ENVIRONMENTAL ASSESSMENT
SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

DECEMBER 2009

SR 520, Medina to SR 202: Eastside Transit and HOV Project

Appendix R

Visual Quality and Aesthetics Technical Memorandum

Washington State Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

SR 520, Medina to SR 202: Eastside Transit and HOV Project Environmental Assessment

Visual Quality and Aesthetics

Technical Memorandum

Prepared for

Washington State Department of Transportation

Federal Highway Administration

Lead Author

Parametrix, Inc.

Consultant Team

HDR Engineering, Inc.

Parametrix, Inc.

CH2M HILL

Parsons Brinckerhoff

Michael Minor and Associates

PRR, Inc.

November 13, 2009

Contents

Acronyms and Abbreviations ..... **v**
1. Introduction **1**
Why are visual quality and aesthetics considered in an environmental assessment? 1
What is the project? 2
What are the key points of this technical memorandum? 5
2. Methodology **5**
What does the FHWA visual quality assessment method include? 5
What specialized tools or vocabulary are used for this method? 6
3. Affected Environment **8**
How was the visual assessment information collected? 8
What governmental regulations apply to the views and visual characteristics in the study area? 9
What is the study area for the visual quality and aesthetics analysis? 11
Who would be affected by changes in views and visual quality in the study area and how sensitive are they to the changes? 11
What is the current visual character of the study area? 12
What is the current visual quality of the study area? 16
4. Potential Effects of the Project **21**
How would construction of the project affect visual quality and aesthetics? 21
How would operation of the project affect visual quality and aesthetics? 22
Would the project create new sources of shadow, glare, or light? 25
5. Mitigation **26**
How will adverse effects from construction be avoided or minimized? 26
How will adverse effects from operation of the project be avoided or minimized? 26
6. Conclusion **28**
7. References **28**

Attachments

1 Visual Quality Assessment Matrix

2 Visualizations

Exhibits

1 Project Vicinity

2 Eastside Viewshed and Viewpoint Locations

3 Landscape Units

4 Definitions of Visual Quality Descriptors

5 Location and Description of Visualization and Snapshot Viewpoints

Acronyms and Abbreviations

3-D	three-dimensional
CFR	Code of Federal Regulations
FHWA	Federal Highway Administration
GIS	geographic information system
HOV	high-occupancy vehicle
I-5	Interstate 5
I-405	Interstate 405
NEPA	National Environmental Policy Act
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SR	State Route
U.S.C.	United States Code
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

1. Introduction

Why are visual quality and aesthetics considered in an environmental assessment?

The construction or modification of our highways, which are publicly owned, can considerably affect the quality and character of the landscape (FHWA 1989). Understanding the effects of a proposed project and its alternatives on the visual character and quality of the landscape is an integral part of any environmental assessment. Numerous federal acts and state codes ensure that the effects of highway projects on the visual quality and aesthetics of a landscape are adequately considered during the early stages of project planning and development. These acts and codes are listed in the sidebar to the right of this paragraph (WSDOT 2004).

To ensure that potential changes to visual quality and aesthetics resulting from a transportation project are adequately and objectively considered, it is critical that an accepted, systematic evaluation process be used. The visual study team used the Federal Highway Administration's (FHWA's) visual quality assessment method (FHWA 1989) as the industry standard for this assessment. FHWA developed this assessment method so that potential visual effects on communities near proposed transportation projects could be adequately and objectively considered. This rigorous and systematic method ensures collection of adequate information for the project decision-making process and development of an objective assessment and descriptions.

Part of the FHWA's assessment method is to use a professionally accepted, descriptive terminology that encompasses the physical attributes of the landscape being assessed and viewer perception. This terminology helps guarantee consistent and effective communication; it is introduced in the following sections.

This technical memorandum addresses three primary questions:

- What are the visual qualities and characteristics of the existing landscape in the study area?
- Who would see the project, and what is their likely level of concern about or reaction to how the project visually fits within the existing landscape?

