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SUMMARY

The Washington State Department of Transportation (WSDOT) is proposing to construct the I-405, NE 8th Street to State Route (SR) 520 Improvement Project to improve safety and reduce congestion in the vicinity of the I-405 and SR 520 interchange within the city of Bellevue. This analysis evaluates the effects of project construction and operation, business relocations, changes in business parking and access, and right-of-way acquisition on Bellevue's economy. Major transportation projects can affect both local and regional economies, such as effects on traffic mobility and congestion. Therefore, economic effects were also analyzed for King County.

Study Approach

The I-405 Team gathered economic and demographic data describing existing conditions of the city and county and reviewed the major transportation plans of the region. We reviewed published studies evaluating the relationship between transportation investment and economic growth, and reports on the effects of congestion and the economy of the study area. We conducted windshield surveys in local business districts to gauge the effects of project construction and operation on businesses, and collected data to estimate retail sales and employment of local business districts and businesses potentially displaced by the project.

Effects on residential relocations are addressed in the *Social, Public Services, Utilities, and Environmental Justice Discipline Report* for this project.

Existing Condition

Population and housing trends within the city are similar to those of King County and the state, and are projected to grow through 2030. Puget Sound Regional Council (PSRC) estimates that the city and county population will grow at similar average annual rates of 0.9 percent and 0.8 percent, respectively. The U.S. Bureau of the Census estimated that the median housing value in the city was \$434,100 in 2005, which is higher than the county and state median housing values.

In the past two decades, Bellevue's economy has become less dependent on natural resources and more dependent on a

diverse mix of industries, of which the retail and service industries are the largest. Bellevue is a major trading center within the Puget Sound region and relies heavily on mobility along I-405 and local arterials for the movement of people and goods. This is an important factor in the long-term health of the local and regional economies.

PSRC estimates that the total jobs in the city will increase through 2030. The sectors with the largest shares of total employees are in finance, insurance, real estate, and service industries and retail. Since 2003, the city's unemployment rate has tended to be lower than the county, state, and nation. The median household income in Bellevue is higher than the county and state averages.

The largest sources of tax revenues are sales tax and property tax. Total tax revenue to the City is estimated to account for 75 percent of the City's total revenues.

Project Effects

The State will provide the funds for the I-405, NE 8th Street to SR 520 Improvement Project. Because these funds are new to the area, they will result in new income and job benefits that would otherwise not occur. Construction activities will likely provide economic benefits in the form of direct and indirect employment for local residents. The project may also benefit local restaurants and shops as construction workers purchase goods and services from local providers.

During construction of the project, some businesses and the Overlake Hospital Medical Center will be subject to access changes and/or construction-related traffic delays, which could adversely affect revenues during construction.

Approximately 4 acres of taxable property acquired for additional right-of-way needs will be removed from the City of Bellevue's tax base, affecting property tax revenues. The initial tax decrease will be less than 0.1 percent of 2006 budgeted property tax revenue.

Right-of-way acquisition will require the relocation of 61 businesses on 13 parcels. If these businesses relocate outside of the city, there will be a decrease in sales tax revenues for the City of Bellevue. However, in the long term, greater sales tax revenue will be generated as the study area becomes more accessible to shoppers.

During operation, the Build Alternative will improve overall traffic circulation and access and reduce congestion in the study area. This improvement is expected to have little or no effect on overall population and housing trends within the city. However, it will facilitate customer patronage of local businesses and will shorten the commute time for potential employees of businesses within the study area and the city. These benefits are likely to result in a small improvement in the economic prospects of businesses in the corridor.

Although parking space may be reduced for some businesses during project construction, permanent loss of parking is expected to be minor.

Measures to Avoid or Minimize Effects

Recommended mitigation measures for adverse economic effects prior to and during construction of the project include:

- WSDOT will compensate property owners for the fair market value of property acquired for new right-of-way prior to construction, and provide relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- To avoid or minimize adverse access effects, WSDOT will work with business owners to reconfigure or provide alternate access during construction.

