

19 January 2006

**SR 520 Bridge Replacement
and HOV Project Draft EIS
6-Lane Alternative Options**

**Addendum to
Land Use, Economics,
and Relocations
Discipline Report**



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and HOV Project EIS
6-Lane Alternative Options

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Economics, and Relocations
Discipline Report**



Prepared for
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Federal Highway Administration
Sound Transit

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Acronyms and Abbreviations

AVO	average vehicle occupancy
HCT	high-capacity transit
HOV	high-occupancy vehicle
LOS	level of service
MOHAI	Museum of History and Industry
NOAA	National Oceanic and Atmospheric Administration
PSRC	Puget Sound Regional Council
sf	square foot
SMA	Shoreline Management Act
WSDOT	Washington State Department of Transportation



Introduction

This is an addendum to the *Land Use, Economics, and Relocations Discipline Report*, Appendix K of the Draft Environmental Impact Statement (Draft EIS) (Parametrix et al. 2005). This addendum describes the affected environment and environmental consequences from the following three options to the original 6-Lane Alternative.

- The 6 Lanes with Pacific Street Interchange option in the Seattle project area
- The Second Montlake Bridge option in the Seattle project area
- The South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast option in the Eastside project area

Two of these options are in Seattle and one is on the Eastside.

What are the key points of this report?

The amount of land required for construction of the Seattle project area options is approximately 27 acres for the 6 Lanes with Pacific Street Interchange option and 13.5 acres for the Second Montlake Bridge option. Like the original 6-Lane Alternative, most of the property acquisition would occur in Seattle and would primarily affect parks, as well as the Queen City Yacht Club and the National Oceanic and Atmospheric Administration (NOAA) Northwest Fisheries Science Center.

In addition to these effects, the 6 Lanes with Pacific Street Interchange option would affect the southeast portion of the University of Washington’s campus. These effects would account for nearly half of the total land affected by this option.

Effects by Alternative and Option		
	Original 6-Lane Alternative	
	Seattle	Eastside
Original 6-Lane Alternative	23 parcels 14.1 acres	61 parcels 4.78 acres
6 Lanes with Pacific Street Interchange Option	19 parcels 26.8 acres	-
Second Montlake Bridge Option	26 parcels 13.5 acres	-
South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast Option		67 parcels 4.80 acres
Source: King County Assessor (2004).		

In the Eastside project area, the South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast option would affect 4.8 acres and most of the property that the Washington State Department of



Transportation (WSDOT) would need to acquire is currently occupied by single-family residences.

The proposed project would not encourage a change in the types of land uses in the project area. The existing land uses are well established and consistent with existing zoning and comprehensive plan land use designations and policies. As with the original 6-Lane Alternative, the proposed lids would reconnect land uses and neighborhoods divided by the original SR 520 construction.

In the Seattle project area, the acquisition of right-of-way under the 6 Lanes with Pacific Street Interchange option would displace the same structures as the original 6-Lane Alternative except for the business at the Montlake interchange. The acquisition of right-of-way under the Second Montlake Bridge option, would displace the same structures as the original 6-Lane Alternative plus two residential structures.

The operation of the proposed project would result in the potential for increased

economic activity in the corridor that would not occur under either of the No Build Alternative scenarios (Catastrophic Failure or Continued Operation). The 6 Lanes with Pacific Street Interchange option would have greater relative economic effects than the other alternatives because of how it modifies access and mobility, affects parking at the University of Washington, and relieves congestion in the Montlake neighborhood. The addition of a new interchange at Pacific Street/Montlake Boulevard would have the greatest effect on the movement of people, goods, and services to and from the area.

The construction of any of the options would temporarily increase congestion and noise, and would change access for businesses and residents in the area. Some businesses may experience fluctuations in retail sales as project construction modifies access to their places of

Displaced Residential Structures				
Area	Original 6-Lane Alternative	Pacific Street Interchange Option	Second Montlake Bridge Option	South Kirkland Park-and-Ride Option
Seattle	1	1	3	-
Eastside	1	-	-	1
Total	2	1	3	1
Displaced Non-Residential Structures				
Area	Original 6-Lane Alternative	Pacific Street Interchange Option	Second Montlake Bridge Option	South Kirkland Park-and-Ride
Seattle	11	10	13	0
Eastside	3	-	-	3
Total	14	10	13	3



business or their competitors. The construction of any of the options would also create jobs and income for those employed by the project.

Operational effects would include the removal of taxable property from the tax base of cities within the

project area. All the options would each affect less than 0.01 percent of the property tax collections for Seattle and the municipalities on the Eastside. This is not considered a substantial effect.

The original 6-Lane Alternative is expected to have the largest impact on property tax collections when compared to the options. The effect, however, would not be substantial and would not hinder the ability of the jurisdictions to operate public services funded by property tax.

Puget Sound Regional Council’s (PSRC’s) Vision 2020 (PSRC 1995) and King County’s Countywide Planning Policies (King County 2003) stress the importance of transportation system continuity, the use of alternative transportation modes, and the concentration of growth in urban centers. The original 6-Lane Alternative with any of the options still goes further than the 4-Lane Alternative towards meeting the goals of these regional plans and policies. The original 6-Lane Alternative and any of the options would better meet these goals because it would:

- Provide a continuous high-occupancy vehicle (HOV) system from I-5 to I-405, including a direct connection to I-5.
- Result in more HOV trips, according to the *Transportation Discipline Report* (see Appendix R of the Draft EIS).

Because each jurisdiction has its own comprehensive plan goals and policies reflecting that community’s own specific set of interests, it is not possible to make a blanket statement about which option best meets the goals of the local comprehensive plans; however, overall, the options would be as consistent with the goals and policies of local comprehensive plans as the original 6-Lane Alternative.

Estimated Initial Annual Property Tax Effects on Cities Located in the Project Area				
Area	Original 6-Lane Alternative	Pacific Street Interchange Option	Second Montlake Bridge Option	South Kirkland Park-and-Ride Option
Seattle	\$5,400	\$1,600	\$3,500	-
Eastside	\$5,500	-	-	\$6,318
Note: Estimates are for city portion of property tax levy only.				



What options are being considered in this addendum?

6 Lanes with Pacific Street Interchange Option

This option would remove the Montlake interchange along SR 520 and would construct a new interchange at Pacific Street, just east of the Montlake interchange. Exhibit 1 shows the proposed lane configuration for this option.

The new interchange would be primarily located over the WSDOT-owned peninsula near the Washington Park Arboretum. A new on- and off-ramp to and from the north would extend to Pacific Street at the University of Washington. A column-supported ramp of four general-purpose lanes (two lanes in each direction) extending over Union Bay (referred to as the Union Bay Bridge in this addendum) from the new interchange would touch down at the University of Washington Husky Stadium parking lot before joining the intersection of Pacific Street and Montlake Boulevard. At that intersection, the roadway would be lowered 8 to 10 feet from the existing elevation to provide vehicle-only access. The intersection would be covered to allow pedestrian access above and away from vehicular traffic.

The roadway on Montlake Boulevard north of Pacific Street would be widened to the east until just south of Northeast 45th Street. The navigational channel crossed by the new Union Bay Bridge would be the same width as the existing Union Bay reach (175 feet), with a vertical clearance of either 70 or 110 feet.¹ Columns would be placed just outside the width of the ship canal to not block boat traffic.

Ramps to and from Lake Washington Boulevard would still be included in this option; however, their footprint would be slightly different from the original 6-Lane Alternative. The ramp connections to and from Lake Washington Boulevard and to and from the Union Bay Bridge would construct a full diamond interchange, as opposed to a partial diamond interchange under the original 6-Lane Alternative. This full diamond

¹ The establishment of a new governing clearance would prevent any vessel with a higher clearance requirement from traveling east from the Montlake Cut to Lake Washington north of the Evergreen Point Bridge. Before establishing a new governing clearance, the Coast Guard will consider whether vessels requiring a higher clearance have an essential use in north Lake Washington. Two vessels with a vertical clearance higher than 70 feet are known to travel this part of the lake. No vessels with a vertical clearance higher than 110 feet travel this part of the lake.





Exhibit 1. Lane Configuration of the 6 Lanes with Pacific Street Interchange Option
 SR 520 Bridge Replacement and HOV Project

interchange would provide more access to and from Lake Washington Boulevard. No access to or from SR 520 would be provided at Montlake Boulevard.

From Montlake Boulevard to I-5, SR 520 would be six lanes wide (three in either direction). The profile of the Portage Bay Bridge would not differ under this option from the original 6-Lane Alternative. Buses would access SR 520 via the Union Bay Bridge through the University area, providing for a more direct connection between buses and the proposed Sound Transit North Link Station at Husky Stadium. Instead of connecting to the Montlake interchange as in the original 6-Lane Alternative, the bicycle/pedestrian path would follow the Union Bay Bridge from SR 520 and would end at the Pacific Street interchange, close to the Burke-Gilman Trail.

