULI member, currently serving as the chair of the Local Leadership group for the Van Nuys Boulevard Healthy Corridor project, cochairing the District Council's Land Use Leadership Committee, serving on the program Committee for the Transit-Oriented Los Angeles conference for the past several years, and serving on multiple local technical assistance panels. She has a BA in history from the University of California, Los Angeles, and a master's in urban and regional planning from the University of California, Irvine.

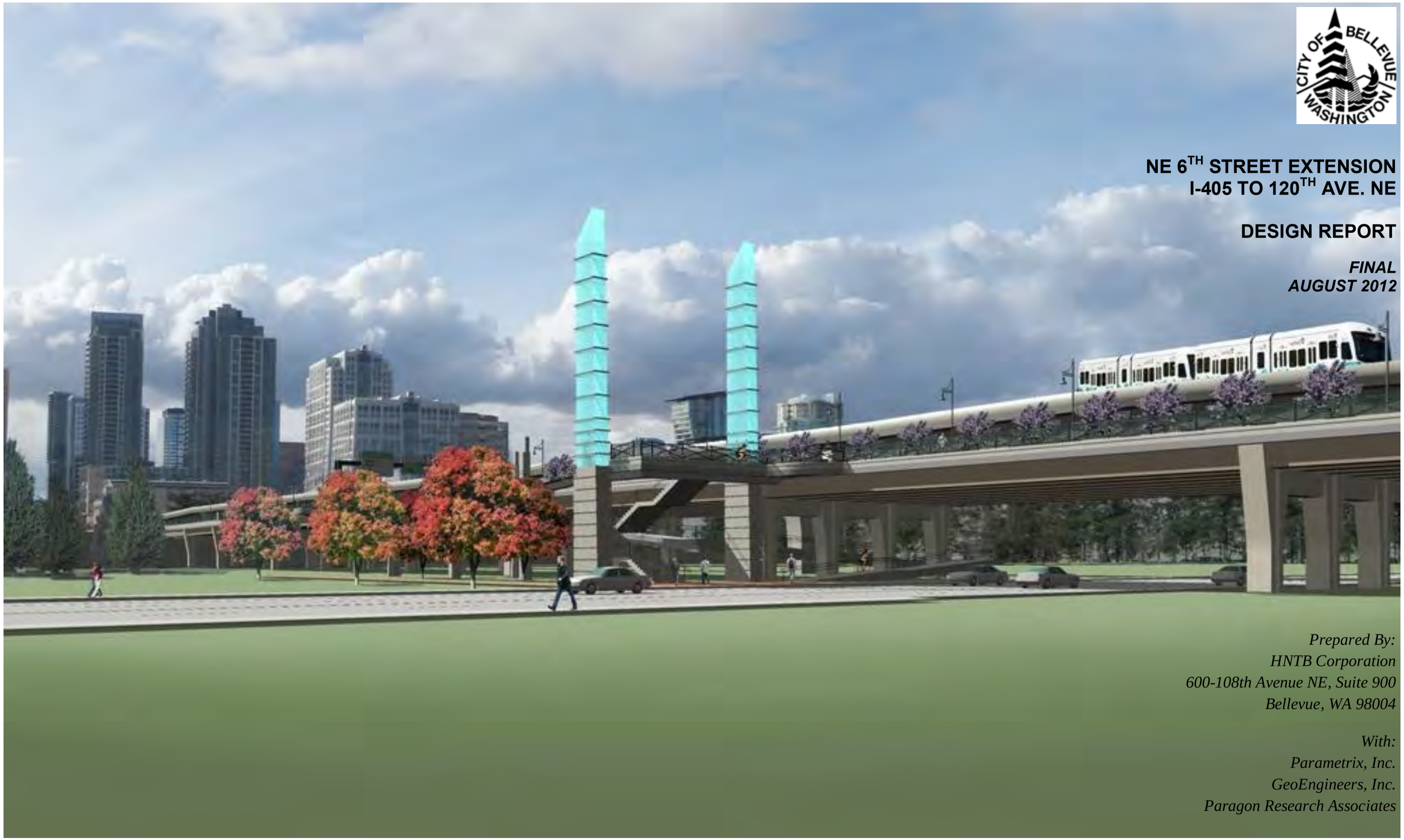
A ULI Advisory Services Panel Report

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NE 6th Street Extension Plan



NE 6TH STREET EXTENSION
I-405 TO 120TH AVE. NE

DESIGN REPORT

FINAL
AUGUST 2012

Prepared By:
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TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

PROJECT BACKGROUND 3
- Mobility & Infrastructure Initiative 3
- Wilburton Connections Projects 3
- Other Adjacent Projects 4
- Stakeholder Coordination Process 6
- Existing and Future Transit Service 5

EXISTING CONDITIONS 6
- I-405 Zone – 112th Street NE to I-405 Direct Access Ramps 7
- 116th Avenue NE Business/Commercial Zone 10
- Wilburton Village Zone 10

NE 6TH STREET EXTENSION DESIGN PARAMETERS 11
- Roadway Design Criteria 11
- Base Maps Used for Design 12
- Traffic Forecasts & Design Year Operations 12

DESCRIPTION OF THE ALTERNATIVES AND DESIGN OPTIONS 13
- Overview of Alternatives 13
- Alignment & Profile Options 14
- Roadway Basic Section Options 14
- Non-Motorized User Provisions 17
- Transit Provisions 22
- I-405 Modifications 22
- 119th Ave NE Intersection Options 25
- HOV/HOT Enforcement 26

OTHER DESIGN ELEMENTS 29
- Geotechnical 29
- Structures 29
- Construction Staging 34
- Stormwater 36
- Utilities 39
- BNSF Corridor 39
- Driveways 40
- Illumination 40
- Urban Design 42

ENVIRONMENTAL DOCUMENTATION & PERMITS 43
- Environmental Documentation 43
- Environmental Activities through Completion 43
- Permit Coordination 44

RIGHT OF WAY 46

ESTIMATES OF PROBABLE PROJECT COST 50

OTHER PROJECT DOCUMENTATION 52
- Preliminary Engineering Design Documentation 52
- Environmental Documentation 52

APPENDIX A – EXHIBITS A-1

APPENDIX B – CONCEPTUAL PLANS B-1

APPENDIX C – URBAN DESIGN MASTER PLAN C-1

APPENDIX D – PRELIMINARY ENGINEERING DESIGN TECHNICAL MEMORANDUMS D-1

APPENDIX E – ENVIRONMENTAL DOCUMENTATION TECHNICAL MEMORANDUMS E-1

LIST OF TABLES

Table 1 Design Criteria Within WSDOT Right-of-Way 11
Table 2 Design Criteria Within City of Bellevue Right-of-Way 11
Table 3 NE 6th Street 2030 PM Peak Hour Intersection Level of Service and Delay 12
Table 4 Roadway Basic Sections by Alternative 15
Table 5 Queue Lengths on I-405 Off-Ramps to NE 6th Street 23
Table 6 AutoTURN Analysis – NE 6th at I-405 Direct Access Ramps 24
Table 7 Multi-Use Path Connection, 112th Avenue NE to I-405 Summary of Bridge Types Considered 29
Table 8 Comparison of Options for Multi-Use Path Structure Over Southbound I-405 31
Table 9 NE 6th Street Elevated Structure, I-405 to BNSF Corridor Summary of Bridge Types Considered 32
Table 10 Construction Duration for Abutment Options 34
Table 11 Compliance with Stormwater Core Requirements 36
Table 12 Recommended Enhanced Stormwater Treatment BMPs 37
Table 13 Stormwater BMP Sizing 37
Table 14 Street Lighting Design Criteria 40
Table 15 Summary of Potential Right of Way Acquisitions 46
Table 16 Summary of Estimates of Probable Project Cost 50
Table 17 Estimated Construction Costs by Corridor Segment 51

LIST OF FIGURES

Figure 1 Existing NE 6th Corridor at I-405 2
Figure 2 Proposed NE 6th Street Extension 2
Figure 3 City of Bellevue Mobility & Infrastructure Projects 3
Figure 4 Conceptual Layout for Wilburton Connections Projects 4
Figure 5 NE 6th Street Extension 5
Figure 6 Transit Use of the NE 6th Street and 112th Avenue NE Intersection 6
Figure 7 NE 6th Street Site Analysis and Design Development Zones 7
Figure 8 Existing NE 6th Street Transit/HOV Direct Access Interchange 7
Figure 9 Existing NE 6th Street Transit/HOV Direct Access Ramps 8
Figure 10 Existing NE 6th Street, 112th Avenue NE to I-405 Direct Access Ramps 8
Figure 11 Existing Retaining Walls – NE 6th Street Direct Access Interchange 9
Figure 12 Existing Structures – NE 6th Street Direct Access Interchange 9
Figure 13 Existing NE 6th Street Corridor, Looking West from BNSF Corridor 10
Figure 14 116th Avenue NE, Looking South from NE 6th Corridor 10
Figure 15 NE 6th Street, Looking East to 120th Avenue NE 10
Figure 16 NE 6th Street, Looking West from 120th Avenue NE 10
Figure 17 Four-Lane Basic Section on Base Alignment 13
Figure 18 Two-Lane Basic Section on Base Alignment 13
Figure 19 Two-Lane Basic Section on Refined Alignment 13
Figure 20 Typical Section – 112th Avenue NE to I-405 15
Figure 21 Typical Section – I-405 to 116th Avenue NE 16
Figure 22 Typical Section – 116th Avenue NE to BNSF Corridor 16
Figure 23 Typical Section – BNSF Corridor to 120th Avenue NE 17
Figure 24 Multi-Use Path, 112th Avenue NE to I-405 Ramps Intersection 17
Figure 25 Lake Washington Loop at 114th Ave SE & NE 6th Street 18
Figure 26 Multi-Use Path on East Side of I-405 Ramps Intersection 19
Figure 27 Multi-Use Path, I-405 to BNSF Corridor 19
Figure 28 Multi-Use Path Connection to Future BNSF Corridor Regional Trail 20
Figure 29 Pedestrian Overlook/Rest Area Option 21
Figure 30 Connection to 116th Avenue NE – Plan & Elevation Views 21
Figure 31 Concept for At-Grade Connection to 116th Avenue NE 22
Figure 32 I-405 at NE 6th Street Ramp Channelization Modifications 23
Figure 33 Proposed Sound Transit East Link Pier Location and I-405 Ramp Configuration 25
Figure 34 NE 6th Street Extension Pier Location and I-405 Ramp Configuration 25
Figure 35 Existing NE 6th Street Direct Access Ramp HOV Observation Provisions 27
Figure 36 Potential NE 6th St. Direct Access Ramp HOV/HOT Observation Provisions 27
Figure 37 Potential HOV Enforcement/Observations Provisions – East End of NE 6th Street Extension Between BNSF Corridor and 119th Avenue NE 28
Figure 38 Existing NE 6th Street Bridge, over 114th Avenue & NE I-405 Southbound 30
Figure 39 Existing NE 6th Street Bridge over I-405 Southbound Pier 3 to East Abutment 30
Figure 40 West Abutment Option 2 – Micro Piles 33
Figure 41 Threshold Discharge Areas (TDAs) for Stormwater Analysis & Design 36
Figure 42 Conceptual Drainage Design – TDA S2 38
Figure 43 Conceptual Drainage Design – TDA W1 38
Figure 44 Conceptual Drainage Design – TDA W2 38
Figure 45 Existing Roadway Lighting, 112th Avenue NE to I-405 41
Figure 46 I-405 CSS Lighting Examples, NE 10th & 12th Streets over I-405 41
Figure 47 Recommended Lighting Configuration, I-405 to 120th Avenue NE 41
Figure 48 Potential Right of Way Acquisitions
Comparison of 2-Lane Base vs. 4-Lane Base Alignments 47
Figure 49 Potential Right of Way Acquisitions
Comparison of 2-Lane Refined vs. 4-Lane Base Alignments 48
Figure 50 Potential Right of Way Acquisitions
Comparison of 2-Lane Base vs. 2-Lane Refined Alignments 49

This Design Report was prepared under the supervision of:



August 28, 2012

William I. James III, P.E. — Date
Project Manager
HNTB Corporation

EXECUTIVE SUMMARY

The City of Bellevue Transportation Department Capital Program Services Division proposes to extend NE 6th Street east from its current terminus in the median of I-405, over the northbound lanes of I-405 and over 116th Avenue NE to a new intersection with 120th Avenue NE. The project would provide a new corridor between I-405 and 120th Avenue NE for transit, HOV, and non-motorized users. It would complement existing transportation infrastructure on NE 6th Street, including the pedestrian corridor between Bellevue Way NE and 112th Avenue NE, and the Bellevue Transit Center located on NE 6th Street between 108th and 106th Avenues NE.

The NE 6th Street Extension project is part of the City's Mobility and Infrastructure Initiatives (M&II) package of projects that also includes an extension of NE 4th Street from 116th Avenue NE to 120th Avenue NE, and improvements to NE 120th Street. By providing increased connectivity between downtown Bellevue and points east of I-405 for transit, HOV, and non-motorized modes of travel, the NE 6th Extension project would support the Wilburton commercial area as a regional growth center, and the Bel-Red transit-oriented development node.

The Washington State Department of Transportation's (WSDOT) I-405, NE 6th to I-5 Widening and Express Toll Lanes project, currently under construction, will convert the existing HOV lanes on I-405 north of NE 6th Street to express toll lanes, allowing single-occupancy vehicles (SOV) paying a toll to use the express toll lanes. This conversion could also revise the HOV eligibility requirement to HOV 3+, and would allow use of the existing NE 6th Street transit/HOV direct access ramps by express toll lane users.

Sound Transit's East Link light rail project will be constructed generally within and north of the NE 6th Street corridor between 110th Avenue NE and the BNSF Corridor. The design of the NE 6th Street Extension reflects the 30% design of the East Link project. Several areas and issues will require coordination with the East Link project as it progresses through final design. These are primarily related to the location of the aerial guideway structure that will parallel NE 6th Street between 112th Avenue NE and the BNSF corridor.

The project proposes to modify the existing "Texas T" transit/HOV direct access interchange on I-405 at NE 6th Street (Figure 1) to provide connections east to 120th Avenue NE. The NE 6th Street extension would be elevated above existing grade from I-405 east to the BNSF Corridor, where the extension would match existing grade east to 120th Avenue NE (Figure 2).

Three design alternatives for the NE 6th Street Extension project were evaluated and are described in this design report. These include one alternative with a four-lane basic section for motorized traffic, and two alternatives with a two-lane basic section for motorized traffic. All three alternatives would provide a multi-use path on the south side of NE 6th Street between 112th Avenue NE and 120th Avenue NE.

Design options that have been evaluated include intersection configurations at 112th Avenue NE, the I-405 transit/HOV ramps, 119th Avenue NE, and 120th Avenue NE. Options have also been evaluated for the multi-use path width and for non-motorized connections to 116th Avenue NE and to a future regional trail in the BNSF Corridor.

The estimated cost for the project is $73 to $93 million (year 2011 dollars), including right-of-way, construction, and design engineering and City administrative costs. The project is unfunded beyond the current phase of work. It is anticipated that WSDOT would act as lead agency for implementation of the NE 6th Street Extension project as a part of their I-405 Corridor Program. Specific roles and responsibilities of WSDOT and the City of Bellevue are yet to be determined, including sources of funding and cost-sharing.

The purpose of this Design Report is to document the preliminary design process (5% design level) for the NE 6th Street Extension project, and to provide the information needed to recommend a project scope to the Bellevue City Council. The preliminary design process for the NE 6th Street Extension project has included coordination with the project Stakeholder Advisory Group, which consists of various stakeholders, individuals, and special interest groups within the community, and with a Technical Review Team, consisting of staff from the various agencies comprising the project stakeholders. Feedback from the Stakeholder Advisory Group, the Technical Review Team, and the City of Bellevue engineering staff was integrated into the development of the preliminary design alternatives to incorporate the goals, concerns, and needs of both the City of Bellevue and other stakeholders.

This design report also provides summaries of analyses of the affected environment, permit requirements, traffic operations, structure types and configurations, geotechnical considerations, stormwater facilities, roadway illumination, and urban design issues and opportunities. These areas are covered in more depth in technical memorandums covering these topics. The technical memorandums are included as appendices to this design report. Right-of-way and utility impacts, and construction staging issues and concepts are also summarized.

The appendices also include an Urban Design Master Plan for the NE 6th Street Extension project. The Master Plan documents the preliminary urban design process. It includes summaries of a stakeholder input received in a survey, two design charrettes, and two technical review team meetings. Recommendations are provided for design options to support the City's urban design objectives, way finding and/or gateway elements, site furnishings and details, railings, plantings, and architectural treatments and finishes for structural elements.

Figure 1
Existing NE 6th Corridor at I-405



Source: HNTB Corporation, 2010

Figure 2
Proposed NE 6th Street Extension



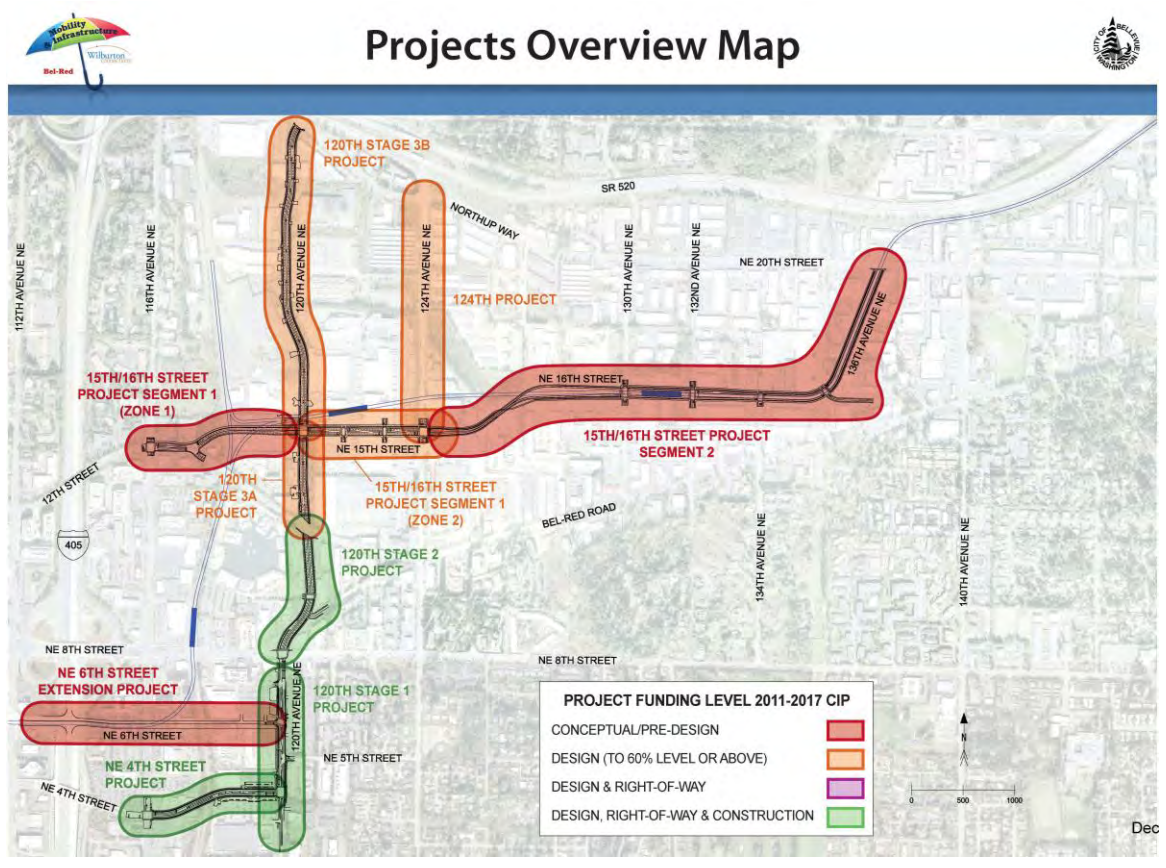
Source: HNTB Corporation, 2011

PROJECT BACKGROUND

Mobility & Infrastructure Initiative

In January 2009, the City of Bellevue City Council endorsed a Mobility and Infrastructure Initiative Finance Plan that included a financial strategy to address high priority capital needs in the community by supplementing the City's existing Capital Improvement Plan. The initiative is intended to fund transportation and other capital improvements needed in the downtown, west Wilburton and Bel-Red areas. The initiative addresses growth in travel demand caused by Downtown development and provides early investments to plan for anticipated growth in the Bel-Red area due in part to the future Sound Transit East Link light rail line and private development. Transportation investments included in the initiative were selected based on their effectiveness in reducing traffic congestion in these areas and improving connectivity throughout the City of Bellevue. The Mobility and Infrastructure Initiative transportation projects (Figure 3) are separated into two groups of projects, the Wilburton Connections Projects and the Bel-Red Projects.

Figure 3
City of Bellevue Mobility & Infrastructure Projects



Source: City of Bellevue, December 2010

Wilburton Connections Projects

The Wilburton Connections projects include three roadway projects in the west Wilburton area that will improve connections between the downtown, Wilburton, Bel-Red and Overlake areas (Figure 4). These include widening of 120th Avenue NE and extensions of NE 4th Street and NE 6th Street. It also includes a study of traffic calming provisions for NE 5th Street. The NE 4th Street Extension and the 120th Avenue NE Stage 1 projects are expected to be built by 2017. The NE 6th Street Extension project has not yet been funded beyond the current preliminary design effort.

NE 4th Street Extension

The NE 4th Street Extension project will extend an existing five-lane arterial street from 116th Avenue NE to 120th Avenue NE. This project supports general traffic circulation between downtown Bellevue, I-405, and the Wilburton areas. The project will primarily serve single occupant vehicles and will include bike lanes, curb, gutter and sidewalk on both sides, and illumination, landscaping and irrigation, and storm drainage and detention facilities. Where the NE 4th Street extension crosses the BNSF corridor, the design of the extension includes provisions for an at-grade crossing of potential future rail or high-capacity transit service, and a grade-separated crossing of a future regional non-motorized trail. The NE 4th Street Extension project is in the final design/PS&E phase of project development. Construction is anticipated to start in the year 2013 for Phase 1 and 2014 for Phase 2.

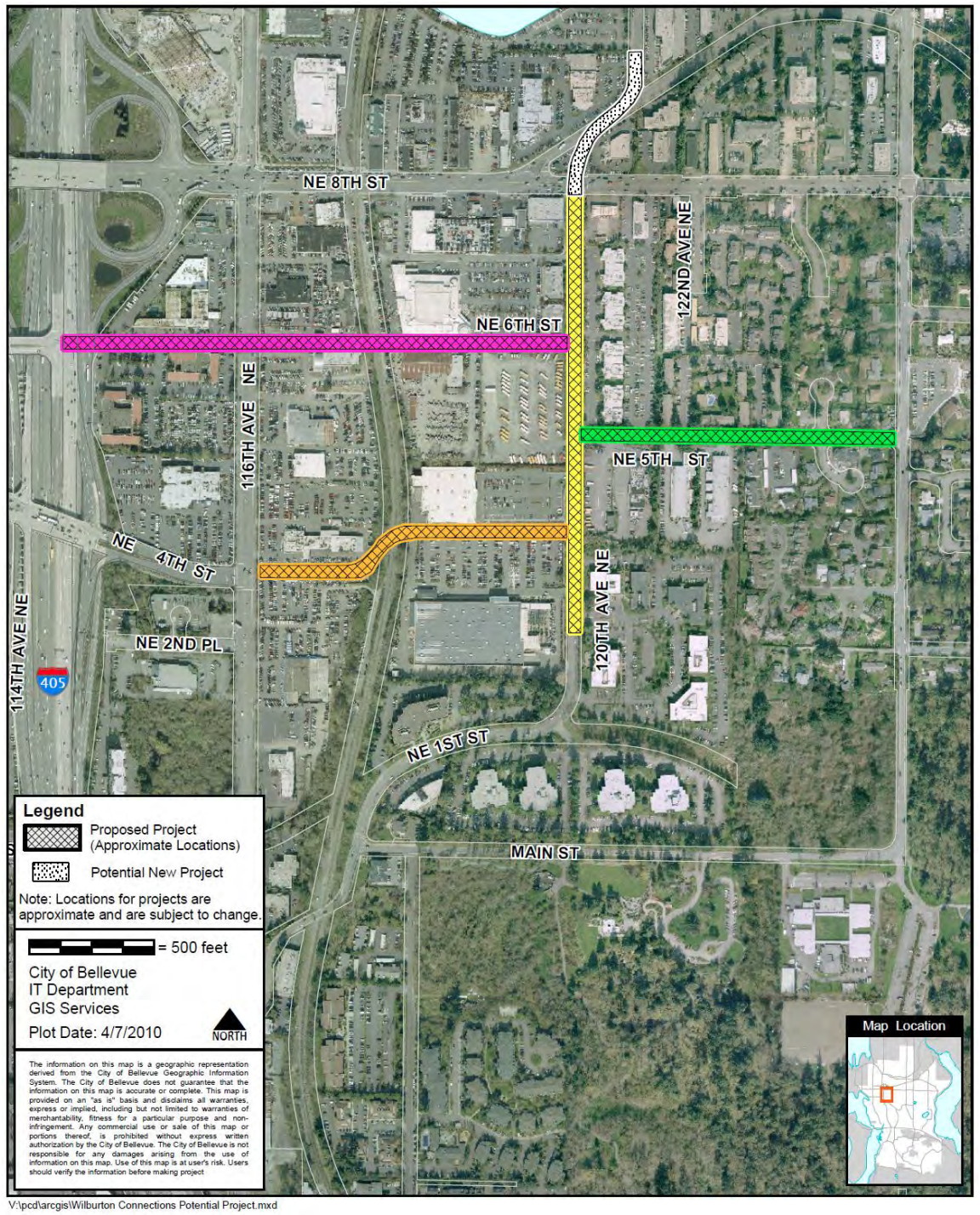
NE 6th Street Extension

The NE 6th Street Extension project will provide a new arterial street crossing over I-405, supporting increased connectivity between Downtown Bellevue, the Wilburton area, and the Bel-Red area via 120th Avenue NE. The extension will primarily serve transit, HOV, and non-motorized modes of travel. The NE 6th Street Extension will also provide an alternative to and relieve congestion at key intersections on parallel arterial streets in the vicinity of I-405, particularly NE 8th Street at 112th Avenue NE and NE 8th Street at 116th Avenue NE. As such, the project is expected to improve travel times and enhance mobility options for passenger car, transit, freight, pedestrian, and bicycle modes.

120th Avenue NE Improvements, NE 4th to NE 8th Street

The 120th Avenue Northeast Widening Stage 1 project will widen this existing street from three lanes to five lanes between NE 4th and NE 8th Streets. The project will improve, or install where missing, bike lanes, curb, gutter and sidewalk on both sides, a traffic signal at the NE 6th Street intersection, illumination, landscaping, irrigation, and storm drainage and detention. Intersection improvements will accommodate the NE 4th and NE 6th Street Extension projects and future realignment of 120th Avenue NE north of NE 8th Street. The latter project was advanced into the design process as Stage 2 by the City Council in late 2010. The 120th Avenue NE Extension project is in the final design/PS&E phase of project development. Construction is anticipated to start in the year 2013.

Figure 4
Conceptual Layout for Wilburton Connections Projects



Note: 120th Avenue NE Stage 2 project is shown as "Potential New Project"
Source: City of Bellevue, 2010

NE 5th Street Study

The main purpose of this project is to study and understand how to calm traffic through the existing residential neighborhood east of 120th Avenue NE. With the Wilburton Connection projects increasing the connectivity of the adjacent roadways, the neighborhood surrounding NE 5th Street is concerned about the potential for increased through traffic along NE 5th Street. The ultimate goal is to moderate potential Wilburton Connections traffic impacts to the neighborhood.

Other Adjacent Projects

In addition to the City of Bellevue's Wilburton Connections projects, WSDOT, Sound Transit, and King County have projects in the vicinity of the NE 6th Street Extension that will require design coordination.

I-405 – NE 6th to I-5 Widening and Express Toll Lanes Project

The I-405/SR 167 "Eastside Corridor" currently serves an estimated 1.1 million vehicle trips per day. Congestion on the corridor is increasing, and the existing High Occupancy Vehicle (HOV) lanes are so well utilized that they no longer meet their established performance standard of 45 mph during peak periods. NE 6th Street currently provides access to and from the west for the transit/HOV direct access ramp connections that serve downtown Bellevue. The ramps provide the primary connection to the Bellevue Transit Center for bus transit routes serving regional trips on I-405.

In May of 2009, the Washington State Legislature directed WSDOT to prepare a planning level traffic and revenue study for I-405 in King and Snohomish Counties. That study resulted in a plan to operate up to two High Occupancy Tolling (HOT) express toll lanes in each direction on a 40+ mile section of the Eastside Corridor, and includes the addition of capacity and other improvements to I-405.

The first phase of the express toll lanes program will implement express toll lanes on I-405, starting at NE 6th Street in downtown Bellevue and running north to I-5 in Lynnwood. This first phase is proceeding through a design-build implementation process that is anticipated to open the express toll lanes to traffic in 2015. WSDOT is currently determining whether the direct access ramps at NE 6th Street and other locations in the corridor, and the I-405 mainline express toll lanes, should operate as a HOV2+ or a HOV3+ facility with the implementation of express toll lanes. This decision will be made as a part of the tolling policy decisions to be made by the State Transportation Commission. Signing, toll gantry, and channelization requirements associated with the express toll lanes implementation will need to be coordinated with WSDOT as the planning and design for the NE 6th Street extension project progresses.

Sound Transit East Link Light Rail

The Sound Transit East Link Project will expand light rail transit (LRT) from downtown Seattle to East King County. East Link will provide a new 14-mile extension to connect Mercer Island, Bellevue, and Redmond to the existing Sound Transit light rail network in the Seattle area. The project has completed 30% design and a NEPA EIS. Final design of the project is expected to start in September 2012. Construction of the project is anticipated to start in 2014 or 2015.

The 30% level design plan set for the East Link project shows two alternatives for the East Link alignment through Segment C: a tunnel option (C9T) which runs underneath 110th Avenue NE between Main Street and NE 6th Street; and an at-grade option (C11A) which runs along 108th Avenue SE between Main Street and NE 6th Street. The tunnel alignment alternative has been selected for implementation. Both alignment alternatives are identical east of 112th Avenue NE. Passing over the intersection of 112th Avenue NE and NE 6th Street, the LRT alignment shifts from the center to the north side of NE 6th Street. It stays in the NE 6th Street corridor, crossing over I-405 and 116th Avenue NE. East of 116th Avenue NE, the LRT alignment turns to the north, enters the BNSF corridor and crosses over NE 8th Street. A new Hospital Station will be located immediately north of NE 8th Street. Figure 5 is a rendering of the NE 6th Street Extension depicting these East Link project elements.

Figure 5
NE 6th Street Extension



Source: HNTB Corporation, 2011

The East Link 30% design plans include a straddle bent that spans across NE 6th Street just east of 112th Avenue NE. Sound Transit also plans to place a pier for the new LRT structure over I-405 in the gore area of the I-405 northbound collector-distributor roadway off-ramp to NE 8th Street. The off-ramp and collector-distributor roadway will need to be realigned to accommodate this pier. These items will require design coordination with the NE 6th Street Extension project as described in more detail later in this document.

Sound Transit has purchased a 1.1 mile segment of the BNSF corridor between NE 6th Street and approximately NE 20th Street for use by the East Link project. In addition, Sound Transit has purchased an easement from the Port of Seattle, the current owner of the remainder of the BNSF corridor, for potential future high-capacity transit in the BNSF corridor. This easement runs from Renton north to Woodinville.

Areas or issues requiring coordination with the East Link project as it progresses through final design include:

- the configuration of the intersection of NE 6th Street with 112th Avenue SE, including the East Link straddle bent configuration and connections to the Lake Washington Trail;
- coordination of the East Link alignment with the future NE 6th Street extension alignment;
- revisions to the I-405 northbound collector-distributor roadway and off-ramp to eastbound NE 8th Street to accommodate proposed bridge piers for both the East Link bridge structure over I-405 and the future NE 6th Street extension bridge structure, including modifications to Sturtevant Creek in this vicinity; and
- the design of East Link structures within the BNSF corridor such that future regional multi-use trail grade separations over NE 8th Street are not precluded.

