

APPENDIX K: LAND USE PATTERNS, PLANS AND POLICIES DISCIPLINE REPORT

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I-405, Bellevue to Lynnwood Improvement Project



Corridor Program

Congestion Relief & Bus Rapid Transit Projects

LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

April 2011





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TABLE OF CONTENTS

Summary	v
Study Approach.....	v
Baseline Conditions.....	v
Project Effects	vi
Land Use Patterns.....	vi
Land Use Plans and Policies	viii
Measures to Avoid or Minimize Effects	ix
Unavoidable Adverse Effects.....	ix
Acronyms and Abbreviations	x
Glossary	xii
SECTION 1 Introduction	1-1
What are the primary features of the I-405, Bellevue to Lynnwood Improvement Project?.....	1-1
Build Alternative 1	1-1
Build Alternative 2	1-1
What is the purpose of this report?.....	1-1
What topics are included in the Land Use Patterns, Plans, and Policies Discipline Report?	1-2
Why are Land Use Patterns, Plans, and Policies important to consider?.....	1-2
What studies were completed?.....	1-3
What measures are proposed to avoid or reduce effects?.....	1-4
What are the key messages from this report?.....	1-5
Land Use Patterns.....	1-5
Land Use Plans and Policies	1-5
What would happen if we adopt the No Build Alternative?	1-6
SECTION 2 Project Description	2-1
What is the intent of the Bellevue to Lynnwood project and what are the improvements?....	2-1
Are there related projects?.....	2-1
What will the completed project provide?	2-2
How will this portion of I-405 be operated after the project is completed?.....	2-2
Alternative 1: Express Toll and General Purpose Lanes (ETL).....	2-3
Alternative 2: High Occupancy Vehicle and General Purpose Lanes (HOV)	2-3
Why is WSDOT considering express toll lanes?	2-4
What will conditions be like if the project is not built?	2-5
No Build Alternative	2-5

SECTION 3	Study Approach	3-1
	What is the study area and how was it determined?.....	3-1
	What policies or regulations are related to effects on land use?	3-2
	How did we collect information on land use patterns, plans, and policies for this report?.....	3-3
	Land Use Patterns.....	3-3
	Plans and Policies	3-3
	How did we evaluate effects on land use patterns, plans, and policies?	3-4
	Land Use Patterns.....	3-4
	Plans and Policies	3-4
SECTION 4	Baseline Conditions.....	4-1
	What are the land use patterns in the study area?.....	4-1
	Bellevue.....	4-4
	Kirkland.....	4-5
	Bothell	4-6
	Lynnwood.....	4-9
	King County	4-9
	Snohomish County	4-10
	What are the requirements for comprehensive plans, shoreline master programs, capital improvement plans, and zoning codes?.....	4-11
	Comprehensive Plans and the Growth Management Act.....	4-11
	Zoning	4-13
	Shoreline Master Programs	4-14
	Local Government Plans and Regulations	4-14
	Bellevue.....	4-15
	Kirkland.....	4-18
	Bothell	4-21
	Lynnwood.....	4-25
	King County	4-28
	Snohomish County	4-31
SECTION 5	Project Effects	5-1
	How will project construction affect land use patterns?	5-1
	Bellevue.....	5-3
	Kirkland.....	5-3
	Bothell	5-3
	Lynnwood.....	5-5
	King County	5-5
	Snohomish County	5-5
	What effect will an improved transportation system have on land use patterns?	5-6
	Does the project have other effects that may be delayed or distant from the project area?	5-7
	Were potential cumulative effects for land use patterns considered?	5-9
	What effects on land use patterns will occur under the No Build Alternative?	5-9

What land use plans and policies apply to the study area, and is the project consistent with them?	5-12
Bellevue.....	5-12
Kirkland.....	5-24
Bothell	5-33
Lynnwood.....	5-40
King County	5-52
Snohomish County	5-62
SECTION 6 Measures to Avoid or Minimize Effects.....	6-1
What measures will be taken to mitigate effects during construction?	6-1
What measures will be taken to mitigate effects of operation?.....	6-1
SECTION 7 Unavoidable Adverse Effects.....	7-1
Does the project cause any substantial adverse effects that cannot be avoided?	7-1
SECTION 8 References.....	8-1
GIS data sources.....	8-1
Base Data.....	8-2
Text references and verbal communications	8-3
Appendix A Zoning and Generalized Land Use Maps	A-1
Appendix B Additional Policies and Shoreline Master Program – Selected Provisions	B-1
Bellevue – Additional Policies	B-1
Kirkland – Additional Policies	B-3
Bothell Shoreline Policies	B-4
City of Lynnwood – Additional Policies.....	B-5
Transportation Element	B-5
King County – Additional Policies	B-8
Snohomish County – Additional Policies	B-8
Appendix C State of Washington Department of Transportation Level of Service Policy C-1	
Washington State Highway System Plan: 2007-2026.....	C-1

EXHIBITS

Exhibit 1-1: Summary of Build Alternatives consistency review	viii
Exhibit 2-1: Project vicinity	2-6
Exhibit 2-2: Project improvements.....	2-7
Exhibit 2-3: Project alternatives.....	2-24
Exhibit 2-4: Express Toll Lanes access locations.....	2-26
Exhibit 3-1: Study area.....	3-1
Exhibit 4-1: Neighborhood subareas	4-2
Exhibit 5-1: Property acquisitions and easements.....	5-2
Exhibit 5-2: Property acquisitions.....	5-4
Exhibit 5-3: Future development projects within the study area	5-10
Exhibit 5-4: Bellevue Capital Investment Program: Transportation – Roadways	5-20
Exhibit 5-5: Bellevue plans and policies consistency summary	5-24
Exhibit 5-6: Kirkland Capital Improvement Program: 2011 to 2016 transportation projects.....	5-30
Exhibit 5-7: Kirkland plans and policies consistency summary	5-33
Exhibit 5-8: City of Bothell transportation projects	5-37
Exhibit 5-9: Bothell plans and policies consistency summary	5-41
Exhibit 5-10: City of Lynnwood Capital Improvement Plans.....	5-49
Exhibit 5-11: Lynnwood plans and policies consistency summary	5-52
Exhibit 5-12: King County Capital Improvement Plan improvements.....	5-59
Exhibit 5-13: King County plans and policies consistency summary.....	5-62
Exhibit 5-14: Snohomish County Capital Improvement Plan improvement.....	5-69
Exhibit 5-15: Snohomish County plans and policies consistency summary.....	5-72
Exhibit A-1: Generalized zoning maps	A-2
Exhibit A-2: Generalized land use maps.....	A-11

SUMMARY

Study Approach

For the land use patterns analysis, we studied existing land uses in the areas adjoining I-405 in the project vicinity, including areas near right-of-way expansions, areas where changes in access to I-405 will occur, areas of property acquisitions, and areas where local streets will change. The land use patterns analysis focuses on the major land use types, such as commercial, industrial, and residential.

The land use patterns section of this discipline report evaluates city and county neighborhood plans, long-range plans, and related maps (for example, zoning and comprehensive land use) applicable to the Bellevue to Lynnwood Improvement Project.

For the plans and policies section of this discipline report, we reviewed plans, policies, and regulations of the cities of Bellevue, Kirkland, Bothell, and Lynnwood, and of King and Snohomish counties. This portion of the discipline report considers how land use plans, policies, and regulations may potentially affect the project, or local streets and neighborhoods. Additionally, we reviewed all project actions that require a land use or environmental permit or license from a local government for consistency with local plans and policies, which is required under the State of Washington Local Project Review Act (RCW 36.70B, 1995). The plans and policies element in *Section 5 - Project Effects* focuses on review of specific, relevant policies within each of the six jurisdictions for consistency with the project. The consistency reviews address the Build Alternatives and No Build Alternative.

Baseline Conditions

The baseline conditions assume the existing I-405 network including the recently constructed Kirkland Nickel Project Stage 1 and the northbound auxiliary lane from NE 195th Street to SR 527. The baseline conditions also assume the completion of the funded I-405, NE 8th Street to SR 520 Braided Ramps Project (Bellevue Braided Ramps Project), scheduled to be open in 2012.

The transportation analysis results included in the discipline report do not include the Kirkland Nickel Project Stage 2 as part of the baseline conditions. The Kirkland Nickel Project Stage 2 has been environmentally cleared but not constructed. It will be constructed at the same time as this project.

Project Effects

Land Use Patterns

The operational effects of the build alternatives from the Bellevue to Lynnwood Improvement Project on existing and future land uses will be minimal. The increased freeway traffic volumes of the build alternatives, compared with the No Build Alternative, will increase traffic near the I 405 interchanges and slightly decrease volumes on local streets used to bypass the freeway. The Bellevue to Lynnwood Improvement Project is expected to improve personal and freight mobility and reduce traffic congestion in the I-405 corridor, from Bellevue in the south to Lynnwood in the north. Specific benefits may include an increase in business interest and development consistent with the adopted land use plans as a result of improved mobility; and better flow of people, goods, and services in the project area. Better traffic flow will also benefit freight haulers and large truck movements to and from some of the industrial land uses in the project area.

Induced travel or induced demand is also a potential effect for transportation improvements, which is the observed increase in traffic volume that occurs soon after a new highway is opened or a previously congested highway is widened. Overall, the transportation improvements under the Bellevue to Lynnwood Improvement Project will not induce growth in the region, although the improvements may influence the redistribution of the growth because of increasing accessibility in select areas¹. However, redistributed growth in the region will be managed in accordance with the existing land use plans and policies implemented by the local jurisdictions, and these documents are consistent with the Washington State Growth Management Act (GMA).

¹ *Based on the conclusions outlined in the Land Use Discipline Report (DR) for the WSDOT I-405 Corridor Program FEIS (WSDOT, 2002).*

The Preferred Alternative in the I-405 Corridor Program Final Environmental Impact Statement (FEIS) (WSDOT, 2002) includes a balanced system of multimodal transportation improvements that best accommodate projected growth in the urban growth area (UGA). The transportation investments outlined for the Preferred Alternative also focused exclusively within the UGA to support efficient access and improved mobility within and between urban centers, activity centers, and industrial/manufacturing centers. The conclusion states that the Preferred Alternative would provide the highest level of benefit in accommodating continuous and orderly development by congestion reduction, air quality improvement, HOV reliability, and improved urban accessibility. The Preferred Alternative further provides the best opportunities to reduce pressure for unplanned development at the urban fringe or in rural areas outside the UGA. The alternatives evaluated in the I-405, Bellevue to Lynnwood Improvement Project are consistent with the conclusions outlined in the I-405 Corridor Program FEIS (WSDOT, 2002).

The effects on land use during construction are both temporary and permanent. Effects on land use activity during construction are often temporary in nature, mostly a result of limited access to individual parcels and disruptions that cause people to avoid using part of a home or business. The level of the effects depends on the duration and intensity of the construction and the type of land use exposed to the disturbance. These types of temporary effects last as long as construction and typically do not affect long-term land uses.

Permanent construction effects may occur when private property is converted to public ownership through the acquisition of land for right-of-way. Prior to construction, property will be purchased, and, if necessary, any existing structures that cannot be saved will be demolished. The new right-of-way can be used for storm drainage facilities, noise mitigation, or actual roadway improvements. Seven parcels have been acquired by WSDOT for the Bellevue to Lynnwood Improvement Project. These include full acquisition of five parcels and partial acquisitions of two other parcels. Easements have also been acquired from three parcels; none of the easements has a marked effect on the land use of those parcels.

Land Use Plans and Policies

Exhibit 1-1 summarizes the Build Alternatives' consistency with the applicable local jurisdiction's plans and policies. Exhibit 1-1 focuses on the most relevant sections of local government long-range plans and regulations effective within the Bellevue to Lynnwood Improvement project area. Consistency between the Bellevue to Lynnwood Improvement Project and local plans allows for uniform, multi-jurisdictional decision-making. Plan consistency also helps implement the vision of regional and local communities that depend upon freeway, transit, and connecting arterial transportation systems. Exhibit 1-1 also identifies permit or information requirements and mitigation measures. A detailed consistency review determination is provided in *Section 5 – Project Effects*.

Exhibit 1-1: Summary of Build Alternatives consistency review

Jurisdiction Plan	Consistent	Inconsistent (can be mitigated)	Permit or Information Required
Local Jurisdictions in the Bellevue to Lynnwood Project Area ¹			
Comprehensive Plan Policies	X		
Capital Improvement Plans	X		
Levels of Service	X		
Zoning Regulations ²	X		
Comprehensive Land Use Plan	X		
Shoreline Master Program Regulations	X		A Shoreline substantial development permit was obtained from the City of Bothell.