Federal Regulations on Visual Quality

- Highway Beautification Act, 23 United States Code (U.S.C.) 131, 136, and 319, and 23 Code of Federal Regulations (CFR) 750-752
- Historic Preservation Act, 16 U.S.C. 470f
- NEPA, 42 U.S.C. 4231-4335, Section 101(b)(2)
- FHWA, 23 CFR 771, Environmental Impact and Related Procedures
- Council on Environmental Quality, 40 CFR 1500-1508
- Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303(b)-303(c)
- Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287

State Regulations on Visual Quality

- State Environmental Policy Act (SEPA), RCW 43.21C
- Highway Beautification Act of 1961, Revised Code of Washington (RCW) 47.40.010
- Open Space Land Preservation, RCW 84.34
- WSDOT: Washington Administrative Code (WAC) 468-12

This report uses the word "**landscape**" to refer to the complete visible natural and human-built environment. Also, the level of concern experienced by different people is described as a degree of **sensitivity** to a particular view. Views from the highway and views of the highway are both considered.

- What are the potential effects of the project's proposed alternatives on the area's visual quality and aesthetics?

What is the project?

The Washington State Department of Transportation (WSDOT) is proposing to construct the SR 520, Medina to SR 202: Eastside Transit and HOV Project to reduce transit and high-occupancy vehicle (HOV) travel times and to enhance travel time reliability, mobility, access, and safety for transit and HOVs in rapidly growing areas along the State Route (SR) 520 corridor east of Lake Washington. Exhibit 1 shows the project vicinity. Some of the improvements included in this project were originally part of the SR 520 Bridge and HOV Project. On June 18, 2008, FHWA authorized WSDOT to develop the SR 520, Medina to SR 202: Eastside Transit and HOV Project as an independent project. The project includes building a complete HOV system between Lake Washington and 108th Avenue NE and restriping the existing HOV lanes from the outside lanes to the inside lanes between the 108th Avenue NE interchange and SR 202 in Redmond.

The portion of the project between Evergreen Point Road and 108th Avenue NE was previously part of the SR 520 Bridge Replacement and HOV Project. The SR 520, Medina to SR 202: Eastside Transit and HOV Project has been an independent project to address needs specific to the portion of SR 520 east of Lake Washington. The project limits extend approximately 8.8 miles along SR 520 from the east shore of Lake Washington (vicinity of Evergreen Point Road) to the interchange with SR 202 in Redmond.

WSDOT is considering two alternatives for the project: the Build Alternative and the No Build Alternative.