BNSF Corridor Non-Motorized Trail

The Burlington Northern Santa Fe (BNSF) Railway sold their Woodinville Subdivision to the Port of Seattle in December 2009. This north-south rail corridor extends from Renton to Snohomish via Woodinville and includes a spur to the City of Redmond. Rail service remains on the portion of the line between Snohomish and Woodinville. Concurrently with the Port's acquisition of the corridor, King County purchased a trail easement to preserve the rail-banked status of the corridor. The county is pursuing a non-motorized trail system using the BNSF corridor. They have not yet developed a master plan for this trail corridor. Funding for the master plan or implementation of a non-motorized trail has not been identified.

Notwithstanding the availability of funding, other agencies with interests in the BNSF corridor have recognized the desirability of the anticipated future regional non-motorized trail. King County Parks staff are participating in planning and design efforts for other projects within or crossing the BNSF corridor to assist in incorporating provisions for a future trail. These projects include the NE 6th Street Extension project.

Existing and Future Transit Service

Transit routes use NE 6th Street east of 110th Avenue NE to access the Bellevue Transit Center. The NE 6th Street direct-access ramp to I-405 is used by two King County Metro routes and three Sound Transit Regional Express routes.

King County Metro Transit

The King County Metro routes using the NE 6th Street direct-access ramps are weekday commuter routes from Woodinville (route 237) and the Shoreline park-and-ride (route 342). These two routes together have eight inbound trips between 5:15 and 8:15 AM and seven outbound trips between 3:30 and 6:00 PM. They operate to and from the north leg of the direct-access ramp intersection.

Transit information summarized in this section and in the *Traffic Operations Analysis Report* (see Appendix D) was current as of Fall 2010 and does not reflect the implementation of King County Metro Transit RapidRide service in Fall 2011. The RapidRide B Line replaced Metro Routes 230 and 253 shown on Figure 6. In the project vicinity, the B Line runs along NE 8th Street and accesses the Bellevue Transit Center via 108th Avenue NE inbound and via 112th Street outbound. The next stop on the B Line route is on NE 8th Street at 116th Avenue NE. The B Line runs on a 10-15 minute frequency between 6 AM and 10 PM, and a 30-minute frequency in the early morning and late night hours.

Sound Transit

The Sound Transit routes 532, 535, and 566 use the NE 6th Street direct-access ramps. Routes 532 and 535 provide service to Everett and Lynnwood, respectively. Route 532 is weekday commute period service only. Route 535 operates all day weekdays and on weekends, with connecting service to Everett from Lynnwood.

During the 5:30 to 8:30 AM peak period, 14 #532 trips and six #535 trips arrive at the Bellevue Transit Center. Morning peak departures from Bellevue are four #532 trips and six #535 trips. Route 535 operates two inbound and two outbound trips per hour between the morning and afternoon peak periods, and in the evening until 8:00 PM, and then operates hourly until about 11:00 PM. Weekend service on route 535 operates hourly both inbound and outbound.

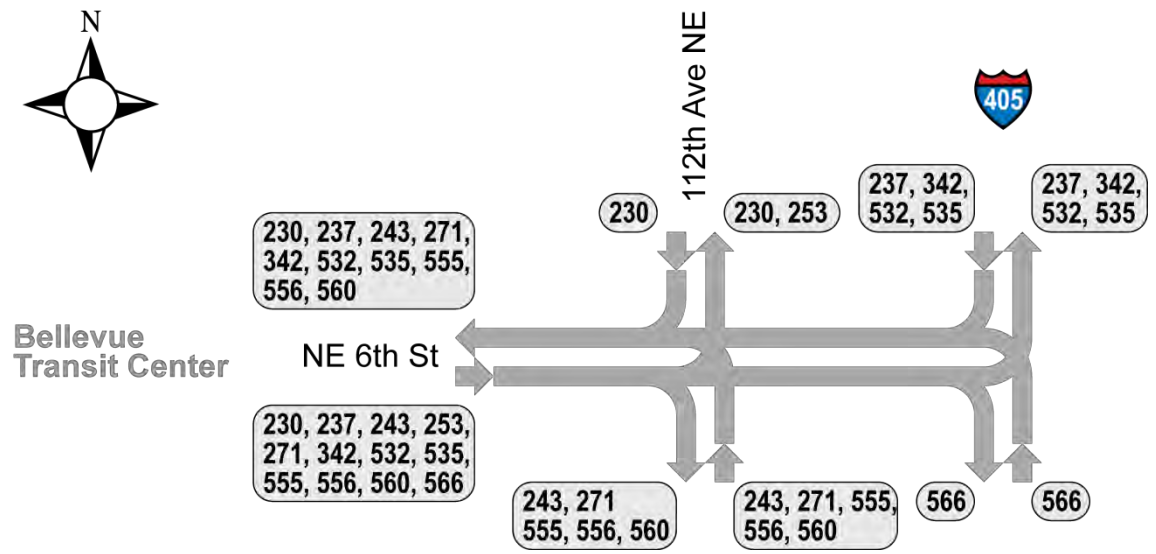
Sound Transit route 566 operates weekdays between Auburn and the Overlake area of Redmond through Bellevue on I-405. The NE 6th Street direct-access ramp is used to and from the south (Auburn) while the NE 10th and NE 8th Street interchange ramps are used to and from the north (Overlake). During the AM peak period, there are 15 #566 arrivals at the Bellevue Transit Center and six departures using the NE 6th Street direct-access ramp.

In the afternoon peak, 3:30 to 6:30 PM, there are thirteen #532 and six #535 departures for northbound I-405 through the NE 6th Street direct-access ramp. There are five #532 and six #535 arrivals during this period. There are six #566 arrivals at the Bellevue Transit Center using the NE 6th Street northbound off-ramp and 14 departures to Auburn using the southbound on-ramp.

Transit Use of the NE 6th Street and 112th Avenue NE Intersection

All bus trips using the NE 6th Street direct-access ramps to I-405 must pass through the 112th Avenue NE intersection as westbound through vehicles for inbound trips and eastbound through vehicles for outbound trips. In addition to these trips, other Metro and Sound Transit routes use 112th Avenue NE for travel to and from the Bellevue Transit Center. Figure 6 shows the 12 transit routes passing through the 112th Avenue NE intersection and the five routes using the NE 6th Street direct-access ramps.

Figure 6
Transit Use of the NE 6th Street and 112th Avenue NE Intersection



Note: Routes 230 and 253 replaced by RapidRide B Line.
Source: HNTB Corporation, 2010

During the weekday three-hour AM peak period, 122 buses travel through the NE 6th Street and 112th Avenue NE intersection. There are 130 buses traveling through this intersection during the PM peak three-hour period. On a typical weekday, 508 buses travel through this intersection.

Stakeholder Coordination Process

The NE 6th Street Extension project's preliminary design phase included coordination with key stakeholders to determine the optimal roadway configuration that would balance the needs of diverse stakeholders. The process included a stakeholder survey, two design charrettes with regional stakeholders, and several technical review team meetings. The design sessions provided an open forum format in which internal and external stakeholders could express their visions for the NE 6th Street Extension project, and provide feedback to the project team.

The stakeholder survey provided preliminary information to the design team to begin development of the roadway and urban design concepts for the corridor. The design charrette sessions solicited feedback from regional stakeholders outside of the City of Bellevue, including the goals, visions, uses, and recommended design guidance. The technical review team sessions provided a similar interactive forum in which City, WSDOT, Sound Transit, Port, and King County staff from various departments could discuss interdisciplinary needs and goals for the NE 6th Street corridor. The 5% preliminary design alternatives presented in this report are based on feedback from these two main stakeholder groups and blend the elements of urban design, traffic analysis and planning, and roadway, structures, and stormwater design.

For more information on the stakeholder process, and urban design elements and themes, see Appendix C for the *Urban Design Master Plan for NE 6th Street Extension* document.

EXISTING CONDITIONS

For the purpose of site analysis and design development, the project corridor was divided into three zones. These zones, depicted in Figure 7, are the I-405 Zone, the 116th Avenue NE Business/Commercial Zone, and the Wilburton Village Zone. These zones and key issues for each are further described in the Urban Design Master Plan (Appendix C).

Figure 7
NE 6th Street Site Analysis and Design Development Zones



Source: HNTB Corporation, 2010

I-405 Zone – 112th Street NE to I-405 Direct Access Ramps

The existing I-405 direct-access ramps at NE 6th Street provide transit and HOV access to the northbound and southbound I-405 HOV lanes from the west side of I-405 (Figure 8). These ramps were a joint WSDOT/Sound Transit/City of Bellevue project constructed in 2003-2004 as a part of the I-405 Bellevue Direct Access Project. The direct access interchange was funded by Sound Transit as a part of their Sound Move Regional Express program. The existing facility was a metric design, so dimensions listed in this design report are nominal dimensions converted from the metric contract documents.

Figure 8
Existing NE 6th Street Transit/HOV Direct Access Interchange



Source: HNTB Corporation, 2010

The existing NE 6th Street terminates at a tee intersection in the median of I-405. The intersection is controlled by a traffic signal. Opposing traffic on the direct access ramps is separated by a concrete traffic barrier. Each direction on the ramp is provided with a 20.5-foot wide travel way, allocated as one 12-foot wide lane, a 6.5-foot wide right shoulder, and a 2-foot wide left shoulder (Figure 9). The total width of the ramps is 43 feet, barrier to barrier, including the median barrier.

Figure 9
Existing NE 6th Street Transit/HOV Direct Access Ramps



Source: HNTB Corporation, 2012

NE 6th Street between the ramps and 112th Avenue NE is 66 feet wide, with two 12-foot-wide lanes and a 3-foot-wide shoulder in each direction (Figure 10). A raised median is provided at the ramp intersection, and a westbound to southbound left turn pocket at the intersection of 112th Avenue NE and NE 6th Street. The existing raised median is currently used by law enforcement to monitor compliance with HOV restrictions, and by WSDOT's incident response crews to facilitate incident response truck access to both directions of I-405 during peak periods. There are no existing bicycle or pedestrian facilities on NE 6th Street between 112th Avenue NE and the direct access ramp intersection.

Figure 10
Existing NE 6th Street, 112th Avenue NE to I-405 Direct Access Ramps



Source: HNTB Corporation, 2010

The existing NE 6th Street / I-405 direct-access ramps are supported on stabilized earth (SE) retaining walls located along the edge of the inside shoulders of northbound and southbound I-405 (Figure 11). The intersection traffic signal pole and ITS cabinets are located on a concrete deck that is cantilevered off the east side of the intersection.

NE 6th Street extends across southbound I-405 on a steel girder bridge (Figure 12). The bridge has a concrete deck with traffic barrier and pedestrian railings. Both ends of the steel girder bridge are supported on stabilized earth walls. A sign bridge is located at the west abutment on a bridge blister. Luminaire poles are attached to the concrete bridge rail on both sides of NE 6th Street.

Figure 11
Existing Retaining Walls – NE 6th Street Direct Access Interchange





Source: HNTB Corporation, 2010

Figure 12
Existing Structures – NE 6th Street Direct Access Interchange





Source: HNTB Corporation, 2010

116th Avenue NE Business/Commercial Zone

Between I-405 and the BNSF Corridor, the only existing public street is 116th Avenue NE. This portion of the NE 6th Street Extension corridor is a business/commercial zone dominated by auto dealerships. On the west side of 116th Avenue NE, the corridor is occupied by two-story office buildings on a property owned by the City of Bellevue (Figure 13 and Figure 14).

Figure 13
Existing NE 6th Street Corridor, Looking West from BNSF Corridor



Source: HNTB Corporation, 2010

Figure 14
116th Avenue NE, Looking South from NE 6th Corridor



Source: HNTB Corporation, 2010

Wilburton Village Zone

West of 120th Avenue NE to approximately 119th Avenue NE, NE 6th Street provides local access to adjacent properties, a shopping center to the north, a Bellevue School District school bus parking area to the south, and Mutual Materials to the west and south (Figure 15).

Figure 15
NE 6th Street, Looking East to 120th Avenue NE



Source: HNTB Corporation, 2010

Figure 16
NE 6th Street, Looking West from 120th Avenue NE



Source: HNTB Corporation, 2010

NE 6TH STREET EXTENSION DESIGN PARAMETERS

Roadway Design Criteria

The NE 6th Street Extension project is located partially within the jurisdiction of the City of Bellevue, and partially within the jurisdiction of WSDOT. As such, the NE 6th Street Extension project's preliminary design uses the following design criteria:

- **Within WSDOT Right-of-Way** – This segment of the project consists of extending NE 6th Street over the I-405 northbound lanes and any work on the existing portion of the corridor between 112th Avenue NE and the existing ramps. Design of this segment is in accordance with the Washington State Department of Transportation guidelines, with reference to AASHTO guidelines for selected parameters.

- **Within City of Bellevue Right-of-Way** – This segment is a continuation of NE 6th Street Extension proposed structure from the eastern limit of the WSDOT I-405 right of way to 120th Avenue NE. Design of this segment was in accordance with the City of Bellevue design guidelines. The WSDOT and AASHTO guidelines were used wherever the City of Bellevue standards did not include specific design guidance.

Key design criteria for the project are summarized in Table 1 for the portions of the project within WSDOT right-of-way, and in Table 2 for the portions of the project within City of Bellevue right-of-way. Any work affecting the I-405 mainline or ramps would be subject to WSDOT's I-1 (Interstate) design criteria. The NE 6th Street Extension would fall under WSDOT's criteria for an Urban Minor Arterial, M-5. A discussion of the rationale for the values selected for these parameters follows.

The design speed for the NE 6th Street Extension has been selected as 35 mph, reflecting an anticipated posted speed of 25-30 mph. The I-405 mainline design speed is 60 mph, consistent with the Corridor Analysis completed for the I-405 – NE 6th to I-5 Widening and Express Toll Lanes Project, which specifies a mainline design speed of 60 mph south of SR 520. The 25 mph design speed noted in Table 1 for ramps applies to geometric elements in proximity to the ramp terminal intersection. The ramp terminal intersection at NE 6th Street is anticipated to remain traffic signal controlled; as such, a stop condition would be appropriate for evaluating ramp deceleration requirements and a 15 mph speed for ramp acceleration, the latter reflecting turning movements onto the direct access ramps from NE 6th Street.

The AASHTO Intercity Bus (BUS-45) design vehicle was selected as the governing vehicle for use in establishing and evaluating horizontal geometry elements. WSDOT's *Design Manual* Chapter 1420 specifies an articulated bus (A-BUS) design vehicle for horizontal design elements of HOV direct access facilities. The BUS-45 vehicle has a larger turning radius than the A-BUS design vehicle; due to the proximity of Meydenbauer Center and periodic high volumes of intercity charter buses associated with events at Meydenbauer Center, it was selected as the "worst case" design vehicle for the project. We also note that one existing Sound Transit Regional Express route is now serving Bellevue Transit Center with intercity buses. The A-BUS design vehicle would still apply to evaluations of direct access ramp acceleration and deceleration distances.

Large trucks (i.e. AASHTO/WSDOT WB-40, WB-50, WB-67 combination vehicles) are currently prohibited from using the regional HOV system, including the direct access ramps. This prohibition would apply to the NE 6th Street Extension and to WSDOT's anticipated conversion of the I-405 HOV lanes to express toll lanes. Use of the BUS-45 design vehicle would accommodate use of the NE 6th Street Extension by a SU-30 design vehicle (single unit truck), the minimum specified in the City of Bellevue's *Design Manual*. These vehicles, if under 10,000 pounds gross vehicle weight, are allowed to use the regional HOV system.

Table 1
Design Criteria Within WSDOT Right-of-Way

Design Element	Standards	Source
Freeway Design Speed	60 mph	DM
Ramp Design Speed	25 mph	DM
NE 6th Street Design Speed	35 mph	DM, COB
Design Vehicle	Intercity Bus (BUS-45)	AASHTO, DM
Curb Radius	50 ft	DM
Lane Width	12 ft	DM, COB
Shy Distance (to barrier / bridge rail)	2 ft	DM, COB
Multi-Use Path Width	14 ft	AASHTO, DM, COB, ADA

Notes: [1] DM Design Manual, Washington State Department of Transportation, July 2011
[2] COB Design Manual, Transportation Department City of Bellevue, April 2011

Table 2
Design Criteria Within City of Bellevue Right-of-Way

Design Element	Standards	Source
Design Speed	35 mph	COB
Design Vehicle	Intercity Bus (BUS-45)	AASHTO, DM, COB
Curb Radius	20-50 ft	COB, DM
Lane Width	12 ft	COB, DM
Shy Distance (to barrier / bridge rail)	2 ft	COB, DM
Clear Zone (face of curb to face of object)	3 ft	COB, DM
Planter Strip Width (not including curb width)	4 ft	COB
Sidewalk Width	8 ft	COB
Multi-Use Path Width	14 ft	AASHTO, DM, COB, ADA

Notes: [1] DM Design Manual, Washington State Department of Transportation, July 2011
[2] COB Design Manual, Transportation Department City of Bellevue, April 2011

Lane widths are proposed to be 12 feet as noted in Tables 1 and 2. As described later in this design report, it may be necessary to reduce existing lane and shoulder widths on the I-405 direct access ramps to provide an additional lane for turning movements. If this is the case, a design deviation would be required for this condition.

A clear zone width is not specified in Table 1 for the portions of the project within WSDOT right-of-way, as it is assumed that continuous barrier/bridge rail would be provided and would protect any objects that would otherwise be in the clear zone. These objects would include sign bridges,

luminaire and/or traffic signal poles, and sign posts. The City's clear zone criterion of three feet minimum from the face of curb to face of object would apply to appurtenances at the ramp terminal intersection, and to portions of the corridor that are at-grade (i.e. east of the BNSF Corridor).

The Multi-Use Path (shared-use path per AASHTO/WSDOT or off-street path per City of Bellevue) will serve non-motorized users, primarily pedestrians and bicyclists. The width criterion of 14 feet is based on current practice as described in the City of Bellevue's *2009 Pedestrian and Bicycle Plan* and WSDOT's *Design Manual* Chapter 1515, where "*... substantial use by both pedestrians and bicycles is expected...*" This proposed width reflects a travel way width of 10 to 12 feet with one to two feet of shy distance to the continuous bridge rails, barriers, or railings that would be present on the NE 6th Street Extension. As described later in this report, an option for a 16-foot wide path has also been identified.

Base Maps Used for Design

The current preliminary design effort utilized readily-available base maps from sources including:

- WSDOT I-405 Corridor Program
- City of Bellevue GIS
- City of Bellevue NE 4th Street Extension & 120th Avenue NE Stage 1 projects

Design for this phase of the project utilized WSDOT State Plane Coordinates. Information on existing structures at the I-405/NE 6th Street interchange was obtained from construction and as-built plans available from WSDOT. The existing interchange was constructed using metric units; dimensions shown in this design report are nominal English unit conversions from the metric design dimensions. The next phase of design will need to include topographic survey sufficient to verify critical clearances and dimensions, particularly in the vicinity of the existing I-405/NE 6th Street interchange.

Traffic Forecasts & Design Year Operations

The NE 6th Street Extension project between 112th Avenue NE and 120th Avenue NE would provide an additional east-west connection across I-405 in Bellevue. Traffic forecasts for years 2015 and 2030 PM peak hours conditions were prepared using City of Bellevue-provided forecasts for the Wilburton Connections projects and WSDOT forecasts for the I-405, Bellevue to Lynnwood Improvement Project (express toll lanes project). The WSDOT project would convert the existing HOV lanes on I-405 north of NE 6th Street to express toll lanes operation.

The City forecasts assume an HOV 2+ eligibility requirement for the NE 6th Street corridor and the regional HOV system. In contrast, the WSDOT express toll lanes project would allow single occupant vehicles (SOVs) and two-person carpools (HOV 2s) to pay a variable rate toll to access I-405 express toll lanes from the NE 6th Street direct access ramps. WSDOT's forecasts assume that by 2030 carpools would be required to have three or more occupants for free access to the express toll lanes. The City of Bellevue 2030 forecasts were adjusted to conform to the WSDOT HOV 3+ forecasts with SOV/HOV 2 buy-in access to the express toll lanes, using volumes predicted to use the NE 6th Street I-405 direct access ramps as control totals.

The traffic operations analyses evaluated all 11 signalized intersections on NE 4th Street, NE 6th Street, and NE 8th Street between 112th Avenue NE and 120th Avenue NE. The 2030 PM peak analysis assumed completion of the NE 4th Street/120th Avenue NE Corridor project and evaluated scenarios with and without express toll lane operation on I-405. In general, with the NE 6th Street Extension, there would be less intersection delay on NE 4th Street and NE 8th Street, either with or without I-405 express toll lane operation.

The year 2030 traffic operations analyses show that five lanes, consisting of two through lanes in each direction with a left-turn lane at the intersections, are needed on NE 6th Street at the 112th Avenue NE and I-405 direct access ramp intersections. Between I-405 and the BNSF corridor, only two lanes would be needed (one through lane in each direction) for year 2030 PM peak hour volumes. Five lanes are needed at the 120th Avenue NE intersection, consisting of two westbound through lanes and three eastbound lanes, configured as two left-turn lanes and a right-turn lane.

Table 3 shows 2030 PM peak hour operation at intersections along the NE 6th Street Extension for no build and build conditions, with and without I-405 express toll lane operation. The addition of the NE 6th Street Extension (build conditions) would improve operations at the 112th Avenue NE intersection by providing an alternate route for eligible vehicles accessing the I-405 direct access ramps from points east of I-405, reducing the overall volume of traffic at this intersection.

The added traffic volumes accessing the I-405 express toll lanes ("with ETL") would result in level of service (LOS) F operations at the I-405 ramp intersection with the existing lane configuration on the ramps. Reconfiguring the ramps to provide left turn lanes on the north and south intersection approaches would provide LOS C operation, and would significantly reduce the potential for queues backing up from the signalized intersection onto the I-405 mainline express toll lanes.

Table 3
NE 6th Street 2030 PM Peak Hour
Intersection Level of Service and Delay

	No Build		Build	
Intersection	**Without ETL**	**With ETL**	**Without ETL**	**With ETL**
NE 6th Street & 112th Avenue NE	E 69.1 secs	F 113.6 secs	E 58.1 secs	E 62.5 secs
NE 6th Street & I-405 Ramps existing, without left turn lanes on ramp	C 24.7 secs	E 56.3 secs	E 57.4 secs	F 83.9 secs
NE 6th Street & I-405 Ramps modified, with left turn lanes on ramp	N.A.	N.A.	N.A.	C 23.5 secs
NE 6th Street & 120th Avenue NE	B 15.1 secs	B 18.7 secs	C 30.7 secs	C 26.8 secs

N.A. = configuration not evaluated for this scenario.
ETL = Express Toll Lanes on I-405
Source: HNTB Corporation, 2011

For more information on the traffic operations of the NE 6th Street Extension project see the *Traffic Operations Analysis Report* (HNTB Corporation, 2011) in Appendix D.

DESCRIPTION OF THE ALTERNATIVES AND DESIGN OPTIONS

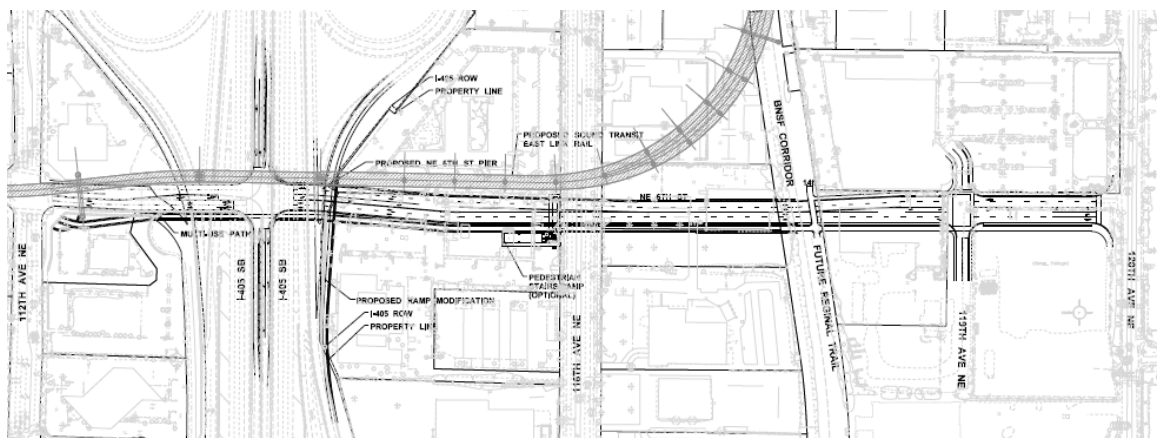
Overview of Alternatives

The City of Bellevue Transportation Facilities Plan describes the NE 6th Street Extension project as follows:

> *Extend NE 6th Street, as an HOV only facility, from the I-405 HOV interchange to the east over 116th Avenue NE, crossing BNSF right-of-way, and terminating at 120th Ave NE. Improvements include two lanes in each direction with left turn lanes at signalized intersections of I-405 and 120th Avenue NE, a 14' wide non-motorized pathway adjacent to and along the south side of the extension between 112th Ave NE and 120th Ave NE, I-405 corridor design standards, illumination system, retaining walls, landscaping for at-grade locations, underground utilities, detention/water quality treatment, and provisions that do not preclude future regional trail or other improvements within the BNSF corridor.*

The initial design alternative developed as a part of this preliminary engineering effort assumed a four-lane basic section (two through lanes in each direction) on NE 6th Street from 112th Avenue NE to 120th Avenue NE. Turn lanes would be provided where needed at intersections, and a multi-use path would be located on the south side of the traffic lanes. This alternative is depicted in Exhibit EX01 found in Appendix A and is shown below in Figure 17.

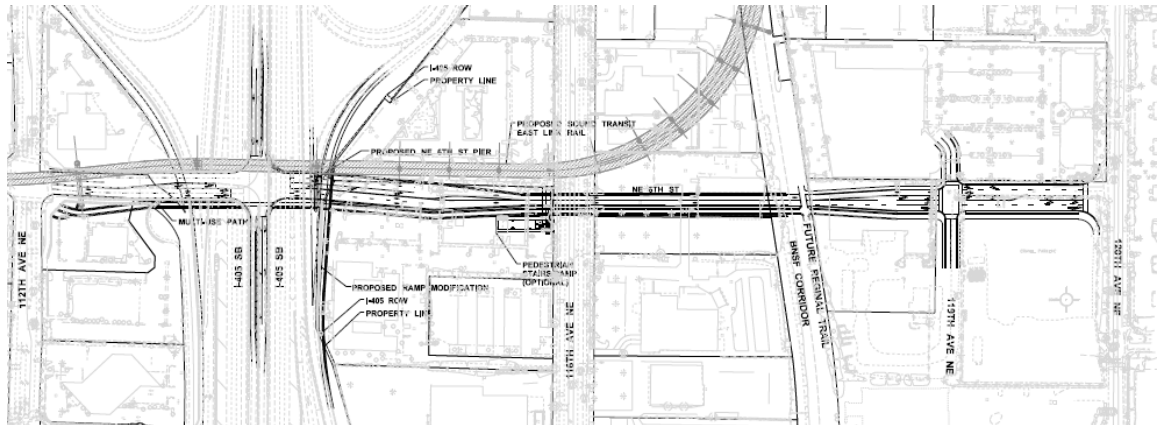
Figure 17
Four-Lane Basic Section on Base Alignment



Source: HNTB Corporation, 2011

The results of the traffic operations analyses indicated that the design year traffic volumes east of I-405 would not require four lanes between the signalized intersections at the I-405 ramps and 120th Avenue NE. The majority of this portion of the corridor will be on elevated structure with an associated high cost relative to an at-grade facility. For these reasons, two-lane alternatives (one lane through in each direction) were developed for the portion of the corridor on elevated structure between the I-405 right-of-way and the BNSF corridor. The initial two-lane basic section alternative assumed the same horizontal alignment and profile as the four-lane basic section alternative. This alignment is referred to as the "base" alignment and is depicted in Exhibit EX02 found in Appendix A and is shown below in Figure 18.

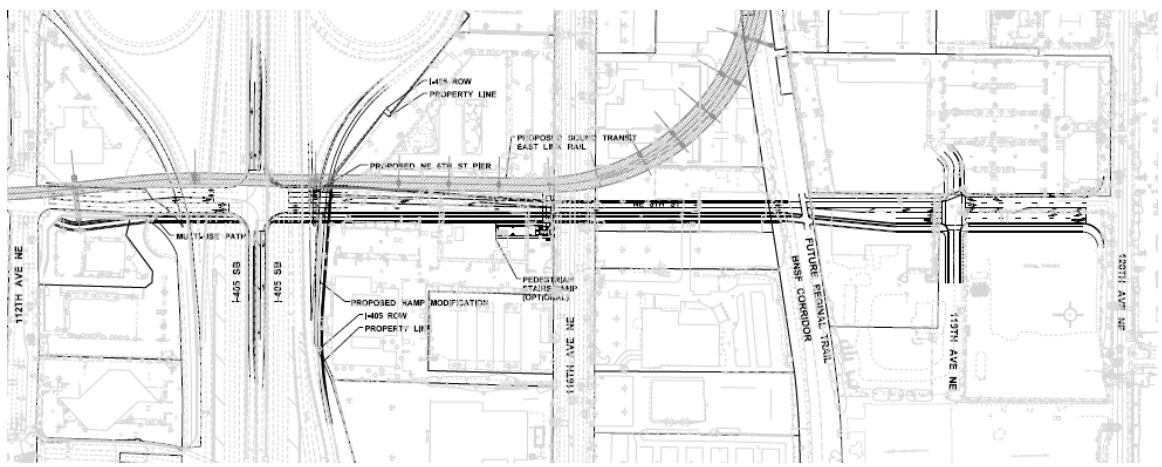
Figure 18
Two-Lane Basic Section on Base Alignment



Source: HNTB Corporation, 2011

A second two-lane alternative with a "refined" alignment was also developed. The refined alignment would have less horizontal curvature and would be located further north, immediately adjacent to the Sound Transit's proposed East Link elevated guideway structure. This alternative is depicted in Exhibit EX03 found in Appendix A and is shown below in Figure 19.

Figure 19
Two-Lane Basic Section on Refined Alignment



Source: HNTB Corporation, 2011

Alignment & Profile Options

Base Alignment

The base alignment is depicted on Alignment and Right of Way Plan sheets AR01 and AR02 and Profile sheets PR01 and PR02 (Appendix B).

112th Avenue NE to I-405

The base horizontal alignment lines up symmetrically with the existing NE 6th Street and 112th Street intersection. It follows the existing roadway centerline to the I-405 ramps intersection on a profile grade of approximately 3.6%, cresting and flattening out at the I-405 ramps intersection.

I-405 to BNSF Corridor

East of the I-405 ramps intersection to the vicinity of the I-405 right-of-way line, the base horizontal alignment would be on a tangent. In this area, a minimum six-foot horizontal clearance would be maintained from the outside face of the NE 6th Street bridge rail to the near face of the proposed East Link elevated guideway bridge piers. The East Link guideway deck would overhang the NE 6th Street structure by one to four feet. A vertical clearance of 16.5 feet would be provided over the NE 6th Street structure.

In the vicinity of the I-405 east right-of-way line, the base alignment would shift to the south via two 510-foot radius horizontal curves, reducing the right-of-way impact to the Goldtrust Hotel property on the north side of NE 6th Street, and increasing the horizontal clearance to the proposed Sound Transit elevated guideway bridge piers to 28 feet.

The cross slope of NE 6th Street would be a constant 2% rate sloping down from north to south, matching the profile of the existing NE 6th Street ramps and improving vertical clearance over the northbound I-405 mainline. The 2% constant cross-slope is maintained on the proposed bridge east to the BNSF Corridor. This cross-slope would result in an negative superelevation or adverse crown on the second horizontal curve, but would meet AASHTO and WSDOT guidelines for a 35 mph design speed. The constant cross slope would also simplify drainage on the bridge structure.

The profile grade of the NE 6th Street Extension would be 1.4% from the I-405 ramps to the BNSF Corridor. The I-405 direct access ramps intersection would be reconstructed to eliminate an existing 4% grade break (2% on each side of the break), raising the roadway elevation by approximately two to six inches across the grade break. This would minimize the grade break between the existing and new structures and would provide the maximum possible vertical clearance to northbound I-405 lanes, approximately 23 feet between roadway profiles. This vertical separation would allow for a five to six foot structure depth on the NE 6th Street Extension while providing no less than the minimum required 16.5 feet of vertical clearance over the I-405 northbound mainline. Subsequent design activities will include topographical survey to verify the existing elevations and grading at the ramp intersection.