Second Montlake Bridge Option

The intent of the Second Montlake Bridge option is to narrow the SR 520 footprint through the Montlake neighborhood, while providing for transit (bus) access from SR 520 to the University of Washington. Exhibit 2 shows the propose lane configuration for this option, which would be the same as the No Montlake Freeway Transit Stop option, except that it would also include a second Montlake bridge across the Montlake Cut. This bridge would be a parallel bascule (draw) bridge located just east of the existing Montlake Bridge. One bridge would carry northbound traffic, and one would carry southbound traffic.

South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast Option

The intent of the South Kirkland Park-and-Ride Transit Access - 108th Avenue Northeast option is to improve access for buses to the South Kirkland Park-and-Ride from eastbound SR 520 and from the South Kirkland Park-and-Ride to westbound SR 520. This option, which is shown in Exhibit 3, would add a new transit/HOV-only westbound on-ramp from 108th Avenue Northeast and a new transit/HOV-only eastbound off-ramp to 108th Avenue Northeast.

The footprint of SR 520 east of Bellevue Way would be widened slightly to accommodate the new ramps. Both 108th Avenue Northeast and Northup Way would be widened and improved under this option. One lane would be added to 108th Avenue Northeast between the eastbound on-ramp and 38th Place Northeast. Along with the additional through lane on 108th Avenue Northeast, the northbound





- Option Lane Configuration
- Bicycle/Pedestrian Path
- Shoulders and Barriers
- Intersections

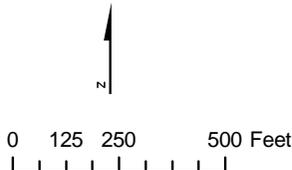
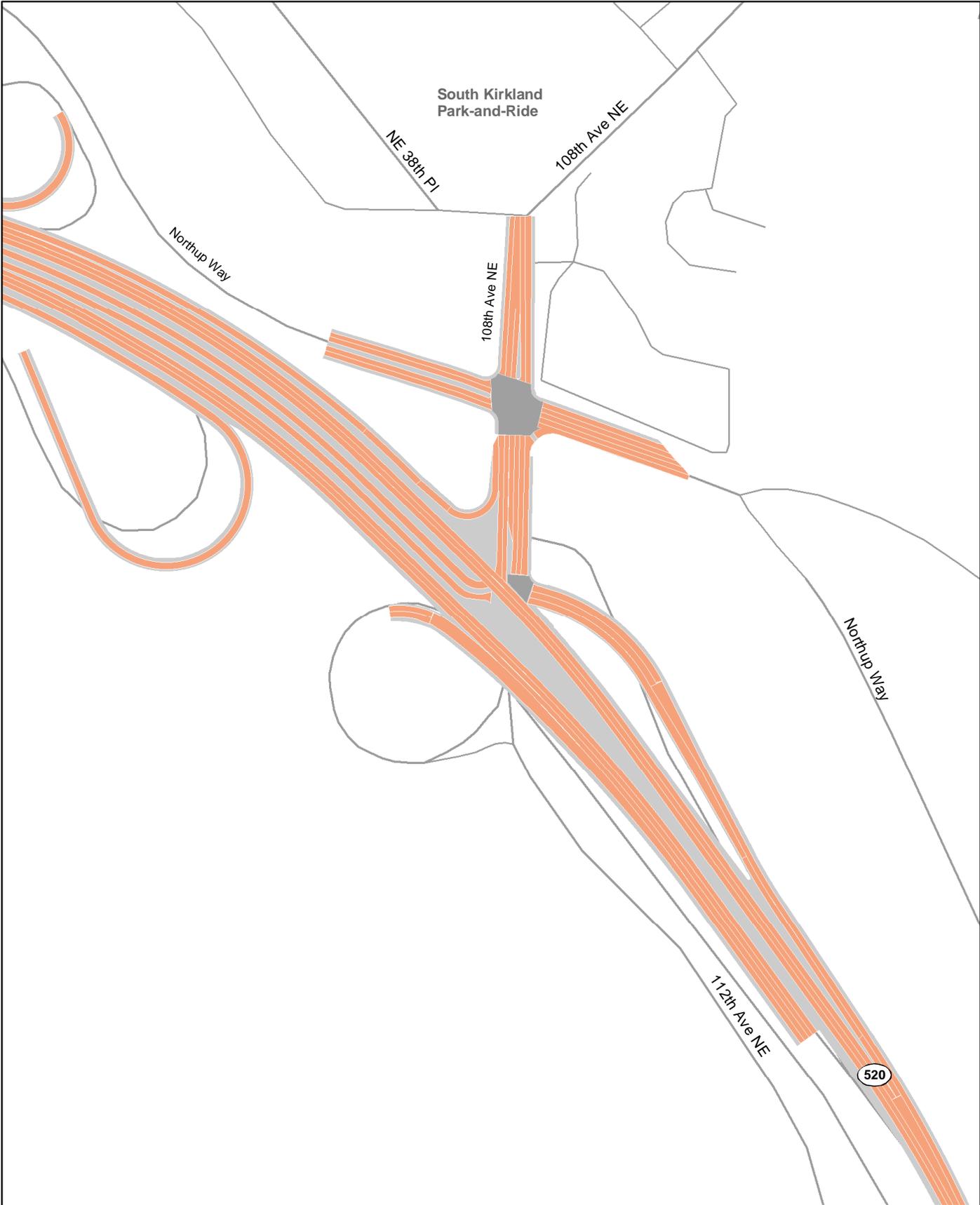


Exhibit 2. Lane Configuration of the Second Montlake Bridge Option

SR 520 Bridge Replacement and HOV Project



- Option Lane Configuration
- Shoulders and Barriers
- Intersections



Exhibit 3. Lane Configuration for the South Kirkland Park-and-Ride Transit Access - 108th Avenue Northeast Option
 SR 520 Bridge Replacement and HOV Project

leg of the 108th Avenue Northeast/Northrup Way intersection would be channelized to include two exclusive left-turn lanes, a through lane, and a shared through/right-turn lane.

There is also a possibility for adding a westbound second left-turn lane at the 108th Avenue Northeast/Northrup Way intersection to facilitate clearing the left-turn queue and serving a higher number of westbound left-turn and through trips.

What additional information was collected for this analysis?

For the 6 Lanes with Pacific Interchange option, the land use, economics, and relocations discipline team increased the size of the study area slightly in Seattle to include the University District and Montlake Boulevard north of Northeast Pacific Street. The discipline team also visited the site several more times and generated new property acquisition data based on the footprints for the options to help show the changes in land use, economics, and relocations.

The Eastside project area would not change from the original 6-Lane Alternative. However, new property acquisition data was generated for the South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast option.



Affected Environment

How was the information collected?

Information about land uses and economic characteristics was collected using the same methods as described in the *Land Use, Economics, and Relocations Discipline Report*.

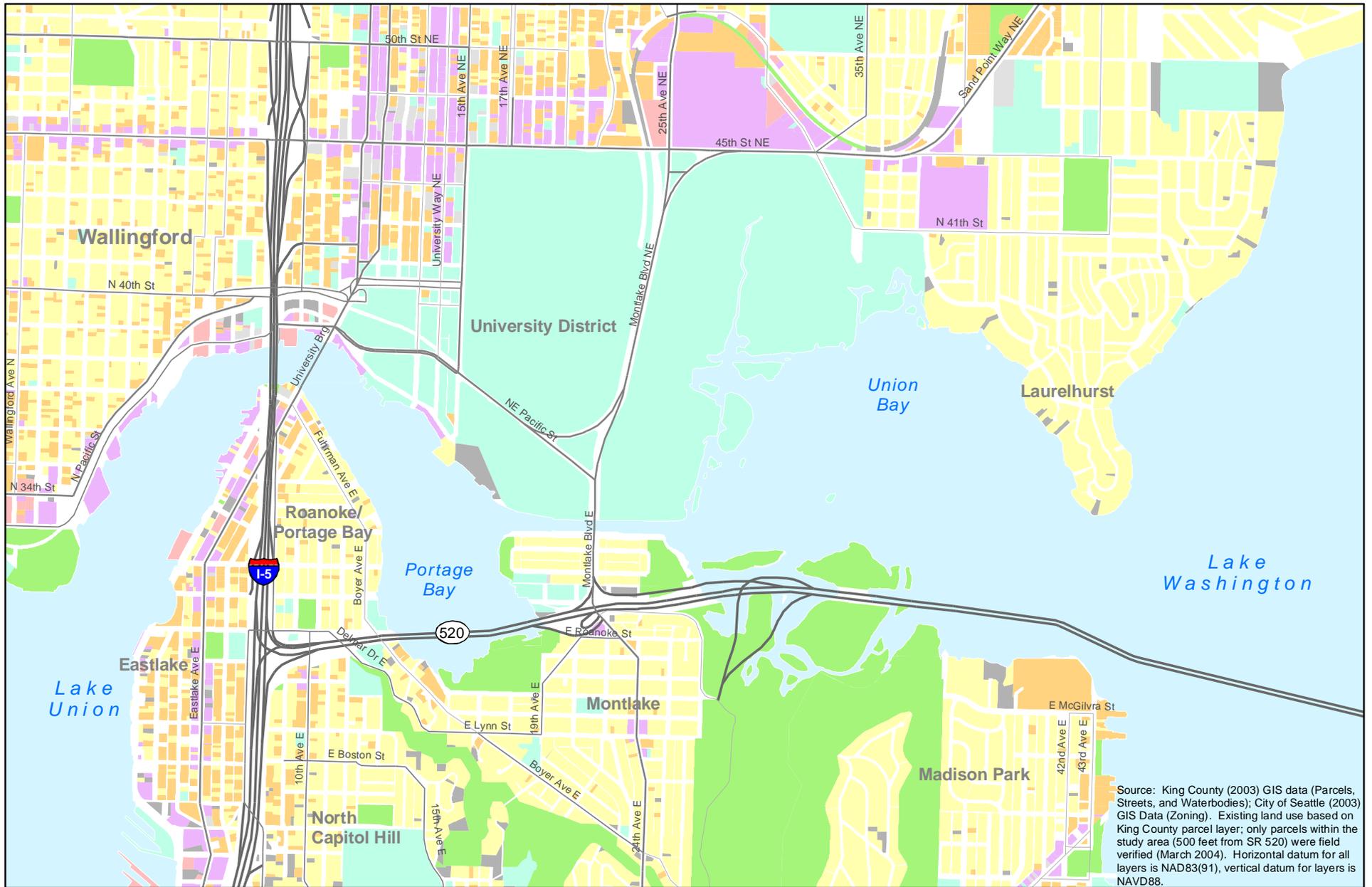
What are the existing land uses and economic characteristics in the project area?