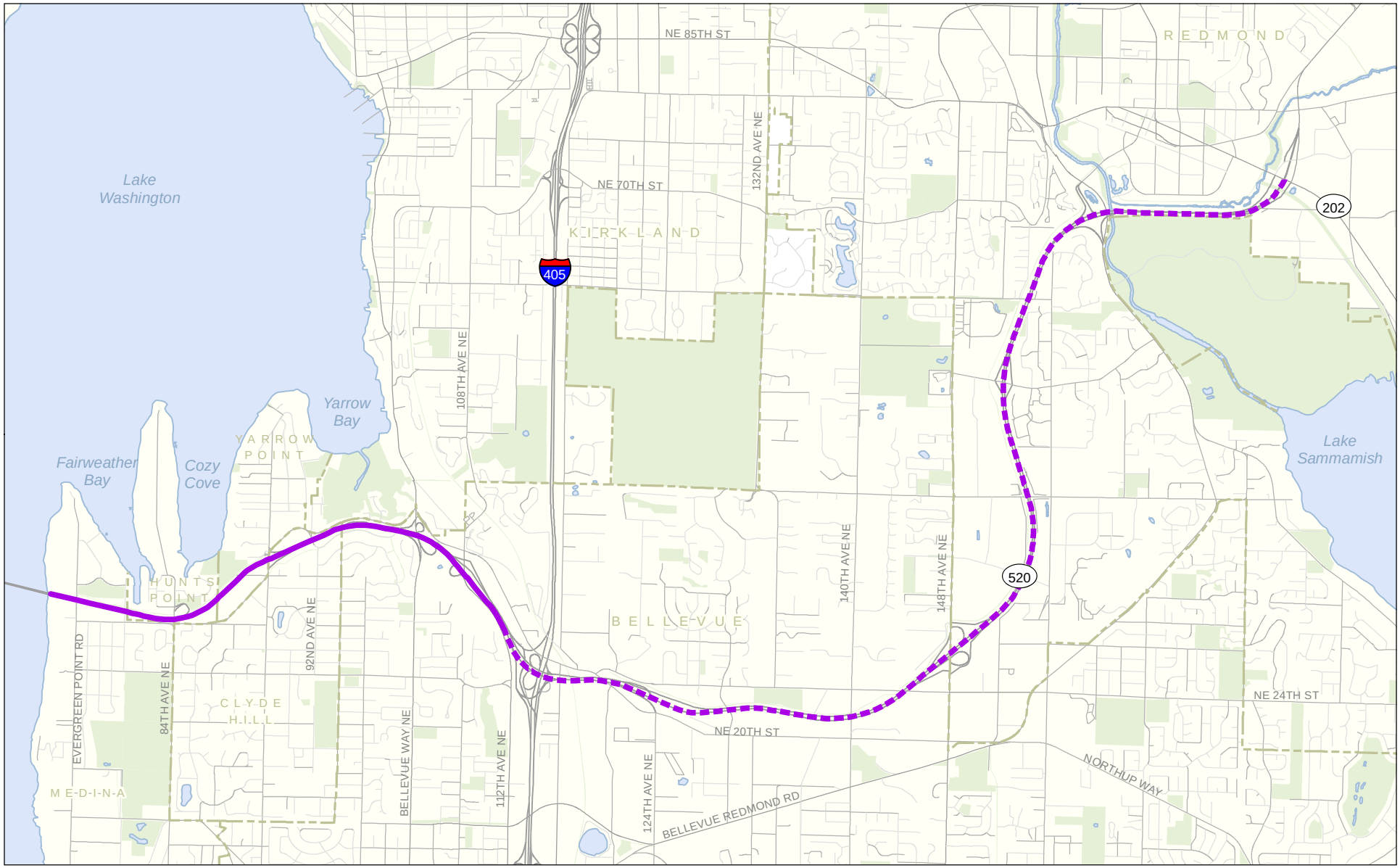
Build Alternative

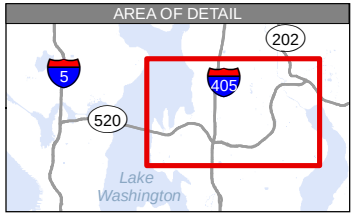
Under the Build Alternative, the proposed project would include the improvements described below.

SR 520 Improvements from Lake Washington to I-405

The proposed project would reconstruct SR 520 from just west of Evergreen Point Road to just east of 108th Avenue NE. Elements constructed as part of this section include the following:

- Construct a new eastbound HOV lane from Lake Washington to the existing eastbound HOV lane west of the I-405 interchange. This improvement would complete the currently discontinuous HOV network on the Eastside and improve travel time reliability for buses and carpools.
- Relocate the existing westbound HOV lane from the outside lane to the inside lane from Lake Washington to I-405. This change would enhance safety by eliminating the need for merging vehicles to weave across the faster-moving HOV lanes to reach the general-purpose lanes.
- Construct a lid with inside transit stop over SR 520 at Evergreen Point Road.





Construction Extent

Restriping Extent

Park

City Limits

N

0 0.5 1 Miles

Source: King County (2008) GIS Data (Streams, Streets, Water Bodies), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91), vertical datum for layers is NAVD88.

Exhibit 1. **Project Vicinity**

Medina to SR 202: Eastside Transit and HOV Project

\\SIMBA\PROJ\PARAMETRIX\180171\GIS\MAPFILES\EA\EA\CH1\EA_CH1_VICINITYMAP.MXD 9/15/2009

- Construct a new lid and modify the existing half-diamond interchange at 84th Avenue NE.
- Construct a new lid with inside transit stop over SR 520 at 92nd Avenue NE and modify the existing interchange.
- Reconfigure the existing interchange at Bellevue Way NE.
- Construct new HOV direct access ramps at 108th Avenue NE. This improvement would create a more efficient connection for transit and HOV from SR 520 to the South Kirkland Park-and-Ride via local streets.
- Add a bike/pedestrian path from Lake Washington to approximately 108th Avenue NE. This improvement would facilitate nonmotorized use of SR 520, provide transit connections for bikes and pedestrians, and complement the existing nonmotorized transportation network on the Eastside.

> What is a lid?
>
> The term "lid" is short for "lidded highway". Lids are long bridges that cover a length of highway. Lid surface areas can carry paths and trails to connect communities across the highway, landscaping to create open space and places for passive recreation, and items such as pergolas, seating, and transit waiting areas.

SR 520 Improvements from I-405 to SR 202

- Restripe existing eastbound and westbound HOV lanes from the outside to the inside lane. This change would enhance safety by eliminating the need for merging vehicles to weave across the faster-moving HOV lanes to reach the general-purpose lanes.