BNSF Corridor to 120th Avenue NE

The horizontal alignment would be on a tangent from a point west of 116th Avenue NE to 120th Avenue NE. The alignment was set to allow for a five-lane basic section at the 120th Avenue NE intersection, while matching the curb line for existing property improvements along the north side of NE 6th Street in the vicinity of 120th Avenue NE, and the north curb return that will be constructed by the 120th Ave NE project. Crossing the BNSF Corridor, the profile grade flattens to 0.3%, matching the existing terrain east to 120th Avenue NE. The cross-slope of NE 6th Street would transition to a 2% normal crown section immediately east of the bridge structure and maintain a normal crown section east to 120th Avenue NE.

Refined Alignment

The refined alignment is depicted on Alignment and Right of Way Plan sheets AR03 and AR04 and Profile sheets PR07 and PR08 (Appendix B).

112th Avenue NE to I-405

The refined alignment would be identical to the base horizontal alignment in this segment.

I-405 to BNSF Corridor

East of the I-405 ramps intersection, the refined alignment shifts to the south via two 1°38” angle points. These angle points would desirably align with bridge structure pier locations to simplify design and construction. Relative to the base alignment, the refined alignment would be further north, paralleling the adjacent Sound Transit East Link elevated guideway bridge structure. This alignment would reduce structure area and right-of-way impact on the existing properties south of NE 6th Street. It would also allow the south side of the elevated structure, which includes the multi-use path, to be on a tangent, simplifying the design and construction of the elevated structure. As with the base alignment, the cross slope of NE 6th Street would be a constant 2% rate sloping down from north to south for the full length of the bridge structure. The profile grade of the NE 6th Street Extension would be 1.4% from the I-405 ramps to the BNSF Corridor.

BNSF Corridor to 120th Avenue NE

The horizontal alignment would be on a tangent from a point west of 116th Avenue NE to 120th Avenue NE. Relative to the base alignment, the refined alignment baseline would be approximately 17 feet further north at the intersection of NE 6th Street with 120th Avenue NE. With a five-lane basic section at the 120th Avenue NE intersection, the refined alignment alternative would impact approximately five additional feet of existing property improvements along the north side of NE 6th Street in the vicinity of 120th Avenue NE. The profile grade and cross-slopes would be identical to the base alignment.

Roadway Basic Section Options

As described earlier, both four-lane and two-lane basic section options have been developed for the portion of the NE 6th Street extension between I-405 and the BNSF Corridor. The basic sections for each alternative are shown in Table 4. A plan view of the lane arrangements are shown on Exhibits EX01, EX02, and EX03 in Appendix A.

The proposed roadway sections are shown on Conceptual Plans Sheet RS01 in Appendix B. As noted under Design Criteria, all traffic lanes on the NE 6th Street Extension are proposed to be 12 feet wide. The plans in Appendices A and B depict an edge line stripe along the exterior lanes. A shoulder or shy distance two to three feet in width would be provided between the exterior lanes in each direction and the adjacent bridge rail or curb. This would provide a total effective width of 14 to 15 feet for the two exterior lanes.

Table 4
Roadway Basic Sections by Alternative

Alternative / Alignment Option	112th to I-405 Ramps	I-405 Ramps to 116th	116th to BNSF Corridor	BNSF Corridor to 119th	119th to 120th
4-Lane / Base Alignment	5 lanes	5-4 lanes	4 lanes	4-5 lanes	5 lanes
2-Lane / Base Alignment	5 lanes	5-2 lanes	2 lanes	2-4 lanes	5 lanes
2-Lane / Refined Alignment	5 lanes	4-2 lanes	2 lanes	2-4 lanes	5 lanes

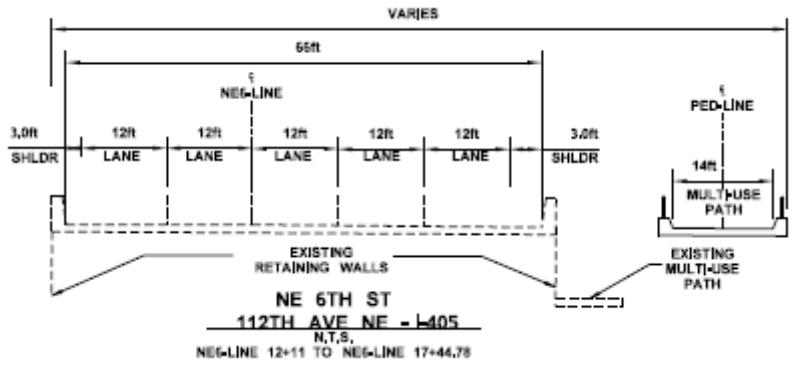
Source: HNTB Corporation, 2011

In addition to the four-lane and two-lane basic section options, a three-lane basic section option could be considered for the portion of the NE 6th Street Extension between 116th Avenue NE and the BNSF corridor. A third lane on NE 6th Street would allow access to a potential future parking structure associated with adjacent development, for example, a regional sports arena or events center that might attract large volumes of HOV traffic. The width of a three-lane roadway would be 40 feet, consisting of three 12-foot wide lanes and two-foot wide shoulders or shy distance on each side adjacent to the curb or bridge rail. An interim two-lane section could be striped on an ultimate three-lane facility as two 12-foot wide lanes with 8-foot wide shoulders.

112th Avenue NE to I-405 Ramps

All three alternatives described in this design report would be identical between 112th Avenue NE and the I-405 ramps intersection. NE 6th Street would have five 12-foot wide lanes, two westbound and two eastbound, with a left turn lane at each intersection. The existing three-foot wide shoulder would remain. The existing raised median separating the eastbound and westbound lanes on NE 6th Street at the ramps intersection would be removed and converted to an eastbound left-turn lane.

Figure 20
Typical Section – 112th Avenue NE to I-405



Source: HNTB Corporation, 2011

A multi-use path on separate structure to be located on the south side of NE 6th Street is proposed to carry the multi-use path between 112th Avenue NE and 114th Avenue NE. Between 114th Avenue NE and the I-405 ramps intersection, the multi-use path could be on a separate structure or on a widening of the existing bridge structure, as described later in this report.

An option that would have provided a total of four traffic lanes in this segment was investigated but rejected due to poor levels of service that would have resulted at the 112th Avenue NE and I-405 ramp intersections. The advantage of this option is that it would have reduced project costs by eliminating the need for a separate and/or widened structure carrying the multi-use path from 112th over I-405. It would have allowed the multi-use path to be on the existing retained earth and bridge structures by converting the southern-most traffic lane to non-motorized uses, and reducing existing shoulder widths from three feet to two feet.

I-405 Ramps to 116th Avenue NE

All three alternatives would provide a westbound left-turn pocket at the I-405 ramps intersection. Traffic operations analyses with Year 2030 forecasts indicate that this left-turn pocket should provide 300 feet of storage as indicated on the channelization plans in Appendix B on Sheets CH01 (four-lane basic section with base alignment) and CH04 (two lane basic section with refined alignment). The taper to drop this lane would extend east to the west side of 116th Avenue NE at a 15:1 minimum taper rate.

The two-lane basic section alternative with the base alignment would carry two eastbound through lanes across the I-405 ramp intersection, dropping the second lane 300 feet east of the intersection. This alternative would also carry two westbound through lanes across the I-405 ramp intersection, providing 300 feet of storage for each lane upstream of the ramps intersection. These lanes would be dropped and added utilizing a 15:1 minimum taper rate.

In contrast, the two-lane basic section alternative with the refined alignment would carry one eastbound through lane across the I-405 ramp intersection. A 24-foot wide throat would be provided on the east side of the intersection to better accommodate right turn movements off of the northbound ramp. This section width would be carried 150 feet east of the intersection. This alternative would also carry two westbound through lanes across the I-405 ramp intersection, providing 150 feet of storage for each lane upstream of the ramps intersection. These lanes would be dropped and added utilizing a 15:1 minimum taper rate.

This portion of the NE 6th Street Extension would be carried on a bridge structure. The conceptual cross section shown in For all three alternatives, the begin and end points of the lane drop/add tapers would be coordinated with the bridge structure design such that the tapers would begin and end at even structural units such as at the bridge piers. The begin/end point of the lane tapers shown on the conceptual plans are approximate and will be refined in subsequent design phases.

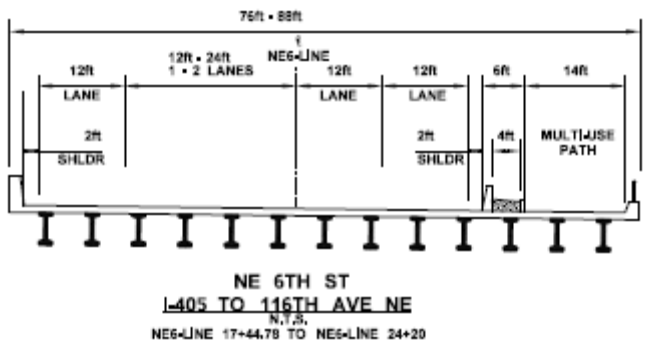
East of the I-405 right-of-way, a planter strip is proposed to separate the traffic lanes from the adjacent multi-use path. This planter strip would include a crash-rated barrier adjacent to the traffic lanes, a four-foot wide landscaping bed, and a concrete parapet between the landscaping bed and the multi-use path. Smooth wall finishes are recommended for the barriers and/or parapets immediately adjacent to motorized or non-motorized traffic. Textures or patterns could be considered for the portion of the barrier or parapet on the back side of the planter strip facing the multi-use path.

Figure 21 depicts the steel girder superstructure that is recommended between the I-405 ramps and the east I-405 right-of-way line. East of the I-405 right-of-way line, the recommended structure type is a concrete tub girder as shown on Figure 22.

For all three alternatives, the begin and end points of the lane drop/add tapers would be coordinated with the bridge structure design such that the tapers would begin and end at even structural units such as at the bridge piers. The begin/end point of the lane tapers shown on the conceptual plans are approximate and will be refined in subsequent design phases.

East of the I-405 right-of-way, a planter strip is proposed to separate the traffic lanes from the adjacent multi-use path. This planter strip would include a crash-rated barrier adjacent to the traffic lanes, a four-foot wide landscaping bed, and a concrete parapet between the landscaping bed and the multi-use path. Smooth wall finishes are recommended for the barriers and/or parapets immediately adjacent to motorized or non-motorized traffic. Textures or patterns could be considered for the portion of the barrier or parapet on the back side of the planter strip facing the multi-use path.

Figure 21
Typical Section – I-405 to 116th Avenue NE



Source: HNTB Corporation, 2011

The plantings in the landscaping bed are proposed to consist of drought tolerant species of shrubs and groundcovers, and small to medium sized street trees with a maximum height of 15 feet at maturity. Specific species of plantings will be determined in subsequent phases of project development. The proposed planting bed with street trees would be expected to include the following benefits that are consistent with the City's goals for the NE 6th Street Extension project[1,2]:

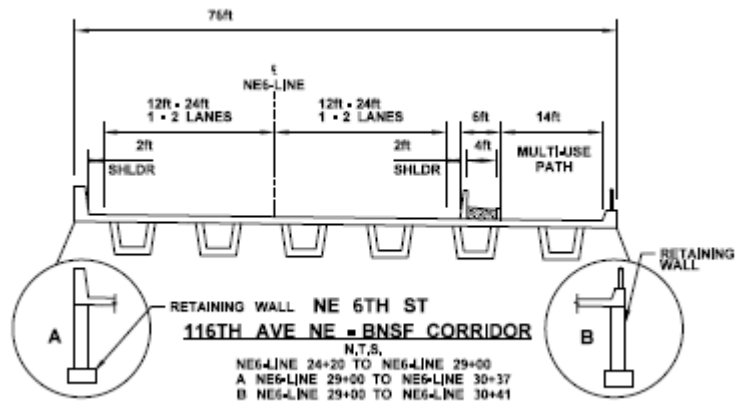
- Greater separation of the motorized and non-motorized environments providing a physical and psychological buffer between the two, resulting in an improved walking environment that would encourage usage of the corridor by pedestrians and other non-motorized user modes of travel.
- Reduced traffic speeds by providing vertical elements (street trees) at the roadway edge that help motorists to gauge their speed, improve motorist attention and alertness, and provide a psychological calming effect, which in combination can result in speed reductions compared to similar locations without street trees.
- Lower pavement temperatures and reduced impacts from tailpipe emissions.

Other benefits typically attributable to street trees, such as shading and cooling the multi-use path, would be less pronounced, due to the location of the landscaping bed on the north side of the multi-use path. Landscaping and street tree provisions on the elevated structure would increase construction and maintenance costs.

116th Avenue NE to BNSF Corridor

The typical section would be of constant width from the west side of 116th Avenue NE to the BNSF Corridor. The NE 6th Extension would be supported on a bridge structure for most of its length in this segment, transitioning to retained fill as it approaches the BNSF Corridor. A planter strip and multi-use path would be provided on the south side of the traffic lanes as described for the previous segment (Figure 22).

Figure 22
Typical Section – 116th Avenue NE to BNSF Corridor



Source: HNTB Corporation, 2011

If a two-lane alternative is selected for implementation, the base alignment could be designed and constructed to allow for future widening to three or four lanes. The refined alignment would be less suited to future widening because of the configuration of the lane adds and drops at either end of this segment, and its proximity to the proposed Sound Transit East Link elevated guideway structure.

BNSF Corridor to 120th Avenue NE

This segment would be at-grade for all three alternatives. As described later in this design report, it is anticipated that a future regional trail in the BNSF Corridor would cross the NE 6th Street Extension at-grade. As indicated in Table 4, the basic roadway section would taper between the BNSF corridor and 119th Avenue NE, anticipated to be an intersection with a private

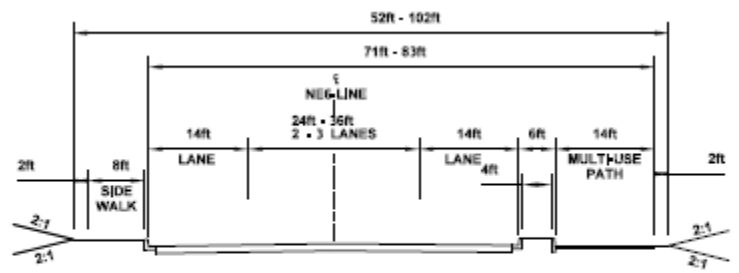
[1] *22 Benefits of Urban Street Trees*, Dan Burden, Senior Urban Designer, Glatting Jackson and Walkable Communities, Inc.; May 2006.

[2] *The Street Tree Effect and Drive Safety*, Jody Rosenblatt Naderi, Byong Suk Kweon Ph.D. and Praveen Magehelal, ITE Journal on the Web, February 2008.

streets/driveways on adjacent properties, to provide an eastbound left-turn pocket at the 119th Avenue NE intersection.

All three alternatives would provide a total of five traffic lanes between the 119th Avenue NE and 120th Avenue NE intersections. As shown on Figure 23, the multi-use path would continue east on the south side of NE 6th Street to 120th Avenue NE. A four-foot wide planting area would be provided between the traffic lanes and the multi-use path. On the north side of NE 6th Street, an eight-foot wide sidewalk would be provided. It may not be possible to provide a planter strip on the north side of NE 6th Street between the BNSF Corridor and 120th Avenue NE, due to constraints represented by existing buildings and parking areas.

Figure 23
Typical Section – BNSF Corridor to 120th Avenue NE



Source: HNTB Corporation, 2011

Non-Motorized User Provisions

I-405 presents a barrier to non-motorized modes of travel. The barrier is created by both the distances involved in a crossing of I-405, primarily due to a lack of continuity of the street grid across I-405, and high volumes of traffic associated with the I-405 freeway ramps, particularly where loop ramps and free-flow turning movements occur. Pedestrian and bicycle crossings of I-405 in the project vicinity include Main Street, NE 4th Street, NE 8th Street, NE 10th Street, and NE 12th Street. The City of Bellevue's Pedestrian & Bicycle Transportation Plan identifies Main Street, NE 4th Street, NE 8th Street, and NE 12th Street as primary elements of the existing pedestrian network. NE 12th Street is identified as a primary element of the bicycle network, with Main Street, NE 4th Street, NE 6th Street, and NE 8th Street as other elements of the bicycle network. The NE 6th Street extension is identified in the plan as the location for a 10 to 14 foot wide off-street path for use by pedestrians and bicycles.

The NE 6th Street Extension would provide a new east–west connector across I-405 for pedestrian and bicycles. It would provide an alternative to NE 8th Street and NE 4th Street, both arterials with high volumes of traffic. The high volumes of turning traffic associated with the I-405 interchange ramps that connect to these streets are of particular concern in regards to non-motorized user trips across the I-405 corridor. The NE 6th Street Extension would connect to the existing pedestrian corridor through downtown Bellevue from Bellevue Way NE to 112th Avenue NE. It would also facilitate non-motorized access to a future regional trail along the BNSF corridor, and future mixed-use developments in the Wilburton Village area. Optional project provisions for connections to 116th Avenue NE are also described in this section.

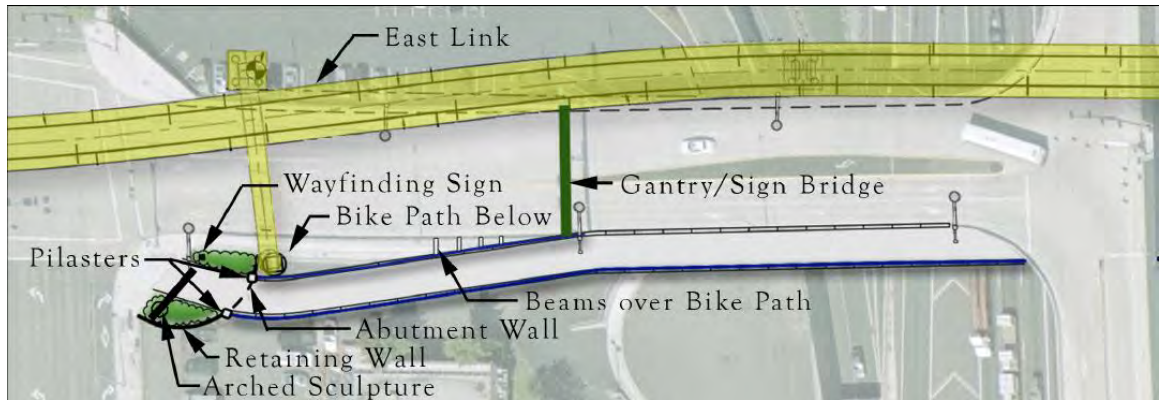
Multi-Use Path

The primary non-motorized user facility proposed for the NE 6th Street Extension is a multi-use path along the south side of the extension. The basic path would be 14-foot-wide with a 5% maximum profile grade, and would comply with the requirements of the American with Disabilities Act (ADA) accessibility guidelines. The non-motorized user experience would be enhanced by a 4-foot wide planter strip separating motorized vehicle traffic from multi-use path. Rest areas with benches are proposed to be provided on the elevated portion of the NE 6th Street Extension between the I-405 right-of-way and the BNSF Corridor, a distance of approximately 1,200 feet.

112th Avenue to I-405 Ramps

Between the 112th Avenue NE and 114th Avenue NE, the multi-use path would be on the south side of NE 6th Street on a new separate bridge structure (Figure 24). A plaza would be provided on the southeast corner of the intersection to facilitate the connection between the Lake Washington Loop (labeled "Bike Path Below" in Figure 24) and the NE 6th Street Extension multi-use path. A pedestrian/bike "scramble" traffic signal phase might be desirable at this location to enable bicyclists to transition from the NE 6th Street multi-use path and Lake Washington Loop facilities to on-street riding on 112th Avenue NE and/or NE 6th Street. Analysis of this phase indicated that it would degrade the peak-period intersection level of service from LOS E to LOS F with year 2030 forecast volumes.

Figure 24
Multi-Use Path, 112th Avenue NE to I-405 Ramps Intersection



Source: HNTB Corporation, 2011

Alternatives considered for the multi-use path between 112th Avenue NE and 114th Avenue NE included:

- **Path on Existing NE 6th Street** – The existing five-lane section would be reduced to four traffic lanes plus the multi-use path. This alternative was not carried forward because of traffic operations impacts at the 112th Avenue NE intersection with NE 6th

Street, where five lanes are needed on NE 6th Street to provide LOS E traffic operations during peak periods.

- **Path on Widened Retaining Wall Structure** – The existing retaining walls supporting NE 6th Street east of 112th Avenue NE would be widened to provide the multi-use pathway. This alternative was not carried forward because it would interfere with the straddle bent placement for the East Link elevated guideway structure.

- **Independent Path on Bridge Over Trail** – A new bridge structure would connect to the plaza at the southeast corner of the intersection, providing a relatively open view from the adjacent bike path to the parking lot. This alternative was carried forward and is discussed further in the structures section of this report.

- **Independent Path on Retaining Walls Adjacent to Trail** – Back-to-back retaining walls would carry the multi-use path from the plaza at the southeast corner of the intersection to the first bridge span. This alternative was carried forward and is discussed further in the structures section of this report, but was felt to be less desirable than the bridge option described above because the existing bike trail would be in a "trench" between the NE 6th Street and multi-use path retaining walls.

As noted above for the widened retaining wall structure option, the 30% design for the East Link project identifies a straddle bent to support the elevated guideway as it transitions from the median of NE 6th Street to an alignment immediately north of NE 6th Street. This configuration is depicted in Figure 24. The location and configuration of this bent will need to take into consideration the existing bike path connection to the Lake Washington Loop Trail and future NE 6th Street Extension multi-use trail connection.

The main route for the Lake Washington Loop passes under NE 6th Street, paralleling the adjacent southbound I-405 on-ramp from NE 8th Street (Figure 25). The alternate east-west connection between 112th Avenue NE and the Lake Washington Loop at NE 6th Street provides a means for cyclists to utilize the northbound through lane at the intersection of 112th Avenue NE and NE 8th Street, reducing conflicts with right-turn traffic from 112th Avenue NE to the I-405 on-ramp.

Figure 25
Lake Washington Loop at 114th Ave SE & NE 6th Street



Source: HNTB Corporation, 2010

I-405 Ramps Intersection

The multi-use path would cross the I-405 direct access ramps with a crosswalk on the south leg of the signalized intersection. On the east side of the intersection, a 20-foot-wide area would be provided between the crosswalk and the I-405 right-of-way line (Figure 26). This wider area would be created by the elimination of the planter bed between the NE 6th Street traffic lanes and the multi-use path. This wider raised area would be protected by bollards in the immediate vicinity of the curb return. This wider area would provide additional space for pedestrians and bicyclists to wait for a crossing signal. It could also be used by law enforcement officers on motorcycles to monitor for HOV compliance at the intersection. This area would likely be the location for traffic signal, ITS, and/or tolling equipment cabinets associated with the I-405 ramps intersection.

Figure 26
Multi-Use Path on East Side of I-405 Ramps Intersection



Source: HNTB Corporation, 2011

A potential operational concern is eastbound to southbound right-turn traffic turning across the multi-use path crosswalk. The two-lane basic section alternatives could be striped to provide a right-only lane at this location, allowing for a right-turn signal phase that could overlap with the north-south left-turn phase. This could reduce the volume of right turn traffic during the through phase that would include the "walk" phase for the crosswalk.

I-405 to BNSF Corridor

From the I-405 east right-of-way limit to the BNSF Corridor, the multi-use path would be on the NE 6th Street Extension bridge structure. A four-foot wide planter strip with rest areas would be provided in this section. Figure 27 depicts a view looking west from the vicinity of 116th Avenue NE. Smooth wall finishes are shown in the rendering, but textures or patterns could be considered for the portion of the walls on the back side of the planter strip. Textures or patterns, which could represent a snagging hazard for bicyclists, are not recommended for the concrete railing parapet or planter strip wall immediately adjacent to the multi-use path.

Figure 27
Multi-Use Path, I-405 to BNSF Corridor



Source: HNTB Corporation, 2011

BNSF Corridor

At the BNSF Corridor, the multi-use path would include provisions for a connection with a future regional trail. This future regional trail would cross NE 6th Street at-grade, potentially with a traffic signal for the crossing as shown in Figure 28. Future design activities should evaluate this and other traffic control strategies for this crossing. This evaluation should take into consideration the number of traffic lanes on NE 6th Street (four versus two), a potential traffic signal installation at 119th Avenue SE (described later in this report), volumes of motorized traffic, volumes of non-motorized traffic, and technologies for detection of non-motorized traffic on the future regional trail. Pavement treatments to differentiate the crossing from the traffic lanes, such as currently provided in the NE 6th Street Pedestrian Corridor at the crossings of 108th Avenue NE, 106th Avenue NE, and at Bellevue Way, would be desirable at this location.

Figure 28
Multi-Use Path Connection to Future BNSF Corridor Regional Trail



Source: HNTB Corporation, 2011

BNSF Corridor to 120th

Between the BNSF Corridor and 120th Avenue NE, the multi-use path would be on the south side of the NE 6th Street Extension. An eight-foot wide sidewalk would be provided on the north side of NE 6th Street in this section. A pedestrian/bicycle scramble traffic signal phase could be considered at the intersection of NE 6th Street and 120th Avenue NE to facilitate the transition from the multi-use path to/from on-street bike facilities on 120th Avenue NE. This phase was not evaluated as it is likely that demand for this non-motorized user movement would be relatively low, assuming that a parallel north-south regional trail facility were provided in the BNSF Corridor.

Multi-Use Path Width Options

A 16-foot wide multi-use path has also been evaluated as a potential option. The additional width would accommodate a higher volume of non-motorized users and could potentially reduce conflicts between bicyclists and pedestrians or other slower users.

The elevated portion of the NE 6th Extension will be approximately 1,800 feet long, measured from the 112th Avenue NE intersection to the BNSF Corridor. Separation of non-motorized user groups is an emerging trend currently observed in the context of long-span bridges of similar and longer lengths. Examples include:

- **Willamette River Transit Bridge** – Tri-Met is building a new light rail bridge over the Willamette River immediately south of downtown Portland. The total length of the bridge will be about 1,700 feet, similar to the length of the elevated portions of the NE 6th Street Extension. Two bike/pedestrian paths will be provided on the Willamette River transit bridge, one on each side of the transit guideway. Each will provide a 14 foot width, designated as seven feet for one-way bicycle traffic and seven feet for two-way pedestrian traffic. The two modes will be separated by a painted line.

- **San Francisco-Oakland Bay Bridge East Span** – The new self-anchored suspension bridge and associated approach spans are providing a 15'-6" wide non-motorized pathway, consisting of one 5'-3" wide bicycle lane in each direction and a 5'-0" wide two-way pedestrian path.

- **I-80 Pedestrian Bridge, Berkeley, CA** – This non-motorized path bridge over I-80 is providing a 10-foot wide two-way bicycle pathway (one four-foot lane in each direction with one foot shy to railing or curb) and a five-foot wide two-way pedestrian pathway. The bicycle and pedestrian portions of the trail are separated by a raised curb.

- **I-5 Columbia River Crossing** – Design has not been finalized but the project's Pedestrian and Bicycle Advisory Committee has recommended that provisions be made to separate higher-speed bicycle traffic from slower recreational traffic. The committee has suggested that a pair of six-foot wide bike lanes, one in each direction, with a 12-foot wide two-way recreational trail would be appropriate.

These proposed separated bike/pedestrian facilities are in contrast to "legacy" non-motorized path facilities on longer-span bridges in the Puget Sound Region, including:

- **Tacoma Narrows Bridge** (2004) – 10-foot wide shared-use path, no designations.
- **I-90 East Channel Bridge** (ca. 1985) – 8-foot wide shared-use path, no designations.
- **I-90 Floating Bridge** (1989) – 10-foot wide shared-use path, no designations.

Future design development activities should take into consideration the anticipated volumes and mix of users for the NE 6th Street Extension. These will be in large part dependent on provisions for a future regional trail on the BNSF Corridor and how properties adjacent to the corridor redevelop. Consistency with other regional trail/multi-use facilities would also be desirable. At present, most of these do not designate specific lanes for bicyclists or pedestrian use.

Pedestrian Overlook/Rest Areas

If a wider multi-use path with designated lanes for bicyclists and pedestrians were provided, the pedestrian/sidewalk area would be located on the south side of the structure, adjacent to the south bridge rail. In this case, rest areas would desirably be located on the south side of the multi-use path, rather than incorporated into the landscaped areas as is shown on Figure 27.

An option for combination overlook/rest areas has been developed (Figure 29). These overlook rest areas would be located at bridge piers to minimize additional structural costs. Benches at these overlook rest areas would be located away from the bridge rail, adjacent to the multi-use trail, to reduce the potential for users utilizing the benches to climb the railings. The overlook rest areas could be used with any multi-use path width option.

Figure 29
Pedestrian Overlook/Rest Area Option



Source: HNTB Corporation, 2011

Other Considerations for Bicycles

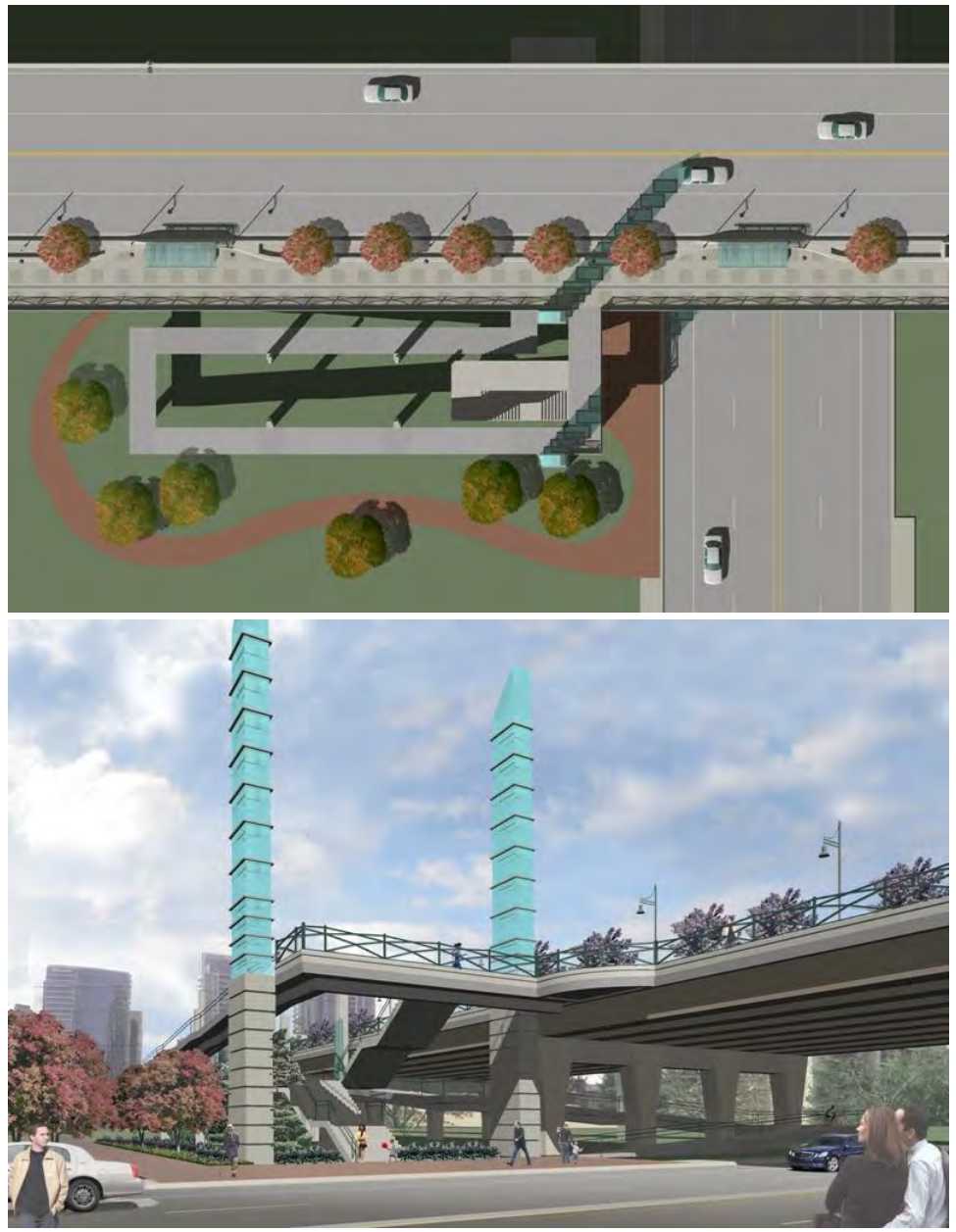
The project proposes a multi-use (off-street) path, consistent with the City's pedestrian and bicycle plan. Higher-speed bicyclists may prefer to ride on the street. With the proposed provision for 12-foot wide traffic lanes with a two-foot wide shy distance to the adjacent bridge rail, barrier, or curb, a total of 14 feet of usable width would be provided in the external lanes of the NE 6th Street Extension. This width is consistent with provisions for shared wide outside lanes as identified in the City's bicycle facility descriptions.