Notes: Comprehensive plan policies relates to agency coordination, regional transportation and transit planning, and essential public facilities.

¹ Bellevue, Kirkland, Bothell, Lynnwood, King County, and Snohomish County

² Within WSDOT right-of-way, WSDOT and the design-build contractor will comply with the intent of the local jurisdictions' zoning regulations but does not obtain permits for work being conducted in WSDOT right-of-way. WSDOT does not obtain clearing and grading permits from local jurisdictions except for special circumstances. WSDOT will adhere to best management practices and standards within WSDOT's Technical Specifications, which include preparation of Temporary Erosion Sedimentation and Control (TESC) Plans and a Stormwater Pollution Prevention Plan (SWPPP).

Measures to Avoid or Minimize Effects

WSDOT has committed to implement the measures to avoid or minimize adverse effects as described the I-405 Corridor Program Record of Decision (ROD) (U.S. Department of Transportation, 2002).

The measures incorporated at this stage of project design will minimize temporary construction effects on land use. No additional measures are necessary at this time.

The Traffic and Transportation Discipline Report discusses temporary traffic control measures that will minimize traffic congestion during construction. Refer to other discipline reports and technical memoranda on noise, air quality, social, public services, environmental justice, and water quality. Each of these reports discusses project best management practices (BMPs) that will reduce potential effects from construction activities.

Prior to the displacement of residents and businesses due to right-of-way acquisition, the following measure will be implemented:

All reasonable attempts will be made to avoid acquiring properties or displacing residents or businesses. Where avoidance is not reasonable or feasible, WSDOT will conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. This will ensure that business and homeowners are adequately compensated for acquired properties and minimal impact on the remaining owners and residents (U.S. Department of Transportation, 2002).

In addition, WSDOT will schedule construction to minimize disruptions to the freeway whenever possible. Lane closures will occur in off-peak hours and will be coordinated in advance with local agencies.

No additional activities to minimize or avoid effects are proposed.

Unavoidable Adverse Effects

Unavoidable adverse effects are not anticipated.

ACRONYMS AND ABBREVIATIONS

Term	Meaning
ADT	average daily traffic
B1	business (City of Lynnwood zoning designation)
BKR	Bellevue-Kirkland-Redmond (City of Bellevue-maintained travel demand model)
BMP	best management practice
BRT	bus rapid transit
CB	community business
CBD	central business district
CC-C	city center core
CCTV	closed circuit television
CDP	Census Designated Place
CE	civic educational
cfs	cubic feet per second
DR	discipline report
du	dwelling unit
EA	environmental assessment
EIS	environmental impact statement
ETP	Eastside Transportation Partnership
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
GIS	geographic information system
GMA	Growth Management Act
HCT	high-capacity transit
HOV	high-occupancy vehicle
HSS	Highways of Statewide Significance
ITS	intelligent transportation system
LDMR	low-density multifamily residential
LI	light industrial
LID	local improvement district
LOS	level of service
LUC	Land Use Code
MPO	metropolitan planning organization

I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Term	Meaning
MU	mixed-use
OHWM	ordinary high water mark
OP	office professional
OS	open space
P	park
P1	public use (City of Lynnwood zoning designation)
PAA	potential annexation area
PCD	planned commercial development
PF	public facilities
PRC	planned regional center
PRO	parks, recreation, and open space
PSCOG	Puget Sound Council of Governments
PSRC	Puget Sound Regional Council
R-AC	residential activity center
RAN	regional arterial network
RC	regional commercial
RCW	Revised Code of Washington
ROW	right-of-way
RTID	Regional Transportation Investment District
RTPO	Regional Transportation Planning Organization
SCC	Snohomish County Code
SMP	Shoreline Master Program
SOV	single-occupant vehicle
SWUGA	Southwest Urban Growth Area (Snohomish County)
TDM	transportation demand management
TNR	Transportation Needs Report
UDC	Unified Development Code
UGA	urban growth area
ULDR	urban low-density single-family residential
V/C	volume to capacity ratio
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

GLOSSARY

Term	Meaning
bus rapid transit (BRT)	An express, or limited-stop, rubber-tired transit system operating predominately in roadway managed lanes such as high-occupancy vehicle (HOV) lanes.
comprehensive plan	A municipal plan that provides policy and guidance on physical development and redevelopment. It addresses a range of issues: land use; economic development; housing; environmental protection; transportation; public facilities; urban design; and historic preservation. It also guides zoning laws, which in turn affect the types of uses allowed in specific areas, the amount of parking that must be provided, and other development requirements or restrictions.
concurrency	A provision of the Growth Management Act requiring that if a development will cause the level of service on a locally owned transportation facility to decline below the adopted standards, then the necessary transportation improvements must be provided at the time development occurs or a financial commitment must be in place to complete the improvements or strategies within six years. Otherwise, the local government is required to deny the permit application.
critical areas	These include aquifer recharge areas, fish and wildlife habitat conservation areas, flood hazard areas, geologic hazard areas, and wetlands. Critical area functions and values are protected by ordinances that require development to avoid or compensate for adverse effects on critical areas.
effect	Something brought about by a cause or agent; a result. This may include ecological, aesthetic, historic, cultural, economic, social, health, or other effects, whether direct, indirect, or cumulative. Effects may include those resulting from actions that may have both beneficial and detrimental effects.
enforcement area	A paved 14-foot lane and shoulder extending approximately 1300 feet along the median side of the freeway and reserved as a refuge for monitoring and enforcement of restrictions on managed lanes use by the State Patrol.

Term	Meaning
environmental impact statement (EIS)	A document prepared under the National Environmental Policy Act and/or the State Environmental Policy Act that identifies and analyzes, in detail, environmental effects of a proposed action. As a tool for decision-making, the EIS describes positive and negative effects and examines reasonable alternatives for an undertaking.
express toll lane	A limited-access freeway lane that is actively managed through a variable toll system to regulate its use and thereby maintain express travel speeds and reliability. Toll prices rise or fall in real time as the lane approaches capacity or becomes less used. This ensures that traffic in the express toll lane remains flowing at express travel speeds of 45 to 60 miles per hour. Toll prices may differ for carpools, transit, motorcycles, and single-occupant vehicles. Tolls are collected electronically using overhead scanners that read a transponder inside the vehicle and automatically debit the operator's account. See also: "managed lane."
general-purpose lane	A freeway or arterial lane available for use by all traffic.
geographic information system (GIS)	A digital computer mapping system that can overlay a wide variety of data such as land use, utilities, and vegetative cover, and provide a spatial analysis.
Growth Management Act (GMA)	Washington State legislation adopted in 1990, and subsequently amended that requires all cities and counties in the state to do long-range comprehensive planning. GMA has more extensive requirements for the largest and fastest-growing counties and cities in the state. Such comprehensive plans must address several required topics, including but not limited to land use, transportation, capital facilities, utilities, housing, etc. The GMA requirements also include guaranteeing the consistency of transportation and capital facilities plans with land use plans.
high-occupancy vehicle (HOV)	High-occupancy vehicle is a special designation for a bus, carpool, or vanpool provided as an encouragement to increase ride-sharing. Specially designated HOV lanes and parking are among the incentives for persons to pool trips, use fewer vehicles, and make the transportation system more efficient. HOV lanes are generally inside (left-side) lanes, and are identified by signs and a diamond on the pavement. Currently, two or more (2+) occupants are required to use the I-405 HOV lanes. Motorcycles are allowed to use freeway HOV lanes as well.

Term	Meaning
Highways of Statewide Significance	Highways of statewide significance include, at a minimum, interstate highways and other principal arterials that are needed to connect major communities in the state.
indirect effect	An effect that occurs later in time or is removed in distance from the proposed action, but is still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems.
interlocal agreements	An agreement between local agencies such as cities and counties.
jurisdiction	A municipal government agency, such as a city or county, and as appropriate, federal and state agencies and federally recognized tribes. The term also can mean “to have authority over.”
land use	The type of activity (i.e., residential, commercial, or industrial) that occurs on property.
Metropolitan Transportation Plan (MTP)	The detailed long-range plan for future investments in the central Puget Sound region’s regional transportation system. For planning purposes, the MTP also is recognized as the central Puget Sound region’s Regional Transportation Plan.
mitigation	An effort to: (1) avoid the impact altogether by not taking a certain action or parts of an action; (2) minimize the impact by limiting the magnitude of the action and its implementation, by using technology or by taking affirmative steps; (3) rectify the impact by repairing, rehabilitating, or restoring the affected environment; (4) reduce or eliminate the impact over time by preservation and maintenance operations; (5) compensate for the impact by replacing, enhancing or providing substitute resources or environments; and/or (6) monitor the impact and take appropriate corrective measures.
mixed-use	A land use category that may include a mix of residential, commercial, and certain light industrial uses.
multifamily residential	A land use category that includes higher density housing containing two or more family dwellings per unit.

Term	Meaning
National Environmental Policy Act (NEPA)	Federal legislation adopted in 1969 that established a national environmental policy intentionally focused on federal activities and the desire for a sustainable environment balanced with other essential needs of present and future generations. NEPA also established federal agency responsibility and created the basic framework for integrating environmental considerations into federal decision-making. The fundamentals of the NEPA decision-making process include: an interdisciplinary approach in planning and decision-making for actions that affect the human environment, interagency coordination, consideration of alternatives, examination of potential environmental consequences and mitigation, documentation of the analysis, and making the information available to the public for comment prior to implementation.
peak period	The period of the day during which the maximum amount of travel occurs. It may be specified as the morning (AM) or afternoon or evening (PM) peak.
Puget Sound Regional Council (PSRC)	The Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) for the central Puget Sound region, which is comprised of Snohomish, King, Pierce, and Kitsap counties. The MPO and RTPO is the legally-mandated forum for cooperative decision-making about regional growth policies and transportation issues in the metropolitan planning area.
Shoreline Management Act (SMA)	Washington State legislation adopted in 1971 that requires local jurisdictions to create and implement a Shoreline Master Program (SMP). The purpose of the SMP is to regulate land use and new development within sensitive shoreline areas. Shorelines, according to the SMA, include all areas typically within 200 feet inland from principal bodies of water (rivers and streams with flows of at least 20 cubic feet per second, lakes over 20 acres, and tidal areas) and associated wetlands. The local SMP identifies standards of protection for shoreline areas, and typically contains shoreline policies, shoreline use environments or zones, and specific shoreline regulations. The final SMP is subject to approval by the State Department of Ecology.
State Environmental Policy Act (SEPA)	Washington State legislation adopted in 1974, that establishes an environmental review process for all development proposals and major planning studies prior to taking any action. SEPA includes early coordination to identify and mitigate any substantial issues or significant effects that may result from a project or study.

Term	Meaning
study area	The area specifically evaluated for environmental effects.
subarea plans	Functional or geographic subelements of jurisdictional comprehensive plans.
zoning	Regulations established by local governments that define land use districts, allowable or prohibited land uses, structure size and location, and other similar issues in order to protect the public health, safety, and welfare and to maintain or enhance the character of different neighborhoods or districts.

SECTION 1 INTRODUCTION

What are the primary features of the I-405, Bellevue to Lynnwood Improvement Project?

The I-405, Bellevue to Lynnwood Improvement Project will add pavement, restripe existing pavement, and add southbound transit shoulders. Two build alternatives are being proposed for the project and the primary difference between the alternatives is operational. WSDOT will implement these operational differences through different lane striping, and, in the case of Build Alternative 1, adding electronic equipment and signage to implement express toll lanes. With both build alternatives, lanes that are not managed as express toll lanes or HOV lanes will operate as general-purpose lanes.

Build Alternative 1

Build Alternative 1 will result in a two-lane express toll lane system in both directions between NE 6th Street in Bellevue and SR 522 in Bothell, transitioning to a one-lane express toll lane system in both directions between SR 522 and I-5 in Lynnwood.

Build Alternative 2

Build Alternative 2 will result in a one-lane, high-occupancy vehicle (HOV) system in both directions throughout the project length between NE 6th Street in Bellevue and I-5 in Lynnwood. With Build Alternative 2, new lanes added by the project will operate as general-purpose lanes.

What is the purpose of this report?

The purpose of this report is to evaluate the potential effects of the proposed 405 Bellevue to Lynnwood Improvement Project on land use. The intensity, density, and type of land use activities can change as a result of construction or operation of proposed transportation improvements. Likewise, transportation improvements can affect population growth and employment. Conformance with local land use plans and policies is also evaluated.