Other Improvements

- Provide noise walls between Evergreen Point Road and Bellevue Way NE.
- Provide retaining walls and stormwater management system improvements.
- Improve stream habitat by realigning portions of the Yarrow Creek channel and shortening some culverts.
- Improve fish passage culvert crossings to restore fish passage and open up habitat that was previously inaccessible to salmon and other fish species.
- Mitigate the project’s effects on wetlands and streams at a site or sites as determined through future negotiations with permitting agencies.

No Build Alternative

Under the No Build Alternative, the project would not be built. Only routine maintenance, repair, and minor safety improvements would take place on SR 520 in the study area over the next 20 years. The No Build Alternative would not improve transit reliability and transit and HOV travel times on SR 520. Also included in the No Build Alternative for traffic modeling purposes is the assumption that the SR 520, Bridge Replacement and HOV Project would not be built until this project is complete.

WSDOT is evaluating the No Build Alternative to provide a reference point for comparing the effects, both positive and negative, associated with the proposed project.

What are the key points of this technical memorandum?

The greatest effects on visual quality and character in the Eastside study area would result from the following conditions:

- The northward shift in alignment at Evergreen Point, resulting in noticeable loss of several large trees and other vegetation.
- A widened highway throughout the corridor, bringing the highway closer to homes built along the right of way.
- The addition of continuous noise walls of varying heights (8 to 28 feet high) on both sides of the highway from Evergreen Point Road to Bellevue Way.
- The replacement of bridges at Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE with landscaped lids (the Bellevue Way bridge would be replaced with a wider bridge).
- The addition of two transit stops in the center of the highway at Evergreen Point Road and 92nd Avenue NE, which would include elevator towers and safety walls.

Overhead lighting, shade, and shadowing would be similar to existing conditions. Possible new sources of glare are the glass elevator shafts and reflective overhead canopies at the Evergreen Point Road and 92nd Avenue NE transit platforms; however, noise walls would probably block glare from reaching residences near the highway.

2. Methodology

What does the FHWA visual quality assessment method include?

The visual analyst used FHWA's visual quality assessment method for this analysis. This six-step evaluation process includes qualitative and quantitative analyses using a defined and accepted terminology and tools, as follows:

- Establish the project's visual limits ("viewshed").
- Determine who has views of and from the project ("viewer group").
- Assess the anticipated response of viewer groups looking at and from the project for both before and after the project ("viewer sensitivity").
- Describe and assess the landscape conditions that exist before the project ("landscape units").
- Determine and evaluate before and after views looking toward and away from the project ("evaluation matrix" and "visualizations") within the context of the viewers and their relative sensitivity.
- Describe the potential visible changes to the study area that would result from the proposed alternatives and identify potential mitigation options.

The visual quality and aesthetics study team followed the first three steps to establish the baseline conditions of the existing landscape and to determine how much of the project would be visible from outside the study area (see Section 3, *Affected Environment*). From this baseline, the study team assessed potential changes to the visible landscape and likely viewer responses to those changes (see Section 4, *Potential Effects of the Project*). The team also evaluated light, shadow, and glare that could result from the alternatives. After evaluating potential effects, the analyst described and recommended potential mitigation measures (see Section 5, *Mitigation*).

What specialized tools or vocabulary are used for this method?

As introduced above, FHWA uses an accepted set of assessment tools and a well-defined terminology to evaluate the conditions that exist before the project and that are likely to be created by the project. The four tools used are viewsheds, landscape units, numeric ratings, and visualizations, which will be defined below. Once the tools and terminology become familiar, the FHWA method and its results are straightforward and understandable. The following terminology is used throughout this report:

- **Viewers:** people who have views of or from the project, usually discussed in terms of activity categories such as resident, boater, jogger, or motorist, which are referred to as "viewer groups."
- **View:** a scene or area that can be seen *from* or *of* the project area from the surrounding neighborhoods and communities. Sensitive or special views, some of which are listed in municipal codes, are identified for use in visualizations.
- **Viewpoint:** the location of the viewer. For example, a motorist (viewer) at the Evergreen Point Road/76th Avenue NE overcrossing (viewpoint) has a view of Lake Washington and the Olympic Mountains, which are visual resources.
- **Viewshed:** the total area of all the views that can be seen from the project and conversely, all of the project area can be seen from the surrounding area.
- Landscape units are smaller areas within the study area that have a distinguishable visual character from one another.
- **Viewer sensitivity:** a combination of the following factors for a specific view:
  - What viewer groups have that view?
  - How long does the view last? Motorists typically have short-duration views due to the motorist's rate of movement through the landscape, while pedestrians and residents have longer-duration or continual views.
  - What are the viewer groups' likely levels of concern about the appearance, aesthetics, and quality of the view? Level of concern is a subjective response that is affected by factors such as the visual character of the surrounding landscape, the activity viewers are engaged in, and their values, expectations, and interests.