Except for some additional information about the University of Washington campus along Montlake Boulevard, the existing land uses and economic characteristics are the same as those described in the *Land Use, Economics, and Relocation Discipline Report*. The land use discipline team added the new University of Washington information because the two Seattle project area options would extend into areas not affected by the original 6-Lane Alternative. These land uses include the University of Washington campus and University Village. Exhibit 4 shows the existing land uses; Exhibit 5 shows the city of Seattle Comprehensive Plan designations; and Exhibit 6 shows the generalized zoning for the University District.

The following land use and economic characteristics would not change under the options from what was described in the *Land Use, Economics, and Relocation Discipline Report*:

- Geographic area
- Population and housing trends
- Existing and projected employment trends
- Unemployment trends in the project area
- Income levels in the project area
- Major employers in the project area
- Main tax revenues for the jurisdictions in the project area
- State, regional, and local plans and policies relevant to proposed project





Source: King County (2003) GIS data (Parcels, Streets, and Waterbodies); City of Seattle (2003) GIS Data (Zoning). Existing land use based on King County parcel layer; only parcels within the study area (500 feet from SR 520) were field verified (March 2004). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88.

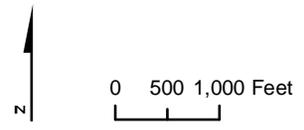
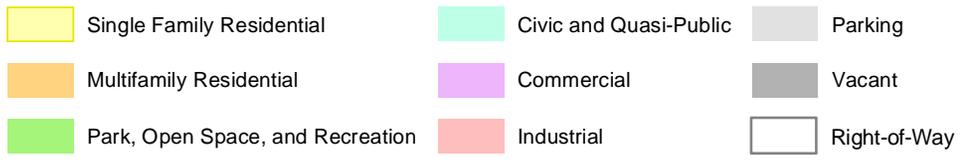
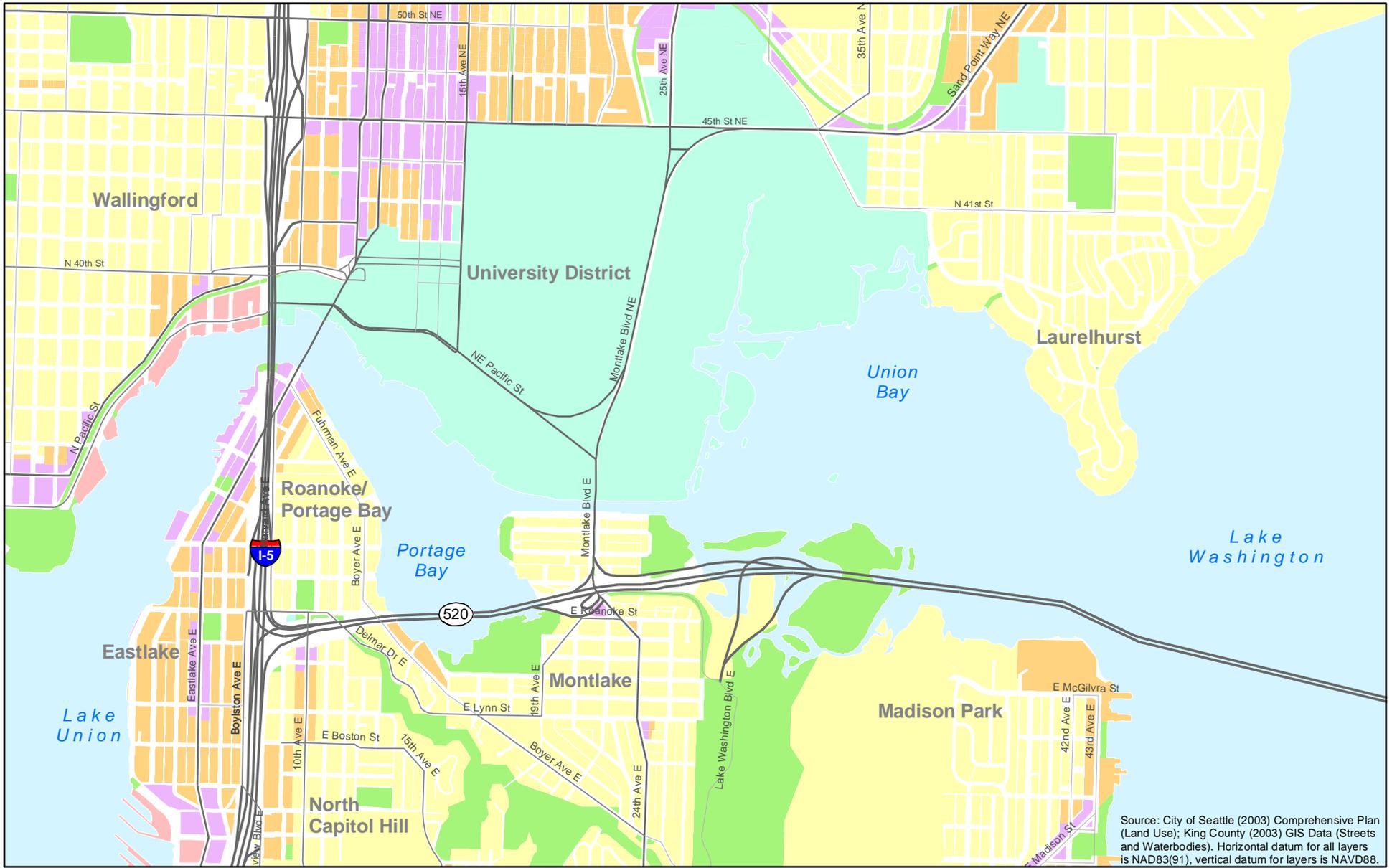


Exhibit 4. Existing Land Uses in the Seattle Project Area
 SR 520 Bridge Replacement and HOV Project



Source: City of Seattle (2003) Comprehensive Plan (Land Use); King County (2003) GIS Data (Streets and Waterbodies). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88.