Recommended mitigation measures for economic effects during operation include working with business owners to avoid or minimize loss of parking and to reconfigure or provide alternate access during operation.

Unavoidable Substantial Adverse Effects

The project will not result in any substantial unavoidable adverse effects on the local and regional economies.

Construction activities will likely provide economic benefits in the form of direct and indirect employment. Although taxable property acquired for right-of-way will be removed from the City of Bellevue's tax base, the project will improve overall circulation and access to businesses along the freeway corridor, which may have beneficial effects on local businesses within the study area.

ACRONYMS AND ABBREVIATIONS

Term	Meaning
BMP	best management practice
DOT	U.S. Department of Transportation
EIS	environmental impact statement
FHWA	Federal Highway Administration
FIRES	Finance, insurance, real estate, and services
FTA	Federal Transit Administration
GOV/ED	Government/education
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HRM	Highway Runoff Manual
MANU	Manufacturing
MP	mile post
NEPA	National Environmental Policy Act
PSRC	Puget Sound Regional Council
RETAIL	Retail trade
ROD	record of decision
SEPA	Washington State Environmental Policy Act
WSDOT	Washington State Department of Transportation
WTCU	Wholesale trade, transportation services, communication, and utilities

GLOSSARY

Term	Meaning
displacement	Relocation of a business, residence, or public facility from its existing location. In the context of transportation improvements, displacement is generally the result of (1) property acquisition for right-of-way expansion or (2) elimination of access to a property due to traffic revisions.
right-of-way	Land or property rights purchased prior to the construction of transportation improvements along with land for sound walls, retaining walls, stormwater facilities, and other project features. Land can also include property rights such as permanent or temporary easements for construction and maintenance, utility lines, and access rights. Vacant land may also be set aside for future highway expansion under certain circumstances.
sector	Within the context of an economic analysis, a high-level grouping of specific industries with common characteristics based on the standard industrial classification system.

SECTION 1 INTRODUCTION

What are the primary features of the I-405, NE 8th Street to SR 520 Improvement Project?

The proposed I-405, NE 8th Street to SR 520 Improvement Project is part of the overall I-405 corridor program designed to improve safety, reduce congestion, and add capacity along the I-405 corridor. The I-405, NE 8th Street to SR 520 Improvement Project extends approximately 1.5 miles north along I-405, from south of NE 8th Street to the SR 520 interchange, and approximately 1.6 miles east along SR 520, from the I-405 interchange to east of 124th Avenue NE.

The primary features of the I-405, NE 8th Street to SR 520 Improvement Project are:

- Construct grade-separated ramps (referred to as braids) on northbound I-405 to separate the I-405 traffic exiting to SR 520 from traffic entering I-405 at NE 8th Street in downtown Bellevue;
- Construct a new three-lane eastbound collector-distributor lane on SR 520 to separate the on- and off-ramp traffic between I-405 and 124th Avenue NE;
- Reconstruct the NE 12th Street bridge over I-405;
- Construct an on-ramp from the NE 10th Street bridge (built prior to this project) to SR 520; and
- Reconfigure the ramps from SR 520 to southbound I-405.

What is the purpose of this report?

The purpose of evaluating economic effects is to identify the potential adverse and beneficial effects of the project on the local and regional economies.

What topics are included in economics?

Economic topics discussed in this report include:

- Population and housing
- Local economic trends
- Employment
- Unemployment
- Household income
- Retail sales
- Revenue sources

Why is economics important to consider?

Transportation projects change patterns of mobility and access, which in turn may affect aspects of the regional or local economies such as development patterns, employment opportunities, accessibility, and/or retail sales. Prior to construction, some projects will require the relocation of businesses and the displacement of employees, which can affect retail sales and employment in local business districts. (Relocation of residences and displacement of residents are addressed in the *Social, Environmental Justice, Public Services and Utilities Discipline Report*.) A project might also have economic effects on cities and counties in the study area.