Potential land use effects were analyzed at a programmatic level in the I-405 Corridor Program National Environmental

Which Discipline Reports and Technical Memoranda are related to Land Use?

Social, Public Services, and Environmental Justice Discipline Report – assesses effects on neighborhood cohesion, disruptions, and relocations.

Traffic and Transportation Discipline Report – provides information on projected traffic volumes and levels of service.

Section 4(f) Technical Memorandum – reviews project effects on parks, trails, and recreation resources.

Protection Act (NEPA) and the State Environmental Protection Act (SEPA) Final Environmental Impact Statement (FEIS) (I-405 Corridor Program) (WSDOT, 2002). That report evaluates potential changes in land use patterns with respect to growth in housing and employment in the region, as forecasted by the Puget Sound Regional Council (PSRC). The modeling completed for the FEIS found that the selected I-405 improvements will support the forecasted growth proposed in regional and local plans, but it will likely shift the location and timing of that growth to a small degree. The FEIS concluded that the I-405 Corridor Program (WSDOT, 2002) itself does not create growth; rather, it accommodates the growth that has already been planned for by the surrounding communities.

Issues related to this Land Use Patterns, Plans, and Policies Discipline Report are described in the other Bellevue to Lynnwood Improvement Project discipline reports and technical memoranda, described in the sidebar.

What topics are included in the Land Use Patterns, Plans, and Policies Discipline Report?

Topics in this discipline report include neighborhood plans, comprehensive plans, zoning regulations, and shoreline master programs for each jurisdiction within the study area. The land use patterns element deals with development (past and future) and how the project may influence the land use activities in affected areas. The plans and policies element focuses on a specific policy consistency review determination and addresses the Build Alternative and No Build Alternative.

Why are Land Use Patterns, Plans, and Policies important to consider?

Land use typically encompasses activity that is allowed to occur on property. Examples of land use patterns, such as residential, commercial, industrial, and public uses, emerge from land use activities that are closely tied to transportation, soils, topography, location, and many other factors. In many cases, land use creates a demand for transportation improvements. At the same time, transportation facilities can influence adjacent land uses or how land uses develop or change over time. Land use patterns are important to consider because the intensity of land use activities can change as a

result of construction or operation of proposed transportation improvements. These improvements can also influence population and employment growth in a specific area.

Land use plans and policies are the long-range plans and implementing regulations used by local governments to manage growth and development in their communities. Typical land use plans and policies reviewed include, but are not limited to, the Washington State Growth Management Act (and its most relevant goal, Transportation), comprehensive plans, neighborhood or subarea plans, capital improvement plans, shoreline master programs, and zoning.

Comprehensive plans are management tools used by local governments to establish priorities and allocate limited financial resources. Comprehensive plans set the direction for supporting infrastructure or subarea plans and regulations. Pursuant to the State of Washington Local Project Review Act (RCW 36.70B, 1995), development projects, whether private or public (such as the Bellevue to Lynnwood Improvement Project) are reviewed by local governments for consistency with their plans and regulations. Projects are to be reviewed for consistency in terms of land use, density and intensity, infrastructure, and design characteristics. Projects that are reviewed for consistency include those that require any land use or environmental permit or license from a local government for a project action. Examples of types of permits or licenses include, but are not limited to, building permits, conditional uses, shoreline substantial development permits, site plan review, and permits or approvals required by critical area ordinances.

What studies were completed?

The Puget Sound Regional Council (PSRC) four-county travel forecast model was used as a starting point for determining future travel demand. This model predicts traffic volumes and travel patterns based on adopted land use plans within the region.

In October of 2002, the I-405 Corridor Program Final Environmental Impact Statement (EIS) and Record of Decision (ROD) provided a corridor-wide plan for improvements to I-405 between I-5 in Tukwila and I-5 in Lynnwood.

In February of 2005, the 2005 Kirkland Nickel Project Land Use Patterns, Plans and Policies Discipline Report documented the project's effects on the transportation system.

In April of 2007, the Managed Lanes White Paper studied the effects of incorporating express toll lanes and HOV lane options in the I-405 corridor.

In January 2010, the Eastside Corridor Tolling Study evaluated express toll lane options in the I-405 corridor.

This discipline report specifically reviews and analyzes land use, transportation, capital facility and shoreline plans, and zoning and shoreline regulations. In addition, the report evaluates project consistency with local government plans and regulations.

What measures are proposed to avoid or reduce effects?

WSDOT has committed to implement the measures to avoid or minimize adverse effects as described in the I-405 Corridor Program Record of Decision (U.S. Department of Transportation, 2002).

The measures incorporated at this stage of project design will minimize temporary construction effects on land use.

The Traffic and Transportation Discipline Report (WSDOT, 2011b) discusses temporary traffic control measures that will minimize traffic congestion during construction. Refer to other discipline reports and technical memoranda on noise, air quality, social, public services, environmental justice, and water quality. Each of these reports discusses project best management practices (BMPs) that will reduce potential effects from construction activities.

Prior to the displacement of residents and businesses due to right-of-way acquisition, the following measures will be implemented:

All reasonable attempts will be made to avoid acquiring properties or displacing residents or businesses. Where avoidance is not reasonable or feasible, WSDOT will conform to the requirements set forth in the Uniform Relocation

Assistance and Real Property Acquisition Policies Act of 1970, as amended. This will ensure that business and homeowners are adequately compensated for acquired properties and minimal impact on the remaining owners and residents (U.S. Department of Transportation, 2002).

In addition, WSDOT will schedule construction to minimize disruptions to the greatest extent possible. Lane closures will occur in off-peak hours and will be coordinated in advance with local agencies.

When the project is built and operational, no mitigation measures related to roadway operations will be required.

What are the key messages from this report?

Land Use Patterns

Operational benefits of the project to land use patterns may include an increase in business interest and development consistent with the adopted land use plans due to improved mobility; and better flow of people, goods, and services in the project area. Better traffic flow will also benefit freight haulers and large truck movements to and from some of the industrial land uses in the project area.

The effects on land use patterns during construction are both temporary and permanent. Effects on land use activity during construction are often temporary in nature, mostly a result of limited access to individual parcels and disruptions that prevent people from using part of a residence or business Property.

No new right of way will be acquired. However, easements will be needed from three parcels; none of the easements will change the current use of those parcels. No businesses will be displaced by either of the Build Alternatives.

Land Use Plans and Policies

Consistency between the Bellevue to Lynnwood Improvement Project and local plans allows for uniform, multi-jurisdictional decision-making. Plan consistency also helps implement the vision of regional and local communities that depend upon freeway, transit, and connecting arterial transportation systems. For the I-405, Bellevue to Lynnwood Improvement Project, both Build Alternatives will be consistent with

adopted regional and local land use plans by providing economic growth, reducing congestion, and improving freeway travel speeds, safety, and transit facilities within the study area.

What would happen if we adopt the No Build Alternative?

The No Build Alternative assumes that the permitted improvements contained in the Kirkland Nickel Project and the NE 8th Street to SR 520 Braided Ramps Project will be built. The No Build Alternative for the Bellevue to Lynnwood Improvement Project assumes that no new improvements would be made beyond those being constructed as a part of those projects.

The No Build Alternative does not include additional stormwater treatment or any roadway improvements that would widen roadway capacity, reduce congestion, or improve safety on I-405. Only routine activities such as road maintenance, repair, and minor safety improvements would occur.

The No Build Alternative would be inconsistent with the comprehensive plan policies, capital improvement plans, level of service (LOS) policies and programs, and comprehensive land use plans adopted by Bellevue, Kirkland, Bothell, Lynnwood, King County, and Snohomish County. The lack of capital improvements, including transit shoulders, may restrict jurisdictional policies that are intended to support future land use visions, neighborhood compatibility, design, transit, and multimodal opportunities. With the No Build Alternative, traffic flow would not improve on I-405, and level of service (LOS) would be lower on local streets without the project improvements.

For example, businesses often rely on high visibility, ease of access, and high volumes of traffic in their locations. Changes to these factors can affect a commercial property's ability to sustain certain types of businesses. With the No Build Alternative, economic development could take longer without main line or interchange improvements to ease traffic flows and enhance freight mobility in the I-405 corridor. Existing businesses and retail stores would have to deal with heavy

traffic and additional delays that could inconvenience drivers, encouraging them to look for alternate routes and alternative shopping locations. This would affect businesses and could result in lost sales tax revenue from potential transactions. This potential outcome would be inconsistent with adopted regional and local land use plans and the Growth Management Act (GMA).

The No Build Alternative could delay local government plans or cause local jurisdictions to revisit their land use, transportation, and capital facility plans to balance land use and growth with forecasted LOS for local streets.

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SECTION 2 PROJECT DESCRIPTION

What is the intent of the Bellevue to Lynnwood project and what are the improvements?

The Bellevue to Lynnwood Improvement Project is intended to improve safety and reduce congestion along I-405 between NE 6th Street in Bellevue and I-5 in Lynnwood. To accomplish this, WSDOT proposes the following improvements:

- Northbound lane from NE 124th Street to SR 522;
- Braided ramps between the I-405 northbound on-ramp from NE 160th Street and the northbound I-405 off-ramp to SR 522;
- Southbound transit shoulders between SR 522 and NE 160th Street and between SR 527 and NE 195th Street;
- New northbound and southbound structures over NE 132nd Street and a new northbound structure over the railroad for the I-405 northbound off-ramp to NE 124th Street; and
- Small amounts of additional widening, between four and eight feet, at several locations for buffers, wider shoulders, tolling equipment, enforcement areas and maintenance pull-outs.
- Minor upgrades to pedestrian facilities in some interchange areas.

Exhibit 2-1 shows the Bellevue to Lynnwood project vicinity. Exhibit 2-2, sheets 1 through 17, shows more detail of the project improvements in the 17-mile long corridor.

Are there related projects?

The Bellevue to Lynnwood Improvement Project is designed to compliment other projects along I-405 including:

- Kirkland Nickel Stage 1 Project, which added one lane in each direction between NE 85th Street and NE 124th Street and opened to traffic in November 2007;

What are braided ramps?

Braided ramps vertically separate movements with bridge structures to eliminate traffic conflicts between closely-spaced on-ramps and off-ramps.

What is a transit shoulder?

A transit shoulder is a freeway shoulder that is designated for use by buses during specific hours to avoid congestion in the general purpose lanes. Transit shoulders improve the appeal of transit by helping to maintain travel time and trip reliability. They also have a positive effect on the general purpose lanes, because buses cannot accelerate as quickly as vehicles and tend to slow traffic. Speeds for buses using the transit shoulder are usually restricted to ensure safety. Transit shoulders are always available as a refuge for disabled vehicles or incidents, which would close the transit shoulder to bus travel.

What are baseline conditions?

Baseline conditions for the Bellevue to Lynnwood Improvement Project represent what will exist in the future after the Kirkland Nickel Project and the NE 8th Street to SR 520 Braided Ramps Project are complete. Baseline conditions provide an important point of comparison for understanding the effects of the proposed build alternatives.

Kirkland Nickel Project Stage 2 improvements are a baseline condition for natural environmental analyses such as ecosystems, water resources, and soils and geology, but not for traffic and transportation analysis.

- NE 195th to SR 527 Auxiliary Lane Project, which added one northbound lane between NE 195th Street and SR 527 and opened to traffic in June 2010; and
- NE 8th Street to SR 520 Braided Ramps Project, which creates new multi-level “braided” ramps to separate vehicles entering and exiting northbound I-405 between NE 8th Street and SR 520 and is anticipated to be open to traffic during the summer of 2012.
- The Kirkland Nickel Stage 2 Project will reconfigure the NE 116th Street interchange, build northbound and southbound lanes between NE 70th Street and NE 85th Street, and a southbound lane between SR 522 and NE 124th Street, and between NE 70th Street and SR 520. The Kirkland Nickel Stage 2 project has been environmentally cleared and permitted, and, along with the other projects mentioned in this section, is considered part of the baseline conditions for most analyses (see “*What are baseline conditions?*” sidebar). The Bellevue to Lynnwood Improvement Project will be constructed at the same time.

What will the completed project provide?

The Bellevue to Lynnwood Improvement Project fills in the remaining gaps and allows WSDOT to provide an improved system on I-405 between NE 6th Street and I-5. WSDOT has designed this project to maximize the use of existing pavement and minimize the need for new pavement. In some areas, small amounts of widening of less than a lane width, together with narrower shoulders and lanes, will allow an additional lane. In other areas, narrowing the shoulders and lanes will allow an additional lane without any pavement widening.