Connection to 116th Avenue NE

The NE 6th Street Extension would not include an intersection with 116th Avenue NE. The proposed bridge structure would carry NE 6th Street over 116th Avenue NE. A connection to 116th Avenue NE would be desirable, however, for pedestrians and other non-motorized users. A concept for a stairway and ramp connection has been developed and is included an optional item in estimates of probable project cost.

The connection is proposed to be located in the southwest quadrant of the NE 6th Street crossing over 116th Avenue NE, as shown in Figure 30. The ramps would parallel NE 6th Street to the west, and then wrap under the NE 6th Street bridge structure. Ramp gradients and landing spacing would be compliant with ADA criteria. The total length of the ramps would be approximately 600 feet.

Figure 30
Connection to 116th Avenue NE – Plan & Elevation Views

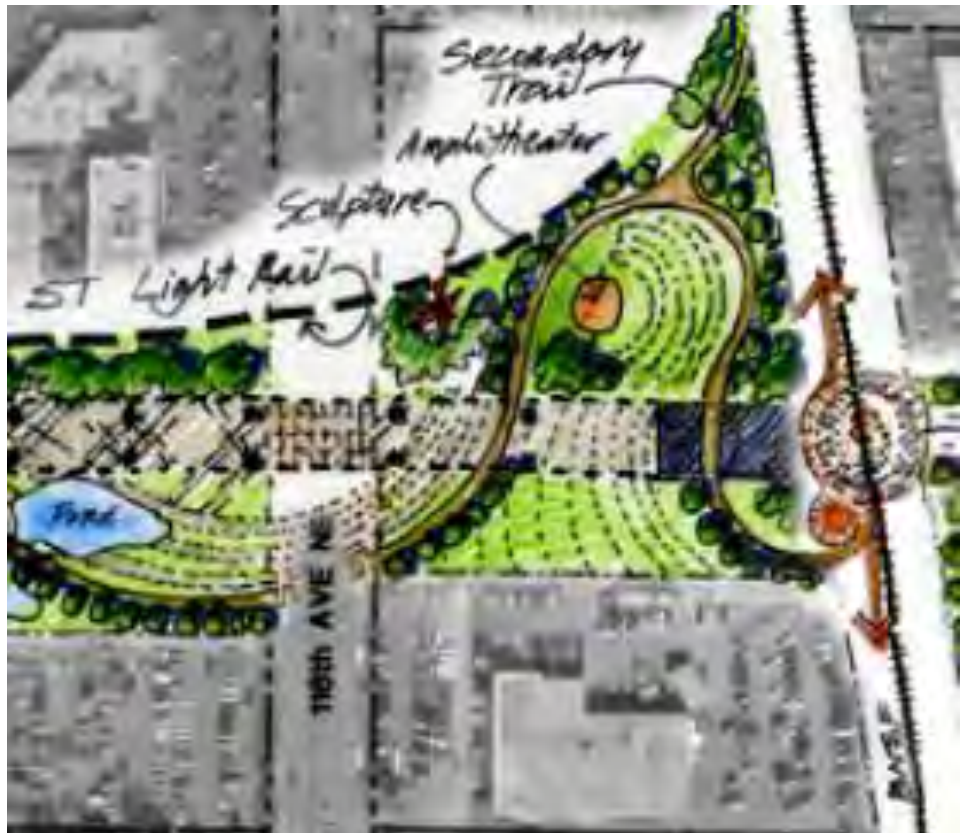


Source: HNTB Corporation, 2011

The renderings shown in Figure 30 also depict glass towers that would provide a way-finding or gateway element for the NE 6th Street Corridor. They are further described in the Urban Design Master Plan report. This concept is intended to reflect the City's downtown skyline, but could be modified to reflect future adjacent development along 116th Avenue NE.

Alternative at-grade non-motorized user connections to 116th Avenue NE from the BNSF corridor were considered. These were focused on at-grade pathways connecting 116th Avenue NE to the BNSF corridor. One concept is shown below in Figure 31. These concepts would require additional right-of-way and were not carried forward in the project cost estimates. They could, however, be re-visited as adjacent properties are redeveloped in the future.

Figure 31
Concept for At-Grade Connection to 116th Avenue NE



Source: HNTB Corporation, 2011

Transit Provisions

Extending NE 6th Street across I-405 could provide an alternate access for transit buses traveling between the Bellevue Transit Center and the NE 8th Street corridor and destinations east of I-405. Transit trips could be re-routed from adjacent arterials to utilize NE 6th Street. Service for these trips is currently provided by King County Metro. The October 2011 restructuring of Bellevue to Redmond transit service eliminated routes that could have utilized the extension, including King County Metro's Routes 230 and 261. Metro's RapidRide "B" Line service replaced these routes. It utilizes NE 8th Street, including stops serving the Hospital District, so would not likely be a candidate to reroute across I-405 via NE 6th Street. Future Sound Transit East Link light rail service will also provide a transit connection between downtown Bellevue and the Hospital District.

None of Sound Transit's Regional Express routes that provide service on I-405 would be likely candidates to use NE 6th Street extension east of I-405. These routes are oriented to the Bellevue Transit Center rather than destinations immediately east of I-405 in the Wilburton area. The existing NE 6th Street direct access ramps to and from I-405 do not include freeway flyer stop provisions, and could not easily be retrofitted for flyer stops due to width constraints in the median of I-405.

The baseline project design does not include bus stop provisions on NE 6th Street between 112th Avenue NE and the BNSF corridor. The possibility of providing bus stops on the elevated structure was discussed with the project's Technical Review Team. Two potential locations were discussed: at the NE 6th Street direct access ramps intersection; and in the vicinity of 116th Avenue NE. In either case, bus stops could be included on the south side of NE 6th Street. Bus stops on the north side of the street, would, however, require an at-grade crosswalk of NE 6th Street.

At the direct access ramp intersection, a far-side bus stop on the south side of the intersection for eastbound buses could be accommodated relatively easily within the 20 feet of width that would be available. A near-side stop on the north side of the intersection for westbound buses could be accommodated with the two-lane option by eliminating the through lane adjacent to the curb and creating a 12-foot wide waiting area. A north-south cross walk of NE 6th Street at this location could be problematic for traffic signal timing and has not been analyzed to date. A bus stop at this location would have limited or no utility because "flyer stop" service along I-405 is not anticipated. Routes along I-405 would be expected to continue to be oriented to the Bellevue Transit Center and there are not any pedestrian destinations readily accessible from this intersection. For these reasons, future consideration of a bus stop at the direct access ramps intersection does not appear to be warranted.

In the vicinity of 116th Avenue NE, a bus stop could be created relatively easily on the south side of NE 6th Street by creating an opening in the landscape strip adjacent to the optional non-motorized connection to 116th Avenue NE (see Figure 29, above). A stop on the north side could be created by incremental widening of the structure similar to that associated with overlook/rest areas. A pedestrian crossing of NE 6th Street would be required at this location to connect the north side bus stop to 116th Avenue NE. A grade-separated pedestrian connection, passing under the NE 6th Street bridge, would not be recommended as these types of facilities tend to be perceived as less secure and hence uncomfortable by users, and have been known to attract undesirable activities. An unsignalized crossing of the four-lane option would not be recommended due to safety concerns related to stopping four lanes of traffic in response to pedestrian activity. Future consideration of a bus stop and pedestrian cross-walk could be considered with a two-lane or three-lane option, particularly if a median refuge could be provided. The need for a bus stop at this location would depend on the nature and intensity of future development activities along 116th Avenue NE.

I-405 Modifications

The NE 6th Street Extension project would not modify the configuration of the mainline merge/diverge points for the existing transit/HOV direct access ramps. The I-405 program will, however, modify the merge/diverge configuration as described below.

- **Existing Conditions** – The transit/HOV direct access ramps merge or diverge from the existing I-405 mainline HOV lane using left-side connections.

- **I-405, NE 6th to I-5 Widening and Express Lanes Project (Bellevue – Lynnwood Improvement Project)** – The direct access ramps will add/drop an express toll lane to/from the north. Two express toll lanes will be provided on I-405 north of NE 6th Street. The existing condition will remain in place to/from the south, with the one existing HOV lane in each direction remaining as a through lane.

- **I-405, Renton to Bellevue Project** – Currently unfunded, this project would widen I-405 south of NE 6th Street to add one additional mainline lane in each direction. This lane could be an express toll lane. If so, it is likely that this lane would add/drop to/from the south at the NE 6th interchange, with the existing HOV lane remaining as a through lane.

The conversions of the existing I-405 mainline HOV lanes to express toll lanes, and the addition of a second express toll lane, as described above, are subject to final approvals by the Legislature.

The NE 6th Street Extension project would require modifications to portions of I-405 in the immediate vicinity of the interchange:

- Modify direct access ramps to add left turn lanes.
- Modify the northbound collector distributor off ramp to NE 8th Street to accommodate bridge piers for NE 6th Street Extension and Sound Transit East Link structures.

These modifications and design options are described below.

I-405 Direct-Access Ramp Intersection

The existing NE 6th Street direct access ramps provide one lane in each direction, as shown in Figure 32. Under existing conditions, or with the NE 6th Street Extension and the existing ramp channelization, the traffic signal at the ramp terminal intersection utilizes a split-phase operation to reduce overall delay and conflicts for turning traffic. With the addition of east-west through movements associated with the NE 6th Street Extension, this split-phase operation combined with the single lane on the ramp approaches to the intersection would be inefficient and would limit the capacity of the existing intersection.

As noted earlier in this report (see Table 3), year 2030 PM peak hour levels of service would degrade to LOS F with the NE 6th Street Extension and express toll lane traffic on the ramps. Perhaps of more concern, peak period queues would extend beyond the diverge point of the ramps into the mainline express toll lanes as noted on Table 5.

Table 5
Queue Lengths on I-405 Off-Ramps to NE 6th Street

Ramp	Queue Length with Existing Channelization	Queue Length with Left-Turn Channelization
Northbound Off-Ramp	> 2,000 feet	230 feet
Southbound Off-Ramp	> 2,000 feet	180 feet

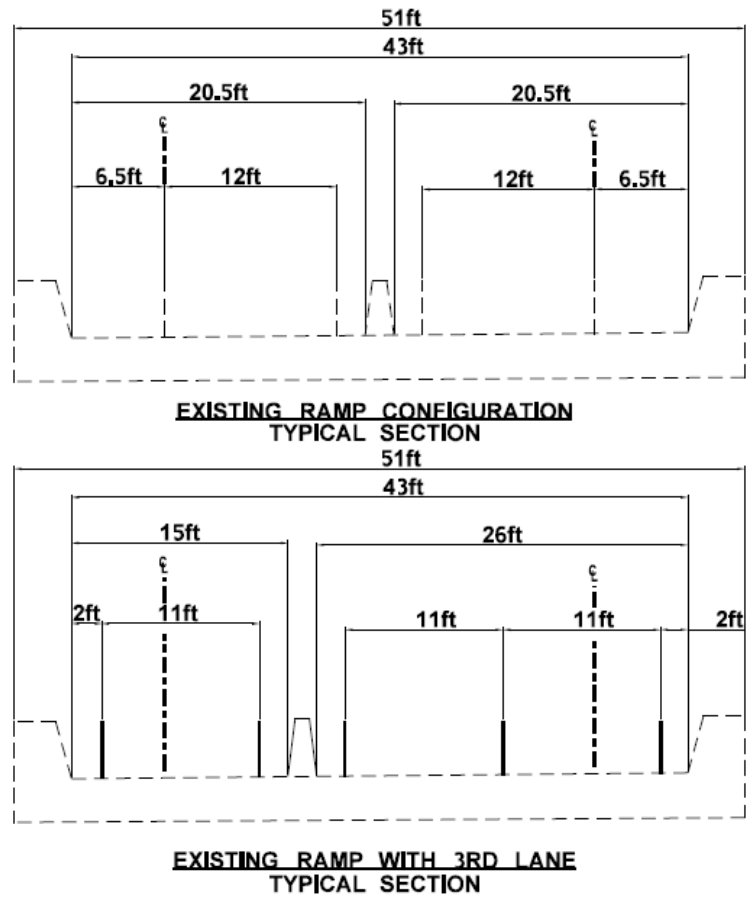
Source: *Traffic Operations Analysis Report*, HNTB Corporation, 2011.

The addition of a third lane on the ramps, which would be configured as a left-turn lane, would improve year 2030 PM peak hour levels of service to LOS C (see Table 3), and would reduce 95th-percentile queue lengths from over 2,000 feet to less than 300 feet. This improvement results from providing left-turn signal phases overlapped with through/right-turn phases for the ramp approaches. This phasing plan would make more efficient use of signal green time, leading to the improved levels of service and reduced queue lengths.

Proposed Channelization

The total width of the I-405 Direct-Access ramps is 43 feet, with an existing width of 20.5 feet for each ramp as shown on the top portion of Figure 32. This existing condition represents a deviation from the WSDOT full design level value of 24 feet for a transit/HOV direct access ramp on a tangent horizontal alignment. The existing shoulder widths of 6.5 feet and two feet, or 8.5 feet total, also represent a deviation from the full design level value of 10 feet for total shoulder width. The minimum ramp width to accommodate an articulated bus, allowing passing of a disabled vehicle, is 21 feet, slightly more than the existing ramp width of 20.5 feet.

Figure 32
I-405 at NE 6th Street Ramp Channelization Modifications



Source: HNTB Corporation, 2011

To provide left-turn lanes on the ramps at the ramp terminal intersection, this project proposes to reallocate the existing ramp channelization as shown on the bottom portion of Figure 32. The resulting ramp widths in the vicinity of the ramp terminal intersections would be 15 feet for the on-ramps and 26 feet for the off-ramps. Ramp lane widths would be reduced from 12 feet existing to 11 feet, and shoulder widths reduced to two feet. This proposed channelization would represent a deviation from WSDOT's full design level criteria for HOV direct access ramps.

Exhibit EX04 depicts the proposed channelization with the addition of left-turn lanes at the ramp terminal intersection. The existing concrete median barrier would be relocated as shown to facilitate turning movements to the on-ramps. The proposed channelization would provide WSDOT full design level acceleration and deceleration distances for passenger cars, as shown on Exhibit EX05. With express toll lanes on both directions of I-405, the on-ramps would add lanes to the I-405 mainline, which would reduce the need for the additional acceleration length and gap acceptance distances for articulated buses. With express toll lanes only to and from the north, the acceleration and gap acceptance distances for the southbound off-ramp would represent deviations from WSDOT full design level distances.

I-405 Ramp Terminals AutoTURN Analysis

The proposed ramp terminal intersection channelization with the addition of left turn pockets on the ramps would reduce the width of the throat of the on-ramp receiving lanes from the existing 20.5-foot width to 15 feet. AutoTURN analyses were conducted to determine if this would be adequate for the AASHTO Intercity Bus (BUS-45) design vehicle, and for the right-turn movements, the WSDOT A-BUS (articulated bus) design vehicle.

Exhibits EX06–EX10 in Appendix A depict the movements described in Table 6. If made from the outside lanes (lane adjacent to the curb or barrier), design vehicle buses turning right would encroach or nearly encroach on the two-foot wide shoulder adjacent to the curb returns, and potentially on the curb return.

Bus movements on the NE 6th Street direct access ramps are predominantly oriented towards the Bellevue Transit Center, located two blocks west of the I-405 corridor on NE 6th Street. An assessment of the ability for the predominant bus movements to navigate through the revised intersection is as follows:

- **Northbound to Westbound** – Left-turning buses from the northbound off-ramp to NE 6th Street would need to utilize both westbound lanes on the receiving leg of the intersection.
- **Eastbound to Northbound** – Left-turning buses from NE 6th Street to the northbound on-ramp would have adequate space to make the turn.
- **Eastbound to Southbound** – Right-turning BUS-45 buses from NE 6th Street to the southbound on-ramp would likely use both eastbound lanes to execute the turn without encroaching on the curb return. Articulated buses could make the turn without encroaching.
- **Southbound to Westbound** – Right-turning buses from the southbound off-ramp to NE 6th Street would partially utilize both westbound lanes on the receiving leg of the intersection.

Of these four movements, only the eastbound to southbound turns would represent a potential safety concern. While the maneuver to use both lanes off of the entering approach for right-turns is commonly utilized by large vehicles in urban areas, it would have the potential to "trap" a vehicle. It may be possible to broaden the radius of the curb return slightly, or move the stop bar on the northbound ramp back from the intersection, to eliminate the need for this maneuver. These design refinements should be explored in subsequent design development.

Table 6
AutoTURN Analysis – NE 6th at I-405 Direct Access Ramps

Exhibit	Turning Movement		Assessment
EX06	Northbound to Westbound	🚌	Left turn encroaches slightly on eastbound left-turn pocket BUS-45 would need both lanes on receiving leg of intersection
EX06	Southbound to Eastbound		Left turn encroaches slightly on westbound left-turn pocket BUS-45 would need both lanes on receiving leg of intersection
EX07	Eastbound to Northbound	🚌	Left turn okay on receiving leg of intersection Concurrent left-turning BUS-45s conflict at front overhangs
EX07	Westbound to Southbound		Left turn okay on receiving leg of intersection Concurrent left-turning BUS-45s conflict at front overhangs
EX08	Eastbound to Southbound	🚌	Right turn encroaches on curb return (turn from outside lane)
EX08	Southbound to Westbound	🚌	Right turn encroaches on curb return (turn into outside lane)
EX08	Northbound to Eastbound		Right turn encroaches on curb return (turn from outside lane)
EX08	Westbound to Northbound		Right turn encroaches on curb return (turn from outside lane)
EX09A	Eastbound to Southbound	🚌	Right turn clears curb return (BUS-45 turn from both lanes)
EX09B	Eastbound to Southbound	🚌	Right turn clears curb return (Northbound stop bar moved back)
EX09C	Eastbound to Southbound	🚌	Right turn encroaches on ramp shoulder (turn from curb lane)
EX10	Eastbound to Southbound	🚌	Right turn clears curb return (A-BUS turn from outside lane)
EX09	Southbound to Westbound	🚌	Right turn clears curb return (BUS-45 turn into both lanes)
EX10	Southbound to Westbound	🚌	Right turn clears curb return (A-BUS turn into outside lane)

Notes: 🚌 indicates predominate movements for buses
Source: HNTB Corporation, 2012

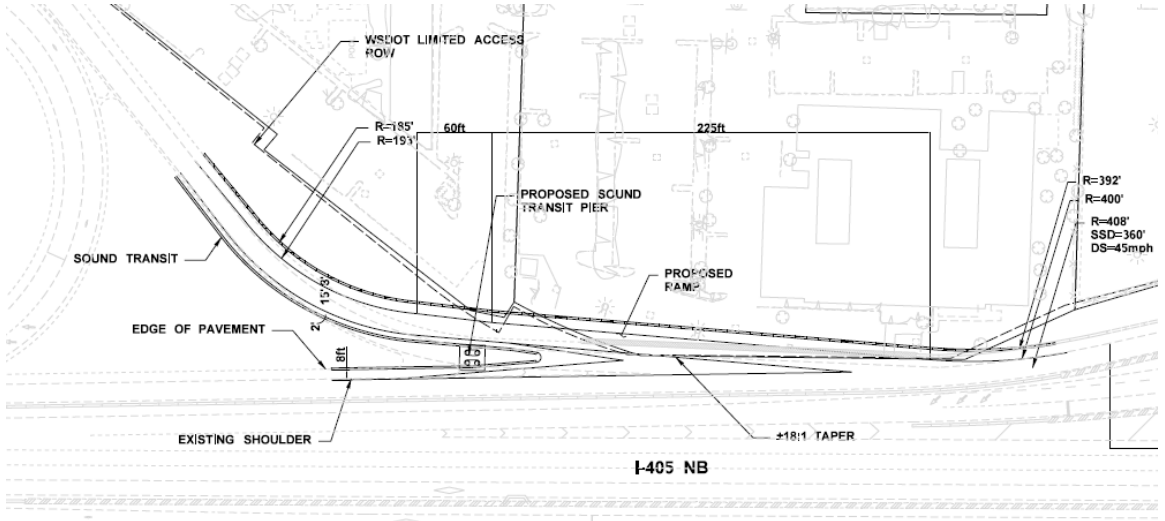
I-405 Northbound Collector Distributor Off-Ramp to NE 8th Street

To minimize the structure depth for the NE 6th Street Extension over the northbound I-405 mainline, the span length would desirably be reduced by utilizing an intermediate bent or pier. For similar reasons, the proposed Sound Transit East Link elevated guideway bridge structure adjacent to NE 6th Street will include an intermediate pier. This pier is proposed to be located in the gore area between the northbound I-405 collector-distributor roadway and the off-ramp to eastbound NE 8th Street. With the pier at this location, the existing off-ramp to eastbound NE 8th Street will be realigned (Figure 33 and Exhibit E11 in Appendix A).

The NE 6th Street Extension would place a second set of piers immediately south of the Sound Transit pier. An option utilizing a 20:1 off-ramp taper was developed (see Exhibit EX12 in

Appendix A). Based on initial feedback from WSDOT, two additional ramp realignment options were developed utilizing a 10:1 off-ramp taper rate, permissible under WSDOT's collector-distributor roadway design guidance (see Exhibits EX13 and EX14 in Appendix A). As shown in Figure 34, use of the sharper taper rate relative to the Sound Transit and initial NE 6th Street Extension designs allows the off-ramp departure point to be off of the upstream horizontal curve. This configuration would also maximize decision sight distance from the collector-distributor roadway as it passes under NE 4th Street.

Figure 33
Proposed Sound Transit East Link Pier Location and I-405 Ramp Configuration



Source: Sound Transit, 2011

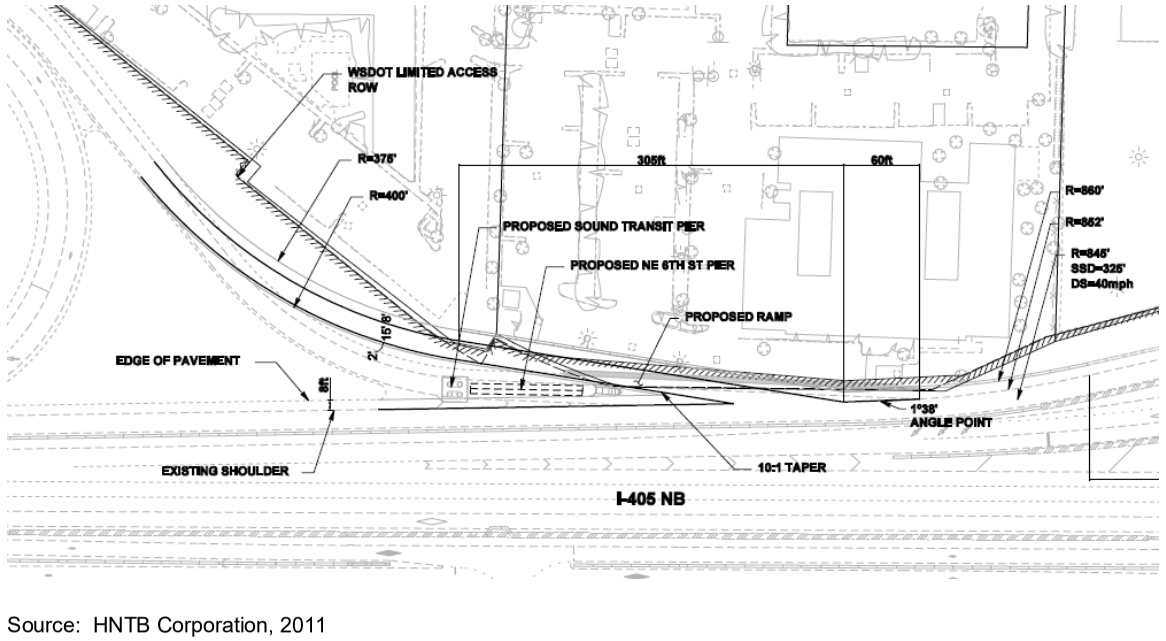
For all of the options considered, the re-aligned ramp would maintain the existing ramp shoulder and lane widths, with a 15-foot wide lane, a four-foot wide left shoulder, and an eight-foot wide right shoulder. Refinement of superelevation design will require additional survey to verify as-built conditions on the existing facilities, but at the current level of design development, it appears feasible to provide superelevation and transitions adequate for a 40 mph design speed.

It would be mutually beneficial for the City of Bellevue and Sound Transit to develop a northbound collector-distributor / off-ramp configuration that accommodates the future NE 6th Street Extension and East Link bridge piers, as shown on Figure 34. Such coordination would be beneficial because the following activities would be completed once rather than twice:

- Design development, review and approval
- Right-of-way acquisition
- Traffic control
- Storm drainage modifications
- Retaining wall construction
- Ramp reconfiguration

Both parties will benefit from each other's innovative ideas such as reducing right-of-way acquisition costs through design refinements like changing the ramp taper rate to 10:1 or using a fill wall on east edge of ramp. A cost sharing agreement between the City of Bellevue and Sound Transit could be agreed to once design is complete.

Figure 34
NE 6th Street Extension Pier Location and I-405 Ramp Configuration



Source: HNTB Corporation, 2011

119th Ave NE Intersection Options

NE 6th Street is envisioned to be a transit- and HOV-only facility west of 119th Avenue NE. East of 119th Avenue NE, single occupant vehicles (SOVs) would be allowed to provide access to adjacent properties, and to facilitate local circulation within the Wilburton Village area.

Pending final legislative approvals, WSDOT anticipates converting the I-405 HOV lanes north of NE 6th Street to express toll lanes. At that time, NE 6th Street and the existing direct access ramps at NE 6th Street would be open to all vehicles eligible for use of the express toll lanes, including single-occupant vehicles paying a toll.

Future design phases for the NE 6th Street Extension project will need to take into consideration signing and enforcement needs for this portion of the project. The specifics of these provisions will depend on the specifics of the use of the I-405 HOV or express toll / HOT lanes. Options for U-turn provisions on NE 6th Street in the vicinity of the 119th Avenue NE intersection are described below.

U-Turn Options

It is anticipated that HOV and/or express toll lane signing would be provided on both directions of 120th Avenue NE approaching NE 6th Street, to inform motorists of the restrictions on the use

of NE 6th Street west of 119th Avenue NE. Special consideration would need to be provided for signing on westbound NE 6th Street at 119th Avenue NE, to clearly delineate where the HOV restrictions take effect, and provisions (if provided) for U-turns. To reduce the potential for violations of the restrictions, and to facilitate circulation within the localized area, it may be desirable to incorporate U-turn provisions on NE 6th Street for motorists who are not eligible to utilize NE 6th Street between 112th Avenue NE and 119th Avenue NE.

The base alternative would provide a basic intersection at 119th Avenue NE, relying on use of private streets or parking lots for potential U-turn traffic. Four options have been developed that would provide for U-turns; these are depicted in Exhibits EX15-EX18 in Appendix A. All of these options would require additional right-of-way.

Option 1 (U-Turn With Bulb-Out)

A bulb-out would be provided on the southeast corner of the intersection to minimize cross-walk lengths. This would require shortening the westbound left-turn pocket. This configuration would accommodate a passenger car ("P") design vehicle.

Option 2 (U-Turn Without Bulb-Out)

The southeast corner of the intersection would be widened by one lane width. The westbound left-turn pocket would be approximately one car length longer than Option 1. This configuration would accommodate a passenger car ("P") design vehicle.

Option 3 (Jug Handle)

A jug handle turnaround on the south side of NE 6th Street west of 119th Avenue NE could accommodate larger vehicles, up to WB-50 trucks. Placing the turn-around facility downstream of the 119th intersection may be easier to sign than Options 1 or 2, but would introduce two additional cross-walks on the multi-use path.

This option would require more right-of-way than Options 1 and 2, or Option 4. Option 3 would represent the largest footprint and has been used for the purpose of establishing requirements for drainage.

Option 4 (Roundabout)

A single lane roundabout could accommodate traffic volumes at the intersection of 119th Avenue SE/NE 6th Street. This option was designed to provide five lanes east of 119th and two lanes west of 119th. With year 2030 PM peak hour traffic forecast volumes, the roundabout would operate at LOS B.

Predicted westbound traffic queues entering the roundabout would not be expected to extend to or block the upstream intersection at 120th Avenue NE. A potential area of concern would be the 240-foot storage length for eastbound traffic between 119th Avenue NE and 120th Avenue NE. Predicted 95th percentile queue lengths with year 2030 PM peak hour traffic volumes would be 250 feet, requiring the full storage length.

A second concern would be the operation of transit buses through the roundabout. A similar example exists in Snohomish County on Ash Way, adjacent to the Ash Way park-and-ride. Community Transit reports that this one-lane roundabout operates satisfactorily for their buses, including articulated and 40-foot coaches, with the truck apron provisions incorporated into the roundabout. Observation of buses traversing the roundabout indicates that most operators are able to negotiate the roundabout without utilizing the apron. Other feedback from Community Transit noted the importance of adequate setbacks for signing and luminaire poles, and lighting and setback provisions for pedestrian crosswalks.

If a roundabout option were pursued further during subsequent phases of project development, the pedestrian and bicycle provisions shown in concept on Exhibit EX18 would need to be refined to reflect actual development patterns and associated non-motorized user circulation patterns through the intersection. This would include consideration of guidelines published in 2007 by the Public Rights-of-Way Access Advisory Committee (PROWAAC) of the United States Access Board that recommend that a traffic signal be provided for pedestrian crossings on two-lane approaches to roundabouts.

Traffic Signal Option

A traffic signal warrant analysis using the 2030 traffic volume forecast indicates that the 119th Avenue NE / NE 6th Street intersection would not require a traffic signal. A small increase in peak hour traffic volumes on 119th Avenue NE, which could occur with increased development in the Wilburton Village area, would however, increase peak hour traffic volumes to the point that a traffic signal may be warranted. A traffic signal may also be desirable to facilitate pedestrian and bicycle movements through the intersection, particularly for NE 6th Street options with four lanes west of 119th Avenue NE.

For the purpose of project estimates of probable construction cost, stop sign control has been assumed for the base alternatives. As the project progresses, the configuration and type of traffic control devices for the 119th Avenue NE intersection will need to reflect anticipated future developments on adjacent properties.

HOV/HOT Enforcement

The existing I-405 direct access ramps at NE 6th Street are restricted to high occupancy vehicle (HOV) users that include motorcycles, carpools, vanpools, and buses. At present, carpools are required to have two or more occupants. Trucks weighing more than 10,000 pounds are prohibited from using the ramps, regardless of the number of vehicle occupants. These restrictions are in place 24 hours per day, seven days per week. These restrictions on the ramps differ from the I-405 HOV lanes, which are currently restricted to eligible users only between the hours of 5 AM and 7 PM, seven days per week. Existing signing and pavement markings on the ramps and on NE 6th Street east of 112th Avenue NE indicates the HOV restrictions. Additional HOV signing is provided on NE 6th Street and 112th Avenue NE upstream of the intersection.

Enforcement of the HOV restrictions on the existing I-405 direct access ramps at NE 6th Street is conducted by the Washington State Patrol (WSP) and by City of Bellevue police. Law enforcement officers can park on the raised median area of NE 6th Street at the ramp terminal intersection and observe passing traffic to determine if HOV eligibility requirements are being met (Figure 35). The existing 6.5 foot wide shoulders of the direct access ramps are not wide enough to allow for enforcement activities on the ramps. An area wide enough (10 feet or more) to allow for enforcement activities is located at the bottom of the southbound on ramp on the left

shoulder. Similar enforcement provisions are not available on the northbound on ramp due to right-of-way width constraints associated with this portion of I-405.