What studies were completed?

The project team gathered data on the existing economic conditions of the study area and reviewed the major transportation plans of the region. They also analyzed the direct and indirect effects on the local and regional economies during construction and operation of the project. The analysis included a review of population, housing, and employment forecasts prepared by the Puget Sound Regional Council (PSRC), the Washington State Office of Financial Management, and the U.S. Bureau of Labor Statistics. Tax and revenue information provided by Washington State Department of Revenue, King County Department of Assessments, and the City of Bellevue was also reviewed.

What are the key messages from this report?

Construction and operation of the Build Alternative will not result in any substantial adverse effects on local or regional economics. The construction of the Build Alternative will generate construction-related jobs and income in the study area that would not occur under the No Build Alternative. Construction of the project will increase congestion in some areas, which will temporarily hamper access for businesses and residents in the vicinity of construction activities. Various retail and medical-related businesses may experience a small reduction in revenue during project construction compared to what would otherwise occur without construction. However, these effects are likely to be minor and temporary. The construction of the Build Alternative will generate

construction-related jobs and income in the study area that would not occur under the No Build Alternative.

During operation, the Build Alternative will improve overall traffic circulation and access and reduce congestion in the study area. This will somewhat increase the geographic scope of customers likely to access local businesses and will shorten the commute time for employees of businesses within the study area and the city. This is likely to result in a small improvement in the economic prospects of businesses in the corridor.

What measures are proposed to avoid or minimize impacts?

Recommended mitigation measures for adverse economic effects prior to and during construction of the project include:

- WSDOT will compensate property owners for the fair market value of property acquired for new right-of-way and offer reimbursement for reasonable moving and re-establishment expenses as well as replacement housing payments, where applicable, prior to construction. Compensation will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- To avoid or minimize adverse access effects, WSDOT will work with business owners to reconfigure or provide alternate access during construction.

Other mitigation measures to reduce traffic congestion, noise, vibration, and dust during construction activities, which could deter patrons from local businesses, are identified in the *Transportation, Noise and Vibration*, and *Air Quality* discipline reports.

Recommended mitigation measures for economic effects during operation of the project include:

- WSDOT will work with affected businesses to avoid or minimize adverse long-term effects on parking.
- WSDOT will work with business owners to reconfigure or provide permanent alternate access to avoid or minimize long-term adverse access effects.

What would happen if we adopt the No Build Alternative?

Under the No Build Alternative, no additional facilities would be constructed. Right-of-way acquisition would not displace any businesses nor result in a decrease of property or sales tax revenue or lost jobs. Some business owners may continue to be reluctant to locate in an area with poor access and mobility for employees and customers, and their loss could slow the economic development planned for this area. Customers may also continue to elect to shop in other areas with easier access and mobility.

SECTION 2 PROJECT DESCRIPTION

What is the intent of the I-405, NE 8th Street to SR 520 Improvement Project?

WSDOT is proposing to construct the I-405, NE 8th Street to SR 520 Improvement Project to improve safety and reduce congestion in the vicinity of the I-405 and SR 520 interchange within the city of Bellevue. The improvements will benefit the public by:

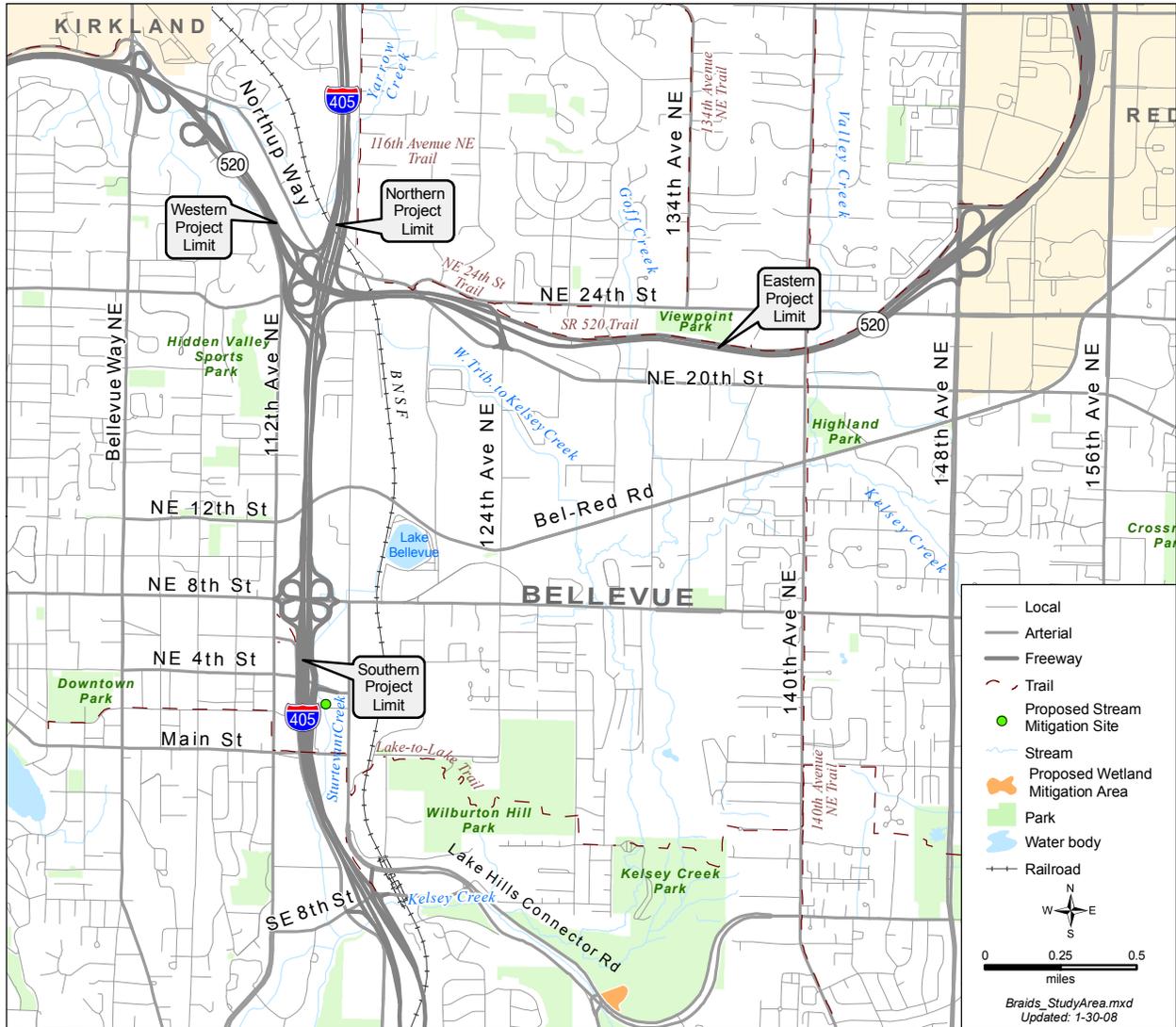
- Reducing congestion for the public and freight vehicles;
- Improving safety;
- Improving access and circulation to and from local streets; and
- Providing opportunities for environmental improvements.

The I-405, NE 8th Street to SR 520 Improvement Project extends approximately 1.5 miles north along I-405, from south of NE 8th Street to the SR 520 interchange, and approximately 1.6 miles east along SR 520, from the I-405 interchange to east of 134th Avenue NE (Exhibit 2-1).

What are the details of the I-405, NE 8th Street to SR 520 Improvement Project?