Exhibit 2-3 shows the configuration in each of the project segments when this project and the related projects described above are complete.

How will this portion of I-405 be operated after the project is completed?

In this environmental document, WSDOT and FHWA are considering two operational alternatives: 1) Express Toll and General Purpose Lanes (ETL); and 2) High Occupancy Vehicle and General Purpose Lanes (HOV). Under both scenarios, the project footprint is the same. The occupancy requirement for

HOVs in this portion of the I-405 corridor is the same. It is assumed the occupancy requirement, to maintain HOV performance standards under WSDOT's HOV policy, will be three or more people (HOV 3+). The difference is in how the roadway lanes would be managed.

Alternative 1: Express Toll and General Purpose Lanes (ETL)

This operational alternative will provide two express toll lanes in each direction between NE 6th Street in Bellevue and SR 522 in Bothell, and one express toll lane in each direction between SR 522 and I-5 in Lynnwood. The express toll lane system will be open toll free to all HOV traffic with three or more occupants and all transit vehicles. The express toll lane system will also be open to single occupant vehicles (SOVs) and HOVs with two occupants through tolling.

The southern end of the express toll lane system will be at the existing direct access ramps at NE 6th Street in Bellevue where one of the two northbound express toll lanes will begin and one of the two southbound express toll lanes will end. South of the NE 6th Street, the other express toll lanes will connect with the existing single northbound and southbound HOV lanes. The northern end of the system would be much like it is today with I-405 becoming SR 525. Exhibit 2-2 shows the Build Alternative 1 and No Build Alternative configuration in each of the project segments.

Access points will be at various locations along the mainline as shown in Exhibit 2-4. The express toll lanes will be separated from the general purpose (GP) lanes by a two- to four-foot wide buffer. At an access point in the two-lane section, the buffer will open and a section of transition lane may be provided between the express toll and general-purpose lanes to ease ingress and egress to the system. The single express toll lane section between SR 522 and I-5 will only have an opening in the buffer and not a transition lane.

Alternative 2: High Occupancy Vehicle and General Purpose Lanes (HOV)

This operational alternative will allow HOV users with three or more occupants and transit vehicles to use the single HOV lane, similar to today's operation. Access between the HOV

What is WSDOT's HOV Policy?

WSDOT has established performance standards to ensure that the state's freeway HOV system provides reliable travel time and dependability for transit users and carpoolers. Speeds and reliability of the HOV system are monitored year-round.

It is WSDOT's current policy that vehicles in an HOV lane should be able to maintain an average speed of 45 mph or greater at least 90% of the time during the morning and afternoon rush hour.

What are express toll lanes?

Express toll lanes preserve trip reliability for transit and HOV users, while providing a new option to other motorists who choose to pay a toll when lane capacity is available. Express toll lanes on I-405 would be similar to the express toll lanes on SR 167.

Express toll lanes have been successfully implemented in several locations around the U.S: State Route 91 in Orange County; I-15 in San Diego; I-25 in Denver; and I-394 in Minneapolis to name a few. WSDOT is working with engineers from these existing facilities to capture lessons learned.

lane and GP lanes will be allowed throughout the project, except northbound between NE 6th Street and SR 520 where access is not allowed under today's operation. The new northbound lane between NE 124th Street and SR 522 will be operated as a general purpose lane.

Exhibit 2-3 shows the Build Alternative 2 and No Build Alternative configuration in each of the project segments.

Although, the amount of pavement is the same for both build alternatives, Build Alternative 1 will have different lane striping to extend lanes to the NE 6th Street direct-access ramps. Build Alternative 1 will add a lane to northbound I-405 from NE 6th Street to NE 8th Street and a southbound lane from SR 520 to NE 6th Street.

Why is WSDOT considering express toll lanes?

WSDOT is evaluating the option for implementing express toll lanes between Bellevue's NE 6th Street and I-5 because express toll lanes offer a proven and effective management tool to improve traffic flow. Express toll lanes maximize the benefit of the freeway system for all travelers, while also providing a new option for a more reliable trip in the express toll lanes.

The I-405 HOV lanes between SR 520 and I-5 have been a valued option to many drivers desiring a quicker and more reliable trip. Unfortunately, the lanes have been so well-used that during peak travel times, when a quick and reliable trip is needed, the lanes are often so full under the existing 2+ HOV occupancy requirement that they operate at less than a 45 mile-per-hour average speed. The HOV occupancy requirement is assumed to change to 3+ in the future in order to improve speeds during peak hours (in response to current WSDOT and FHWA policy), the HOV lanes will become underutilized and the adjacent general-purpose lanes would become more congested.

The express toll lane system can maintain an express trip throughout the peak travel period, providing a reliable choice for SOVs and HOV 2. All drivers benefit when traffic flow in all the lanes is improved by directly managing traffic volumes and flow in the express toll lanes.

What will conditions be like if the project is not built?

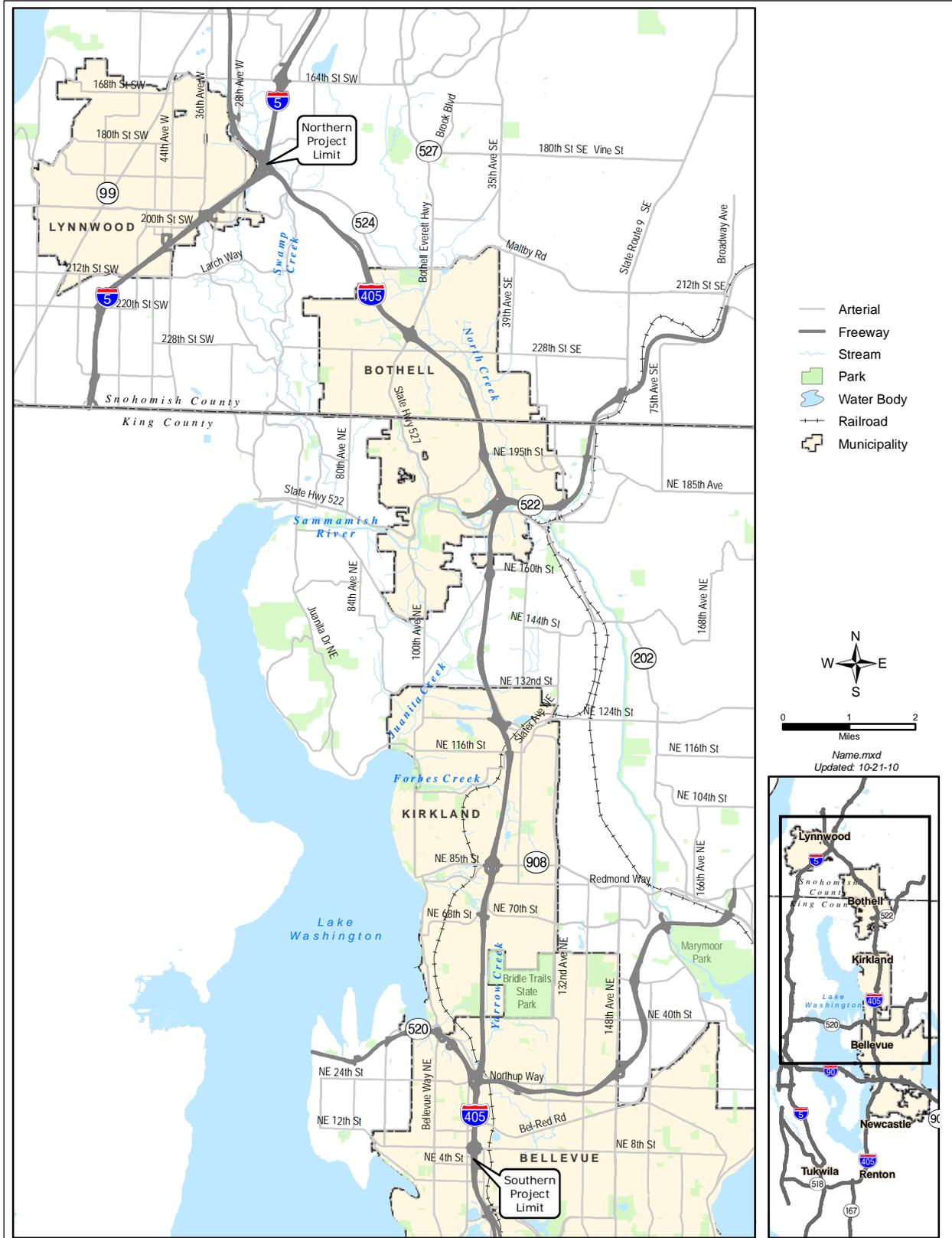
No Build Alternative

A No Build Alternative has been evaluated as the basis for comparing effects associated with the Build Alternatives. No new improvements would be made beyond those constructed as a part of the NE 8th Street to SR 520 Braided Ramps Project.

The No Build Alternative does not include additional stormwater treatment or any roadway improvements that would increase roadway capacity, reduce congestion, or improve safety on I-405. Only routine activities such as road maintenance, repair, and minor safety improvements would occur. As with the two build alternatives, we assume that the occupancy requirement for HOVs in this portion of the I-405 corridor will be three or more people (HOV 3+).