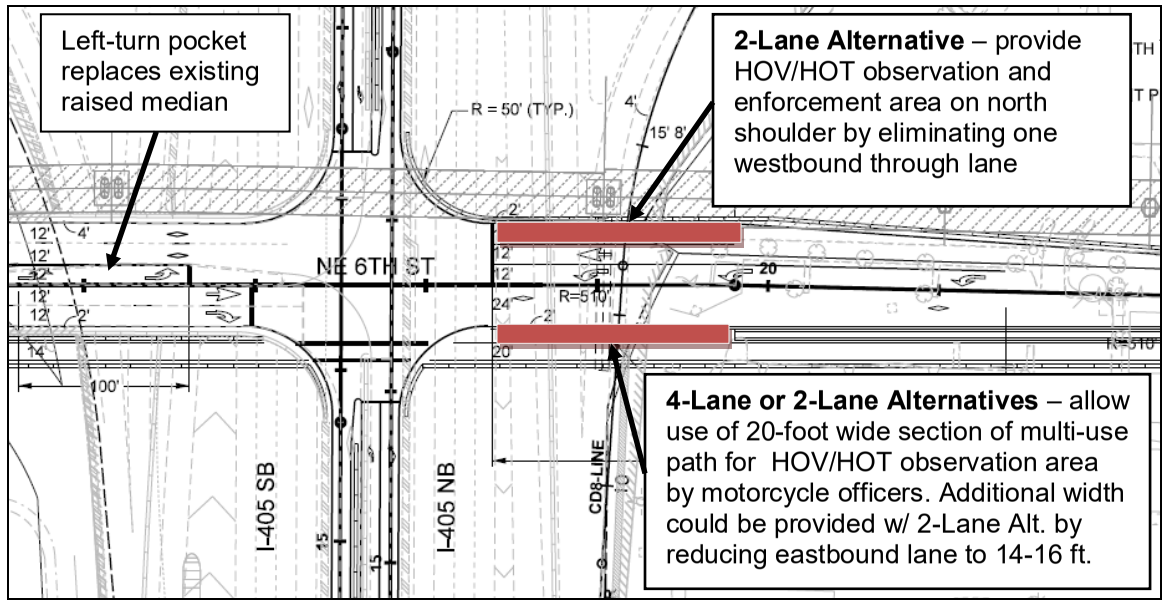
Figure 35
Existing NE 6th Street Direct Access Ramp HOV Observation Provisions



Source: HNTB Corporation, 2010

The NE 6th Street extension would add an eastbound left turn pocket to the ramp terminal intersection that would eliminate the raised median that is currently used for HOV observation and enforcement. A replacement location for observation area could be the 20-foot wide section of the multi-use path at the southeast corner of the ramp terminal intersection. This area could accommodate a law enforcement motorcycle. With the two-lane alternative, it may be possible to widen this area sufficiently to provide an enforcement area for eastbound traffic. With the two-lane alternative, an optional location for an observation/enforcement area for westbound traffic could be the north side of the intersection, where it would replace the second westbound traffic lane on the east approach to the ramp terminal intersection (Figure 36).

Figure 36
Potential NE 6th St. Direct Access Ramp HOV/HOT Observation Provisions



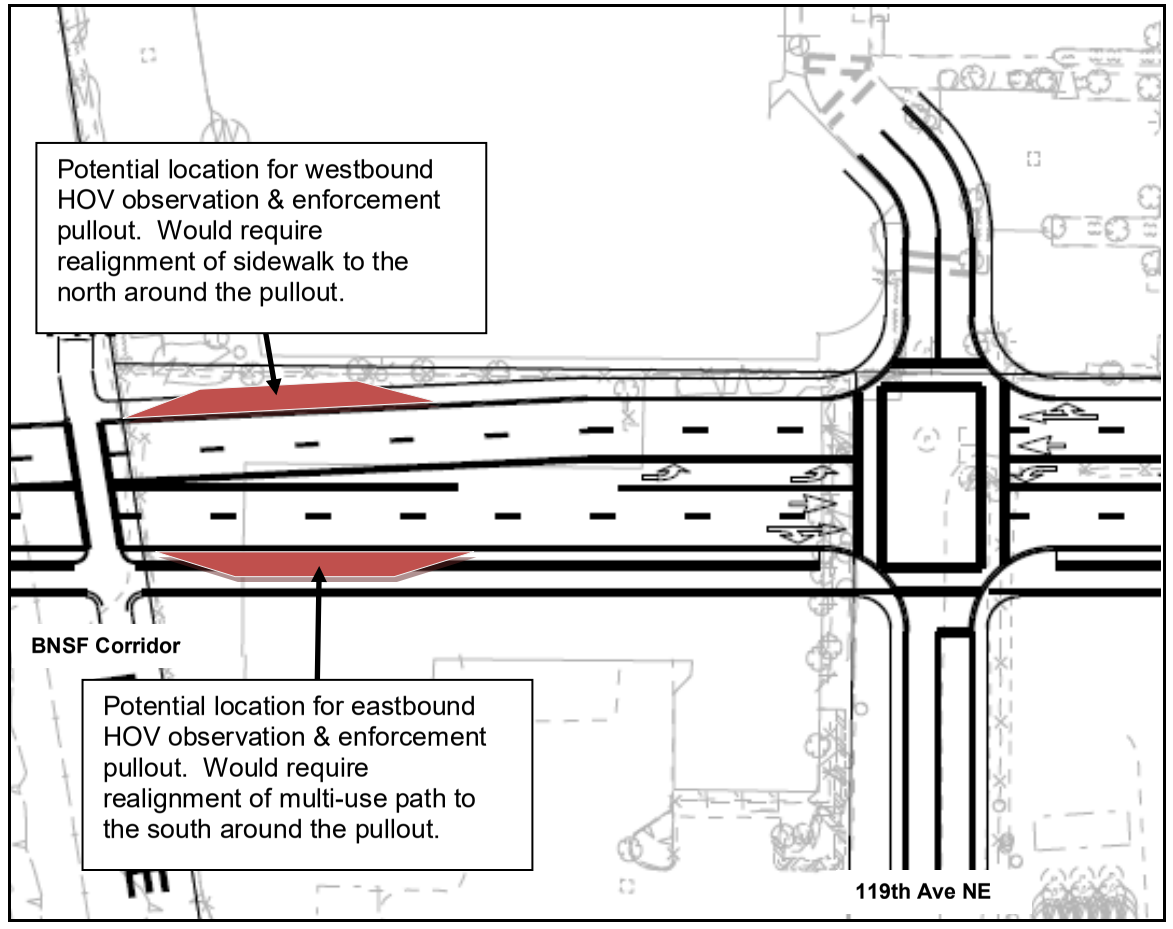
Source: HNTB Corporation, 2011

HOV observation areas would also be desirable at the east end of the NE 6th Street extension, in the vicinity of 119th Avenue NE, where NE 6th Street would change from an HOV-only facility to a facility open to all users. It may be desirable to provide pullouts in both directions to allow for observation and enforcement activities. A concept for these pullouts with the Four-Lane Base Alignment alternative is shown in Figure 37.

These pullouts would likely expand the right-of-way footprint of the project beyond that shown later in this design report. The least additional right-of-way would be associated with the Two-Lane Base Alignment alternative. The south side pullout, if provided, could require adjustments to the location of proposed stormwater treatment facilities in this vicinity.

Conversion of the I-405 lanes to high-occupancy toll (HOT) lane operation will continue to require provisions for law enforcement observation and enforcement areas. At present, toll collection and enforcement can be automated through use of license plate photo-billing procedures, as occurs on the SR 16/Tacoma Narrows Bridge and SR 520 floating bridge, where all users pay a toll. On the SR 167 HOT lanes, visual enforcement is still required, however, to determine if a vehicle not paying a toll meets carpool occupancy requirements that would exempt that vehicle from paying a toll.

Figure 37
Potential HOV Enforcement/Observations Provisions – East End of NE 6th Street Extension Between BNSF Corridor and 119th Avenue NE



Source: HNTB Corporation, 2012

OTHER DESIGN ELEMENTS

Geotechnical

Preliminary geotechnical recommendations have been prepared for the project, based on published geologic maps for the area and logs of previous borings conducted by WSDOT for nearby projects. Based on the available information, soils in the corridor are anticipated to consist of native glacial till overlain by variable thicknesses of fill. Previous borings indicate that groundwater has been encountered at shallow depths ranging from the surface to 15 feet.

Additional borings will be required for preliminary and final design, particularly east of I-405 where existing borings are limited. At a minimum, one boring will be required at each proposed bridge pier. Borings should include monitoring wells at several locations to measure and document groundwater conditions. Borings should also include environmental screening and testing to identify zones of possible contamination. The exploration program should be in accordance with the requirements of the WSDOT *Geotechnical Design Manual* (GDM).

Seismic design criteria following recommendations in the AASHTO Guide Specifications for LRFD Seismic Bridge Design are contained in the *Preliminary Geotechnical Recommendations Technical Memorandum* (GeoEngineers, April 2011) prepared for this project.

Spread footings are the recommended foundation types for most bridge pier locations, except at the west abutment for the new bridge from I-405 to BNSF corridor, where micropiles placed in the existing retained fill are recommended, and at the pier immediately to the east of the I-405 northbound lanes, where drilled shafts are recommended due to site constraints. Retaining wall footings could also be spread footings. Excavations below ground water could be required in some locations, which would require dewatering activities.

Structures

Two new bridge structures and several retaining walls would be included in the NE 6th Street Extension project. In addition, the existing bridge structure carrying NE 6th Street over southbound I-405 and the structural earth (SE) retaining wall supporting the existing direct access ramp would be modified.

For more detailed information, see the structures technical memorandums listed under Other Project Documentation on page 52. The *Urban Design Master Plan* document includes a section on bridge architecture, including sketches of various pier concepts (see Appendix C, page 21).

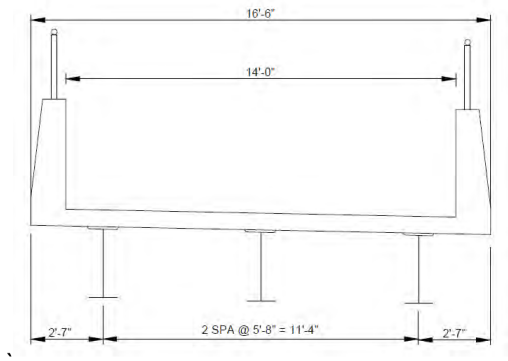
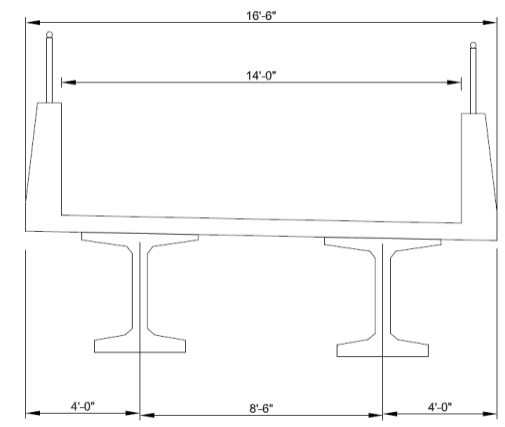
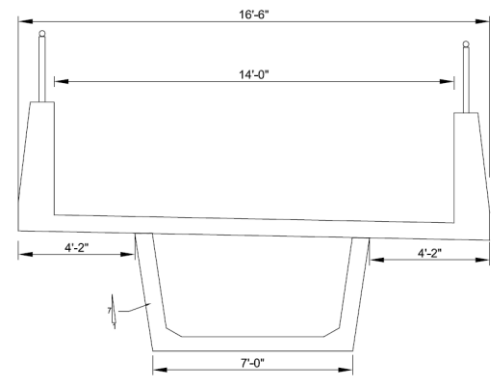
Multi-Use Path Connection, 112th Avenue NE to I-405 Ramps Intersection

A new bridge structure is proposed to carry the multi-use path between 112th Avenue NE and the I-405 direct-access ramps intersection. This structure would have two segments; the first between 112th Avenue NE and the I-405 right-of-way at 114th Avenue NE, and the second within the I-405 right-of-way over the southbound I-405 collector-distributor and mainline roadways.

112th Avenue NE to 114th Avenue NE/I-405

Between 112th Avenue NE and I-405, the new structure would be independent of the existing structure and could one of three structure types. Typical sections for one steel girder and two concrete girder structure type options are shown in Table 7.

Table 7
Multi-Use Path Connection, 112th Avenue NE to I-405
Summary of Bridge Types Considered

Structure Type	Notes	Typical Section
Steel Girders	Higher cost ($250/sf) relative to concrete but can be shallower depth to maintain required vertical clearances. Adaptable to curved alignments. Would match existing NE 6th structure over I-405.	
Precast Prestressed Concrete Girders (WF50G)	Least costly ($160/sf) structure type considered. Would allow use of standard WSDOT girders. Could have longer spans, up to 120 feet. Not very adaptable to curved alignments. Would be a different structural style relative to proposed East Link overhead guideway structure, but would be similar to adjacent NE 4th Street structure.	
Precast Prestressed Concrete Tub Girders (U54G4 or U54G5)	Economical ($175/sf) but higher cost than prestressed girders. Would allow use of standard WSDOT girders. Could have longer spans, up to 120 feet. Not very adaptable to curved alignments. Would more closely match architectural style of proposed East Link concrete box overhead guideway structure.	

Source: HNTB Corporation, 2012

The new structure would provide a 14-foot wide multi-use path and would have a total width of approximately 16.5 feet. Span lengths would vary by structure type but would likely range between 70 and 80 feet.

Construction of the portion of the structure between 112th Avenue NE and 114th Avenue NE would largely occur from the adjacent 114th Avenue NE right-of-way and the adjacent private parking area. If this adjacent property were not acquired for the project, a construction easement would be required.

Two design options were developed for the abutment that would be located at the southeast corner of the intersection of NE 6th Street and 112th Avenue NE (see page 25 of Appendix C). Both options would enlarge the existing plaza at this corner, with the enlarged plaza supported by a retaining wall. An existing path connector carrying the Lake Washington Loop bike route between 112th and 114th Avenues NE is adjacent to the retained earth structure supporting NE 6th Street. The two abutment options differ in how they would relate to the existing connector.

Option 1 would utilize a bridge structure to support the multi-use path connection from the enlarged plaza. Option 2 would utilize back-to-back retaining walls to support the first span of the multi-use path connection. With Option 2, the Lake Washington Loop bike route connection would then be in a trench for a portion of its length. Option 1 would be relatively more open. The cost of Option 2 would be approximately half of Option 1 (about $1,400 per lineal foot of path on retained fill vs. about $2,800 per lineal foot of path on bridge). Despite the higher relative construction cost, Option 1 is recommended for further project development because it would create a less closed-in environment for the Lake Washington Loop bike route connector. Option 1 would also have a better potential for use of the space under the multi-use path connector structure for parking.

Over Southbound I-405

For the section of the multi-use path connection over southbound I-405, two structure options are recommended for further consideration in the next phase of project development:

- **Bridge Widening Option** – The widening option would use the same span lengths and steel girder types as the existing NE 6th Street bridge (Figure 38). This would be a conventional bridge deck widening but would have constrained work areas that would have higher than typical costs. One constraint associated only with this option would be the extension of existing Pier 3 to support the widened structure, which would require reconstruction of the retaining wall between the southbound collector-distributor roadway and the southbound off ramp to NE 4th Street. The extent of wall reconstruction is shown on Figure 39. This work could require closures of the southbound on ramps from NE 8th Street and/or the southbound off ramp to NE 4th Street.

- **Separate Structure Option** – The separate structure option would place a new pier adjacent to existing Pier 2, located along 114th Avenue NE, but would not require a second intermediate pier at the location of existing Pier 3 (see Figure 38). This would result in a longer span than the existing NE 6th Street roadway structure. In order to span over the existing I-405 southbound lanes and ramps, a span length of 150 to 160 feet is proposed. Relative to the widening option, this option would have less impact on southbound I-405 traffic operations during construction.

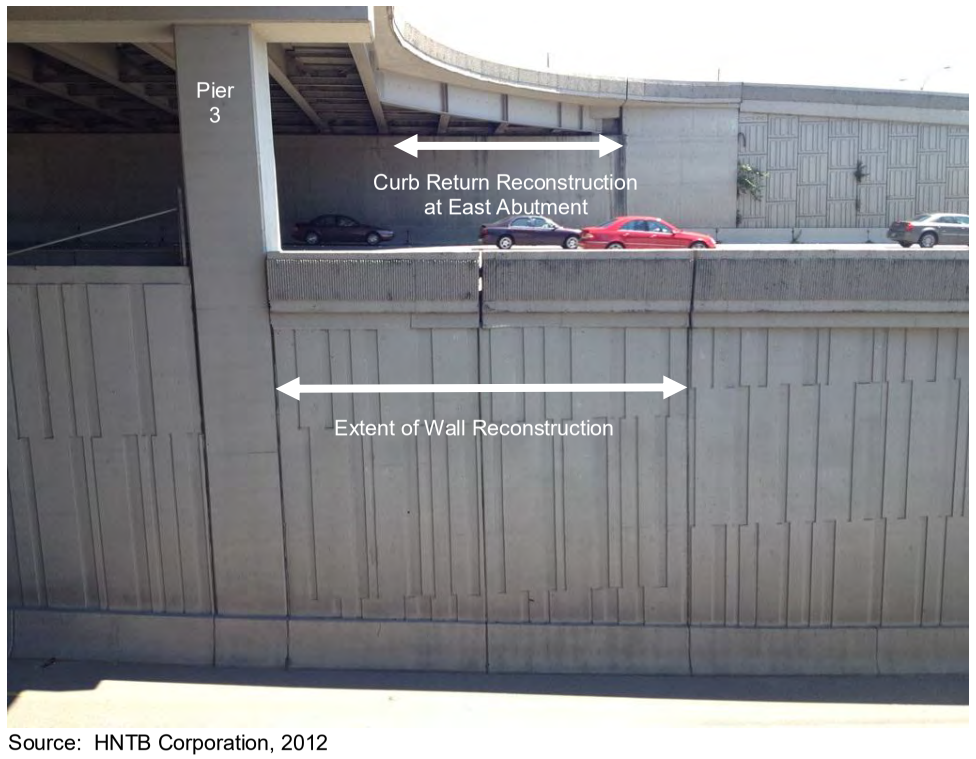
For either option, the east end of the new structure would be supported by the existing east abutment. This would require demolition and reconstruction of the steel girder structure supporting the southwest curb return at the direct access ramp intersection (Figure 39).

Figure 38
Existing NE 6th Street Bridge, over 114th Avenue & NE I-405 Southbound



Source: HNTB Corporation, 2010

Figure 39
Existing NE 6th Street Bridge over I-405 Southbound
Pier 3 to East Abutment



Source: HNTB Corporation, 2012

Reconstruction of the curb return could require a closure of the southbound transit/HOV direct access on-ramp to the I-405 HOV lanes. Alternatively, it might be possible to operate the transit/HOV direct access ramps to and from the south in a reversible time-of-day mode to minimize delay to transit and HOV operations. Under this staging concept, traffic in the peak direction would use the NE 6th Street ramp while traffic in the off-peak direction (southbound on in the morning, northbound off in the afternoon) would be detoured to the adjacent NE 4th Street interchange.

For either option, erection of the steel girders over the I-405 southbound mainline and adjacent southbound collector-distributor roadway would require closures of I-405, most likely during overnight hours. Mainline and/or ramp lane closures would be required to set form work for the deck and for painting and other ancillary activities.

Table 8 provides a comparison of two structural options for the multi-use path structure over southbound I-405. Both options are feasible and they each have advantages and disadvantages that make them both worth advancing to a higher level of design. Both the bridge widening and the separate pedestrian structure options should be carried forward to future project development.

The estimates of probable project cost included in this design report assume a precast, prestressed concrete tub girder structure for the western segment of the structure between 112th Avenue NE and 114th Avenue NE, and the separate structure option for a steel girder structure over southbound I-405.

Table 8
Comparison of Options for Multi-Use Path Structure Over Southbound I-405

Issue	Bridge Widening	Separate Structure
Structural Considerations	Matches existing NE 6th Street bridge pier locations and span lengths.	Longer spans would be more flexible and would likely require deeper girders or additional girders to meet AASHTO criteria for pedestrian bridge vibrations.
Operations	Would require relocation of Lake Washington Loop connection to 112th and possibly additional right of way acquisition.	Lake Washington Loop connection to 112th could remain in existing location.
	No longitudinal joint at direct access ramps intersection.	Longitudinal joint at ramp intersection would have differential deflections under vehicle loads and could present difficulties for motorcycles or bicycles.
Constructability	Shoring and excavation required to widen foundation for Pier 3. Closures of up to 90 days could be required on southbound I-405 to NE 4th off ramp and/or NE 8th on ramps to southbound I-405.	Traffic impacts to southbound I-405 would be limited to the direct access ramp intersection and overnight closures of mainline and ramps to erect girders, form work, painting, etc.

Source: HNTB Corporation, 2012

NE 6th Street Extension, I-405 East to BNSF Corridor

East of the existing I-405 direct access ramps, NE 6th Street would be carried on a bridge structure over I-405 northbound and 116th Avenue NE to the BNSF corridor. The ten-span bridge structure would be approximately 1,110 feet in length.

The western section of the bridge would cross over the northbound I-405 mainline, collector-distributor, and NE 8th Street off-ramp with a two-span steel girder bridge similar to the existing bridge carrying NE 6th Street over southbound I-405. The section east of I-405 would be a concrete structure. Bridge type alternatives considered for this section include precast prestressed concrete girders, precast prestressed concrete tub girders, or a single cast-in-place concrete box (Table 9). Both sections of the bridge would have a concrete deck.

Other structure type alternatives for the proposed bridge were explored but dismissed during the early stages of the project. These other alternatives included signature bridge types. Representative of a signature bridge would be an arch structure for the span over 116th Avenue NE. This and other signature bridge types were dismissed by the Technical Review Team as prohibitively expensive, and they noted that future development would most likely obscure views of the structure. The team members expressed a preference for a simple and clean bridge type.

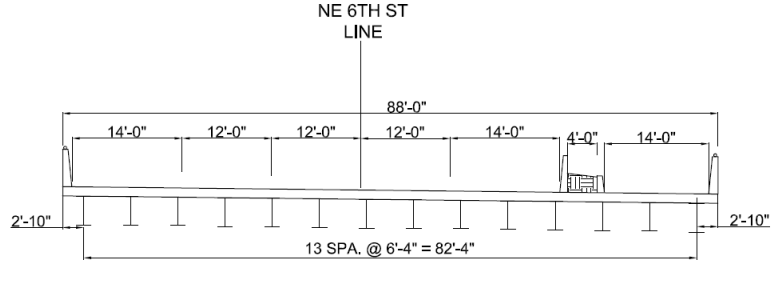
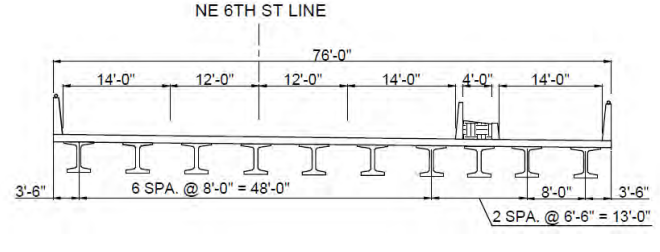
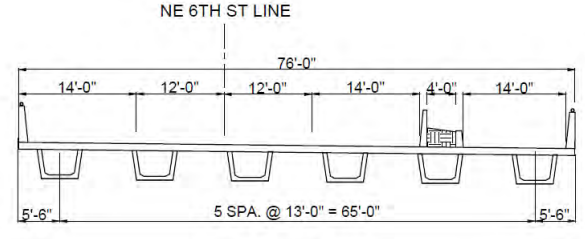
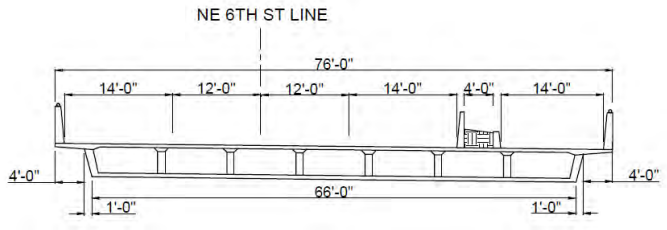
The typical sections east of I-405 shown in Table 9 depict the four-lane basic section alternative; the two-lane basic section alternatives would be similar but 24 feet narrower. The tapers required to transition from the maximum to minimum widths would be accomplished by varying the spacing of the girders and dropping girders at the piers. Coordination of roadway tapers and pier locations would be further refined in subsequent phases of the project's design.

Assumptions common to all the options include:

- The two spans over northbound I-405 would be steel girders.
- The eight spans east of northbound I-405 would be concrete.
- The structure depth would be limited to about 5 feet to provide a vertical clearance of at least 16.5 feet over I-405 and 116th Avenue NE.
- Pier placement and span lengths have been selected based in part on the pier locations for the proposed Sound Transit East Link structure.
- A structure type similar in architectural style to the proposed Sound Transit East Link elevated guideway structure would be preferable.
- A planter strip would be provided on the structure east of I-405. For the two concrete box alternatives, the tub girders or cast-in-place box could be internally reinforced for the additional load. For the girder alternative, it may be necessary to reduce the girder spacing to support the planter strip.

The intermediate pier between the steel spans would be placed to align with the proposed Sound Transit East Link light rail pier, between the northbound collector-distributor roadway and the off-ramp to eastbound NE 8th Street. This pier would likely be founded on drilled shafts due to the limited space in the gore area between the two roadways. Other piers east of this location would likely be spread footings as noted above under Geotechnical. Abutment concepts for the abutment at the I-405 direct access ramps are discussed below.

Table 9
NE 6th Street Elevated Structure, I-405 to BNSF Corridor
Summary of Bridge Types Considered

Structure / Type	Typical Section
Over NB I-405	**Two spans at 100-125 ft. each**
Steel Girder	
East of I-405	**Eight spans at 100-120 ft. each**
Precast Prestressed Concrete Girders (WF50G) approx. cost = $160/sf	
Precast Prestressed Concrete Tub Girders (U54G4 or U54G5) approx. cost = $175/sf	
Cast-in-Place Concrete Box approx. cost = $230/sf	

Source: HNTB Corporation, 2011

The precast, prestressed tub girder alternative is the recommended bridge type due to its relative ease of construction, cost effectiveness, and appearance. It could be installed in considerably less time than the more costly cast-in-place concrete box alternative and with fewer impacts on traffic operations during construction. It would present a compatible appearance with the adjacent Sound Transit East Link structure, and relative to the precast girder structure, a cleaner look when viewed from below.

In all cases, it would be preferable to construct a bridge that closely matches the existing grades on the HOV ramps and intersection, in order to minimize reconstruction of portions of the SE wall, moment slab barrier, and ramp roadways. As discussed earlier in this report, the conceptual profiles developed will need to be refined to reflect topographical survey of existing/as-built conditions on the ramp structures.

West Abutment Concepts for Bridge Over Northbound I-405

The proposed bridge over northbound I-405 will require an abutment along the east edge of the existing intersection of NE 6th Street and the HOV direct access ramps. The abutment would impact the existing SE wall and would require removal of a portion of the wall. The abutment cannot be built in front of the existing SE wall because future projects along northbound I-405 will require all of the pavement to the edge of the barrier at the bottom of the wall. Options considered for constructing the west abutment of the proposed bridge include founding the abutment on embankment soil improvements, micropiles, drilled shafts, or a full height cast-in-place concrete abutment. These concepts are discussed in more detail in the *I-405 Overcrossing Bridge Structure Type and Abutment Foundation Type Technical Memorandum* (HNTB Corporation, July 2012), found in Appendix D.

Two of the abutment options have significant flaws that would preclude their use. The other two options would be feasible, but one would pose fewer construction impacts.

Of the two undesirable options, Option 1 – Embankment Improvement, poses risks to the integrity of the existing SE wall and wall drainage systems, and raises difficulties obtaining verifiable uniformity in the capacity of the backfill. Option 3 – Drilled Shaft would be have the potential to damage the wall and would also be more costly than other options. For these reasons, neither of these options are recommended for further consideration.

Of the two feasible options, Option 4 – Cast-In-Place Abutment would take a significantly longer time to construct and would cause greater disruption to the HOV direct Access interchange and northbound I-405. Disruptive construction activities would occur for over 3 months to excavate, shore, cast and cure the footing and abutment wall. This would make Option 4 less desirable than Option 2 – Micropiles.

Option 2 – Micropiles is recommended option due to its ease of construction and cost effectiveness relative to other options that were evaluated. It also could be installed in considerably less time than Option 4 and would have fewer impacts on traffic operations.

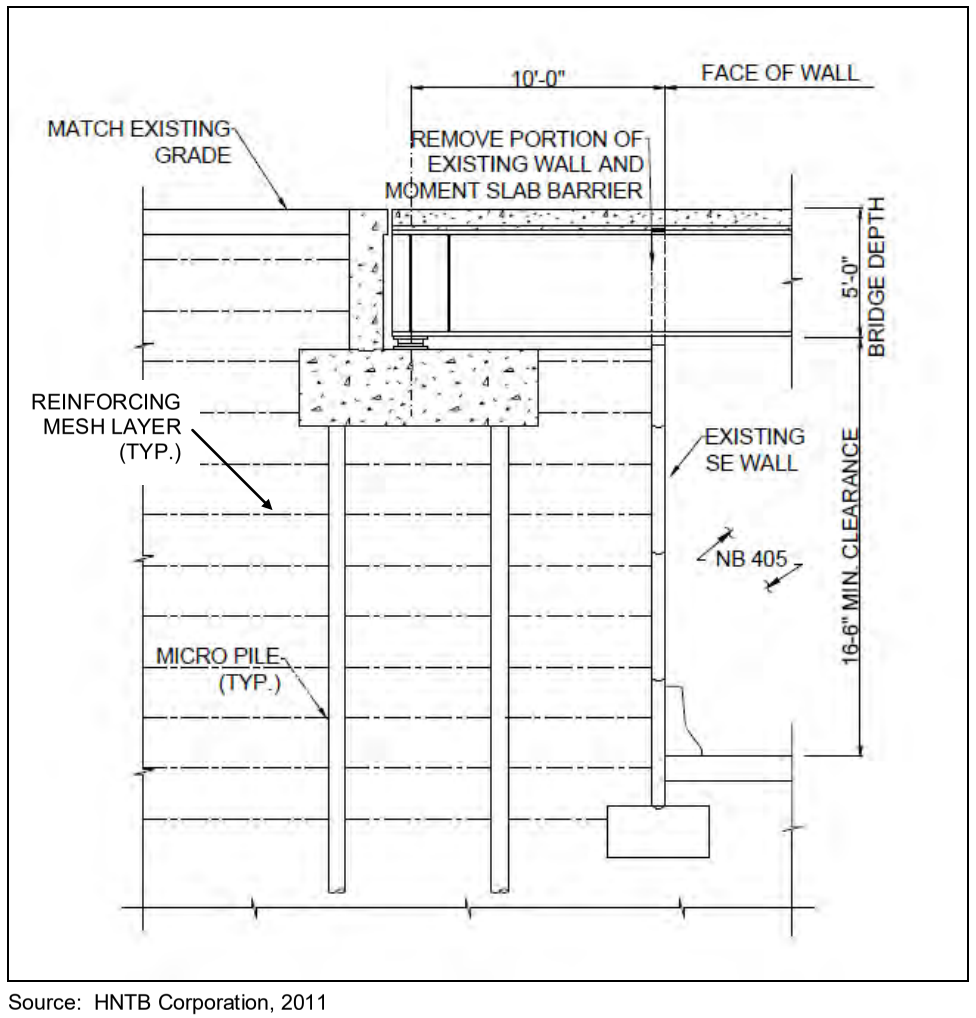
The recommended option would install six-inch diameter micropiles to support a shallow bridge abutment footing. The abutment would be on a shallow spread footing centered approximately 10 feet from the face of the existing SE wall. This would allow for a minimum of five feet from the edge of the abutment footing to the face of the wall (see Figure 40).

The abutment would be constructed by excavating approximately 10 feet of the existing fill for the HOV direct access intersection. A portion of the existing SE wall and soil reinforcing mesh would be removed, as would a portion of the existing moment slab barrier. Removal of a portion

of the wall is performed in reverse of the original wall construction. The micro-piles would be installed after excavation is completed.