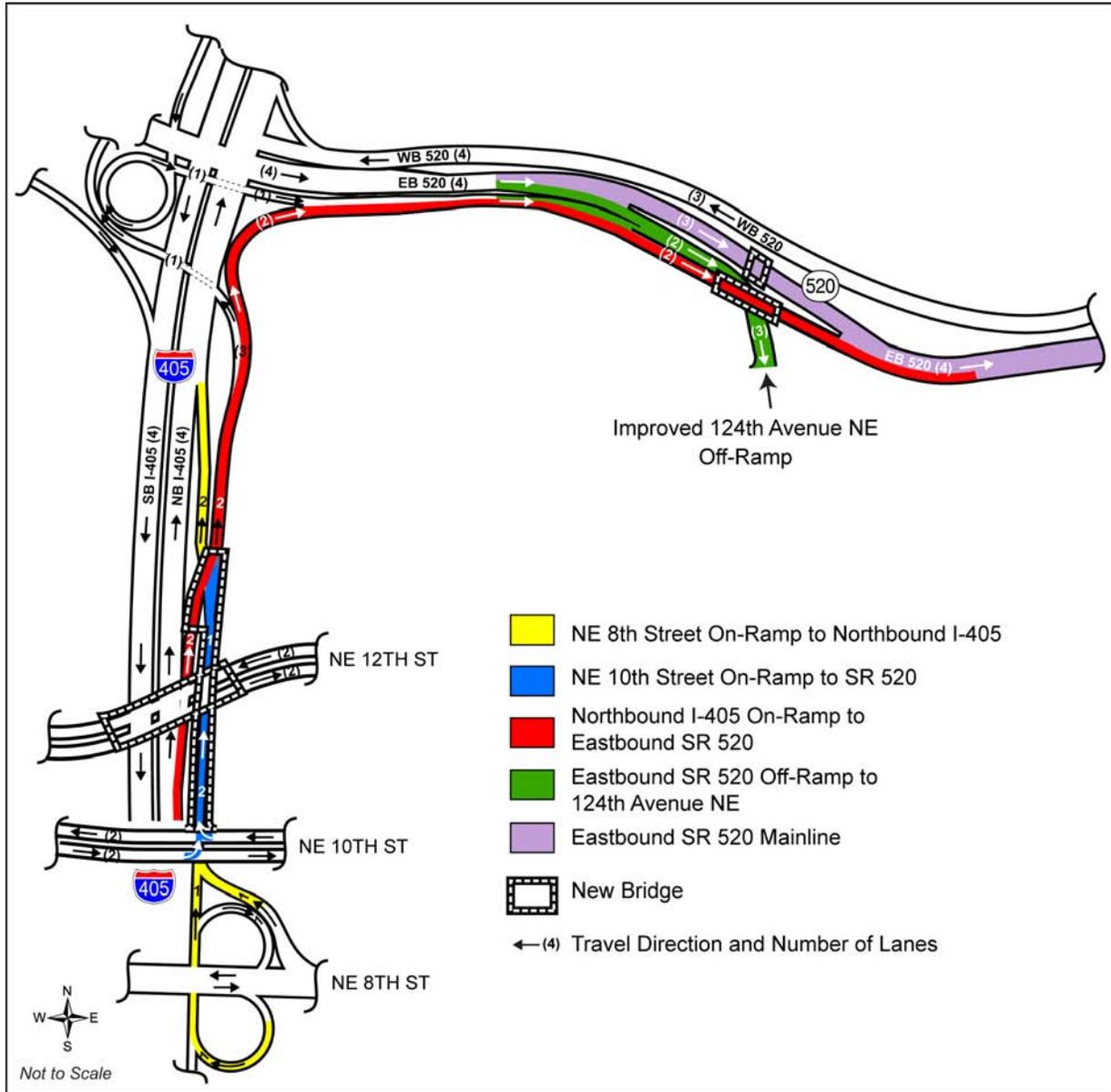
The proposed I-405, NE 8th Street to SR 520 Improvement Project is part of the overall I-405 Corridor Program Master Plan designed to improve safety and reduce congestion along the I-405 corridor. The I-405, NE 8th Street to SR 520 Improvement Project will improve safety and mobility by constructing grade-separated ramps on northbound I-405 to separate the I-405 traffic exiting to SR 520 from traffic entering I-405 at NE 8th Street in downtown Bellevue. On SR 520, a new eastbound collector-distributor lane will also be constructed to separate the on- and off-ramp traffic between I-405 and 124th Avenue NE (Exhibit 2-2). In addition, the ramps from SR 520 to southbound I-405 will be reconfigured to improve traffic flow.