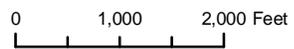
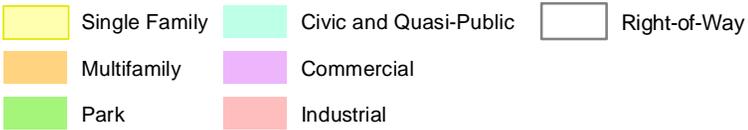
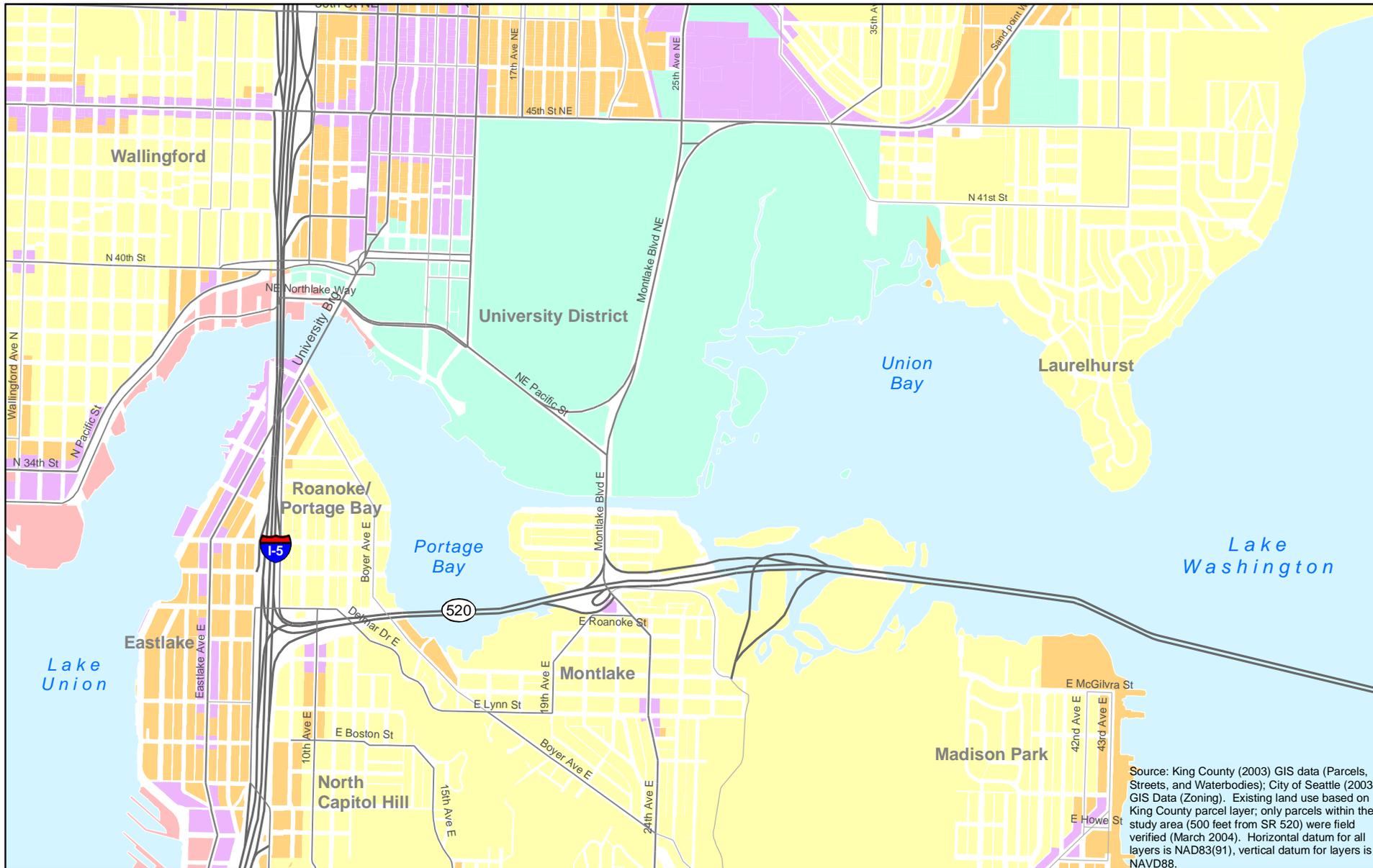


Exhibit 5. Comprehensive Plan Land Uses in the Seattle Project Area
 SR 520 Bridge Replacement and HOV Project



Source: King County (2003) GIS data (Parcels, Streets, and Waterbodies); City of Seattle (2003) GIS Data (Zoning). Existing land use based on King County parcel layer; only parcels within the study area (500 feet from SR 520) were field verified (March 2004). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88.

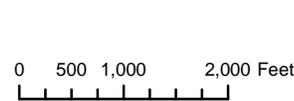


Exhibit 6. Existing Zoning in the Seattle Project Area
 SR 520 Bridge Replacement and HOV Project

Seattle

This section describes land uses in the expanded University District portion of the Seattle project area added because of the two Seattle area options. The *Land Use, Economics, and Relocations Discipline Report* describes all other land uses in the Seattle project area.

The University District is situated in an urban area containing a variety of single-family and multifamily residential, educational, commercial, and semi-industrial uses. The University of Washington Medical Center and Husky Stadium are the dominant land uses in the immediate area. The University of Washington owns approximately 634 acres of the campus; approximately 60 acres are public and privately owned, including land owned by the city of Seattle as street right-of-way. Approximately 75 acres in the eastern portion of the campus consists of submerged land and unstable peat islands.

Existing University of Washington land uses within the campus boundary include academic and support facilities ranging from classrooms and offices to residence halls and parking facilities. The Burke-Gilman Trail is located between Montlake Boulevard and the University of Washington campus. The east campus is comprised of sports fields, parking lots, and grass lands.