I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-1: Project vicinity



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements– sheet 1 of 17

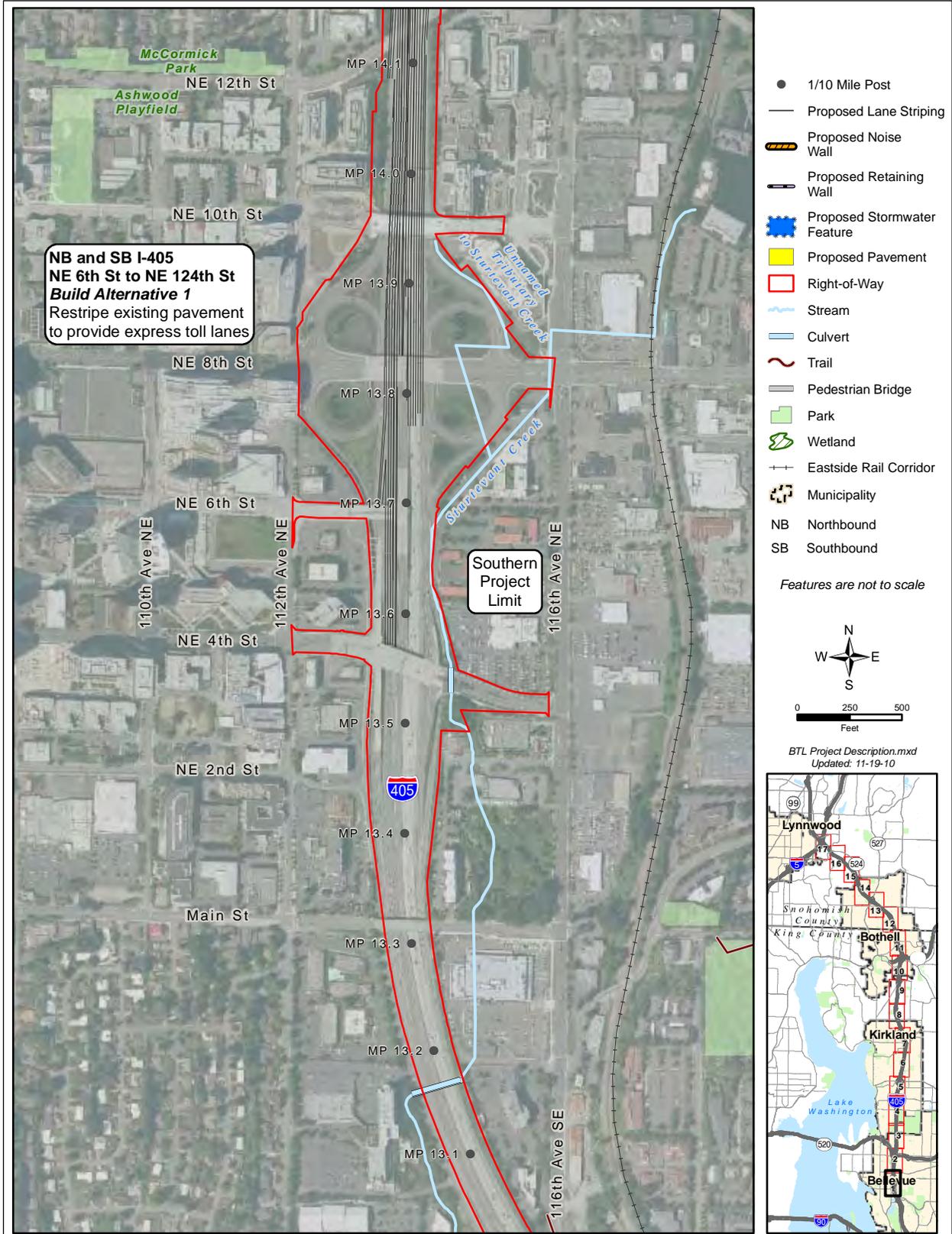
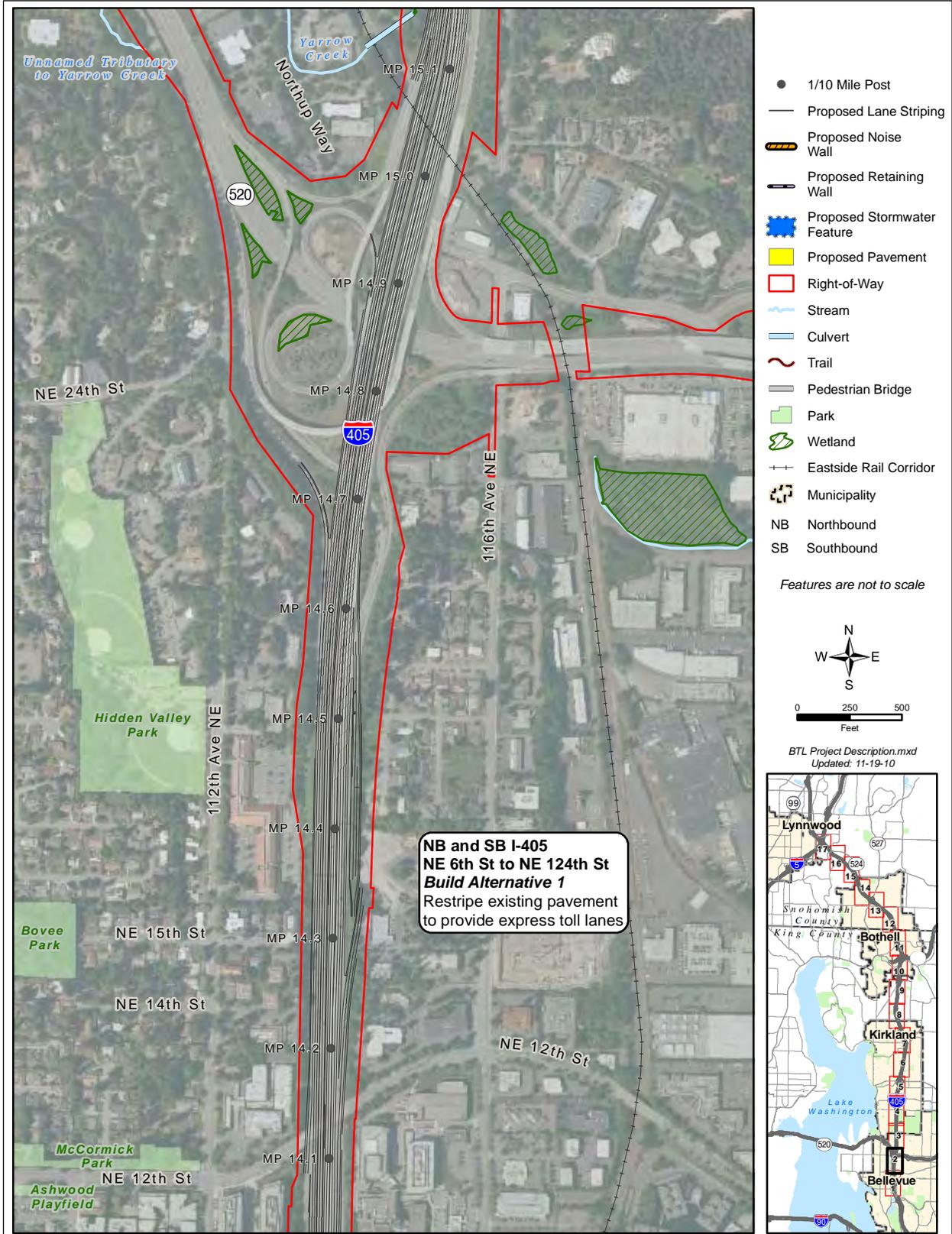
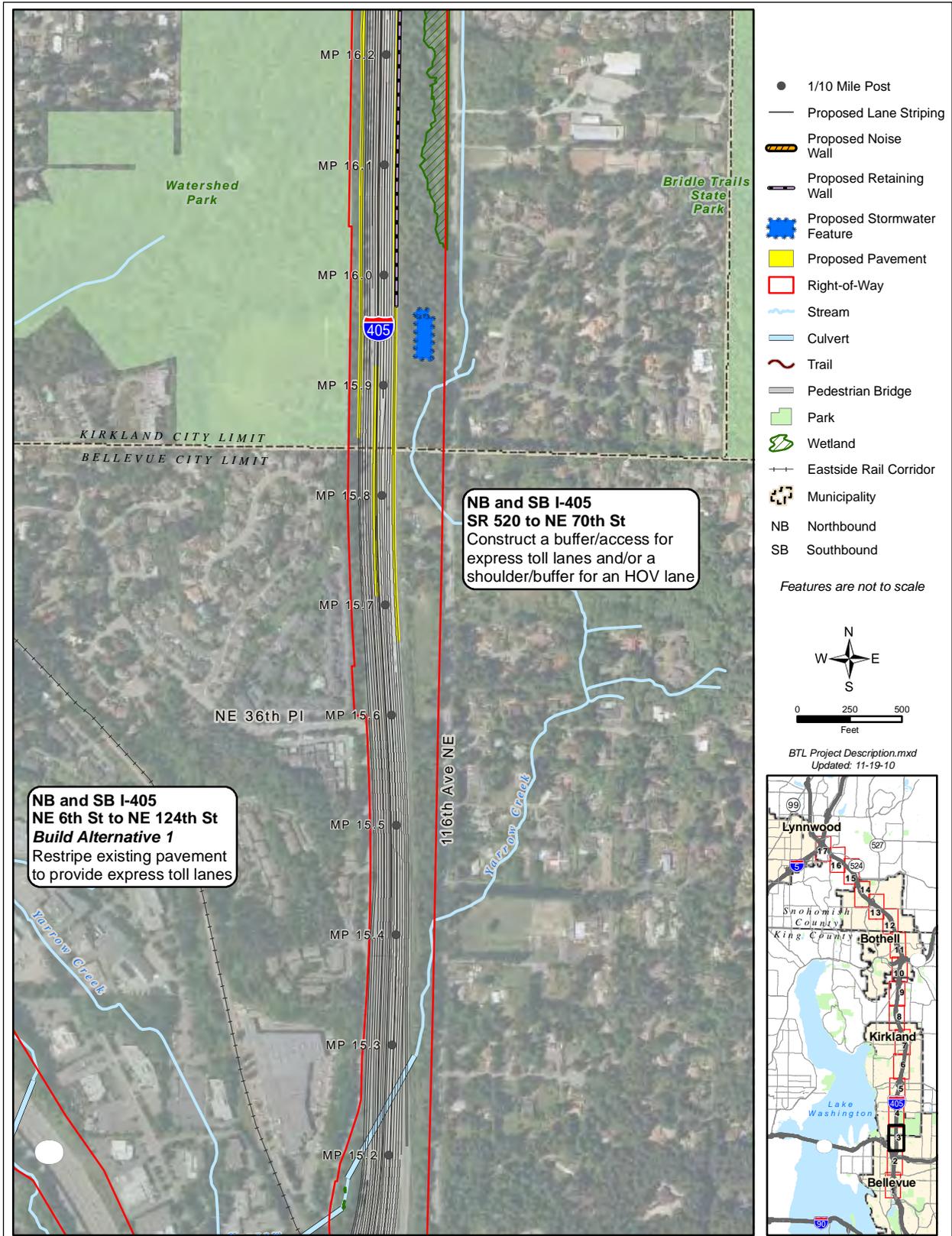


Exhibit 2-1: Project improvements – sheet 2 of 17



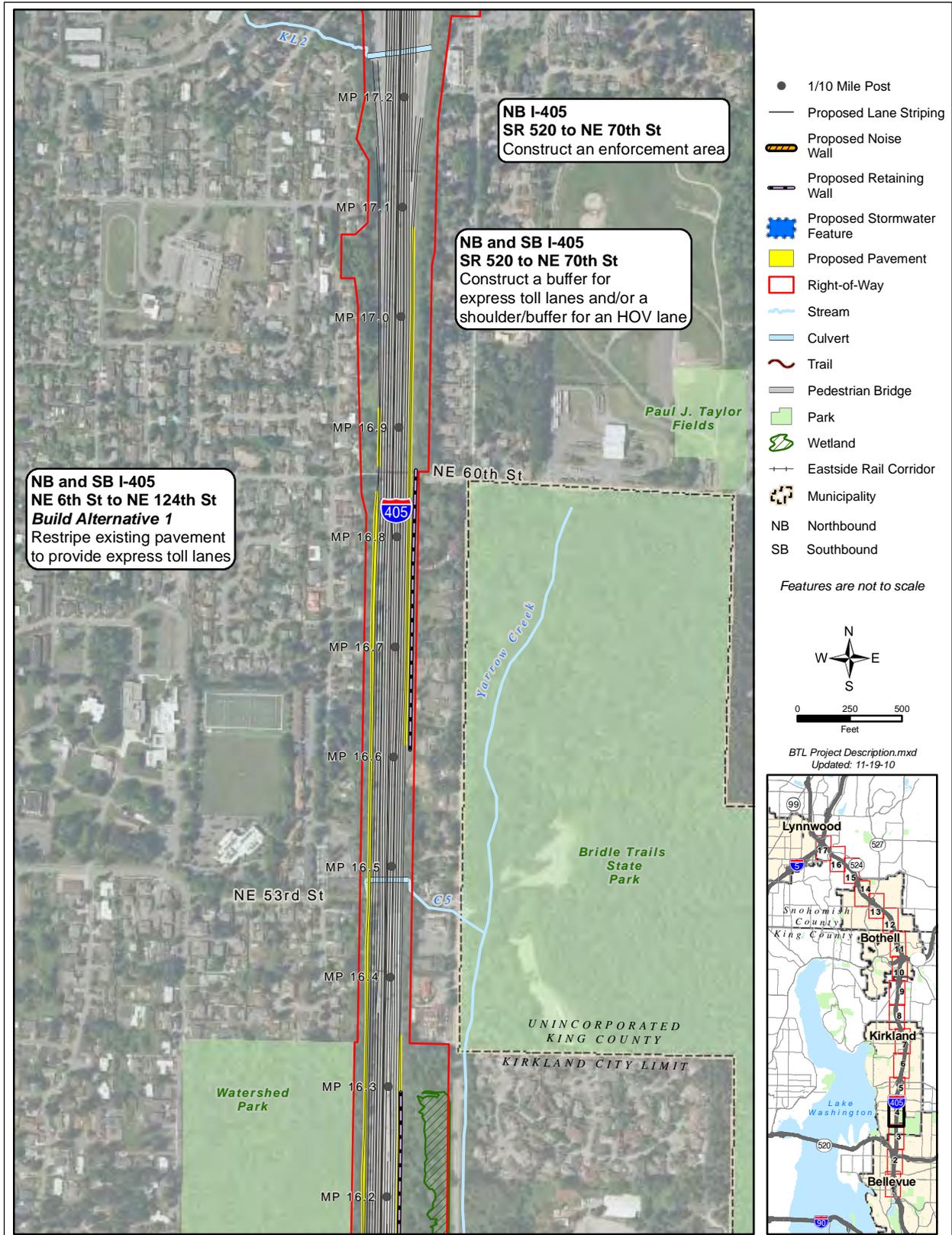
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 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 3 of 17



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-1: Project improvements – sheet 4 of 17



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-1: Project improvements – sheet 5 of 17