Exhibit 2-1: Project Location and Vicinity



This discipline report analyzes two alternatives, the Build Alternative and the No Build Alternative. The proposed project improvements for the Build Alternative, from south to north on I-405, and west to east on SR 520, are described below. The No Build Alternative is described at the end of this section.

Exhibit 2-2: Proposed Lane Configuration on Northbound I-405 to Eastbound SR 520



Northbound I-405 to Eastbound SR 520 Improvements

- Reconfigure the existing northbound NE 4th Street on-ramp to become an auxiliary lane that exits to SR 520 and northbound I-405 as part of a two-lane exit ramp. See Exhibit 2-3.
- Reconstruct portions of the NE 8th Street on- and off-ramps to and from northbound I-405. The on-ramp will be reconstructed at a lower grade than the I-405 mainline.

What is an auxiliary lane?

An auxiliary lane is a lane added between interchanges—from one on-ramp to the next off-ramp. It is dedicated to traffic entering and leaving a freeway and provides motorists with more time and extra room to accelerate or decelerate and merge when getting on and off the freeway.

What is a collector-distributor system?

Collector-distributor lanes are freeway lanes serving single or multiple interchanges that are physically separated from general freeway lanes. The purpose of collector-distributor lanes is to separate the traffic entering and exiting the freeway from the through traffic.