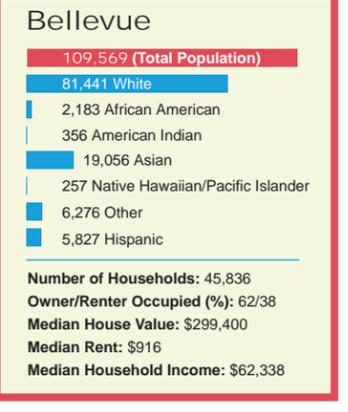
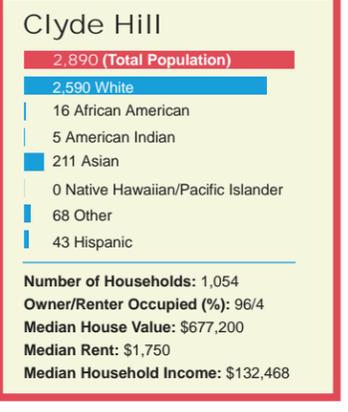
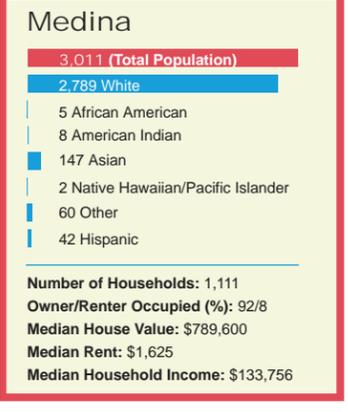
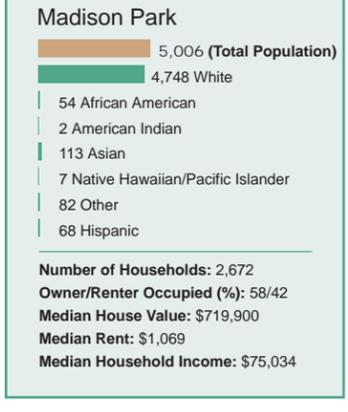
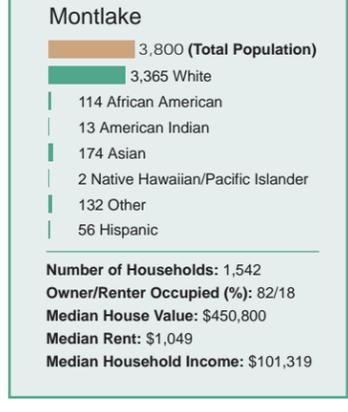
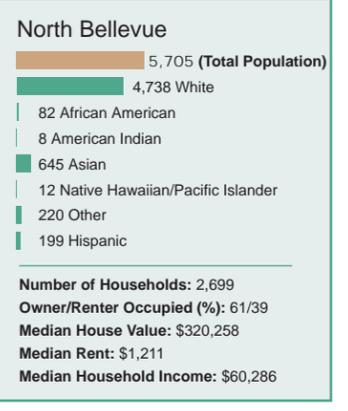
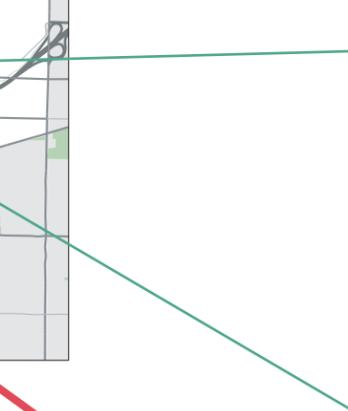
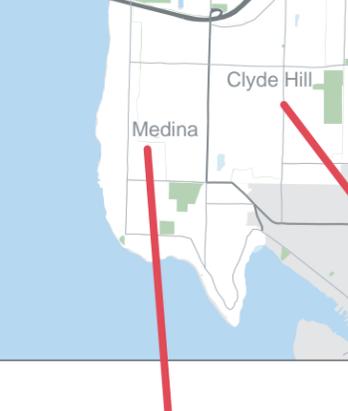
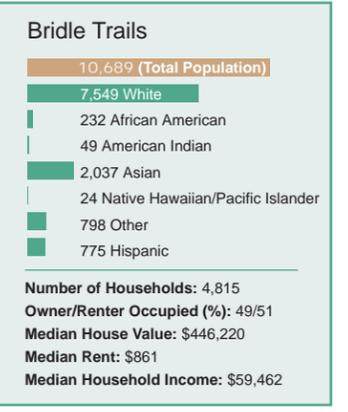
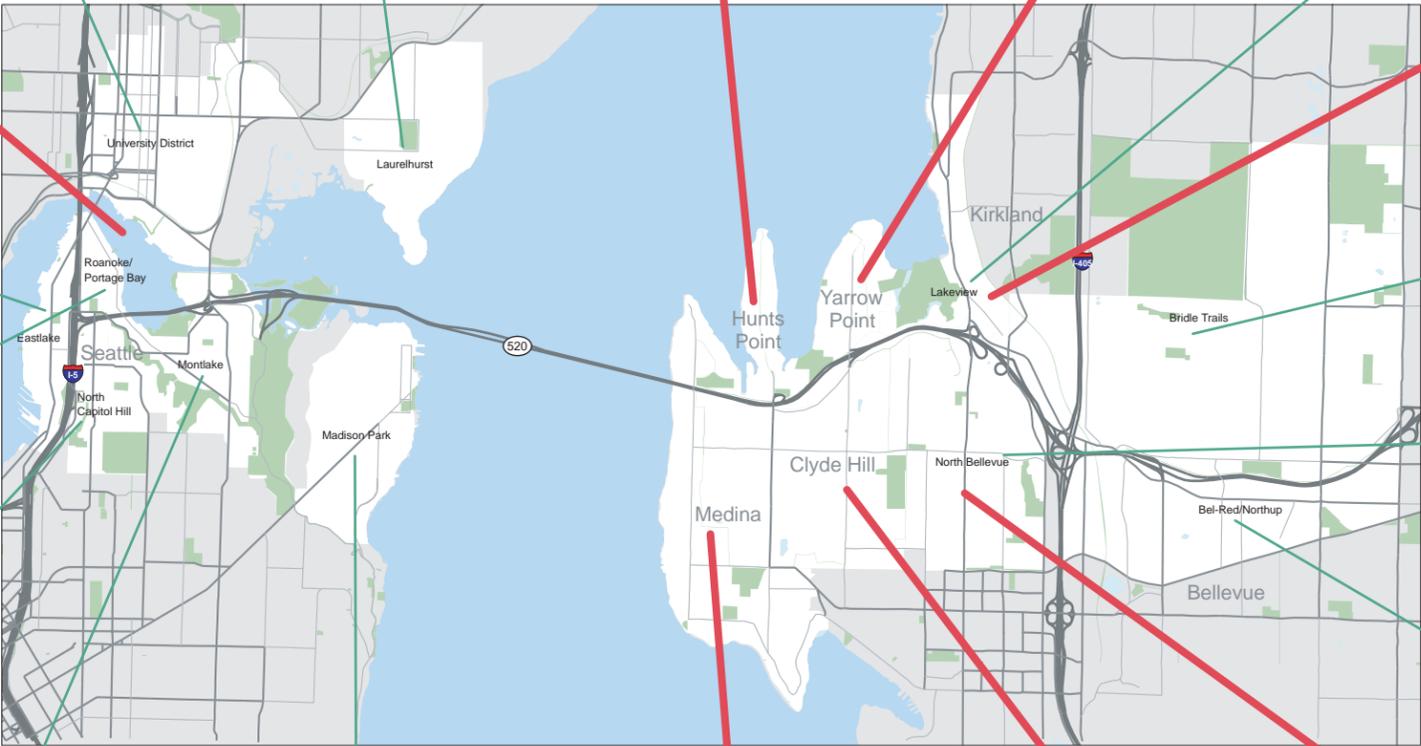
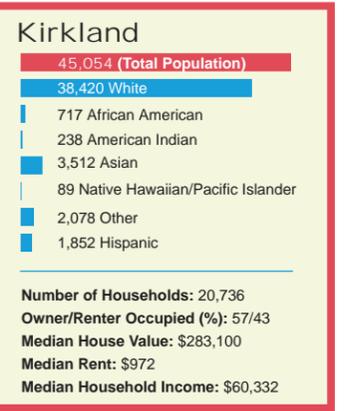
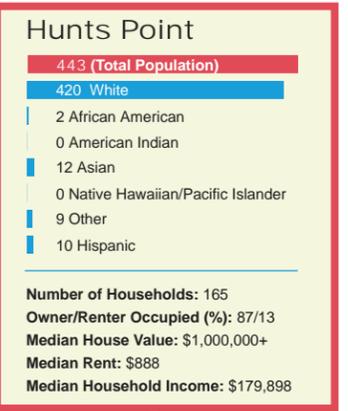
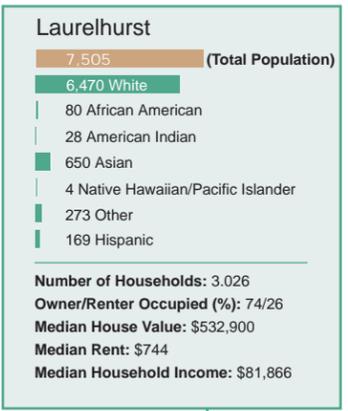
University Village is a regional-scale shopping center located north and northeast of the campus. East of the University of Washington campus is Lake Washington (Union Bay) and the Laurelhurst neighborhood. Laurelhurst consists of relatively low-density residential and park uses.

Exhibit 7 shows the population and housing characteristics for the project area. Taken as a group, the Seattle project area neighborhoods are more ethnically diverse and have a higher proportion of renters than most of the Eastside project area neighborhoods. Overall, the median house value and household income for Seattle neighborhoods are generally less than the Eastside communities but higher than the Bellevue and Kirkland neighborhoods in the project area.

Lake Washington

The land use and economic characteristics in the Lake Washington project area would not change from what was described in the *Land Use, Economics, and Relocations Discipline Report*.





Eastside

The land use and economic characteristics in the Eastside project area would not change from what was described in the *Land Use, Economics, and Relocations Discipline Report*.

Consistency with Plans and Policies

Are the 6-Lane Alternative options consistent with state, regional, and local plans and policies?

The proposed project would be consistent with applicable regional and county plans. The options would be the same as the original 6-Lane Alternative in matching the visions put forth by regional and county plans (see the *Land Use, Economics, and Relocations Discipline Report*, Appendix K of the Draft EIS).

Like the original 6-Lane Alternative, all of the options would maintain the existing transportation system but would also improve the continuity of the overall system. The options would provide similar improvements to the regional bicycle system by adding a bicycle/pedestrian path along SR 520. The options would also substantially improve the HOV system by adding an HOV lane along SR 520 and providing a transit connection to the proposed North Link light rail station and more direct bus service to the University of Washington. The continuity of the HOV system would be considerably improved based on the improvements identified in Exhibit 8.

Exhibit 8. HOV Improvements by Option—Seattle Project Area

	Original 6-Lane Alternative	6 Lanes with Pacific Street Interchange Option	Second Montlake Bridge Option
Direct eastbound and westbound HOV connections to the I-5 reversible lanes	x	x	x
Continuous inside eastbound and westbound HOV lanes throughout the project area	x	x	x
Direct HOV connections at the Montlake interchange	x		x
Direct HOV connections at the Pacific Street interchange		x	
More direct transit service connection to the proposed North Link University of Washington Station		x	



Buses would benefit from the inside HOV lanes and direct HOV connections, which would eliminate the need to merge with traffic entering and exiting the highway.

As discussed in the *Land Use, Economics, and Relocations Discipline Report*, adding a toll to cross Lake Washington would lead to greater use of alternative travel modes. More people would travel by HOV or transit. Like the original 6-Lane Alternative, all the options would promote bicycle use by providing a bicycle/pedestrian path across the Evergreen Point Bridge.

Seattle

Comprehensive Plan

The *Land Use, Economics, and Relocations Discipline Report* provides a summary of Seattle's 2002 Comprehensive Plan (City of Seattle 2002) land use policies. The City has since updated their Comprehensive Plan to include the new directions listed below:

- Allowing reduced parking requirement for new development in urban centers and urban villages as a way to encourage a greater use of transit, walking, and other ways of getting around
- Limiting the amount of new development that could occur outside urban centers and villages to help concentrate growth in centers and villages
- Setting goals for limiting the number of trips in each urban center made by single-occupant autos

Overall, the Seattle Comprehensive Plan remains geared toward creating urban centers that concentrate residential development and employment centers, while maintaining the density and character of the neighborhoods outside those centers. There are no substantial changes in land use patterns planned for the Seattle neighborhoods along SR 520. The updated plan still identifies the Eastlake neighborhood as a residential urban village, which calls for the intensification of residential land use and the provision of neighborhood services.

Seattle's Comprehensive Plan policies relating to transportation remain focused on:

- Supporting and protecting neighborhoods
- Developing a transit network that serves activity centers in the city and the region



- Generally not expanding roadway and freeway facilities to accommodate non-HOV traffic
- Providing an HCT system that connects urban centers

Attachment 1 presents the current policies in more detail.