The micro-piles would be installed between the rows of wire reinforcing mesh in the existing SE wall. The as-built plans show a gap of 20 inches clear space between the adjacent wire reinforcing mesh. The spacing of the mesh is regular and aligns with the five foot horizontal spacing of the SE wall panels. Driving the micropiles through the reinforcing mesh zone may not be desirable because the friction on the piles may affect the stresses in the mesh. Drilling and installing the piles would be the preferred method of installation. Further evaluation of the pile installation methods to reduce the risk of overloading or damaging the reinforcing mesh would be desirable in the design phase of the work.

Figure 40
West Abutment Option 2 – Micro Piles



Source: HNTB Corporation, 2011

The soil conditions from previous borings indicate that the soils consist of fill overlying very dense silty sand with gravel from 10 to 23 feet overlying very dense clean sand to 40 feet overlying interbedded hard silt and very dense sand to 50 feet (bottom of borings). Micro piles installed into these soils should be capable of developing design-allowable capacities on the order of 150 to 250 kips each. Based on conversations with local foundation contractors, allowable bond capacities on the order of 4-6 kips/foot would be reasonable for these soils, so the micro pile bond length (excluding the zone above the bottom of the wall) would be on the order of 30 to 45 feet.

Retaining Walls

Retaining Wall 1 – Southwest Quadrant of 112th Avenue NE & NE 6th Street

A retaining wall will support the expanded pedestrian/bicycle plaza at the southwest corner of the intersection of 112th Avenue NE and NE 6th Street (see Wall 1 Plan & Elevation, sheet WL01 in Appendix B). Either Structural Earth (SE) or cast-in-place walls could be used at this location. A structural earth (SE) wall has been assumed for the purpose of estimating project costs. Because this wall is curved, the SE wall fascia panels would be chorded around the curve.

Retaining Wall 2 – East of I-405 Off-Ramp

A retaining wall will be required along the east side of the relocated northbound I-405 off-ramp to eastbound NE 8th Street. This retaining wall would be approximately 570 feet long and five feet high (see Wall 2 Plan & Elevation, sheet WL02 in Appendix B). A structural earth (SE) wall is recommended for this location based on its relatively low cost and the continuity with other nearby walls in the I-405 corridor. Precast concrete fascia panels with a random board pattern finish are proposed for the wall face in order to match other walls in this portion of the I-405 corridor.

Retaining Walls 3 & 4 – Bridge Approach at BNSF Corridor

Retaining walls will be required on either side of the approach embankment at the east end of the NE 6th Street Bridge near the BNSF Rail Corridor (see Wall 3 & 4 Plan & Elevation, sheets WL03 and WL 04 in Appendix B). Two alternative wall types have been evaluated for this location; a WSDOT Standard Plan reinforced concrete retaining wall, or structural earth walls with precast fascia panels.

General parameters that are common to both wall type options include:

- The proposed retaining walls would be approximately 140 feet in length.
- The proposed retaining walls would have a maximum height of approximately 20 feet.
- It will be necessary to span over or otherwise protect the existing 72-inch sanitary sewer gravity line owned by King County.
- The proposed finish for these walls would be a random board pattern.

Structural earth (SE) walls with precast fascia panels would be preferred over WSDOT Standard Plan reinforced concrete retaining walls based on the relatively lower construction cost for SE walls. Protection for the existing 72-inch sanitary sewer line will require special design considerations. These include provisions to limit settlement and to monitor before and after construction conditions of the line.

Construction Staging

An initial assessment of significant construction staging issues for the NE 6th Street Extension was developed. This assessment focused on three primary elements of work, all associated with the structural elements of the project:

- reconstruction of the existing SE wall supporting the NE 6th Street transit/HOV direct access ramps to provide the west abutment of the new bridge structure over I-405;
- construction of the new bridge structure over northbound I-405; and
- reconstruction of the southwest curb return at the NE 6th Street / direct access ramps intersection to provide the east abutment for the new multi-use path bridge structure providing a connection to 112th Avenue NE.

Descriptions of potential construction staging, sequencing and durations, and traffic control / maintenance of traffic strategies follow.

Stage 1 – Realign the I-405 Northbound C-D to Eastbound NE 8th Off-Ramp

The first step in constructing the new bridge over northbound I-405 would be to realign the existing off-ramp to eastbound NE 8th Street to provide a working area for construction of the intermediate pier or bent that would be located in the gore area between the ramp and the northbound collector-distributor roadway.

Construction Sequence

- Shift the I-405 northbound collector-distributor west to build new ramp wall on east side.
- Build the new ramp retaining wall and pavement.
- Spread the I-405 northbound collector-distributor and NE 8th Street off-ramps to open up a work area in the gore for the new pier(s).
- Shift the NE 8th Street off-ramp to new pavement.
- Build new pier in gore area work zone.
- Restore traffic to the finished configuration.

The work to realign the I-405 Northbound C-D to Eastbound NE 8th Street off-ramp to accommodate piers or bents supporting the NE 6th Street Extension would desirably be combined with Sound Transit's East Link project, which proposes a bridge pier in the gore area of the existing off-ramp. This would minimize or eliminate "throw-away" or re-work that could occur if this work was not coordinated between the two projects.

Stage 2 – Piers for New Span(s) to East

The second stage of construction would run concurrently with the first and third stages. It would construct the foundations and piers for the portion of the NE 6th Street Extension immediately east of I-405 so as to minimize the amount of time that that traffic on the NE 6th Street direct access ramps would be affected by construction of the extension. This would allow girders to be set and the deck and barriers poured immediately following completion of the west abutment.

Construction Sequence

- Excavate and pour spread footings for pier(s) east of I-405
- Build piers and pier cap(s)
- Prepare for erection of girders

Stage 3 – West Abutment of NE 6th Street Bridge over Northbound I-405

The start of the third stage of construction could overlap with Stage 2 such that both were completed at the same time. The third stage would have the greatest impact on NE 6th Street direct access ramp operations. Because of this, the construction contract would desirably include both incentives for early completion and penalties for late completion. This is also be an area where innovation in construction means and methods would be desirable. The description below represents a starting point for future detailed analysis and evaluations of construction staging and maintenance of traffic.

Construction Sequence

- Shift I-405 northbound mainline to the outside (east) to create a median work area adjacent to the existing SE wall. This median work area would provide contractor access to the wall for demolition and reconstruction activities.
- Relocate the existing ramp intersection traffic signal to temporary location (or remove and implement stop control for the construction period).
- Excavate from the SE wall west to approximately centerline of ramps. Laying back the excavation slope would be preferred over sheet piles due to likely interference of sheet piles with existing SE wall reinforcing straps or grids (mesh).
- Install micropiles from above. If micropiles can be installed prior to the excavation of the SE wall, the intersection may remain open to traffic during the day while construction occurs at night. This would require coring through the PCC ramp pavement and moment slab. A conceptual design of the piles indicates that 6-inch diameter piles could be used, which would require 8- to 10-inch diameter core holes.
- Form and pour the new abutment. It may be possible to do the abutment work over a shorter period of time by allowing a total closure of the ramps, preferably during summer months when weather conditions are favorable and traffic volumes are lower. Pre-cast pile cap and/or abutment elements could be considered to shorten the closure duration.
- Restore ramp roadway pavement from ramp centerline to back wall of abutment.

Construction Duration

Two scenarios were developed to determine the approximate duration of a total closure. As outlined below in Table 10, one would utilize traditional cast-in-place construction methods while the other would utilize pre-cast elements to reduce construction time. Based on this first-cut analysis, reconstruction of the abutment would require ramp closures of approximately three to six weeks, depending on how many shifts per day were worked and whether cast-in-place or pre-cast methods were used.

Traffic Control

Two options for traffic control are described below – a total ramp closure option, and a limited closure option. The total closure option would likely have a shorter duration, while the limited closure option would maintain peak-direction access to the NE 6th Street direct access ramps.

Table 10
Construction Duration for Abutment Options

Cast-in-Place Abutment		Pre-Cast Abutment Pile Caps	
Excavation	1 week	Excavation	1 week
Micropiles	1 week	Micropiles	1 week
FRP (form–rebar–pour) abutment pile cap	2 weeks	Pre-cast abutment pile cap	1 week
Cure/FRP abutment back wall	1 week	FRP abutment back wall	1 week
Cure/Backfill/barrier/pave	1 week	Cure/Backfill/barrier/pave	1 week
Total at 8 hours/day	6 weeks	Total at 8 hours/day	5 weeks
Total at 24 hours/day	3 weeks	Total at 24 hours/day	2.5 weeks

Source: HNTB Corporation, 2011

Total Closure of NE 6th Street Direct Access Ramps During Abutment Construction
This option would close the NE 6th Street direct access ramps and divert traffic from these ramps to the adjacent NE 8th and NE 4th Street interchanges. The NE 4th Street interchange has HOV lane and ramp-meter bypass provisions and would be the likely detour route for transit buses traveling between the Bellevue Transit Center and I-405.

Advantages of using a total closure of the NE 6th Street ramps:

- NE 6th Street from 112th Avenue NE to I-405, and the direct access I-405 ramps, would be available for contractor staging and access to the work zone.
- Traffic control would be simpler for the contractor.
- Access would be easier to perform other work in the vicinity of NE 6th Street during the total closure.

Disadvantages of using a total closure of the NE 6th Street ramps:

- HOV/HOT access to Bellevue would need to be re-directed to NE 8th or NE 4th Streets
- Bus schedules may need to be adjusted based on longer travel times

Partial Closure of NE 6th Street Direct Access Ramps During Abutment Construction
This option would close one ramp lane in each direction to create the abutment work zone. Use of a reversible ramp operation could be considered – northbound and southbound off in the morning peak period, and northbound and southbound on in the afternoon peak period. This would require off-peak direction users of the NE 6th Street direct access ramps to utilize the adjacent NE 4th Street or NE 8th Street ramps.

Advantages of using a partial closure option:

- Maintains access for peak-direction direct access ramp provisions for transit, HOV, and I-405 express toll lane users.

Disadvantages of using a partial closure option:

- Limits the amount of access available for construction, therefore the duration and possibly cost of construction would be expected to be longer. Off-peak and night closures of the ramps may be required to provide adequate contractor access to the work area.
- Traffic control would be more complicated and temporary signals and illumination would likely be needed.
- With reversible operation, traffic control would need to be designed and implemented to minimize the potential for wrong-way entry onto I-405 through the intersection.

Other Options Considered
Overnight ramp or interchange closures could be utilized but would still likely require partial closures because once the area is excavated in preparation for installing the abutment pile cap, traffic could not be restored to the excavated area until the abutment work is completed.

Stage 4 – New Span(s) to East

The fourth stage of construction would immediately follow Stages 2 and 3. It would include setting girders across I-405 northbound and forming and pouring the bridge deck and railings.

Construction Sequence

- Set steel girders over northbound I-405 – this would require total closures of I-405, most likely during overnight hours.
- Place forms and pour concrete deck – false work and/or form placement could occur during overnight lane closures. Stay-in-place forms could be considered to reduce total closure times.
- Form and pour bridge rail/barriers.
- Adjust the existing profile of NE 6th Street at the direct access ramps to reduce the vertical inflection point on the east edge of traveled way.
- Restore traffic to the direct access ramps, and restore shifted mainline traffic lanes to their permanent configuration.

Stage 5 – Southwest Curb Return / Pedestrian Connection to 112th Ave NE

Reconstruction of the southwest curb return could require restrictions on the southbound direct access on-ramp. To minimize these disruptions, this stage could be part of a total closure option for Stage 3 east abutment work.

Construction Sequence

- Shift southbound mainline traffic lanes to the west to create a median work area for the contractor. Shift traffic lanes to the east on the ramps to/from the south to create a work area in the southwest quadrant of the direct access ramp intersection. Close the eastbound to southbound lane (curb lane) on the NE 6th Street approach to the ramp intersection.
- Demolish the existing southwest curb return, likely utilizing overnight closures of one or more mainline lanes on southbound I-405.
- Modify the abutment as required to accommodate the new steel girder configuration.
- If required, erect false work in the median work area to provide temporary supports during steel girder erection at the curb return.
- Erect the multi-use pathway girders across southbound I-405, utilizing overnight total closures of the mainline and collector-distributor roadways.

- Place forms and pour concrete deck – false work and/or form placement could occur during overnight lane closures. Stay-in-place forms could be considered to reduce total closure times.
- Form and pour bridge rail/barriers.
- Restore traffic to the direct access ramps, and restore shifted mainline traffic lanes to their permanent configuration.

The construction sequence described above applies to the separate structure option for the bridge over southbound I-405. A similar sequence would occur with the widening option, which would also potentially require closures of the NE 8th Street on ramps to southbound I-405, and/or the southbound off-ramp to NE 4th Street. For the widening option, the work at Pier 3 that would affect these ramps would occur prior to the work at the curb return. The Pier 3 work could occur concurrently with Stages 1 and 2 described above.

Stormwater

Existing Conditions & Assumptions

The project is located within the Sturtevant Creek basin. Sturtevant Creek passes through the project corridor in a culvert near the NE 8th Street off-ramp. Four threshold discharge areas (TDAs) were identified for the project corridor (Figure 41). All four areas are either directly or hydraulically connected to Sturtevant Creek. Existing land uses in the TDAs total 230,227 square feet (5.29 acres) with 87% of this area considered impervious. Based on conversations with City staff, there are no known capacity problems with the existing stormwater systems in the project corridor, or with Sturtevant Creek downstream of the project.

Figure 41
Threshold Discharge Areas (TDAs) for Stormwater Analysis & Design



Source: Parametrix, Inc., 2011.

The four lane basic section alternative with the Jug Handle U-turn option at 119th Avenue NE, which would have the largest footprint, was assumed as a "worst case" for the purpose of determining stormwater runoff treatment facility requirements. The modifications to the northbound I-405 collector-distributor roadway and off-ramp to NE 8th Street were also included in the analysis. If an alternative or options with smaller footprints were selected for implementation, stormwater facilities could be reduced in size relative to those identified for the conceptual design.

Design Criteria & Requirements

Portions of the project are located within WSDOT right-of-way and the remainder, primarily east of I-405, would be within City of Bellevue right-of-way. Stormwater runoff within WSDOT right-of-way (TDA S1) is assumed to be managed per WSDOT practices in accordance with their *Highway Runoff Manual*. Stormwater runoff on the portions of the project within City right-of-way (TDA W1, W2), or discharging to City stormwater systems (TDA S2), would be managed in accordance with the 2010 *City of Bellevue Stormwater Manual*. Core Requirements identified in these manuals, and the project's proposed approach for compliance, are summarized in Table 11.

Table 11
Compliance with Stormwater Core Requirements

Bellevue City Manual (TDAs W1 and W2)	WSDOT Highway Runoff Manual (TDAs S1 and S2)	Project Compliance
1. Preparation of Stormwater Site Plans	1. Stormwater Planning	Stormwater site plans will be prepared for this project.
2. Construction Stormwater Pollution Prevention	2. Construction Stormwater Pollution Prevention	A Construction Stormwater Pollution Prevention Plan (CSWPPP) will be prepared for this project.
3. Source Control of Pollution	3. Source Control of Pollutants	Source control BMPs are not applicable to this project during operational phases. Source control of pollutants during construction will be covered by the CSWPPP.
4. Preservation of Natural Drainage Systems and Outfalls	4. Maintaining the Natural Drainage	The project is located in a highly urbanized watershed with limited natural drainage systems. Runoff from the proposed project will discharge into the same drainage system as existing conditions to the maximum extent possible.
5. On-site Stormwater Management		On-site management of runoff is not applicable to the elevated portion of the roadway west of the BNSF railway corridor. On-site management of runoff is applicable to the areas east of the BNSF railway corridor. See narrative below.
6. Runoff Treatment	5. Runoff Treatment	Runoff treatment will be provided as discussed below.
7. Flow Control	6. Flow Control	Flow control will be provided as discussed below.
8. Wetlands Protection	7. Wetlands Protection	Stormwater runoff from TDAs W1 and W2 will be subject to this additional analysis.
	8. Watershed/Basin Planning	There are no basin plans that identify more stringent standards for treatment or detention applicable to the project site.
9. Operation and Maintenance	9. Operation and Maintenance	Existing WSDOT and City of Bellevue operations and maintenance manuals for stormwater facilities will be used.

Source: Parametrix, Inc. 2011

On-Site Stormwater Management

Best Management Practices (BMPs) that either infiltrate or disperse stormwater on-site is required on all projects. The feasibility of using on-site stormwater management BMPs has been evaluated for the entire project corridor.

The City has established two tiers of compliance with this Core Requirement. Tier 1 requires a project to minimize runoff; Tier 2 requires the project to retain runoff on-site. Each project is expected to meet the Tier 1 and Tier 2 requirements to the extent feasible. Because of the elevated roadway structure and highly urbanized nature of the surrounding land uses, the ability for the project to meet Tier 1 and Tier 2 requirements is limited.

Tier 1 (Minimize Runoff) can only be accomplished by limiting the overhead footprint of the roadway. The roadway has been configured to provide the narrowest footprint possible while providing capacity and safety for vehicles and pedestrians.

Tier 2 (Retain Runoff On-site) will be accomplished to the maximum extent possible in TDA W2, east of the BNSF railway corridor. This is the only portion of the proposed project corridor that will be located at grade. Because of the highly urbanized existing development and till soils within the subgrade, dispersion and infiltration of stormwater are not feasible. Bioretention for water quality treatment is presented as one of the options to be provided throughout the length of the roadway at grade with conveyance provided via downspouts.

Runoff Treatment

Runoff treatment is required for stormwater runoff from projects that create more than 5,000 square feet of new pollution-generating impervious surface (PGIS) in any TDA (WSDOT 2010; City of Bellevue 2010). The proposed project would create more than 5,000 square feet of new PGIS in all of the TDAs except S1; therefore, runoff treatment would be required for TDAs S2, W1, and W2.

The project corridor drains to Sturtevant Creek, which is a tributary of a fish-bearing stream that is not identified as a Major Receiving Water. Therefore, in accordance with the 2005 Ecology Manual, enhanced treatment is required. Although Bellevue and WSDOT have modified this requirement based on project type, both manuals require enhanced treatment for roads with greater than 7,500 vehicles per day (vpd) annual average daily traffic (AADT). Because the project has an anticipated AADT of 11,750 vpd west of 119th Avenue NE and 13,050 vpd east of 119th Avenue NE, enhanced runoff treatment would also be required by both the WSDOT and City Manuals.

Flow Control

Flow control is required for stormwater runoff from projects that create more than 5,000 square feet of new and replaced impervious areas in any TDA (WSDOT 2010; City of Bellevue 2010). The proposed project would create more than 5,000 square feet of new impervious surfaces in all of the TDAs; therefore, flow control would be required in all of the TDAs for this project.

Ecology has established a modified flow control standard that is applicable to specific highly urbanized watersheds in Western Washington, including the Sturtevant Creek watershed (Ecology 2005b; City of Bellevue 2011). This modified flow control standard is known as the 40/20 rule and was developed using several studies performed on Puget Sound streams. The 40/20 rule states that alternative flow control standards are ecologically sufficient in watersheds that had more than 40 percent impervious surface cover prior to 1986.

At a project level, the modified flow control standard requires only that discharges from the project site match existing land use conditions. Therefore, the project is not required to assume forest as a pre-developed land use condition.

In addition to the 40/20 rule, a TDA is exempt from flow control requirements if the change in the 100-year peak flow rate is equal to or less than 0.1 cubic feet per second (cfs) from existing to developed conditions. The hydrologic model, WWHM4, was used to perform this flow control analysis. All four TDAs would meet the exemption.

Stormwater Management BMPs

Enhanced water quality treatment facilities would be required for TDAs S2, W1, and W2. Water quality treatment would not be required in TDA S1 because it would not be pollution generating. In addition, the project would be exempt from detention facilities. An alternatives analysis was performed for approved enhanced treatment Best Management Practices (BMPs); based on the results of this analysis, two BMPs were carried forward to conceptual design. Bioretention facilities and Filterra® BMPs would be most suitable for the project corridor. Table 12 summarizes additional general information about bioretention facilities and Filterra® to further distinguish between these BMPs. Total facility areas for conceptual stormwater treatment BMPs are summarized in Table 13.

Table 12
Recommended Enhanced Stormwater Treatment BMPs

Method	Installation Cost	Maintenance Costs	Footprint	Proprietary System	Visual Aesthetics
Bioretention	Medium	Medium	Medium	No	Yes
Filterra®	Medium	Low	Small	Yes	Yes

Source: Parametrix, Inc. 2011

Table 13
Stormwater BMP Sizing

TDA	Bioretention Total Facility Area (square feet)	Filterra® Total Facility Area (square feet)
S1	treatment not required	treatment not required
S2	1,900	324
W1	900	120
W2	1,700	228

Source: Parametrix, Inc. 2011

The bioretention facilities would require 18 inches of amended soils to ensure that an infiltration rate of 2.5 inches per hour would be met. These facilities could be constructed in a typical rain garden configuration located at-grade, or in concrete boxes located above grade. The bioretention

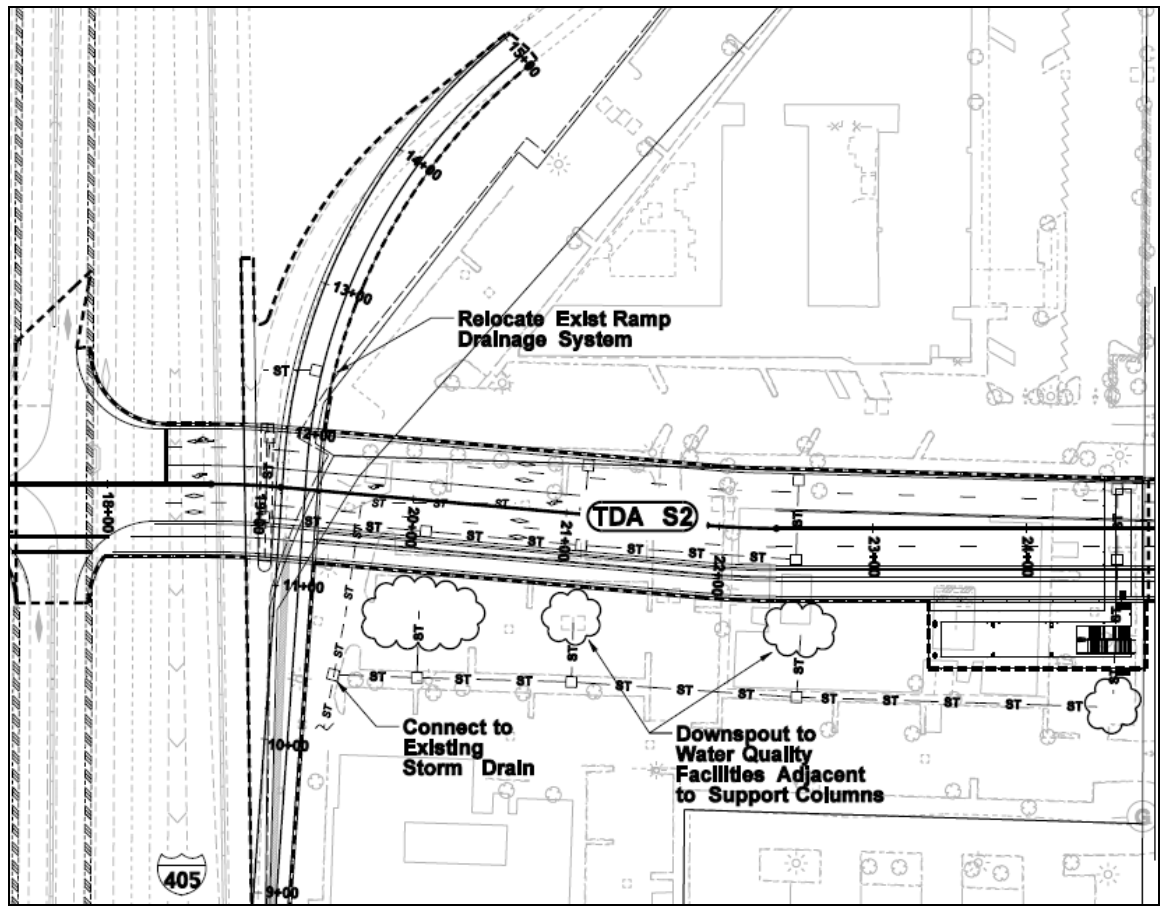
facilities would have underdrains to collect all stormwater after filtering, conveying it to the storm drain system.

The Filterra® bioretention systems were sized as sand filters and utilizing standard Filterra® vault sizes, in this case ranging from 6 feet by 6 feet to 6 feet by 10 feet (length times width). As with the generic bioretention facilities, the Filterra® vaults would utilize an underdrain system connected to the storm drain system.

Conceptual Drainage Design

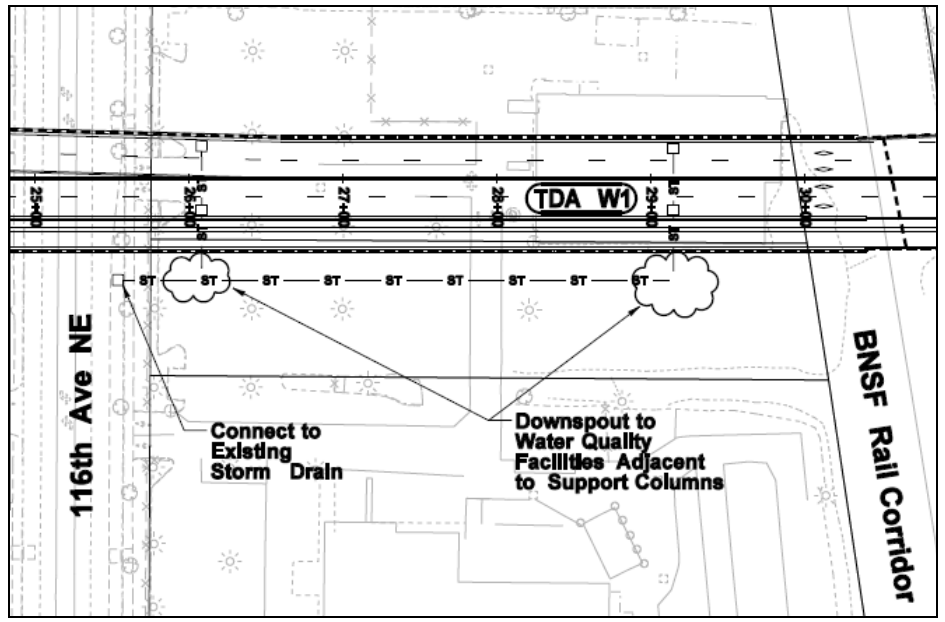
For TDAs S2 and W1, stormwater runoff would be collected in inlets on the bridge deck and piped to downspouts located on the structural columns or piers. For the bioretention option, the downspout flow would be discharged through a level spreader into the rain gardens located at-grade. These facilities would be located on the south side of the bridge structure to ensure that they would receive the proper amount of light for vegetative growth (see Figure 42 and Figure 43). Filterra® units would be located in similar locations, although there would be more flexibility to place these units under the elevated structure in shaded areas.

Figure 42
Conceptual Drainage Design – TDA S2



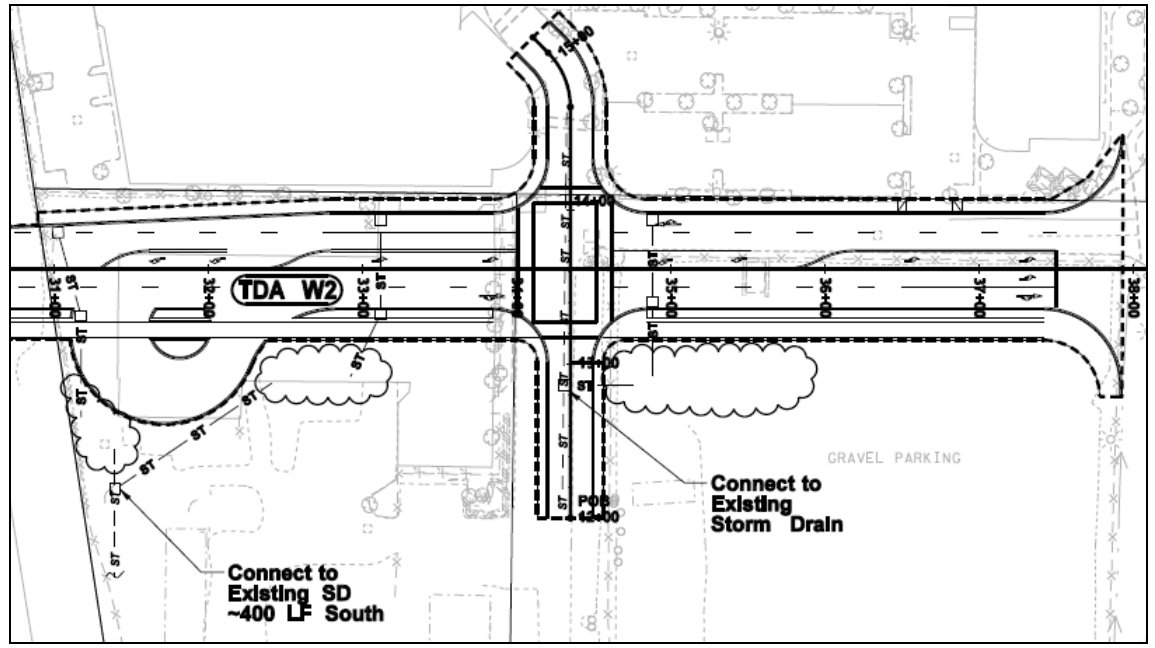
Source: Parametrix, Inc. 2011

Figure 43
Conceptual Drainage Design – TDA W1



Source: Parametrix, Inc. 2011

Figure 44
Conceptual Drainage Design – TDA W2



Source: Parametrix, Inc. 2011

In TDA W2 (see Figure 44), stormwater treatment facilities would be located at-grade. Stormwater would be collected in catch basins along the curb line of NE 6th Street and conveyed to the bioretention facilities. The conceptual design assumes that these facilities would be on the south side of NE 6th Street to minimize impacts on the developed properties to the north. They could be place in one location, say adjacent to the BNSF Corridor, if that were advantageous from the perspective of focusing property impacts in one location.

For more information on the drainage design see *Stormwater Management Technical Memorandum* (Parametrix, May 2011) found in Appendix D.

Utilities

An existing King County 72-inch diameter gravity sanitary sewer line runs north and south within the BNSF corridor. This sanitary sewer line is located on the west side of the BNSF corridor, approximately 34 to 35 feet from the centerline of the corridor. King County has indicated that their primary concern for this line would be related to potential settlement resulting from construction over or adjacent to the sanitary sewer line. They will require analysis and monitoring during construction to ensure that any potential settlement issues are addressed. The conceptual design for the elevated structure carrying NE 6th Street between I-405 and the BNSF Corridor located the proposed abutment approximately 50-60 feet west of the sanitary sewer line to minimize the potential for settlement (see sheet ST02 in Appendix B). Other provisions may also be needed to protect the line, such as relocating the sanitary sewer similar to the design shown for the City of Bellevue's NE 4th Street project.

Puget Sound Energy has natural gas and power facilities in the vicinity of the project. The current effort was limited to review of Puget Sound Energy's utility maps of the project vicinity. Utility locates are required to determine the exact facilities impacted by the project. Existing power lines are underground along 112th Avenue NE and 120th Avenue NE, and above-ground along 116th Avenue NE. It is likely that overhead power lines along 116th Avenue NE would need to be relocated or raised to provide sufficient vertical clearance to the elevated structure carrying NE 6th Street over 116th Avenue NE. This relocation will also likely be required for Sound Transit's East Link project and would desirably accommodate both projects.

In Bel-Red program utility coordination meetings conducted by the City in 2011, utility companies have indicated a need to consider both existing and future development patterns as utility provisions are identified for the City's street projects. For the NE 6th Street extension, this would primarily apply to the portions of the corridor east of I-405.

The existing NE 6th Street bridge connecting 112th Avenue NE to the direct access interchange in the median of I-405 does not include provisions for public utilities. Retrofit of utility provisions could provide problematic, particularly at the SE fill supporting the direct access ramps. For these reasons, it is unlikely that public utilities would be accommodated on the new bridge structure east of I-405 to the BNSF corridor. Provisions would need to be made, however, for WSDOT/City systems including power for illumination, signal, and ITS; and communications provisions for tolling systems and ITS.