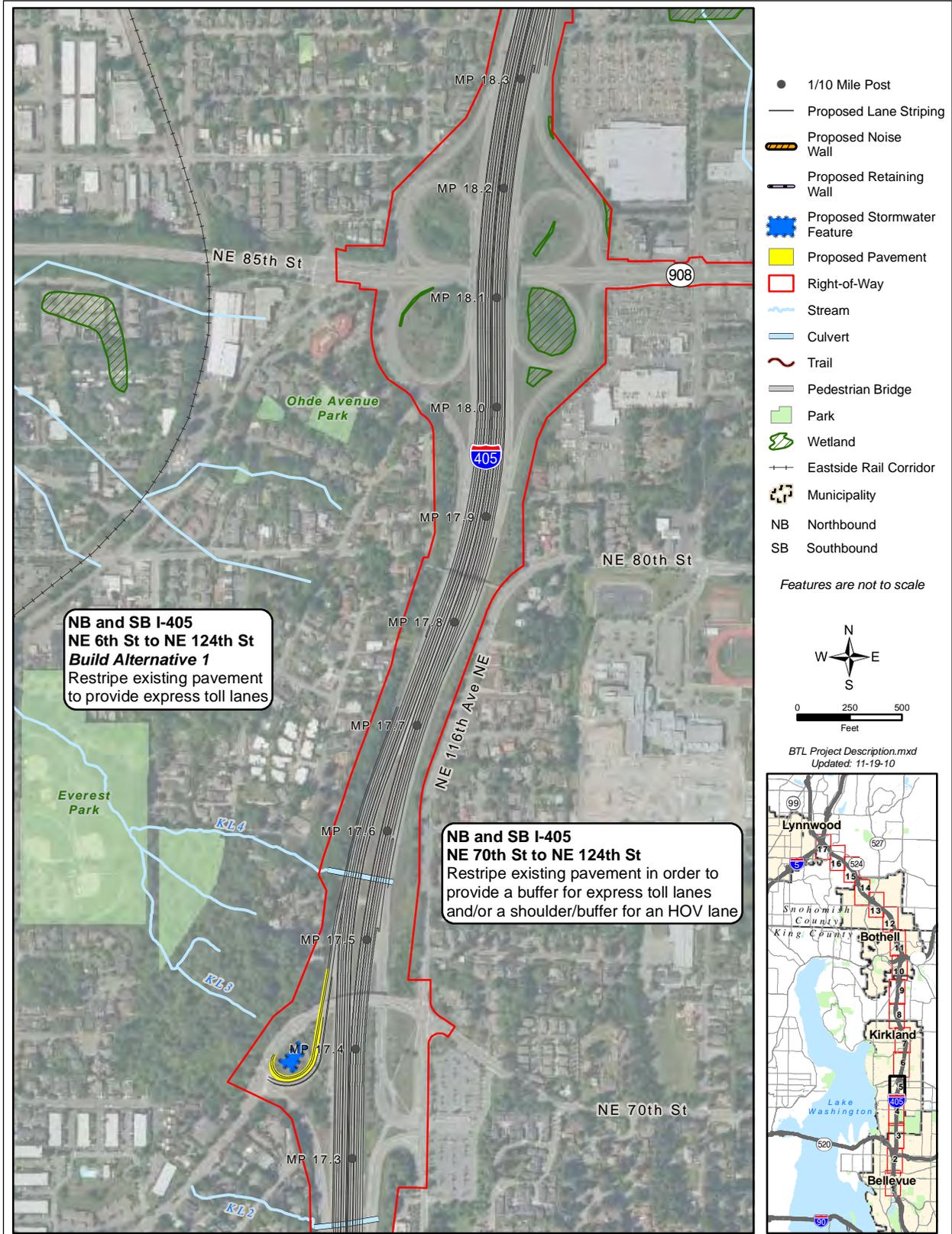
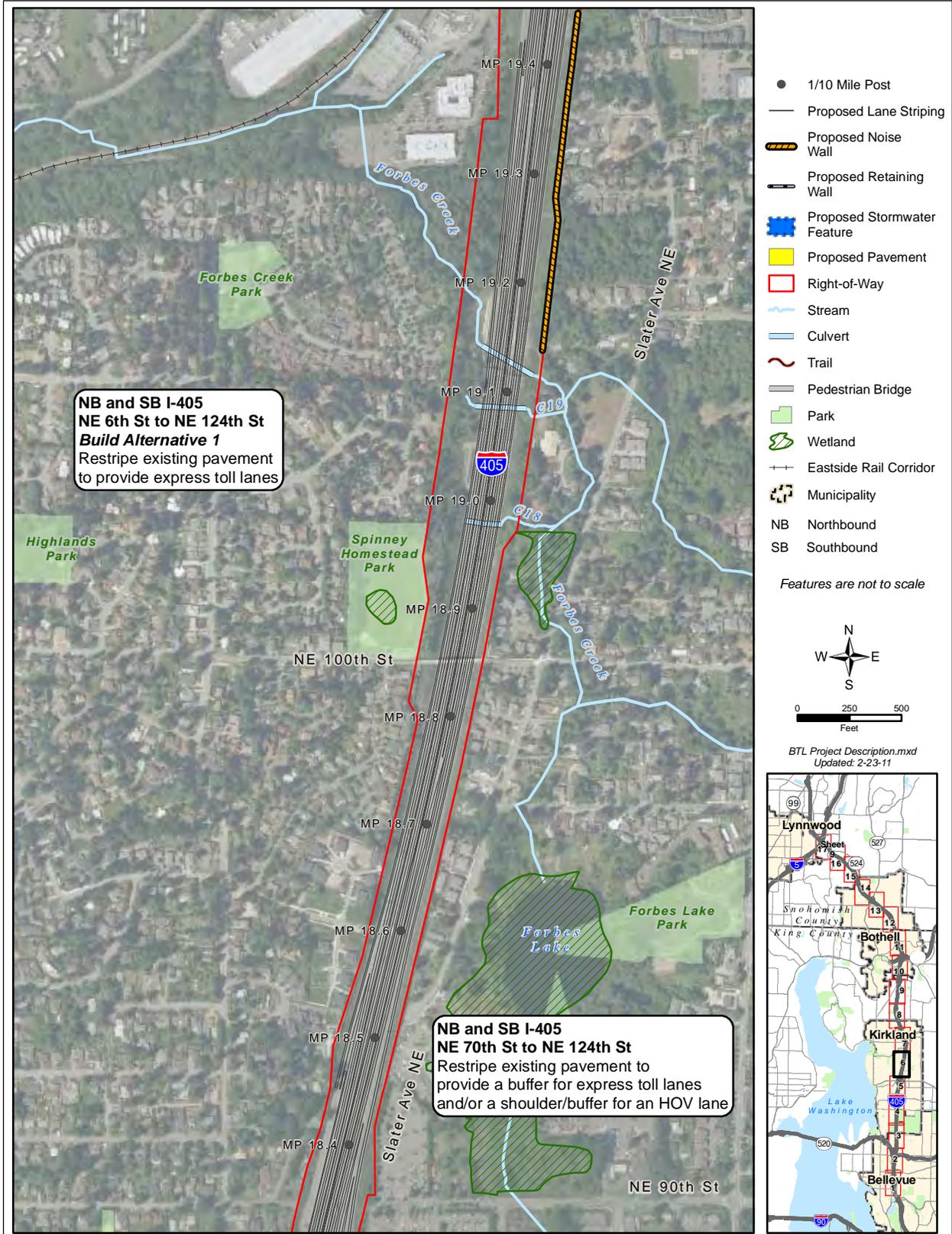
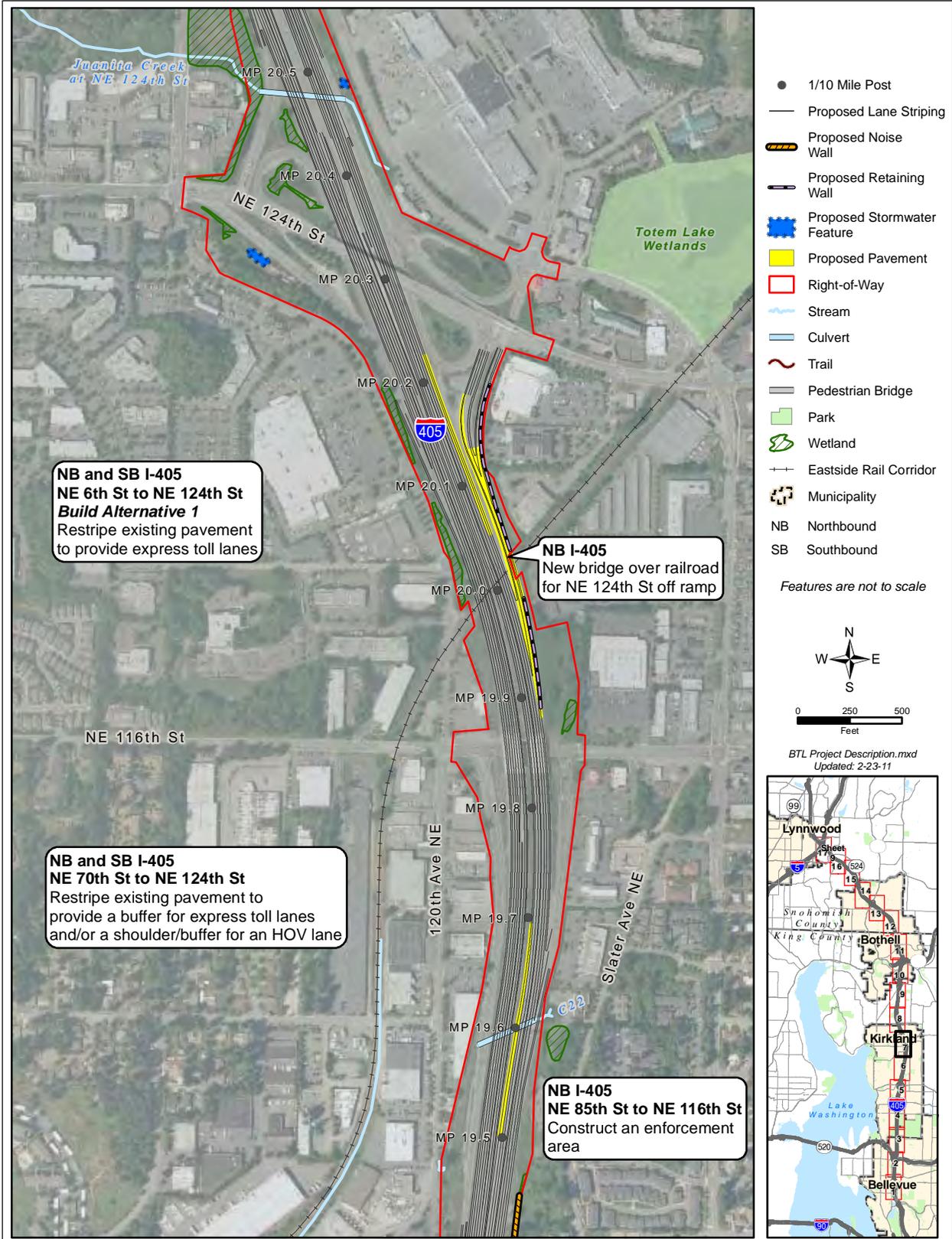