The 6-Lane Alternative with any of the options would still be consistent with most but not all of the applicable Seattle Comprehensive Plan policies. Like the original 6-Lane Alternative, the options would protect adjacent neighborhoods by installing sound walls that dampen traffic noise. The 6-Lane Alternative options would also improve the quality of adjacent neighborhoods by providing a partial reconnection between the Roanoke/Portage Bay and North Capitol neighborhoods and by doing the same for the Montlake neighborhood now separated north-south by SR 520. The new connections would be provided by the 10th and Delmar lid and the Montlake lid. The parklike settings of these lids would provide a sense of place and a pleasant atmosphere in which to cross over SR 520, unlike the current roadway crossings, which have no landscaping or screening from SR 520.

The 6-Lane Alternative options would provide an HOV-only lane and increase transit speed and reliability, as would the original 6-Lane Alternative. Buses would not travel or merge with general-purpose vehicles, reducing delays caused by congestion.

Like the original 6-Lane Alternative, the 6-Lane Alternative options would expand freeway capacity by adding an HOV lane in each direction.

Like the other alternatives, the 6-Lane Alternative options have incorporated the potential for future HCT into the design so as not to preclude its implementation in the future.

The key findings from the freeway operations analysis are shown in Exhibit 9 in terms of average vehicles served, average persons served, average vehicle occupancy (AVO), and average travel time.

The Second Montlake Bridge and Pacific Street Interchange options would shift traffic patterns on the local streets because roadway capacity crossing the Montlake Cut would be increased. With the 6 Lanes with Pacific Street Interchange option, the new Union Bay Bridge between the new Pacific Street interchange at SR 520 and the Northeast Pacific Street/Montlake Boulevard Northeast intersection would lead to an increase in traffic traveling through the area.



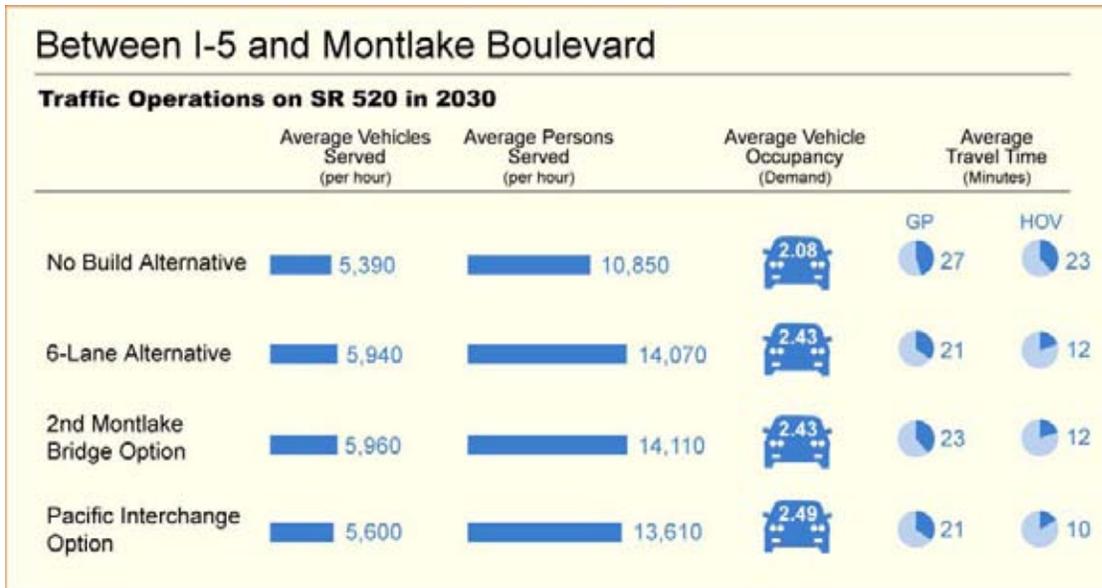


Exhibit 9. Traffic Throughput on SR 520 for the No Build, Original 6-Lane Alternative, Second Montlake Bridge Option, and 6 Lanes with Pacific Street Interchange Option

In comparison to the original 6-Lane Alternative, the Second Montlake Bridge and Pacific Street Interchange options would result in more traffic volumes on the following streets during both the a.m. and p.m. peak hours:

- Northeast Pacific Street between Montlake Boulevard Northeast and west of 15th Avenue Northeast
- Montlake Boulevard Northeast north of Northeast Pacific Street
- 15th Avenue Northeast
- 24th Avenue Northeast
- Lake Washington Boulevard (Pacific Street interchange only)

With the changes in traffic patterns and traffic volumes, intersection operations would also change. In comparison to the original 6-Lane Alternative, the level of service (LOS) would improve at the following four intersections:

- Northeast Pacific Place/Montlake Boulevard
- Northeast 45th Street/Montlake Boulevard
- Northeast Pacific Street/Montlake Boulevard
- Lake Washington Boulevard Northeast /Montlake Boulevard



LOS would degrade at the Northeast Pacific Street/15th Street Northeast intersection.

Neighborhood Plan

The Eastlake community's neighborhood plan is discussed in the *Land Use, Economics, and Relocations Discipline Report*. The 6 Lanes with Pacific Street Interchange and Second Montlake Bridge options would be as consistent with the Eastlake neighborhood plan as the original 6-Lane Alternative. Since the Pacific Street Interchange and the Second Montlake Bridge options propose improvements in areas that were not previously affected, two new planning documents for the areas in and around the University District have been added to the discussion. These plans are the University Community Urban Center Plan (City of Seattle 1998) and the University of Washington Master Plan Seattle Campus.

The University District adjacent to Montlake Boulevard has an adopted neighborhood plan. The plan's policies call for integrating transportation modes into an efficient, balanced system through the establishment and improvement of pedestrian and bicycle facilities, improvement of circulation without adding capacity on the arterial street system, and improvement of mobility and access through increased public transportation (University Community Urban Center Plan 1998). Consistent with the plan, the 6 Lanes with Pacific Street Interchange and Second Montlake Bridge options would add a bicycle/pedestrian path and HOV lanes to SR 520. Inconsistent with the plan, however, the 6 Lanes with Pacific Street Interchange option would add capacity on Montlake Boulevard.

The University of Washington has a master plan for its Seattle campus. This plan does not call for any major changes to the southwest campus but it does identify major pedestrian pathways along Montlake Boulevard and the Union Bay shoreline, with a recommended reduction of vehicle character along San Juan Road. Construction of Union Bay Bridge as part of the Pacific Street Interchange would be inconsistent with this plan because the new bridge would actually add vehicle character to the area. Consistent with the identified pedestrian pathways, however, the new Pacific Street intersection would be lowered 8 to 10 feet to provide vehicle-only access and include paths above to allow free-flowing pedestrian and bicycle movements.

The Second Montlake Bridge would maintain the pedestrian pathways along Montlake Boulevard consistent with the University's master plan.



Shoreline Master Program

Like the original 6-Lane Alternative, a portion of the Portage Bay Bridge with the Seattle project area options would be permitted outright because it is in the Urban Residential shoreline. The rest of the bridge, however, would be in the Conservancy Recreation shoreline and require a special use permit. See the *Land Use, Economics, and Relocation Discipline Report* for a more detailed discussion on this.

The remaining portions of SR 520 that would be subject to the shoreline master program would require a special use permit because it would pass through Conservancy Recreation, Conservancy Preservation, Conservancy Management, and Conservancy Navigation shoreline areas. The 6 Lanes with Pacific Street Interchange option would result in the largest area of improvements within the shoreline because of the new Union Bay Bridge. The crossing of the Ship Canal with the Second Montlake Bridge would also require approvals.

Eastside

Comprehensive Plan

The *Land Use, Economics, and Relocations Discipline Report* summarizes the Medina, Hunts Point, Yarrow Point, Clyde Hill, Kirkland, and Bellevue comprehensive plans and shoreline master programs. The South Kirkland Park-and-Ride Transit Access - 108th Avenue Northeast option would have the same effects as described for the original 6-Lane Alternative.



Potential Effects of the Project

How were the effects of the alternatives and options determined?

The same methods used to evaluate the potential effects of the original 6-Lane Alternative were used to evaluate the 6-Lane Alternative options (see the *Land Use, Economics, and Relocation Discipline Report*, (Appendix K of the Draft EIS).

What would be the permanent effects in the Seattle project area?