BNSF Corridor

In the vicinity of the NE 6th Street Extension project, there are four primary parties that have a stake in the BNSF corridor. The Port of Seattle purchased the corridor from BNSF Railway and they are actively negotiating with various agencies and utilities to sell portions of the corridor for transportation and utility uses. The provisions of the Port's purchase under federal rail-banking statutes could allow freight rail service to be restored on the corridor at a future date. Sound Transit has purchased a portion of the corridor immediately north of NE 6th Street for use by the East Link light rail line, and easements for potential future high capacity transit in other portions of the corridor. King County Parks has a trail easement through the entire corridor for use by a future regional non-motorized trail. The City of Bellevue is interested in the corridor because it crosses existing and future City of Bellevue streets that would interchange with future dual-use of the corridor for a regional trail and high-capacity transit. During this project's charrette/ stakeholder meetings each of the interested parties expressed their viewpoints and desires for the corridor.

As a part of this project, the interaction of the City's NE 4th, 6th, and 8th Streets with future regional trail and high-capacity or freight rail in the BNSF corridor has been evaluated. Three options for horizontal and vertical alignments for future regional trail and railroad or rail transit facilities were developed:

- Over NE 6th Street
- At-grade at NE 6th Street
- Under NE 6th Street

For the purpose of the evaluations, the alignments extend from the Wilburton Trestle north to just north of NE 8th Street, encompassing Sound Transit's East Link Hospital Station.

The primary criteria for evaluation of rail and trail alignments are those related to profile grades. In recognition that under rail banking provisions freight rail service could be restored in the corridor, the maximum gradient for rail facilities was limited to 2%. This maximum rail gradient would also accommodate commuter rail service. The maximum regional trail grade was set at 5%, the maximum grade without landings allowed per ADA criteria.

Based on these profile grade criteria, geometrically possible alignments were identified. Combinations of feasible options were discussed with project stakeholders. Based on the evaluation and stakeholder input, the City determined that the following configurations would be the most desirable for future rail and trail facilities in the BNSF corridor:

- Future Freight or Commuter Rail – at-grade crossings of NE 4th, 6th, and 8th Streets
- Future Regional Trail – either:
    - over NE 4th, at-grade at NE 6th, and over NE 8th
    - over NE 4th, NE 6th, and NE 8th

An at-grade crossing would be preferable to facilitate non-motorized connections between the NE 6th Street Extension and a future regional trail in the BNSF corridor. This configuration would also minimize the footprint of the regional trail by eliminating a need for separate ramps between the NE 6th Street Extension and an elevated regional trail. It would also be more compatible with

King County's vision for a linear park along the regional trail corridor. The at-grade crossing, depicted in Figure 28 on page 20, is assumed in estimates of probable construction cost. The cost of the regional trail in the BNSF corridor is not included.

Sound Transit is planning to build the East Link Hospital Station north of NE 8th Street. This elevated station and the planned elevated trail crossing over NE 8th Street will require further coordination during final design. A preliminary analysis determined that the primary issues associated with an elevated trail crossing that will need to be addressed in subsequent design phases include:

- The vertical clearance between the trail and the underside of the LRT elevated guideway structure on the south side of NE 8th Street is not adequate as shown in the preliminary engineering plans.

- A trail on the west side of the station would be mutually exclusive with any future freight commuter rail service in the BNSF Corridor.

Two feasible trail alignment options for a trail on the east side of the proposed East Link Hospital Station were developed. A third option was developed by Sound Transit for the west side of the East Link Hospital Station. In both cases, these alignments would meet vertical clearance requirements for the trail, streets, and rail facilities. The BNSF Corridor Regional Trail Technical Memorandum provides additional information (see Appendix D).

Driveways

Driveways or other connections to adjacent properties are only anticipated to be allowed within the Wilburton Village Zone, between the BNSF corridor and 120th Avenue NE. Local access connections are proposed at 119th Avenue NE, and at one existing intermediate driveway connection on the north side of NE 6th Street. Plans and profiles for these proposed connections are depicted on plan sheets DW01-DW02 and profile sheets DWP01-DWP02 in Appendix B. Revisions to the intermediate driveway that are planned to occur with the 120th Avenue NE Stage 1 project were not reflected in the conceptual design of this project. Future design refinement for this project will include coordination with adjacent property owners to refine driveway configurations.

C-curb is recommended between 119th Avenue NE and 120th Avenue NE to prohibit left turns in/out of the existing driveway. Any driveways would desirably be right-in, right-out. Left turns out of the adjacent properties would occur at the proposed intersection of NE 6th Street with 119th Avenue NE. As described earlier in this design report, this intersection would be either stop-sign or traffic signal controlled.

If driveway connections were desired off of the elevated structure between I-405 and the BNSF Corridor, these should only on the north side to avoid crossing the multi-use path. If left turns were allowed, it would be desirable to provide a turn lane or turn pocket at the driveway location. This may not be feasible between I-405 and 116th Avenue NE, as the westbound left turn pocket for the ramp terminal intersection requires nearly the full distance between I-405 and 116th Avenue NE. Special consideration would need to be made to accommodate structural flexing on the elevated structure at any driveway connections.

Illumination

Applicable street lighting design criteria are summarized in Table 12. These are a combination of WSDOT and City of Bellevue criteria. During 30% design of the project, a uniform set of design criteria would desirably be established for the roadway and multi-use path elements of the project. Criteria for light levels underneath the elevated portions of the NE 6th Street extension between I-405 and the BNSF corridor will depend on the anticipated use of the areas under the bridge structure. At 116th Avenue NE, the City's major arterial criteria would apply.

Table 14
Street Lighting Design Criteria

Project Segment/Element	Criteria/ Classification	Light Level (note 1)	Maximum Uniformity Ratio (note 2)	Maximum Veiling Luminance Ratio (note 3)
NE 6th Street, 112th Ave NE to east side of I-405	WSDOT/ Urban Minor Arterial (M-5)	1.2 foot-candles	4:1	0.3:1
Multi-Use Path	WSDOT/ Walkways & Bicycle Trails	0.8 foot-candles	3:1	0.3:1
NE 6th Street, east side of I-405 to 120th Ave NE	City of Bellevue/ Major Arterial	9 LUX (PCC) 13 LUX (HMA)	3:1	not specified
Intersection BNSF corridor trail	City of Bellevue/ Major – Ped Crossing	26 LUX (HMA)	not specified	not specified
Intersection 119th Ave NE	City of Bellevue/ Major – Tertiary	18 LUX (HMA)	3:1	not specified
Intersection 120th Ave NE	City of Bellevue/ Major – Major	26 LUX (HMA)	3:1	not specified

Notes:
1) Light Level = minimum average maintained horizontal light level
2) Maximum Uniformity Ratio = minimum average maintained light level / minimum light level
3) Maximum Veiling Luminance Ratio = maximum veiling luminance / average luminance
4) PCC = Portland Cement Concrete Pavement – bridges and NE 6th Street between 112th Ave NE and I-405
5) HMA = Hot Mix Asphalt Pavement – at-grade pavement, BNSF corridor to 120th

Sources:
City of Bellevue *Street Lighting Design Guide*, Revised May 2011
WSDOT *Design Manual* Chapter 1040, Revised June 2009

Pedestrian scale lighting typically consists of luminaires mounted 12 to 15 feet above the pedestrian or bicycle facility, often utilizing decorative fixtures. Pedestrian scale lighting is desirable for several reasons. It typically provides improved light uniformity and thereby enhances a user's comfort, sense of security, and safety. While not noted in the design criteria summarized in Table 14, vertical illuminance criteria, such as those included in Illuminating Engineering Society of North America (IESNA) G-1 standards for security lighting, can be more readily incorporated as supplemental design criteria for facilities with pedestrian scale lighting, improving a user's ability to discern obstacles and other people on the facility. Pedestrian scale lighting can also be a complement to other urban design elements such as railings, and can

provide thematic continuity and act as a way finding tool for a corridor connecting activity centers, such as the proposed NE 6th Street extension.

The existing roadway lighting on NE 6th Street between 112th Avenue NE and I-405 is consistent with WSDOT's standard practices at the time of construction, i.e. it utilizes 40 to 50 foot high metal poles with cobra head luminaires. The luminaires are mounted on the concrete wall/bridge rails and are installed in a staggered pattern along NE 6th Street (Figure 45).

Figure 45
Existing Roadway Lighting, 112th Avenue NE to I-405



Source: HNTB Corporation, 2010

The I-405 program provides two existing examples of roadway lighting configurations on City streets crossing over I-405 (Figure 46). These two projects used different lighting configurations, but both are generally consistent with the I-405 Context Sensitive Solutions (CSS) guidelines:

- NE 10th Street – Utilizes two different styles of 14-foot high poles with I-405 CSS luminaires at the back of sidewalks; spaced 50 feet on-center on both sides of the street.
- NE 12th Street – Utilizes 25-foot high poles with I-405 CSS luminaires at the back of sidewalk/multi-use path; spaced 100 feet on-center on both sides of the street.

The I-405 CSS guidelines also include roadway luminaires of the shoebox style, mounted on 40-50 foot high poles. These fixtures are similar to the City's Sterner shoebox luminaires.

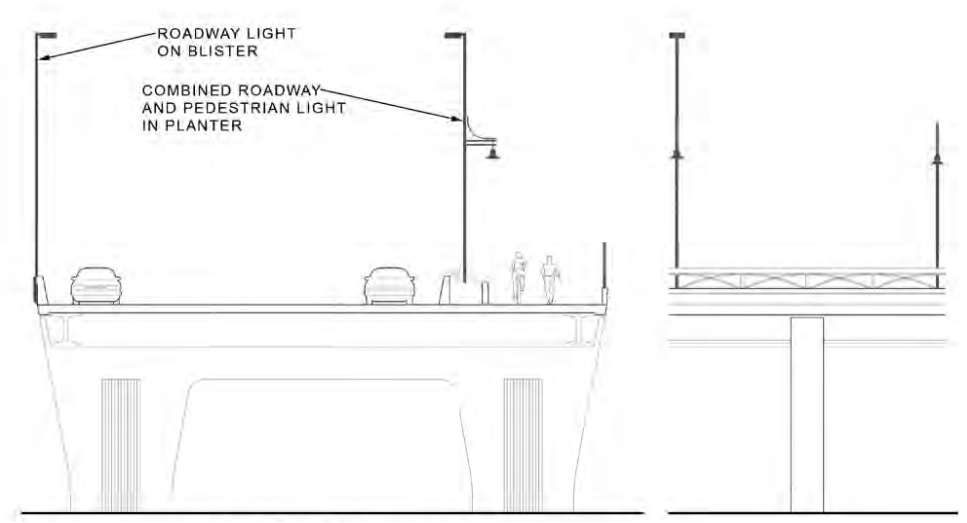
Street lighting configuration options for the NE 6th Street Extension have been identified and were discussed City staff on the project's Technical Review Team. The four options were various combinations of roadway and pedestrian luminaires. Luminaire pole location options included mounting poles on bridge rails and within the proposed landscape strip separating the multi-use path from the traffic lanes. These options are depicted on page 22 of the Urban Design Master Plan (see Appendix C). As a result of this discussion, a recommended lighting configuration was developed as shown in Figure 47.

Figure 46
I-405 CSS Lighting Examples, NE 10th & 12th Streets over I-405



Source: HNTB Corporation, 2012

Figure 47
Recommended Lighting Configuration, I-405 to 120th Avenue NE



Source: HNTB Corporation, 2011

The proposed lighting configuration would combine shoebox luminaires on metal poles in a staggered configuration with pedestrian luminaires mounted in the planter strips. On the elevated structure, the planter would be between the roadway and the multi-use path. Street trees identified for the elevated structure would consist of species with a mature height of approximately 15 feet. East of the BNSF corridor to 120th Avenue NE, the planter beds would be on both sides of NE 6th Street between the sidewalk (north side) and multi-use path (south side). The City's design guide states that "...no street trees are placed within 25 feet of a new street light." Spacing of pedestrian luminaires and street trees will need to be coordinated during subsequent design activities.

Figure 47 depicts the Four Lane Base Alignment alternative. If a narrower roadway cross-section were implemented, such as one of the two lane alignment alternatives, or a hybrid three lane alternative, the roadway illumination could probably be located exclusively on the north bridge rail, with only pedestrian scale illumination in the landscaped area or on the south bridge rail. This would be similar to the configurations shown on Options 1, 2, and 4 in the Urban Design Master Plan (Appendix C).

Existing roadway lighting on NE 6th Street between 112th Avenue NE and the I-405 ramps intersection would not be directly impacted and as such, would not require replacement. The existing ramps intersection would be reconstructed and traffic signal equipment replaced, so an evaluation of whether or not to replace the existing lighting systems with I-405 CSS style poles and luminaires would be appropriate during subsequent project design activities. Part of this evaluation could consider the availability and life-cycle costs of lower energy consumption luminaires such as those utilizing LED technology. Selected luminaires would reflect City and/or WSDOT design standards in effect at the time of final design, including energy efficiency requirements.

Urban Design

The conceptual design for the project has integrated urban design elements intended to enhance the basic mobility functions of the project – these are focused on the user experience for both motorized and non-motorized modes of travel, and reflecting existing and potential future development adjacent to the NE 6th Street Extension. An urban design master plan has been developed for the project and is summarized in the *Urban Design Master Plan for NE 6th Street Extension, I-405 to 120th Avenue NE* (HNTB Corporation, July 2012). The complete master plan is contained in Appendix C of this design report.

The master plan provides summaries of the charrette and technical review team meetings, including design options presented and feedback received; a site analysis and stakeholder survey identifying key issues in the corridor; design themes including architectural elements for bridge structures; options for pedestrian connections to 116th Avenue NE; roadway lighting configuration options; multi-use path enhancements including railing styles, pavement scoring, and refuge areas; way finding/gateway elements; and site furnishings and details.

ENVIRONMENTAL DOCUMENTATION & PERMITS

Environmental Documentation

Environmental baseline conditions have been documented in technical memorandums prepared for the following elements of the environment:

- Transportation;
- Built Environment;
- Cultural Resources;
- Visual Quality;
- Air Quality;
- Noise;
- Natural Resources;
- Stormwater Drainage;
- Geology and Soils; and
- Hazardous Materials.

These memorandums are listed under the "Other Project Documentation" section of this report. Copies of the technical memorandums are included in Appendix D or Appendix E.

Environmental Activities through Completion

Federal law requires Federal Highway Administration (FHWA) approval of all revisions to the Interstate system, including changes to limited access (WSDOT 2009). The NE 6th Street Extension project would modify the access at the intersection of NE 6th Street and I-405 for HOV and transit. The requirement to comply with NEPA would likely be triggered by FHWA approval of the Interchange Justification Report and may be triggered by future federal funding.

The level of documentation needed for this project would likely be a NEPA Environmental Assessment (EA). This approach could include a Notice of Intent (NOI), scoping, the EA, and a Finding of No Significant Impacts (FONSI). SEPA rules allow an agency to adopt an environmental analysis, prepared under NEPA, to satisfy SEPA requirements (Washington Administrative Code [WAC] 197-11-610).

Another potential approach is completing a NEPA Documented Categorical Exclusion (DCE) and SEPA Checklist. These approaches are described in the "Environmental Documentation Moving Forward" section of the Environmental Report.

Environmental Assessment (EA)

The EA would provide an analysis for determining if the project would cause any significant environmental impacts. Analysis of the existing conditions, construction effects, permanent effects, mitigation measures, and cumulative and indirect effects would be supported by discipline reports, technical memoranda, or other design reports as appropriate. The environmental disciplines discussed in WSDOT's *Environmental Procedures Manual* (WSDOT 2011) are grouped below to indicate those that are likely to need a discipline report or technical memorandum, or are not applicable for this project. Elements of the environment where a discipline report and additional analysis would likely be needed are as follows:

- Land Use and Relocations — An analysis would be required to identify properties for partial or full acquisition between I-405 and 120th Avenue NE.
- Social and Economic — Because properties would be acquired, analysis and coordination with the businesses and employees would be needed to determine economic effects, including any potential effects on environmental justice populations.
- Visual Impacts — Because the NE 6th Street Extension would be elevated over 116th Avenue NE, an analysis would be needed to determine any potential effects on the environment or if any mitigation measures are required. In addition, Sound Transit is expected to build the East Link light rail project and the City of Bellevue is also undertaking several other projects in the vicinity that may include elevated structures. The cumulative effects on visual resources in the project area would need to be analyzed.
- Noise — The Coast Bellevue Hotel is a noise sensitive receiver and would need to be analyzed for noise impacts. Additional locations may also need to be evaluated.
- Stormwater — Analysis of construction BMPs and requirements (such as scheduling work during the dry season, water quality treatment, and flow control) would be required prior to relocating the Sturtevant Creek pipe.
- Hazardous Materials — An analysis of acquired properties would be needed to identify any sites of concern and potential mitigation measures required if contaminated soils or other hazardous materials were encountered.
- Historic, Cultural, and Archaeological Resources — The Area of Potential Effects would need to be defined and approved by the appropriate parties. A professional archaeologist would review the proposed project to determine if additional research or fieldwork is needed. Resources in the project area would be documented through the National Historic Preservation Act Section 106 process. Section 106 resources of concern are not likely to be identified for this project.

In addition to these discipline reports, a Drainage Report would be prepared to address surface water. During the next phase of design, a geology and soils (earth) analysis would be conducted as the engineering plans are developed. Informal ESA consultation would be documented to meet the NEPA and SEPA requirements applicable to this project for the fish, wildlife, and vegetation assessments.

Elements of the environment where a technical memorandum and supporting information would likely be needed are as follows:

- Transportation — Traffic operations would need to be analyzed to provide information for the new corridor between I-405 and 120th Avenue NE for transit, HOV, and non-motorized users. Depending on the timing of implementation, which affects forecast and analysis horizon years, the information contained in the Traffic Operations Analysis Report may be sufficient.
- Public Services and Utilities — A field assessment would need to be conducted to determine the exact utility locations and facilities affected by the project. Potential

construction effects would need to be evaluated to determine if any mitigation measures are needed for emergency services in the vicinity.

- Air — The level of service at the NE 6th Street and 112th Avenue NE intersection would need to be analyzed for air quality impacts. Additional intersections may also need to be evaluated.
- Energy — Energy usage and greenhouse gas (GHG) emissions would need to be evaluated for compliance with Washington State's latest guidance (Revised Code of Washington [RCW] 70.235.020) and GHG reduction goals. Energy needed to construct and operate the project, as well as GHG emissions, would be a very small percentage of the overall energy consumed by the region.

Disciplines for which documentation is not anticipated include:

- Department of Transportation Act, Section 4(f) Evaluation
- Land and Water Conservation Fund Act, Section 6(f) Evaluation
- Wetlands
- Floodplains
- Resource Lands
- Groundwater

A notice of availability for the EA is required and would need to be published in the local newspaper. The public review and comment period for an EA is typically 30 days. The EA would be sent to the Washington State Department of Ecology SEPA Unit. The City of Bellevue and WSDOT should also distribute the EA to interested federal, state, tribal, and local government agencies, including those agencies involved with permit issuance and approval.

A FONSI would be prepared after the EA is completed and a determination of no significant impacts has been made. The EA and FONSI must be available to the public (23 Code of Federal Regulations [CFR] 771.119(d)) after FHWA issues the FONSI. A final mitigation plan and all required permits would then need to be completed before construction of the project could begin.

Documented Categorical Exclusion (DCE) and Checklist

Another potential approach is completing a NEPA DCE and SEPA Checklist. A DCE can be completed for a project that includes actions with a potential for impacts, but those impacts would be mitigated and the project would not have a significant effect on the environment. A WSDOT Environmental Classification Summary (ECS) would need to be completed to document the categorical exclusion. Supporting documentation, such as a wetlands or cultural resources report, must be submitted to FHWA with the ECS form. The project would also complete an Environmental Checklist to meet SEPA regulations (WSDOT 2011). All of the discipline reports, technical memorandums, and supporting information listed for the NEPA EA would also apply to this approach. Once the DCE and SEPA Checklist are completed, a final mitigation plan would be developed and permits would need to be approved before construction of the project could begin.

There are no public involvement requirements for DCEs or SEPA Checklists, but open houses, newsletters, and other public outreach may be done. Public notice for the SEPA Determination of Non-Significance or Mitigated Determination of Non-Significance would be provided, consistent with the requirements of WAC 197-11-510.

Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) are the agencies responsible for administering the ESA. These agencies would need to be contacted early in the environmental review process. The project could potentially qualify for a "no effects" determination because no federally listed endangered species are known to occur within the project vicinity. However, the project may need to conduct Section 7 consultation on behalf of FHWA (50 CFR 402.07) because federally listed salmonid species occur downstream of the project. If consultation is required, it is anticipated that an assessment would conclude that the NE 6th Street Extension project "may affect, but is not likely to adversely affect" ESA-listed species.

Permit Coordination

Assumptions

The following assumptions were made in assembling this list of likely permits and approvals for project construction:

1. The City of Bellevue will continue to be the project proponent through the environmental process, in cooperation with WSDOT, who will likely lead the final design/construction phases of the project.
2. No changes are required to the City's Comprehensive Plan.
3. No change will be made to Sturtevant Creek. It will remain a closed stream segment as defined by BCC 20.50.
4. Electrical, mechanical, and sewer permits/approvals will be determined or confirmed by the contractor.
5. Night-time construction work (including haul to and from the site) is required.
6. A federal nexus is triggered by Federal Highway Administration (FHWA) approval of the Interchange Justification Report and may be triggered by future federal funding.
7. The City of Bellevue may be required to participate in an agreement with WSDOT, FHWA, Federal Transit Administration (FTA) and possibly others on the use of the NE 6th Street Direct Access Ramp completed as the Sound Transit Bellevue HOV Access project in 2004.

Permits and Approvals Required for Construction

The following permits and approvals are anticipated to be required for the project:

Federal and State

1. National Environmental Policy Act – FHWA
2. Endangered Species Act, No Effects Letter or Informal Consultation – FHWA, USFWS, NOAA Fisheries
3. National Historic Preservation Act Section 106 – Washington Department of Archaeology and Historic Preservation

4. Interchange Justification Report approval – FHWA/WSDOT
5. Air Space Lease Agreement – FHWA/WSDOT
6. Final Channelization Plan Approval – FHWA/WSDOT
7. General Construction Permit – WSDOT
8. Hydraulic Project Approval (HPA) — Washington State Department of Fish and Wildlife (to relocate the Sturtevant Creek pipe)
9. National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit coverage—Washington State Department of Ecology

City of Bellevue

1. State Environmental Policy Act
2. Clearing and Grading Permit
3. Noise Variance
4. Critical Areas Ordinance

If there is consideration of daylighting Sturtevant Creek in the future, the project would potentially need to comply with the U.S. Army Corps of Engineers Section 404 permit and follow ESA regulations. The current regulations and permits would need to be confirmed at the time the project resumes.

RIGHT OF WAY

Right of way acquisition and temporary construction easements would be required to implement the NE 6th Street Extension project. The impact on public and private land parcels in the corridor would vary between alignment alternatives, as shown on Figure 48, Figure 49, and Figure 50. The differences between alternatives would in the degree of impact, i.e. the areas of impact, not in the number of individual parcels that would be affected. The largest area of potential acquisitions would occur with the 4-Lane Base Alignment Alternative, and the smallest with the 2-Lane Refined Alignment Alternative.

Table 15 provides a summary of potential right of way acquisition areas by affected parcel. These areas are based on the footprint of the three alignment alternatives. Also identified are areas associated with the optional pedestrian connection to 116th Avenue NE, with stormwater treatment facilities, and for construction easements. The stormwater treatment facility areas represent conceptual designs sized to accommodate the largest footprint for the project, as described earlier in this report (see Conceptual Drainage Design on page 38). Not shown are potential additional right of way areas that could be required for U-turn options at 119th Avenue NE.

Potential uneconomic remainders or remnants have been shown in Table 15 and on Figure 48, Figure 49, and Figure 50. These areas represent parcels with existing uses that might be compromised by the project to the point where WSDOT and/or the City would offer to acquire the entire parcel. These property areas would not be required for operation of the project, and if acquired, would potentially be considered "surplus" and disposed of by the acquiring agency. It is possible, however, that one or more of these areas could be used during construction for contractor staging and/or lay down areas. The four properties that would potentially be in this category are:

- Legacy Bellevue 530 LLC – Location of a restaurant (out of business and for lease as of August 2012); direct impacts on parking areas could potentially affect the viability of the business.
- Fazenda LLC / Toyota of Lake City – Currently occupied by adjacent auto dealerships, the project would bisect these adjoining properties under the same ownership and would require removal of an existing auto dealer/service building on the southern parcel.
- Mutual Material Co. – The new street would run through the northern portion of the existing office/warehouse building on the site, requiring its removal.
- Bellevue School District 405 – The school district performs light maintenance and parks school buses on this site; the project would eliminate some parking spaces and would require reconfiguration of the parking and circulation aisles. The reduction in parking area may result in a need for the school district to find an alternative location with sufficient parking for their needs.

For the purpose of estimating potential right-of-way costs, the "Total Permanent Acquisition" areas shown on Table 15 have been used, with a cost of $100 per square foot assumed.

Subsequent phases of design development will need to determine what, if any, modifications to the existing WSDOT / I-405 limited access limits would be required. The proposed multi-use path facilities, including the proposed at-grade intersection at the direct access ramp terminal intersection, would appear to be compliant with the guidance for limited access facilities in WSDOT's *Design Manual* Chapter 530.03.

Table 15
Summary of Potential Right of Way Acquisitions

#	Affected Parcel Owner	Tax Parcel Number	Total Parcel Area (square feet)	Approximate Acquisition Area (square feet)		
				4 Lane Base Alignment	2 Lane Base Alignment	2 Lane Refined Alignment
1	Legacy Bellevue 530 LLC	3225059201	37,993	7,351	7,351	7,351
	uneconomic remainder			30,642	30,642	30,642
2	JG 520 Building LLC	3225059171	66,510	1,129	1,129	1,129
3	Goldtrust Hotel LLC	3225059002	158,875	4,179	3,293	8,049
4	City of Bellevue	3225059005	184,500	45,368	40,483	32,505
	Stormwater Treatment Facilities			3,996	3,996	3,996
	116th Ave NE Pedestrian Connection			6,313	6,313	6,313
	Potential Uneconomic Remainder			-	2,434	-
5	Fazenda LLC	3325059124	64,662	29,356	22,741	22,568
	Potential Uneconomic Remainder			35,306	41,921	42,094
6	Fazenda LLC	3325059038	38,412	3,598	-	-
	Stormwater Treatment Facilities			2,345	2,345	2,345
7	Port of Seattle	3325059029	570,008	8,161	5,993	6,203
8	City of Bellevue ROW	N/A	11,400	11,400	11,400	11,400
9	Mutual Material Co.	3325059134	89,747	30,007	24,828	25,621
	Stormwater Treatment Facilities			2,916	2,916	2,916
	Potential Uneconomic Remainder			56,824	62,003	61,210
10	TRF Capital	3325059120	253,174	4,392	4,392	4,392
	Temporary Construction Easement			4,870	4,870	4,870
11	Bellevue School Dist 405	3325059121	201,310	30,308	30,308	30,308
	Stormwater Treatment Facilities			1,424	1,424	1,424
	Temporary Construction Easement			5,408	5,408	5,408
	Potential Uneconomic Remainder			164,170	164,170	164,170
	Total Potential Acquisitions		**1,676,591**	**489,463**	**480,360**	**474,914**
	Subtotal, Street Right-of-Way			175,249	151,918	149,526
	Subtotal, 116th Ave NE Ped Connection			6,313	6,313	6,313
	Subtotal, Stormwater Treatment Facilities			10,681	10,681	10,681
	Total Permanent Acquisitions			**192,243**	**168,912**	**166,520**
	Subtotal, Temporary Construction Easements			10,278	10,278	10,278
	Subtotal, Potential Uneconomic Remainders			286,942	301,170	298,116
	Total Potential Temporary Acquisitions			**297,220**	**311,448**	**308,394**

Source: HNTB Corporation, 2011

Figure 48
Potential Right of Way Acquisitions
Comparison of 2-Lane Base vs. 4-Lane Base Alignments

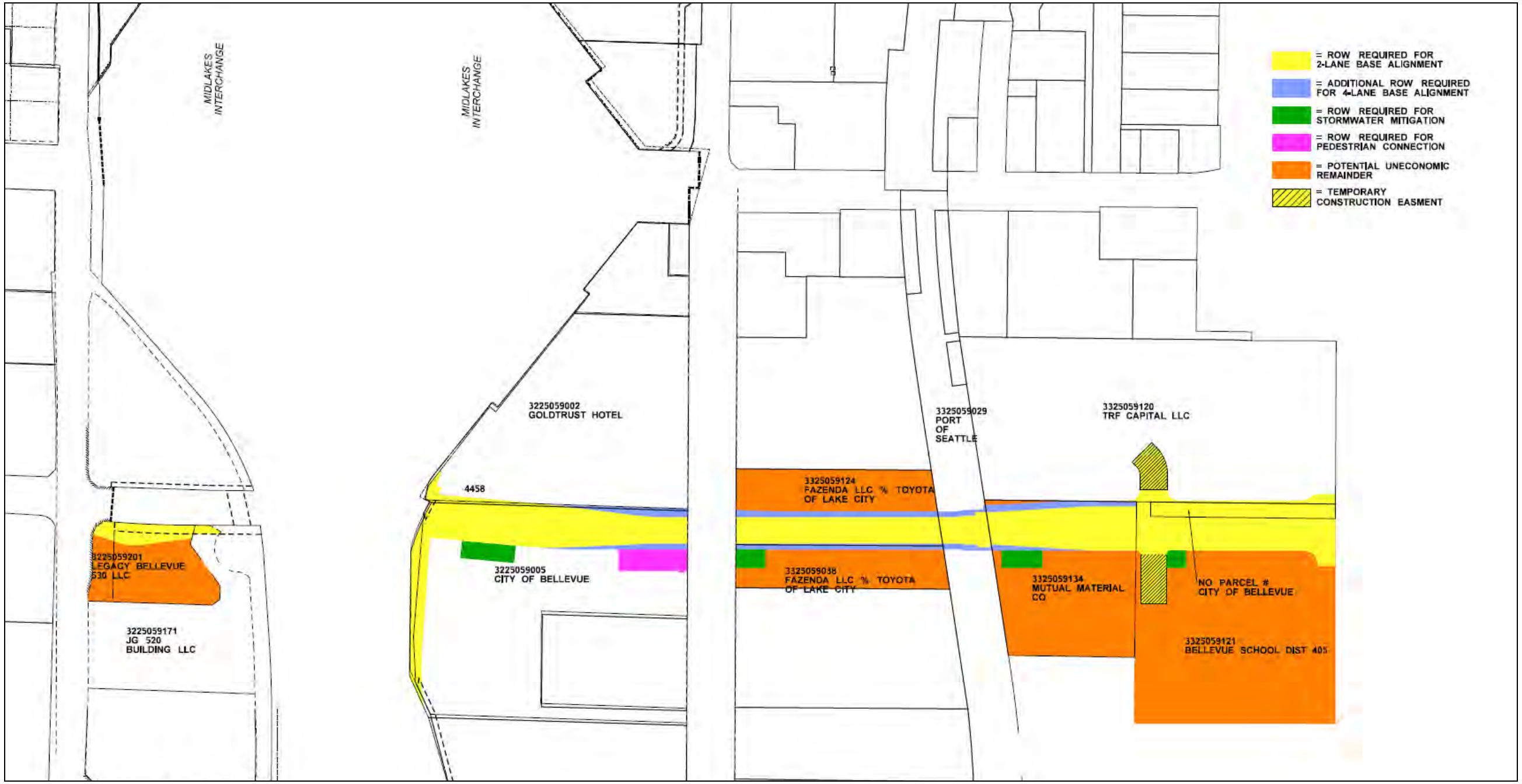
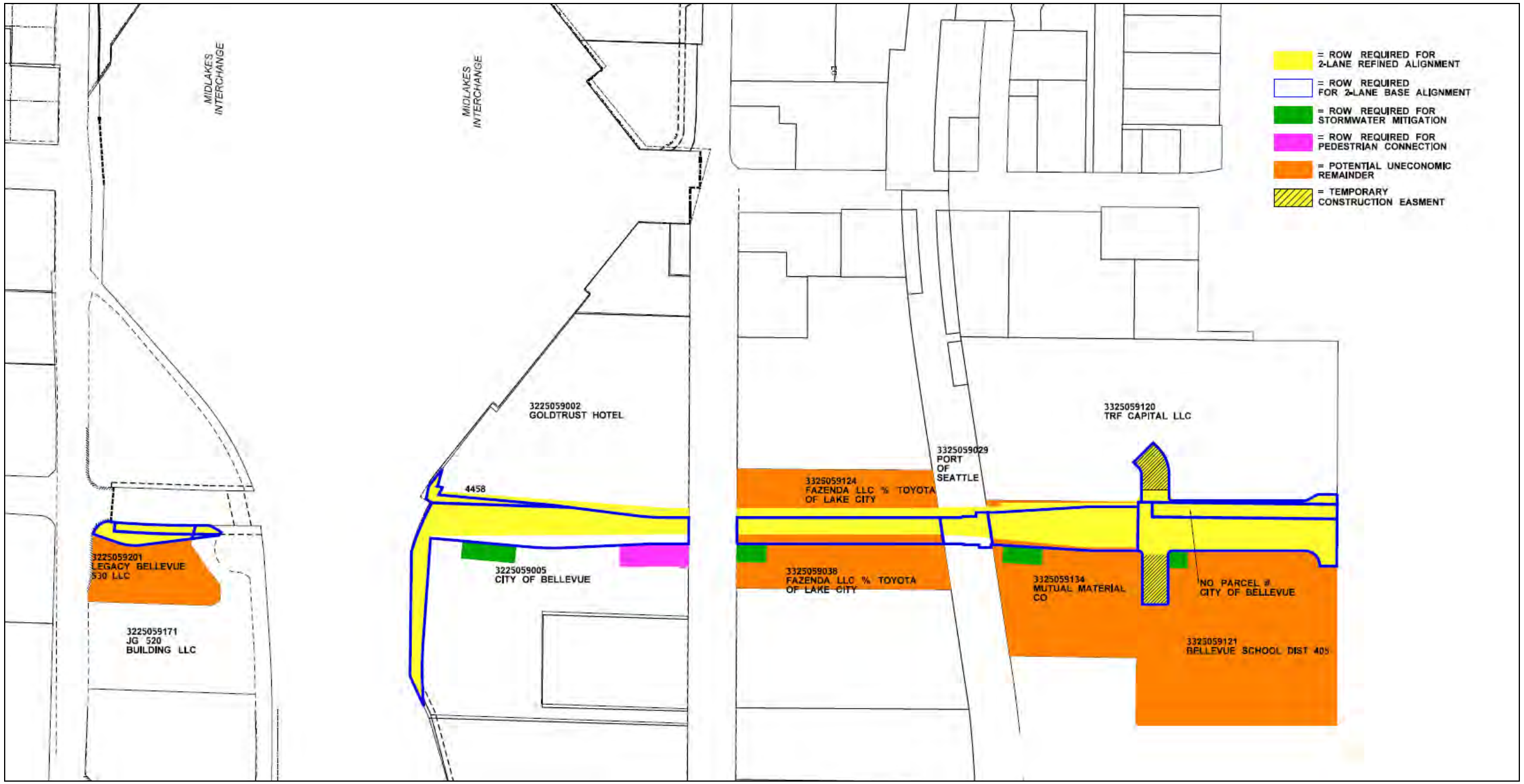


Figure 49
Potential Right of Way Acquisitions
Comparison of 2-Lane Refined vs. 4-Lane Base Alignments



Figure 50
Potential Right of Way Acquisitions
Comparison of 2-Lane Base vs. 2-Lane Refined Alignments



ESTIMATES OF PROBABLE PROJECT COST

The project is currently in the planning level of design development, as defined in WSDOT's *Cost Estimating Guidance for WSDOT Projects* (M 3034.02, July 2009). The design described in this report is at approximately a 5% level of design completion. Miscellaneous items and planning design level allowances represent 46% of the estimated construction cost, not including mobilization, survey, and potholing, have been applied to the estimates. This total allowance is at the high end of the 30% to 50% range recommended by WSDOT for the planning phase of a project. The specific assumptions for miscellaneous allowances applied to construction items are itemized below. These allowances represent project elements for which preliminary design has not been developed during the current phase of the project.