Exhibit 2-2: Project improvements – sheet 6 of 17



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 7 of 17



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 9 of 17

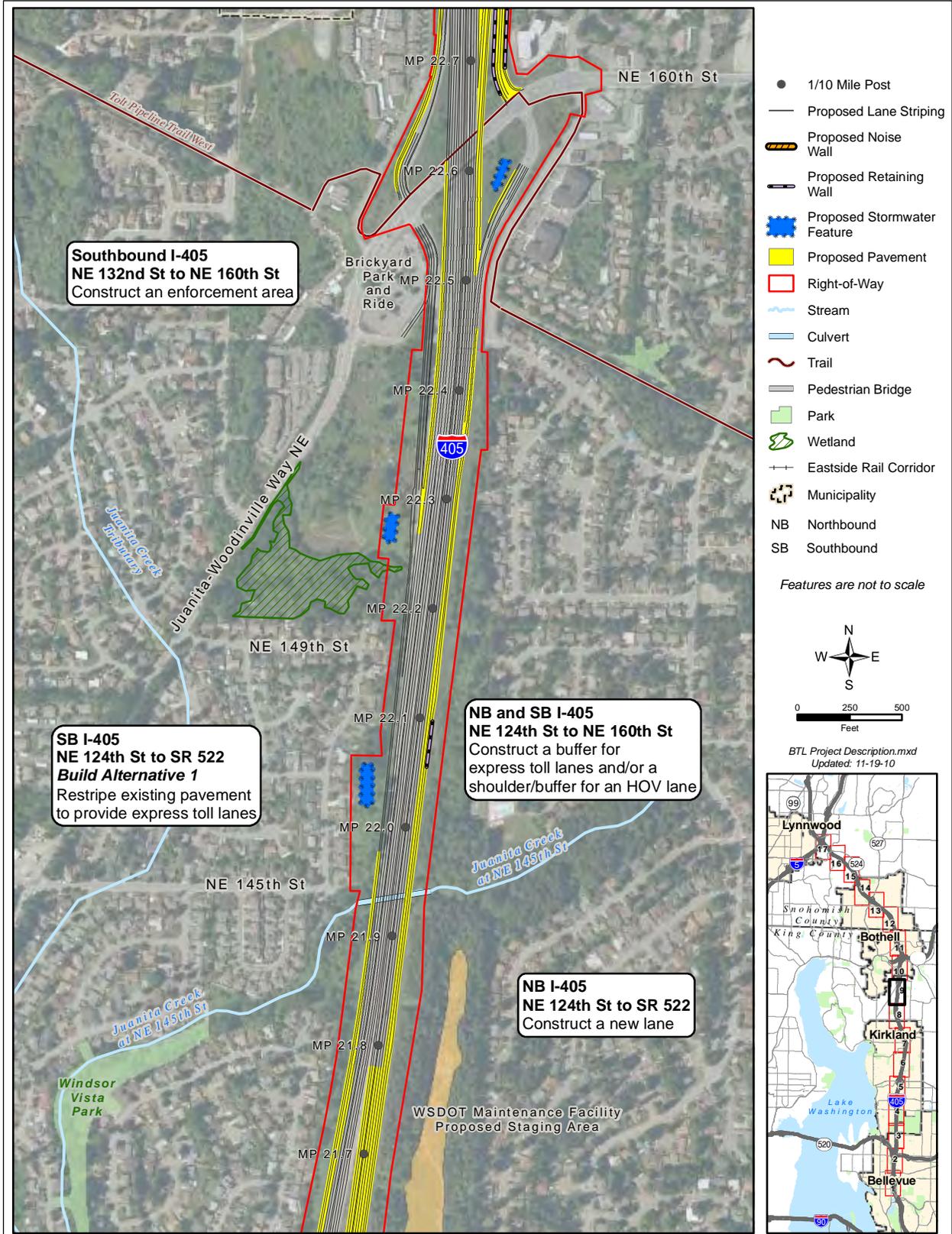
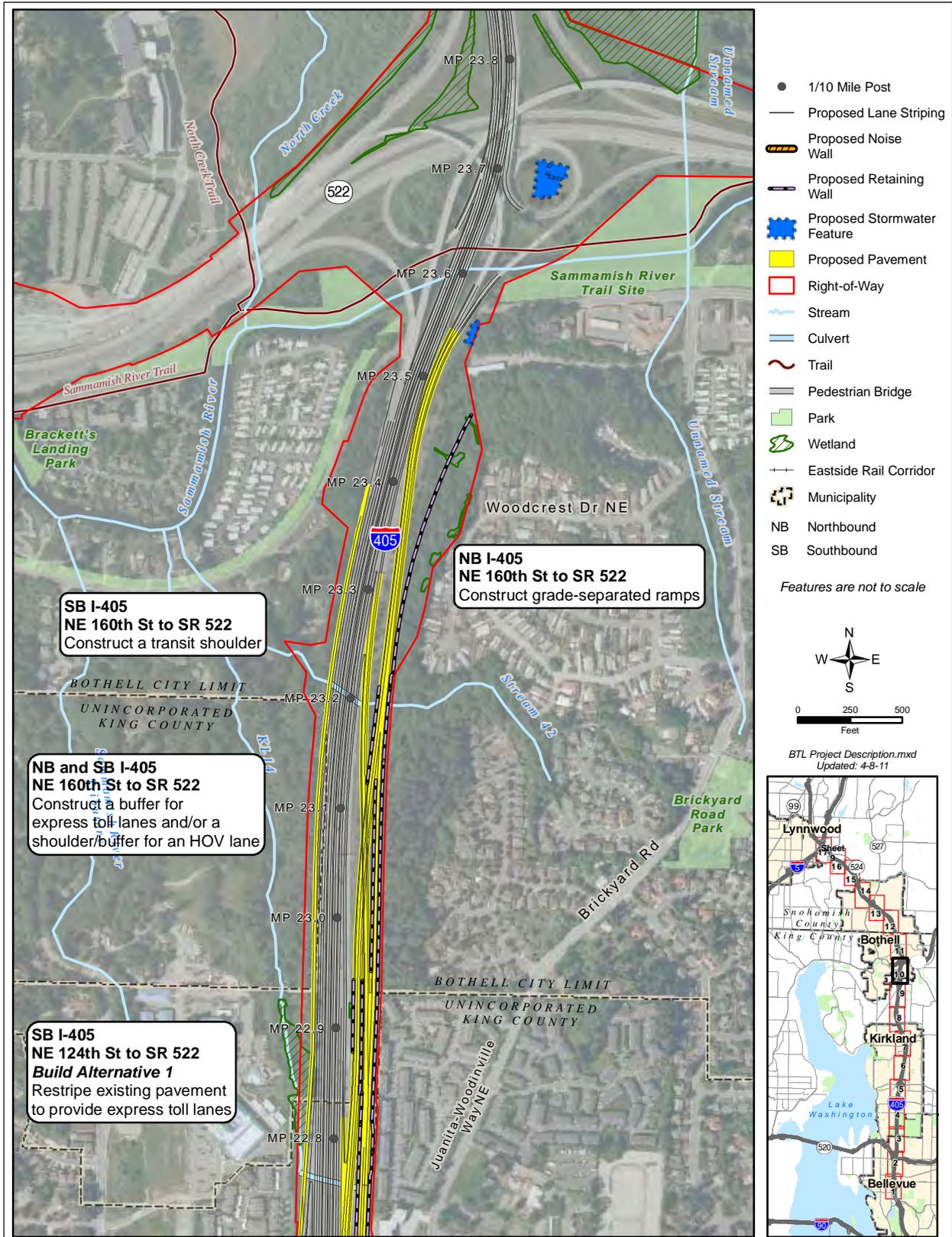
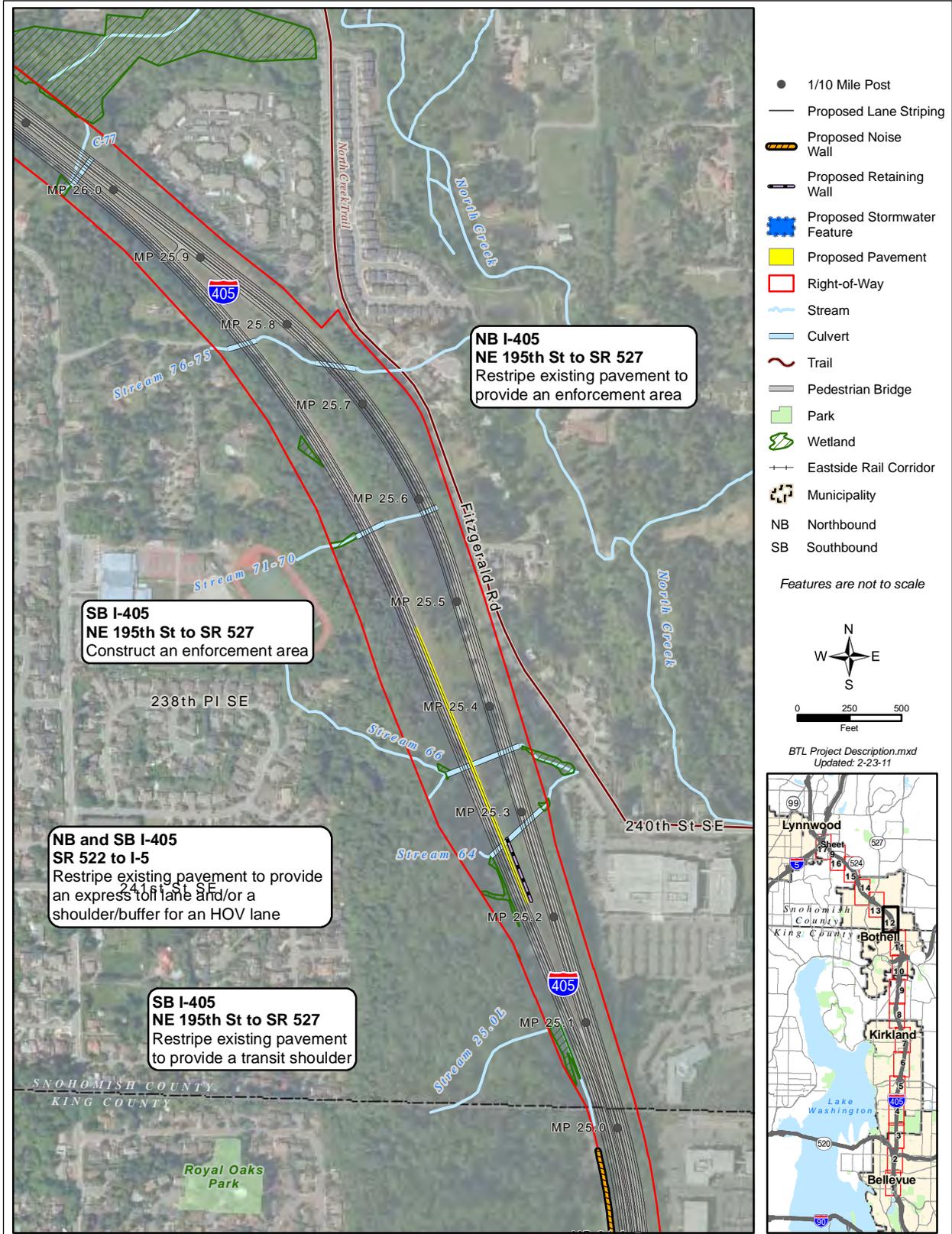


Exhibit 2-2: Project improvements – sheet 10 of 17



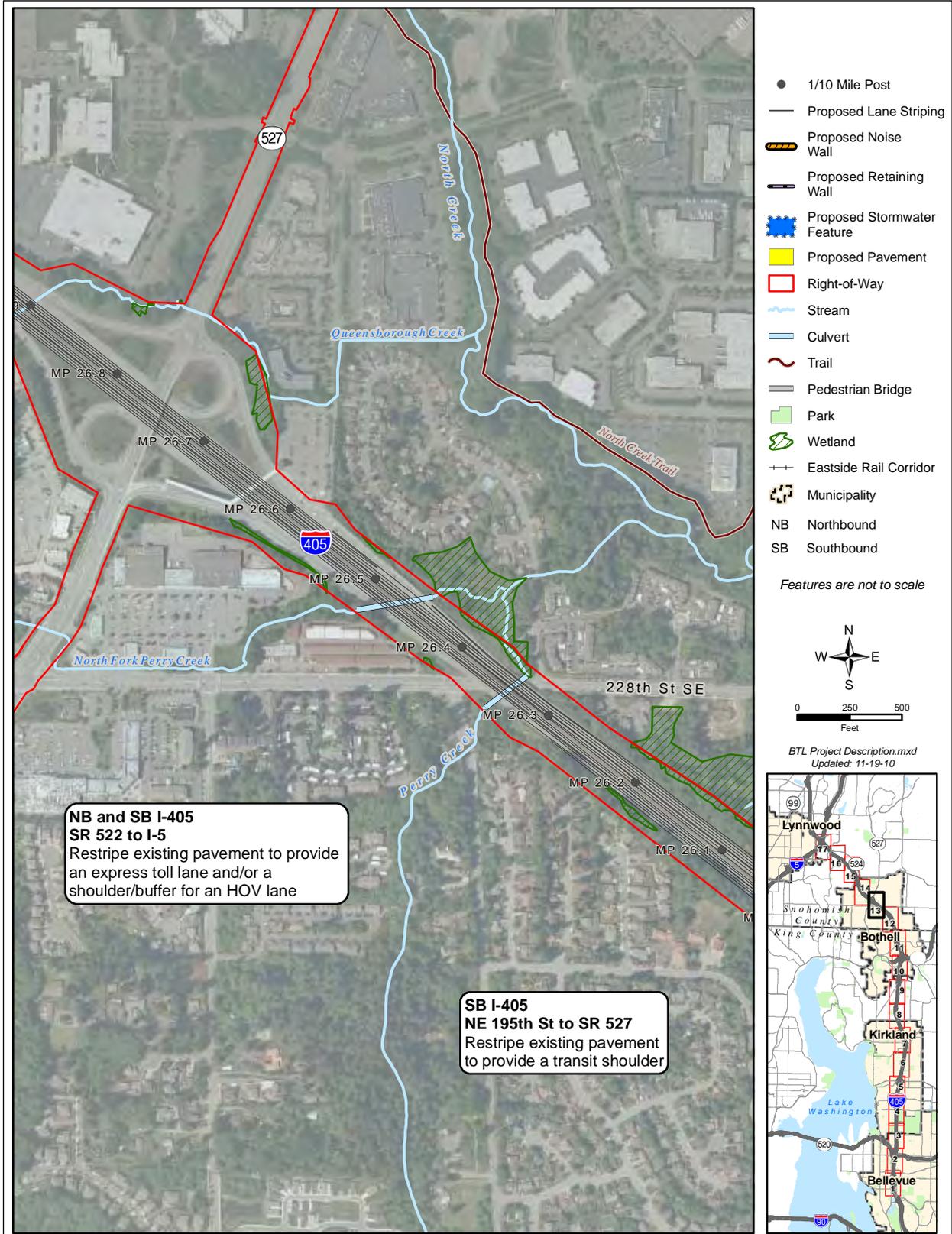
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 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 12 of 17