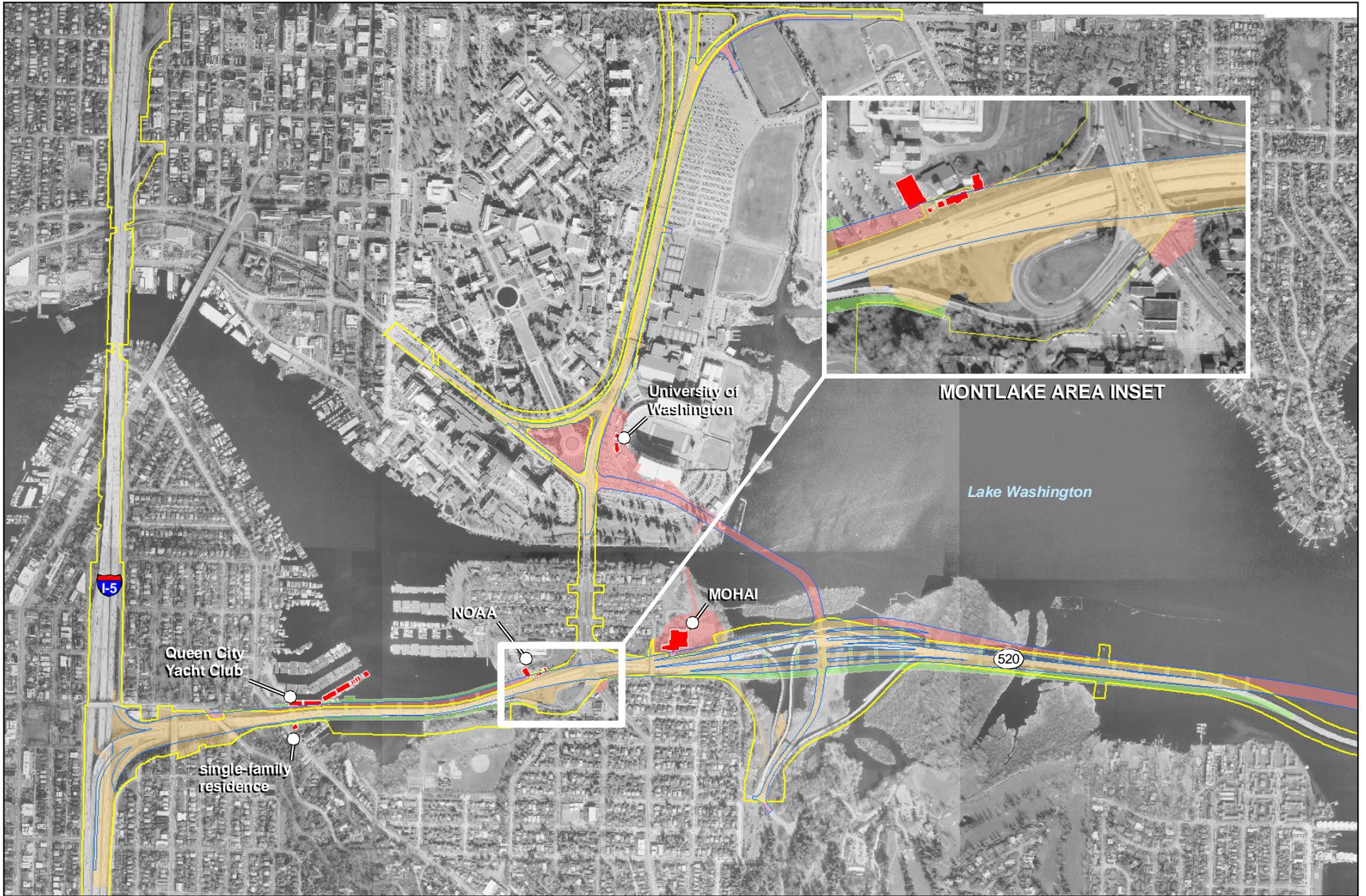
How would the 6-Lane Alternative options directly affect existing land uses?

6 Lanes with Pacific Street Interchange

In the Seattle project area, the 6 Lanes with Pacific Street Interchange option would require the acquisition of land currently used for public, commercial, park, and residential purposes, as well as vacant properties. Exhibit 10 shows the areas between the existing right-of-way and the limits of construction that WSDOT would need to acquire for the construction of the Pacific Street Interchange option. Exhibit 11 shows the amount and type of land needed for implementation of the options (including the 6 Lanes with Pacific Street Interchange option) by existing land use and zoning designation and compares them with the original 6-Lane Alternative. This addendum assumes that WSDOT would acquire only that portion of a property needed for right-of-way or for construction staging, unless a building or other property improvement would be displaced. If WSDOT determines through the acquisition process that the utility of the property is impaired, it would offer to purchase the property in its entirety. The property owner, however, is not required to sell the uneconomic remainder to WSDOT. See *How many homes and businesses would be relocated?* below for a discussion of potential relocations.

The 6 Lanes with Pacific Street Interchange option would affect four fewer properties than the original 6-Lane Alternative, for a total of 19 parcels. Under the 6 Lanes with Pacific Street Interchange option, the





- | | |
|--|--|
|  Existing Right-of-Way |  Affected Property |
|  6 Lane Edge of Pavement |  Limits of Construction that falls inside |
|  Affected Structures |  Temporary Work and Detour Bridges |

Source: City of Seattle (2003) GIS Data (Building Footprints)