Construction Items– percentage of construction items estimated

- Traffic Control 7%
- Roadside Cleanup 1%
- Temporary Erosion & Stormwater Control (TESC) 2%
- Property Restoration 5%
- Permanent Signing 1%
- Miscellaneous Items Not Yet Estimated 10%
- Allowance for Planning Level Design Accuracy 20%
- Mobilization, Survey, Potholing 12%

Existing utilities crossing the NE 6th Street Extension corridor include Puget Sound Energy power and gas lines and various communications utilities located in or along 116th Avenue NE (see summary in Utilities on page 39). It is possible that some of these will need to be relocated to accommodate the NE 6th Street Extension and the parallel Sound Transit East Link project. No specific costs for these potential relocations have been estimated at the current level of project development. In addition, a 72-inch sanitary sewer line owned by King County also crosses the corridor. The current assumption is that the project will protect the sewer line in its existing location. Sales tax is assumed to be applied only to utility work by others per APWA Standard Specifications. For all other work sales tax is included in unit prices.

Utilities & Agreements

- State Sales Tax (only applies to utility work by others) 8.9%
- Construction Work by Others at Owner's Expense ..... none identified
- Agreements (utilities, etc.) ..... none identified

Allowances for construction and design engineering and administration are summarized below.

Construction Administration – percentage of construction,

- Construction Engineering 10%
- Construction Contingency 10%

Design Engineering & Administration

- Design Engineering 20%
  includes preliminary design/environmental documentation, final design, and PS&E
- Agency Administration 10%
- Alignment Survey 1%

A summary of estimated project costs by roadway alternative is shown in Table 16. Also shown are estimated costs for optional project elements that could be added to the roadway alternatives. These include provisions for a 16-foot wide multi-use path, for a pedestrian connection from the elevated NE 6th Street Extension to 116th Avenue NE, and four options for U-turn provisions at or near the intersection of NE 6th Street with 119th Avenue NE. Right of way costs include permanent acquisitions but do not include construction easements or potential uneconomic remnants or remainders.

Table 16
Summary of Estimates of Probable Project Cost

Alternative/Option	Construction, Design & Administration	Right of Way	Total Project Cost
Roadway Alternatives			
4-Lane Base Alignment	$66.7	$18.6	$85.3
2-Lane Base Alignment	$59.2	$16.3	$75.5
2-Lane Refined Alignment	$57.2	$16.0	$73.2
Optional Project Elements			
16-foot wide Multi-Use Path	$1.9	---	$1.9
116th Pedestrian Connection	$3.7	$0.6	$4.3
119th Intersection Options			
Option 1 – U-turn with bulb-out	$0.1	$0.4	$0.5
Option 2 – U-turn without bulb-out	$0.1	$0.5	$0.6
Option 3 – Jug Handle	$0.3	$0.9	$1.2
Option 4 - Roundabout	$0.3	$1.1	$1.4

Notes:
1) All costs are in millions, year 2011 dollars.
2) The costs shown above represent estimates of probable construction and project costs prepared in good faith and with reasonable care. HNTB has no control over the costs of construction labor, materials, or equipment, nor over competitive bidding or negotiating methods and does not make any commitment or assume any duty to assure that bids or negotiated prices will not vary from the attached estimates.

Source: HNTB Corporation, 2011

The potential range of cost for the project would be approximately $73 million to $93 million. The low end of the range represents the Two-Lane Basic Section Refined Alignment alternative without any optional project elements identified in Table 16. The high end of the range represents the Four-Lane Basic Section Base Alignment alternative with the 16-foot wide multi-use path, 116th Avenue NE pedestrian connection, and Jug Handle U-turn provision at 119th Avenue NE.

The cost differences between roadway alternatives are primarily related to the number of lanes and associated structure width east of the I-405 right of way limits to 116th Avenue NE. It is in this area that the roadway channelization of the alternatives would differ, generally as follows:

- 4-Lane Basic Section, Base Alignment – A 5-lane section at the I-405 direct access ramps intersection tapers down to a 4-lane section at 116th Avenue NE.

- 2-Lane Basic Section, Base Alignment – A 5-lane section at the I-405 direct access ramps intersection tapers down to a 2-lane section at 116th Avenue NE.

- 2-Lane Basic Section, Refined Alignment – A 4-lane section at the I-405 direct access ramps intersection tapers down to a 2-lane section at 116th Avenue NE. The project cost savings associated with the reduced section width on the refined alignment would be approximately $12.1 million.

A breakout of estimated project costs by corridor segment is contained in Table 17. The costs shown do not include the optional project elements noted identified in Table 16. The primary project construction cost elements associated with each segment are described below:

- 112th Ave NE to I-405 – A multi-use path connection between 112th Avenue NE and the I-405 direct access ramps intersections, and channelization modifications on the existing portions of NE 6th Street.

- I-405 to BNSF Corridor – All work associated with the extension of NE 6th Street from the I-405 direct access ramps intersection to the BNSF Corridor, including a multi-use path on the south side of NE 6th Street. This segment would be almost entirely elevated on bridge and retaining wall structures.

- BNSF Corridor to 120th Avenue NE – Widening of the existing portion of NE 6th Street west of 120th Avenue NE and an extension of NE 6th Street west to the western edge of the BNSF Corridor. This segment includes provisions for an at-grade connection to a future regional trail facility in the BNSF Corridor.

Stormwater treatment and drainage facility costs were estimated based on the "worst case" for net new impervious area, i.e. the 4-Lane Basic Section on the Base Alignment alternative. These costs were distributed between the corridor segments based on the conceptual designs depicted on page 38.

Table 17
Estimated Construction Costs by Corridor Segment

Roadway Alternative	112th Ave NE to I-405	I-405 to BNSF Corridor	BNSF Corridor to 120th Ave NE	Total Construction
4-Lane Base Alignment	$5.8	$44.3	$3.4	$53.5
2-Lane Base Alignment	$5.8	$38.3	$3.2	$47.3
2-Lane Refined Alignment	$5.8	$36.8	$3.3	$45.9

Notes:
1) All costs are in millions, year 2011 dollars.
2) Costs are construction only and do not include Design Engineering and City/WSDOT Administrative costs.
3) The costs shown above represent estimates of probable construction and project costs prepared in good faith and with reasonable care. HNTB has no control over the costs of construction labor, materials, or equipment, nor over competitive bidding or negotiating methods and does not make any commitment or assume any duty to assure that bids or negotiated prices will not vary from the attached estimates.

Source: HNTB Corporation, 2011

OTHER PROJECT DOCUMENTATION

Preliminary Engineering Design Documentation

Preliminary design activities for the project are described in more detail in the documents listed below, found in Appendix C (Urban Design Master Plan) and Appendix D (all others).

- *Preliminary Geotechnical Recommendations, Proposed NE 6th Street Extension Memorandum*, GeoEngineers, Inc., April 13, 2011
- *Median Abutment Foundation Options Memorandum*, GeoEngineers, Inc., April 14, 2011
- *Stormwater Management Technical Memorandum*, Parametrix, June 15, 2012
- *Traffic Operations Analysis Report (TOAR),* HNTB Corporation, August 15, 2011
- *NE 6th Street / 119th Avenue NE Roundabout Analysis Technical Memorandum*, Parametrix, June 3, 2011.
- *Urban Design Master Plan for NE 6th Street Extension, I-405 to 120th Avenue NE*, HNTB Corporation, July 2012
- *BNSF Corridor Alignment Study Technical Memorandum* HNTB Corporation, August 3, 2012
- *Alignment Options with East Link Hospital Station Technical Memorandum* HNTB Corporation, October 13, 2011
- *I-405 Overcrossing Bridge Structure Type and Abutment Foundation Type Technical Memorandum*, HNTB Corporation, July 10, 2012.
- *Structure Types, I-405 East to BNSF Corridor Technical Memorandum*, HNTB Corporation, July 9, 2012.
- *Structure Types for Multi-Use Path Connection, 112th Avenue NE over Southbound I-405 Technical Memorandum*, HNTB Corporation, July 9, 2012.

Environmental Documentation

The environmental report prepared for the project and the supporting technical memorandums listed below are found in Appendix E.

- *NE 6th Street Extension, I-405 to 120th Avenue NE Environmental Report*, Parametrix, June 2012
- Transportation Baseline (see the *Traffic Operations Analysis Report*)
- *Baseline Information on the Affected Built Environment Technical Memorandum*, Parametrix, June 15, 2012
- *Preliminary Cultural Resources Review of the NE 6th Street Extension, I-405 to 120th Avenue NE Technical Memorandum*, Paragon Research Associates, November 30, 2010
- *Visual Quality Baseline Technical Memorandum*, HNTB Corporation, July 2012
- *Baseline Information on Air Quality Technical Memorandum*, Parametrix, June 15, 2012
- *Baseline Information on Noise Technical Memorandum*, Parametrix, June 15, 2012
- *Baseline Information on Natural Resources Technical Memorandum*, Parametrix, June 15, 2012
- Baseline Information on Stormwater/Drainage Conditions (see the *Stormwater Management Technical Memorandum*)
- *Geology and Soils Discipline Report*, GeoEngineers, Inc., April 6, 2011
- *Hazardous Materials Discipline Report*, GeoEngineers, Inc., April 6, 2011
- *Permit Coordination Technical Memorandum*, HNTB Corporation with Parametrix, July 2012

APPENDIX A – EXHIBITS

APPENDIX B – CONCEPTUAL PLANS

APPENDIX C – URBAN DESIGN MASTER PLAN

APPENDIX D – PRELIMINARY ENGINEERING DESIGN TECHNICAL MEMORANDUMS

Geotechnical

- *Preliminary Geotechnical Recommendations, Proposed NE 6th Street Extension Memorandum*, GeoEngineers, Inc., April 13, 2011

- *Median Abutment Foundation Options Memorandum*,
  GeoEngineers, Inc., April 14, 2011

Structures

- *Structure Types for Multi-Use Path Connection, 112th Avenue NE over Southbound I-405 Technical Memorandum*, HNTB Corporation, July 9, 2012.

- *I-405 Overcrossing Bridge Structure Type and Abutment Foundation Type Technical Memorandum*, HNTB Corporation, July 10, 2012.

- *Structure Types, I-405 East to BNSF Corridor Technical Memorandum*,
  HNTB Corporation, July 9, 2012.

Stormwater

- *Stormwater Management Technical Memorandum*,
  Parametrix, June 15, 2012

Traffic

- *Traffic Operations Analysis Report (TOAR),*
  HNTB Corporation, August 15, 2011

- *NE 6th Street / 119th Avenue NE Roundabout Analysis Technical Memorandum*,
  Parametrix, June 3, 2011.

BNSF Corridor

- *BNSF Corridor Alignment Study Technical Memorandum*
  HNTB Corporation, August 3, 2012

- *Alignment Options with East Link Hospital Station Technical Memorandum*
  HNTB Corporation, October 13, 2011

APPENDIX E – ENVIRONMENTAL DOCUMENTATION TECHNICAL MEMORANDUMS

- *NE 6th Street Extension, I-405 to 120th Avenue NE Environmental Report*,
  Parametrix, June 2012

- *Permit Coordination Technical Memorandum*,
  HNTB Corporation with Parametrix, July 2012

- *Baseline Information on the Affected Built Environment Technical Memorandum*,
  Parametrix, June 15, 2012

- *Preliminary Cultural Resources Review of the NE 6th Street Extension, I-405 to 120th Avenue NE Technical Memorandum*,
  Paragon Research Associates, November 30, 2010

- *Visual Quality Baseline Technical Memorandum*,
  HNTB Corporation, July 2012

- *Baseline Information on Air Quality Technical Memorandum*,
  Parametrix, June 15, 2012

- *Baseline Information on Noise Technical Memorandum*,
  Parametrix, June 15, 2012

- *Baseline Information on Natural Resources Technical Memorandum*,
  Parametrix, June 15, 2012

- *Geology and Soils Discipline Report*,
  GeoEngineers, Inc., April 6, 2011

- *Hazardous Materials Disipcline Report*,
  GeoEngineers, Inc., April 6, 2011

Tourism Survey Summary

CITY OF BELLEVUE AND VISIT BELLEVUE WASHINGTON DESTINATION DEVELOPMENT PLAN - CONCEPTUAL FRAMEWORK

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RESONANCE

October 19, 2016



INTRODUCTION

The following document sets forth Resonance Consultancy's summary of travel and tourism related issues and opportunities for Bellevue Washington to be explored, discussed, debated and prioritized in the development of a Destination Development Plan.

This Conceptual Framework document focuses attention on the Status Check and Competitive Benchmarking phases of the Destination Development Plan, and serves as a benchmark for later phases of Competitive Identity, Neighborhoods and Infrastructure, Icon Concept, Programming and Implementation and Financing.

This phase of the Destination Development Plan has given the project team an opportunity to review and understand the history, current results, future plans and target market of Bellevue tourism within the context of the broader economy, economic development and quality of life, and to embark on a detailed examination of its characteristics, visitors, profile and market prospects.

The Situational Analysis was the first step in this effort. To produce it, we have interviewed some 60+ destination stakeholders to understand their issues and opportunities; surveyed 310 visitors, 441 residents (live or work in Bellevue) and 130 others to understand their perspective on Bellevue as a place to visit and how it compares to the competitive set; and dove-deep into all types of secondary research.

Specifically, as the first deliverable of this Destination Development Plan, the full Situational Analysis included:

Status Report of Bellevue's tourism & visitor sector results, tourism assets, visitor satisfaction, tourism organization/operations and research capacity including:

- Overview of tourism in Bellevue.
- Review and assess City of Bellevue and Visit Bellevue Washington policies, strategies, plans, organizations, budgets and operations associated with Travel & Tourism.
- Tourism Asset Mapping for Bellevue and a keyword analysis from consumer reviews.
- Survey of Bellevue hotels to estimate business / leisure split.
- Stakeholder engagement sessions to understand the key issues and opportunities for Bellevue tourism.
- Bellevue destination survey to assess levels of satisfaction and produce a market segmentation analysis to profile the characteristics of the Bellevue visitor.

Competitive Analysis of Bellevue's tourism products and services vis-à-vis its competitive set with detailed information on KPIs (Key Performance Indices), issues, opportunities and best-case practices including:

- Destination Assessment Report for Bellevue and its competitive set.
- Literature search on each of the competitive set to find challenges, successes, best practice and performance metrics.
- Review of publicly available destination comparison research.

The results and information from the first deliverable will be used to gain broad input and priorities on tourism opportunities and challenges.

CONCEPTUAL FRAMEWORK

The following Conceptual Framework has been drawn from the individual pieces and collective body of research conducted for this Situational Analysis and suggests a number of emergent findings and potential directions with respect to a destination development strategy for the City of Bellevue. The conclusions have not been prioritized, but have been grouped into 7 general themes around which the Destination Development Strategy could be organized.

Infrastructure Development / Hardware / Physical Assets

- Downtown, Bel-Red, Factoria and Spring District
- Grand Connection
- Mass Transit / Light Rail
- MC Headquarter Hotel
- Meydenbauer Center
- Sports / Events Arena

Market Segments / Visitor Groups

- Active Adventurers and Infrequent Convenience Travelers
- Adult vs. Family Destination
- Bleisure Travel
- Business Travel
- Day Trip Destination
- Leisure Weekends
- Repeat Visitors
- Upscale
- Weekend Getaway

Visitor Activities / Product Development Opportunities

- Biking
- Culinary, Restaurants and Wine
- Culture
- Culture, Performing Arts, Live Music and Shows
- Local, Unique, Authentic
- Nightlife
- Outdoor Activities / Recreation
- Signature Event (Snowflake Lane)
- Waterfront Access and Activities

Destination Operations

- Cleanliness, Safety / Security and Walkability
- Congested, Heavy Traffic and Construction
- Parking

Regionalism

- Proximity to Seattle
- Regional Home Base
- Regional Tourism Cooperation

Destination Differentiators

- Bellevue Hotels
- Brand
- Diversity
- Shopping, Restaurants and Hotels
- Technology / Virtual Reality / Gaming

Professionalizing the DMO

- Events and Festivals
- Packages, Deals and Discounts
- Portland Model
- Tourism Marketing and Promotion Budget
- Visitor Information Center

.

Active Adventurers and Infrequent Convenience Travelers

The Bellevue destination Survey identified “Active Adventurers” and “Infrequent Convenience Travelers” as the main visitor segments and largest segments of residents in Bellevue. The destination development strategy should focus attention on creating hardware, software and programming for Active Adventurers who show great interest in engaging with nature and participating in outdoor activities, sports and parks, as well as Infrequent Convenience Travelers who tend to be overwhelmingly female with lower net worth, take fewer and shorter trips, and tend to stay close to home.

Adult vs. Family Destination

Bellevue is not considered a “family destination” as a result of limited child-friendly activities. The destination development strategy should either embrace Bellevue as an “adult destination” focusing its resources to build on that characteristic, or alternatively, significantly broaden Bellevue’s child-friendly product offerings to encourage the family market segment.

Bellevue Hotels

69% of Bellevue hotels are rated as quality establishments, which is an excellent performance measurement. The destination development strategy should make sure that Bellevue maintains its excellent hotel performance and continues to deliver quality accommodation for its overnight visitors.

Biking

The development of new bike paths, infrastructure and bike share will have an important impact on Bellevue as a place for residents and visitors to ride. The destination development strategy should embrace these efforts to make Bellevue an important destination for riders and other activities that co-exist with biking.

Bleisure Travel

Half of all business travelers to Bellevue extend their visits for pleasure (shopping, sightseeing and dining). The destination development strategy should focus resources to encourage and facilitate this trend toward Bleisure.

Brand

Although Bellevue is well known for its high-end shopping, its large concentration of tech companies, rich ethnic diversity of residents and excellent safety / security, it does not have a strong, unique or distinguishing brand identity to differentiate it from other high-quality destinations. The destination development strategy should focus resources to identify, create and communicate a strong unique brand identity for Bellevue.

Business Travel

The vast majority of Bellevue overnight stays are associated with business travel and the MICE (Meetings, Incentives, Convention and Exhibitions) segment. The destination development strategy should focus resources and attention to serving this particularly important segment.

Cleanliness, Safety / Security and Walkability

The fundamental character of Bellevue as a clean, safe / secure and walkable destination must be preserved and employed as important elements of the destination development strategy.

Congested, Heavy Traffic and Construction

Bellevue has earned a negative reputation as unfriendly to drivers as a result of ongoing construction and road closures. The destination development strategy must address the situation and provide solutions to change this reputation / reality.

Culinary, Restaurants and Wine

Bellevue is not particularly known as a culinary capital, yet a large portion of its visitors suggest that Bellevue's restaurants are one of the key reasons they visit the destination. Bellevue is also conveniently located nearby and serves as home base for visitors to the wineries and tasting rooms of Woodinville. The destination development strategy should embrace culinary (restaurants, chefs, events, experiences) and wine tourism as an important focus of its plan and protect, build and develop Bellevue as an important culinary and wine destination.

Culture

Bellevue is definitely not able to compete with Seattle for cultural activities or performances, but residents and visitors alike have suggested that they might engage in these activities more often in Bellevue if they were offered so as to avoid the traffic, congestion and inconvenience of commuting to Seattle. The destination development strategy should include culture within its focus, but be careful not to put too much weight behind this category of tourism assets.

Culture, Performing Arts, Live Music and Shows

Visitors have indicated that they would definitely like to see more live music and shows in Bellevue, and have told us that Bellevue does not do very well in terms of Culture and Performing Arts. In this regard, The Tateuchi Center - a 2,000-seat concert hall that is proposed for downtown Bellevue – which is currently in the process of raising funds for development, might serve to address these opportunities and limitations. The destination development strategy should focus resources and time to explore the opportunity presented by the proposed Tateuchi Center as well as other arts organizations and private establishments for building Bellevue's culture, performing arts, live music and shows.

Day Trip Destination

One of Bellevue's key strengths is that it is an excellent day trip destination especially for shopping and dining. The destination development strategy should market to, capitalize on and facilitate the extremely important day trip market segment.

Diversity

Bellevue's development as a high tech corporate headquarters city has resulted in a culturally diverse population of residents and workforce that is rare and unique to the Greater Seattle Area, Washington State and the United States. In fact, few other places can claim the ethnic diversity of people that live and work in Bellevue. The destination development strategy needs to explore and incorporate the ethnic and cultural diversity of Bellevue as a key tourism asset and make it an important element of the strategy.

Downtown, Bel-Red, Factoria and Spring District

Although Downtown currently delivers the largest number of quality tourism experiences, Bel-Red and Factoria are showing significant signs of activity that are enjoyed and appreciated by visitors. The destination development strategy should put more focus on Bel-Red and Factoria as growing areas for tourism activity development. The focus should also include potential tourism opportunities in the Spring District.

Events and Festivals

Several organizations including the Bellevue Downtown Association and the Bellevue Special Events Committee are involved in the development and hosting of important events and festivals that add richness, vitality and economic contribution to the city. However these efforts tend to be individualistic, isolated and do not necessarily deliver the full potential to residents and visitors. Visitors have also suggested that they would return more often for new / more events and festivals. The destination development strategy should focus attention on creating, incubating, developing and facilitating Bellevue events and festivals, which could make a significant contribution to Bellevue's quality of life and economic impact of new / additional visitors.

Grand Connection

If realized, the Grand Connection could be “a unique and defining urban experience that would create new opportunities in public space, connectivity, and placemaking while advancing the arts, recreation, and social engagement” for Bellevue. The destination development strategy should embrace the Grand Connection as one of its primary and critical infrastructure components and cooperate to develop and program the Grand Connection for the benefit of residents and visitors.

Leisure Weekends

The largest opportunity for developing Bellevue tourism is building leisure tourism on the weekends. The destination development strategy should focus resources and effort on building weekend visitor opportunities.

Local, Unique, Authentic

Bellevue’s character is a product of its development period (post 1960’s) and as a result possesses very few unique neighborhoods and establishments that create character and personality for the city. However, these local, unique and authentic places are what visitors seek out when they are selecting or visiting a destination. The destination development strategy must encourage and create opportunities for local, unique and authentic establishments (restaurants, shops, hotels, attractions and activities) that will help differentiate and separate Bellevue from its tourism competition.

Mass Transit / Light Rail

Although a large percentage of visitors arrive to Bellevue by automobile (83.4%), a large number of visitors are interested in using mass transit / light rail during their visit for travel around town or nearby destinations / activities. The destination development strategy should explore the mass transportation issues and opportunities for Bellevue visitors.

MC Headquarter Hotel

In many destinations, the availability and proximity of a “headquarter” hotel to its Convention Center is a real asset that helps to sell meetings and convention business. The destination development strategy must explore the potential for and feasibility of a MC Headquarter Hotel.

Meydenbauer Center

A number of existing conferences and events, previously held in Bellevue, have grown too large for the Meydenbauer Center and have been forced to look to other destinations that can accommodate their meetings and events. The Meydenbauer Center has also turned away meetings and conferences that it was not able to accommodate. The destination development strategy should explore the potential and feasibility of an expanded Meydenbauer Center.

Nightlife

Only 36% of Bellevue’s nightlife establishments are rated as “quality” places for nightlife, while more than 55% of shopping is rated as “quality” shopping. The destination development strategy should target the improvement of Bellevue nightlife to deliver evening activities that compare favorably in number and quality to its daytime activities.

Outdoor Activities / Recreation

Bellevue is not considered an important outdoor activity / recreation destination. The destination development strategy should embrace Bellevue as an “indoor destination” and focus its resources to build on that characteristic, or it must broaden Bellevue’s product offering of outdoor activities to encourage the outdoor visitor market segment.

Packages, Deals and Discounts

Visitors have said that they would return more often to Bellevue if offered packages, deals and / or discounts, which is true for almost any destination on the planet. The destination development strategy should consider opportunities for combining accommodations, meals and activities at special rates, packages or promotions that might encourage repeat or spontaneous visitation to Bellevue especially for need periods.

Parking

The difficulty and price of parking has been repeatedly identified in the Situational Analysis as one of Bellevue visitors' top negatives. The destination development strategy must address the parking situation with definitive research, recommendations and plans to eliminate this issue no matter its reality or perception.

Portland Model

Portland, OR seems to embody many best practice principles encouraged of a Destination Marketing Organization with intelligent strategies, plans, programs and budget. The destination development strategy should use Portland's experience as an important case study for Bellevue to enhance and develop its tourism development and marketing organization, strategy and operations.

Proximity to Seattle

The proximity to Seattle, which will only be improved with future light rail options, is a key strength for Bellevue and should be a major element of its destination development strategy.

Regional Home Base

Bellevue serves as home base for a number of regional day trip destinations such as Seattle, Kirkland, Woodinville, etc. and as a result should focus its destination development strategy on those aspects of home basing (hotels, restaurants, shopping, nightlife and highway/road access) that help to facilitate this role.

Regional Tourism Cooperation

A number of regional tourism authorities / officials including Bellevue, Seattle, Kirkland, Woodinville, Bothell and others have suggested that a permanent / standing regional tourism committee, council or organization would greatly benefit the individual destinations and provide significantly greater cooperative programs and efforts on both the product development side and the marketing promotion side. The destination development strategy should explore the opportunities, benefits, limitations and costs associated with creating a regional tourism organization.

Repeat Visitors

Repeat visitation to Bellevue is extremely high, so the destination development strategy must ensure that visitors love their visit each and every time, and promote new activities / events / attractions to try, explore and enjoy.

Shopping, Restaurants and Hotels

The most important factors for visitors coming to Bellevue are shopping, restaurants and hotels. These elements must be first and foremost in developing a destination development strategy for Bellevue.

Signature Event (Snowflake Lane)

The Bellevue Collection is the presenter of Snowflake Lane, which has successfully amused and entertained residents and visitors of Bellevue for years. Without a doubt, it has been identified as a premier event for Bellevue. The destination development strategy should explore additional growth and promotion of Snowflake Lane as a Signature Event opportunity to help put Bellevue on the national / international map for visitors.

Sports / Events Arena

Although visitors are not currently coming to Bellevue for spectator sports, the Seattle region is currently lacking an NBA and NHL team, which have the potential to generate significant attraction for out-of-town visitors. A Bellevue sports arena could also serve as additional space for MICE (Meetings, Incentives, Convention and Exhibitions) events and serve to attract major performing artists, especially on important weekend nights, which would be positive for downtown hotels. The destination development strategy should explore the potential and feasibility of developing a sport / events arena in Bellevue.

Technology / Virtual Reality / Gaming

Bellevue's strengths in Technology, VR and Gaming are a unique asset that should be factored into the destination development strategy especially as it relates to existing and potential events and hardware that showcase the region's assets. Specifically, the destination development strategy should explore the potential for and feasibility of an "Innovation Center" and / or "South by Southwest (SXSW)" type event that showcases Bellevue's high tech companies and products.

Tourism Marketing and Promotion Budget

Visit Bellevue Washington (VBW), which focuses on the leisure side of tourism in Bellevue, operates as a subsidiary of the Meydenbauer Center, which is funded by a city hotel tax. The budget allocated toward Visit Bellevue's marketing and promotion to leisure visitors is modest and is definitely insufficient to reach a broad audience of potential visitors necessary to build weekend hotel occupancy and spending. The destination development strategy should explore the opportunities, benefits, limitations and logistics of a permanent funding mechanism for VBW and even greater marketing and promotion of leisure opportunities to visitors and residents.

Upscale

Bellevue is well known and generally perceived as an upscale, affluent and trendy urban shopping, restaurants and hotels destination. The destination development strategy should embrace this perception and continue to grow and deliver on this promise.

Visitor Information Center

Nearly all visitors to Bellevue visit Downtown / West Bellevue (86.1%). The destination development strategy should explore the potential, benefits and costs associated with a Downtown visitor information center.

Waterfront Access and Activities

For a city flanked on two sides by water, Bellevue has not taken sufficient advantage of its waterfront access and assets to the benefit of tourism or local residents who do not live on the water. The destination development strategy must capitalize on Bellevue's aquatic opportunities and deliver water and waterfront access and activities for future visitors and current residents.

Weekend Getaway

The concept of a weekend getaway is alive and well for Bellevue. Any and all opportunities to grow this product should be included in the destination development strategy and deliver increasing results for Bellevue.



Department of Planning and Community Development