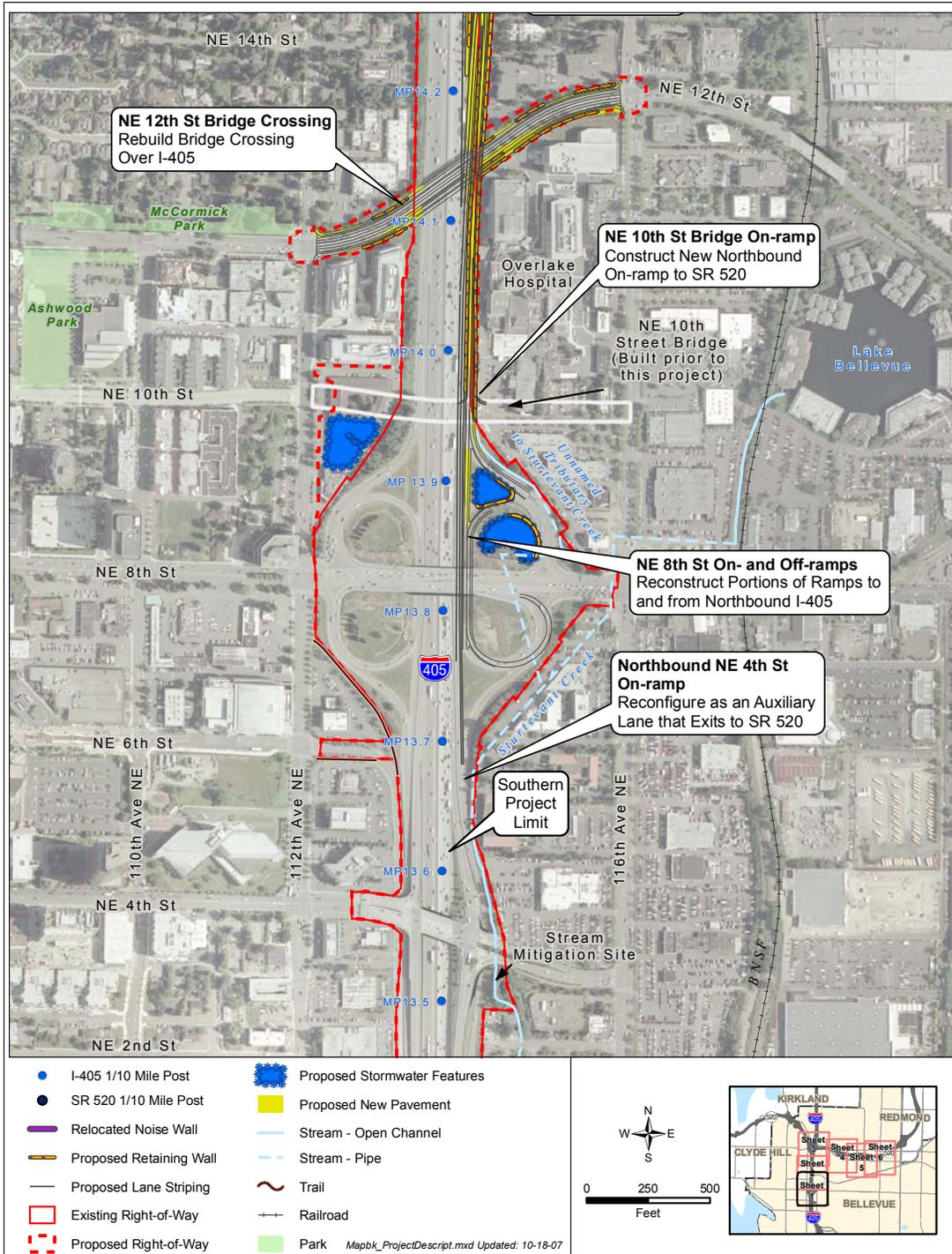
In the simplest form, all ramps that would normally touch the freeway are instead shifted outwards to the collector distributor lanes. There is still weaving, but it is no longer on the main lanes.

- Rebuild the NE 12th Street bridge crossing over I-405 to accommodate the new ramps.
- Construct a northbound on-ramp to SR 520 from a new NE 10th Street bridge crossing; the bridge crossing will be constructed as part of a separate project prior to constructing the on-ramp.
- Construct grade-separated ramps to divide traffic entering northbound I-405 from NE 8th Street and traffic exiting I-405 to SR 520.
- Construct grade-separated ramps to divide traffic entering eastbound SR 520 from northbound I-405 and traffic exiting eastbound SR 520 to 124th Avenue NE.
- Shift eastbound SR 520 mainline travel lanes toward the median.
- Extend the ramp from northbound I-405 to eastbound SR 520 on a collector-distributor system through the 124th Avenue NE interchange to merge with the existing eastbound SR 520 mainline just east of 134th Avenue NE.
- Reconstruct the 124th Avenue NE interchange off-ramp.
- Relocate an existing noise barrier. The new barrier will be approximately 1,585 feet long and 20 feet high.
- Construct several retaining walls needed to allow for the proposed widening of I-405.

SR 520 to Southbound I-405 Improvements

- Reconfigure the ramps from SR 520 to southbound I-405 to improve traffic flow. The westbound SR 520 to southbound I-405 ramp will become a dedicated auxiliary lane, and on-ramp traffic will no longer be required to immediately merge with southbound I-405 mainline traffic. The eastbound SR 520 to southbound I-405 ramp will merge with the dedicated auxiliary lane.

Exhibit 2-3: Project Features - Sheet 1 of 6



I-405, NE 8TH STREET TO SR 520 IMPROVEMENT PROJECT
ECONOMICS DISCIPLINE REPORT

Exhibit 2-3: Project Features - Sheet 2 of 6