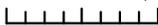
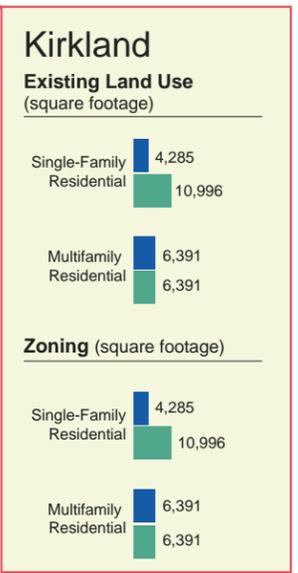
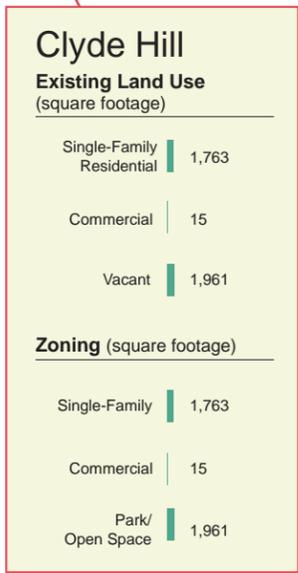
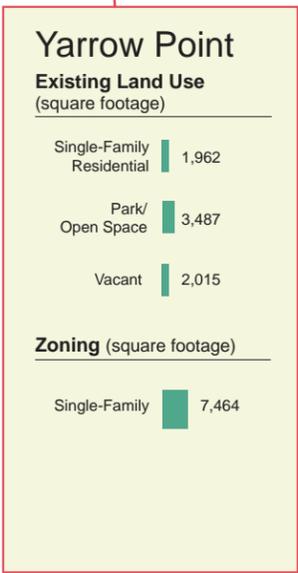
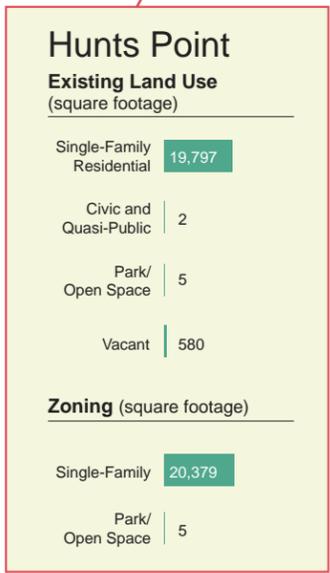
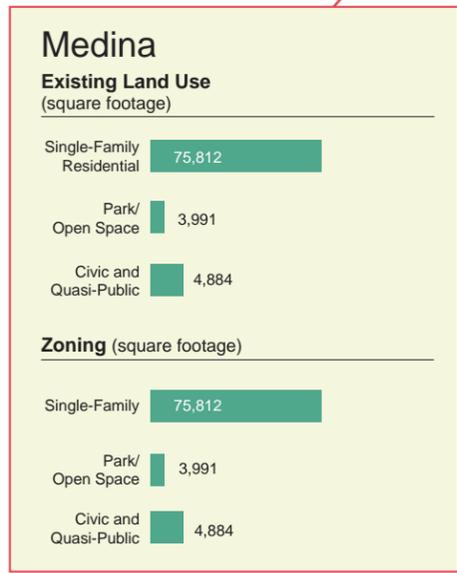
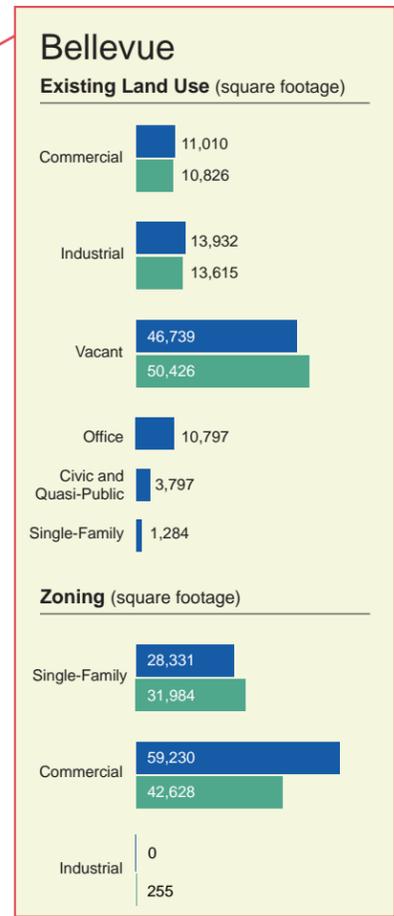
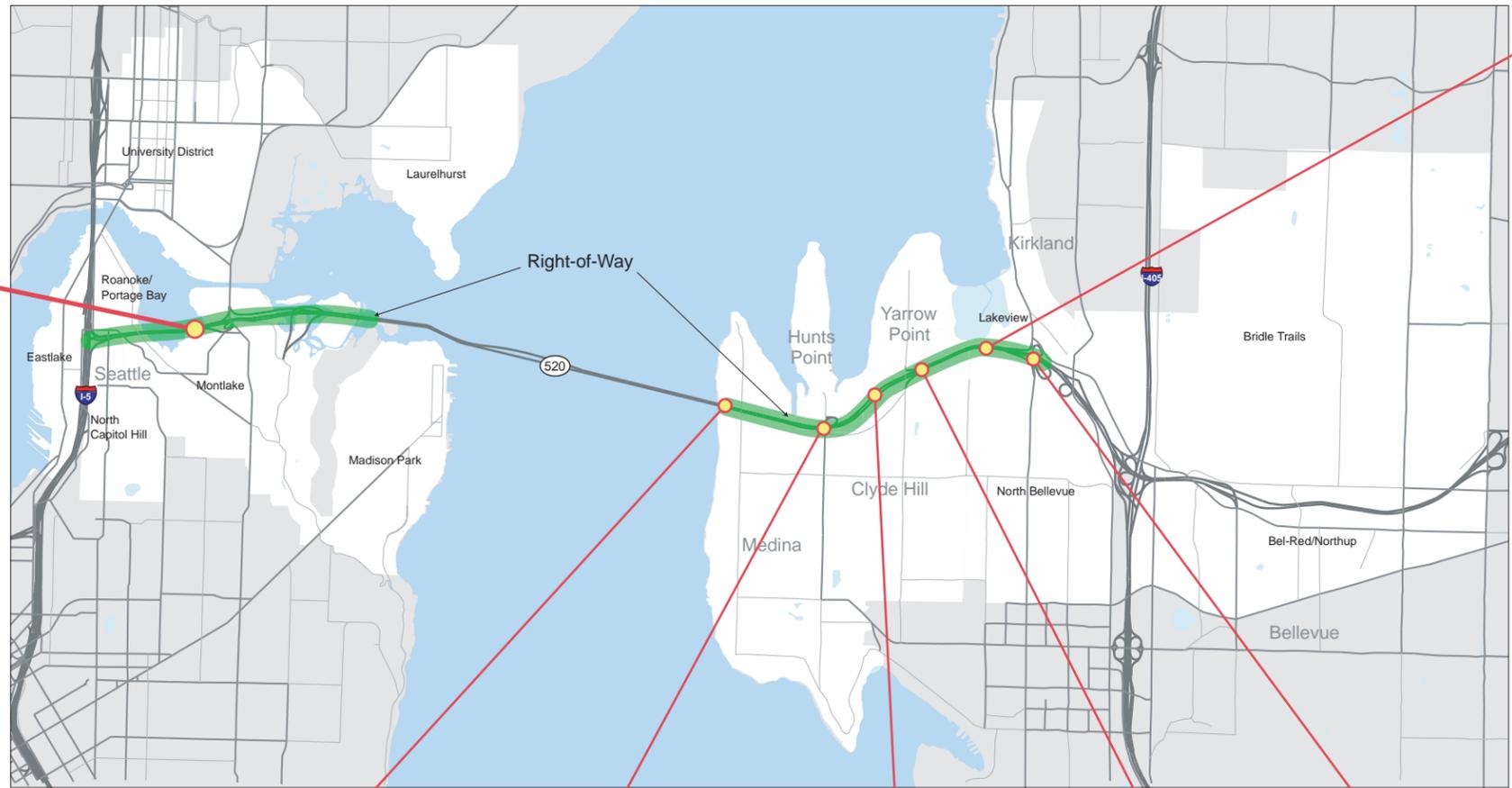
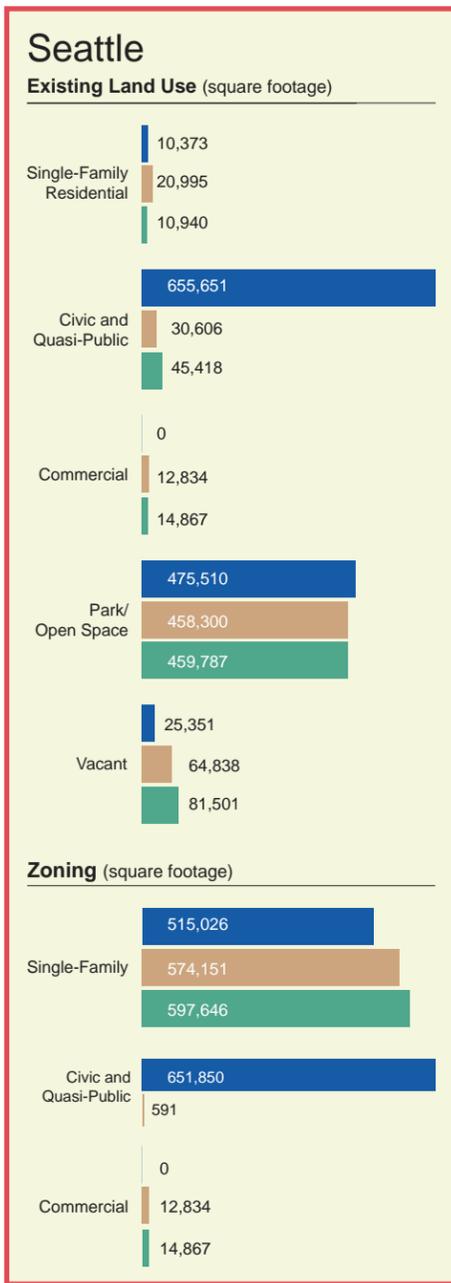
0 250500 1,000 Feet




Exhibit 10. Properties and Structures Affected by the 6 Lanes with Pacific Street Interchange Option
 SR 520 Bridge Replacement and HOV Project



NOTE: ALL UNITS ARE IN SQUARE FEET
 Source: King County (2003) GIS data (Parcels); City of Seattle (2003); City of Bellevue (2004) GIS Data (Zoning), Zoning Maps for City of Medina (2004), City of Clyde Hill (1999), City of Hunts Point (1998), City of Yarrow Point (2003), City of Kirkland (2003). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88. Existing land use based on King County parcel layer. Only parcels within the study area (500 feet from SR 520) were field verified. Field-checked March 2004.



Exhibit 11. Comparison of Existing Land Use and Zoning Effects
 SR 520 Bridge Replacement and HOV Project

project would affect approximately 26.8 acres of land, within 19 King County assessor parcels. Although this option would reduce the footprint at the Montlake interchange and require less land acquisition in this area than the original 6-Lane Alternative, more land would be affected (namely, at the University of Washington campus) than identified in the original 6-Lane Alternative because of the construction of the Union Bay Bridge and improvements along Montlake Boulevard.

This option would affect slightly more area used for parks and open space than the original 6-Lane Alternative, with the same type of effects to the Museum of History and Industry (MOHAI), McCurdy Park, East Montlake Park, and the Washington Park Arboretum. Other uses that would be affected similar to the original 6-Lane Alternative include the Queen City Yacht Club and, to a lesser degree, the NOAA Northwest Fisheries Science Center.

Unlike the original 6-Lane Alternative, the majority of affected area under this option is used for civic and quasi public uses, with most of the effects to the University of Washington campus. As a result, some facilities on the campus may require relocation. The University of Washington property that would be affected by the construction of Union Bay Bridge is mostly parking and would be returned to its current use after construction is completed. A smaller portion of the property would be permanently lost, however, to accommodate the bridge span and columns and the Montlake Boulevard/Pacific Street intersection where the interchange bridge would meet grade.

Like the original the 6-Lane Alternative, this option would affect two single-family residential parcels adjacent to the Portage Bay Bridge that belong to the same owner. This property would be affected by the placement of a work bridge during construction of the Portage Bay Bridge. The property would not be needed after construction and could be redeveloped consistent with its single-family residential zoning.

Unlike the original 6-Lane Alternative, this option could provide limited redevelopment opportunities at the Montlake interchange. The ramps at the interchange would be removed, and excess property could be reused as parklands or open space. In addition, the excess property from the acquisition of East Montlake Park would be available for reuse as parkland.

All of the land within the footprint of this option is zoned for single-family residential use or civic and quasi-public uses. For the most part,