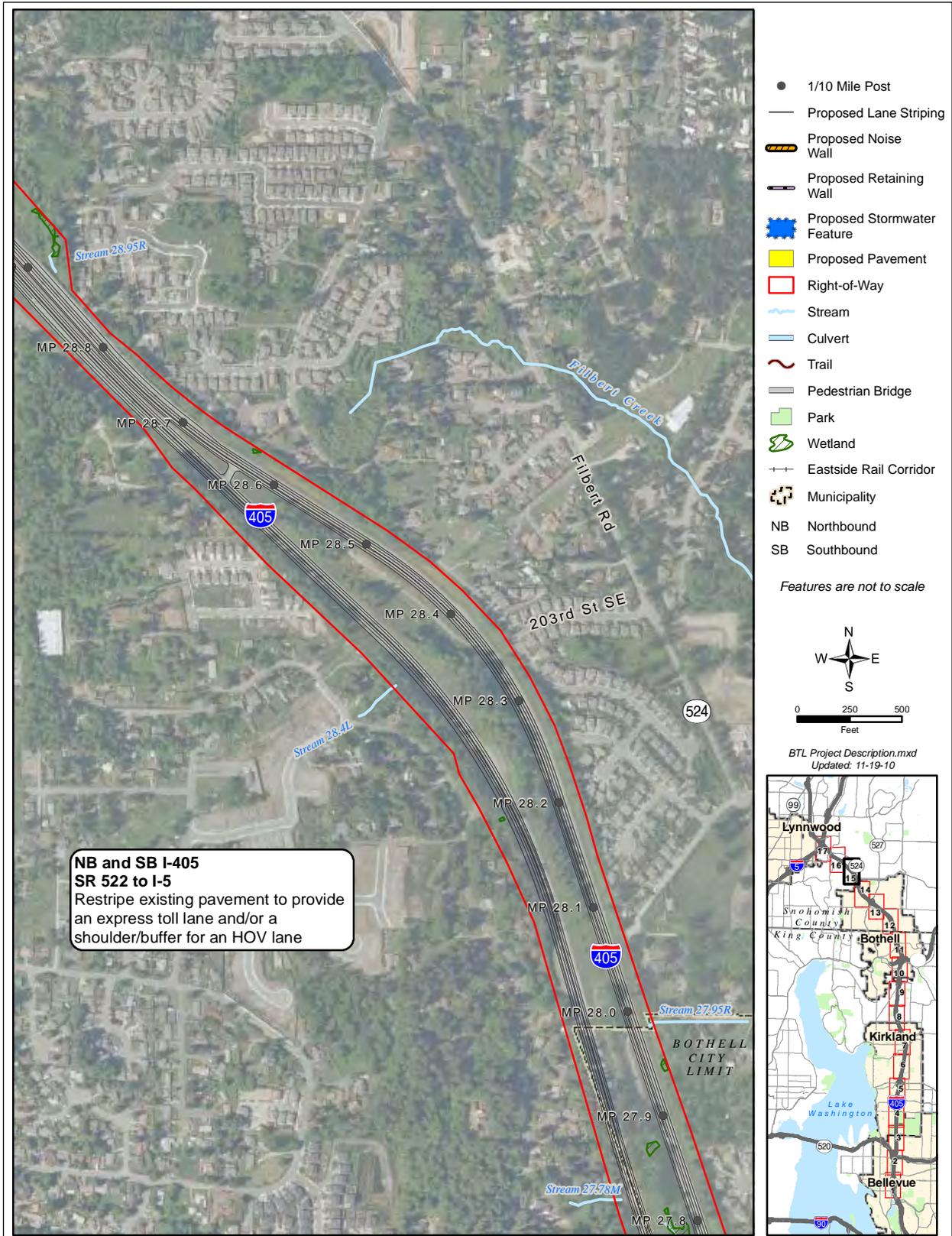
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 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 14 of 17



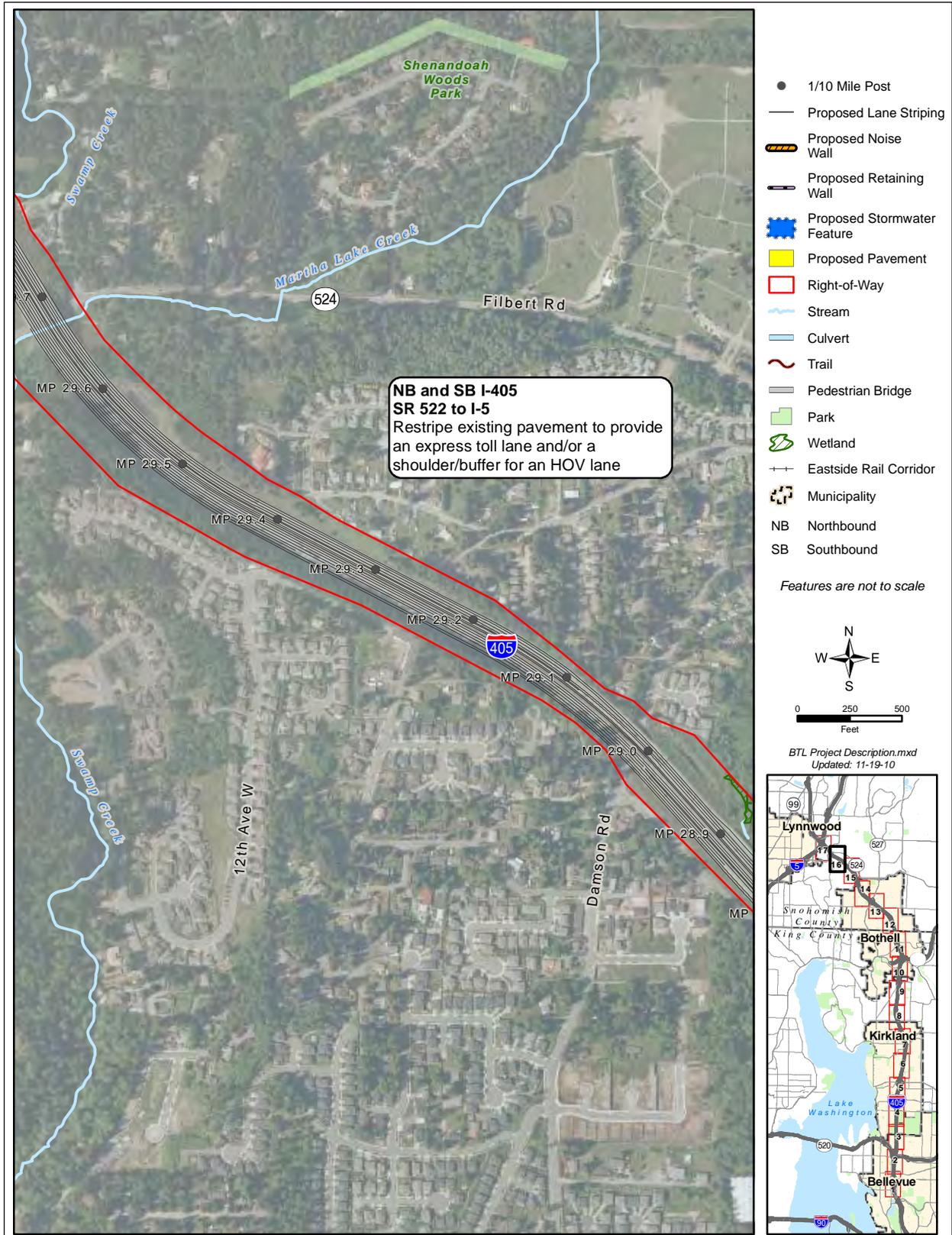
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Exhibit 2-2: Project improvements – sheet 15 of 17



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 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 16 of 17



I-405, BELLEVUE TO LYNNWOOD IMPROVEMENT PROJECT
 LAND USE PATTERNS, PLANS, AND POLICIES DISCIPLINE REPORT

Exhibit 2-2: Project improvements – sheet 17 of 17

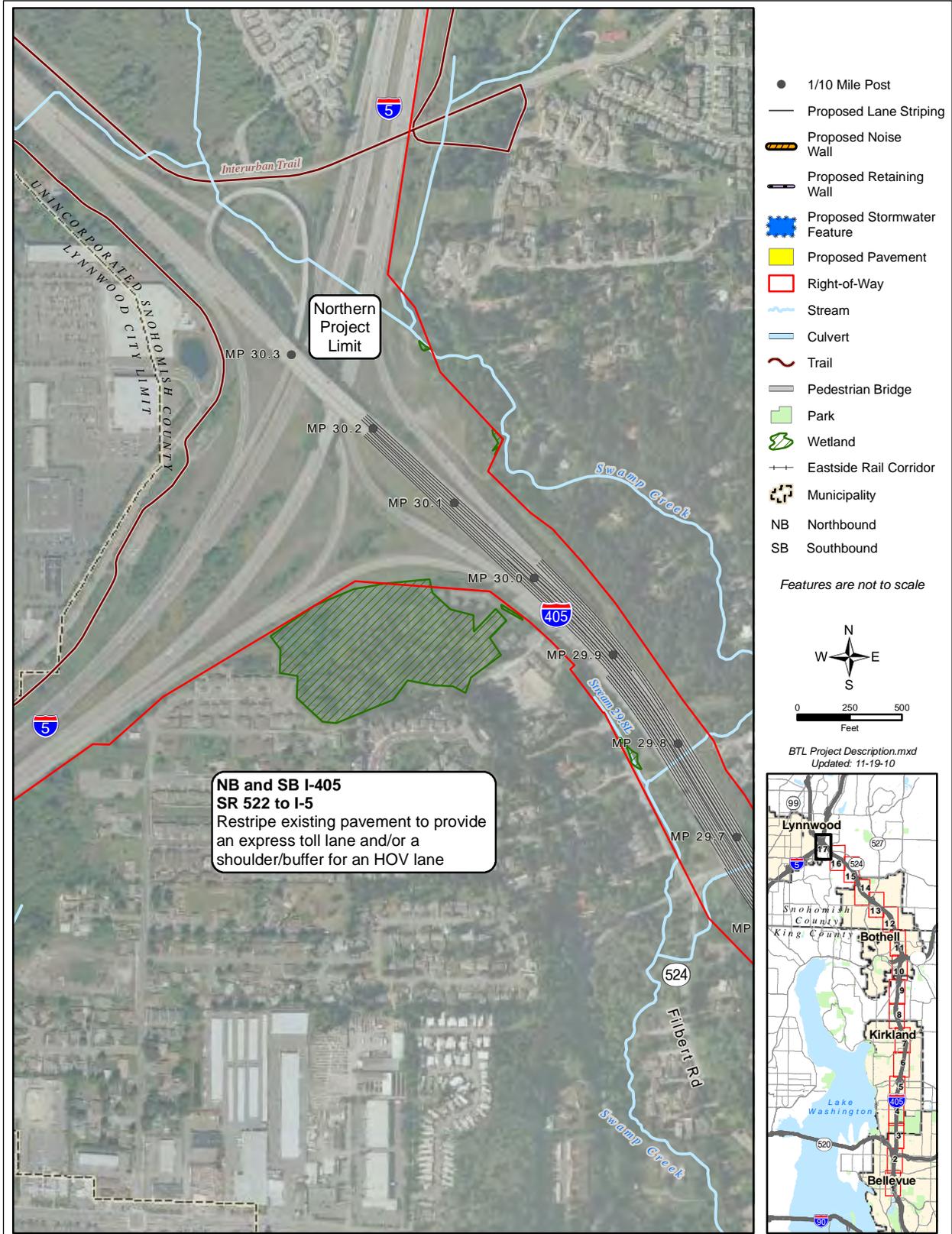


Exhibit 2-3: Project alternatives – sheet 1 of 2