The term "low viewer sensitivity" is used when viewers are not particularly concerned about the view being considered, or, when few viewers experience the view. The term "high viewer sensitivity" is used when many viewers observe a view frequently or for a long time, or when they are very aware of and concerned about the view. Viewer sensitivity does not imply support for or opposition to a proposed project; it is a neutral term that is an important parameter in assessing visual quality.

- **Visual character**: an impartial description of the landscape, defined by the relationships between the existing visible natural and built landscape features. These relationships are considered in terms of dominance, scale, diversity, and continuity.

The following are the character-defining visual landscape features that are identified and discussed during an assessment:

  - Landforms: types, gradients, and scale
  - Vegetation: types, size, maturity, and continuity
  - Land uses: size, scale, and character of associated buildings and ancillary site uses
  - Transportation facilities: types, sizes, scale, and directional orientation
  - Overhead utility structures and lighting: types, sizes, and scale
  - Open space: type (for example, parks, reserves, greenbelts, and undeveloped land), extent, and continuity
  - Viewpoints with views of visual resources
  - Water bodies, historic structures, and downtown skylines
  - Apparent "grain" or texture, such as the size and distribution of structures and undeveloped properties or open spaces of the landscape
  - Apparent upkeep and maintenance

Example of high vividness

Example of high intactness

- **Visual quality** describes the level of excellence of selected views. The visual quality assessment asks several questions and evaluates before and after-project quality using descriptions and numeric ratings. The questions asked are: Is this view common or memorable? Is it a pleasing composition (with a mix of elements that seem to belong together) or not (with a mix of elements that either do not belong together or are eyesores that contrast

Example of high unity

with the other elements in the surroundings)? The answer are expressed in these terms:

- **Vividness** is the degree of memorability, or distinctiveness of the landscape components. For example, a view across Lake Washington can have high vividness because it is a memorable sight.
- **Intactness** is a measure of the presence of or freedom from encroaching elements that disrupt a natural or otherwise cohesive condition. For example, an unbroken expanse of native vegetation would have high intactness because the landscape is not broken up by features that appear mismatched or out of place. This factor can be present in urban and suburban landscapes, as well as in rural and natural settings.
- **Unity** is the degree of visual coherence and compositional harmony of the landscape view considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape.

3. Affected Environment

How was the visual assessment information collected?

The visual quality and aesthetics study team visited the entire proposed project corridor several times to conduct quantitative assessments and qualitative surveys of existing landscape conditions. The study team reviewed project engineering plans and documents, U.S. Geological Survey maps and geographic information system (GIS) maps to understand existing and project-created future conditions. The team also reviewed community planning documents and codes to understand local aesthetic preferences and to help identify views or routes requiring special consideration because of their scenic or community value. The study team also reviewed information from other reports for this environmental assessment.

The **visual quality assessment matrix** is an evaluation tool that assigns a numeric rank to physical aspects of specific views.

The study team used a quantitative visual quality assessment matrix (see Attachment 1) to evaluate visual quality. This matrix lists the numeric ratings assigned to visual quality parameters and landscape components for selected views in the study area. Some of the evaluation viewpoints coincide with visualization and snapshot viewpoints.

The team used photograph-based visualizations and single frame snapshots from a video fly-through to supplement the viewshed and landscape unit analyses. These are computer-generated images that illustrate the before and after views as seen from a pedestrian's or motorist's viewpoint. Visualizations are computer-generated images where the proposed structures are superimposed on a photograph of the existing view. The single frame snapshots are computer-generated animations of the project and the surrounding landscape. These are used for locations where it was difficult or not possible to take a photograph. Both types of images help the study team and concerned parties understand the changes in visual character and quality that result from the project. In Exhibit 2 visualization viewpoints are labeled "V-#" and the snapshots labeled with "S-#".

What governmental regulations apply to the views and visual characteristics in the study area?

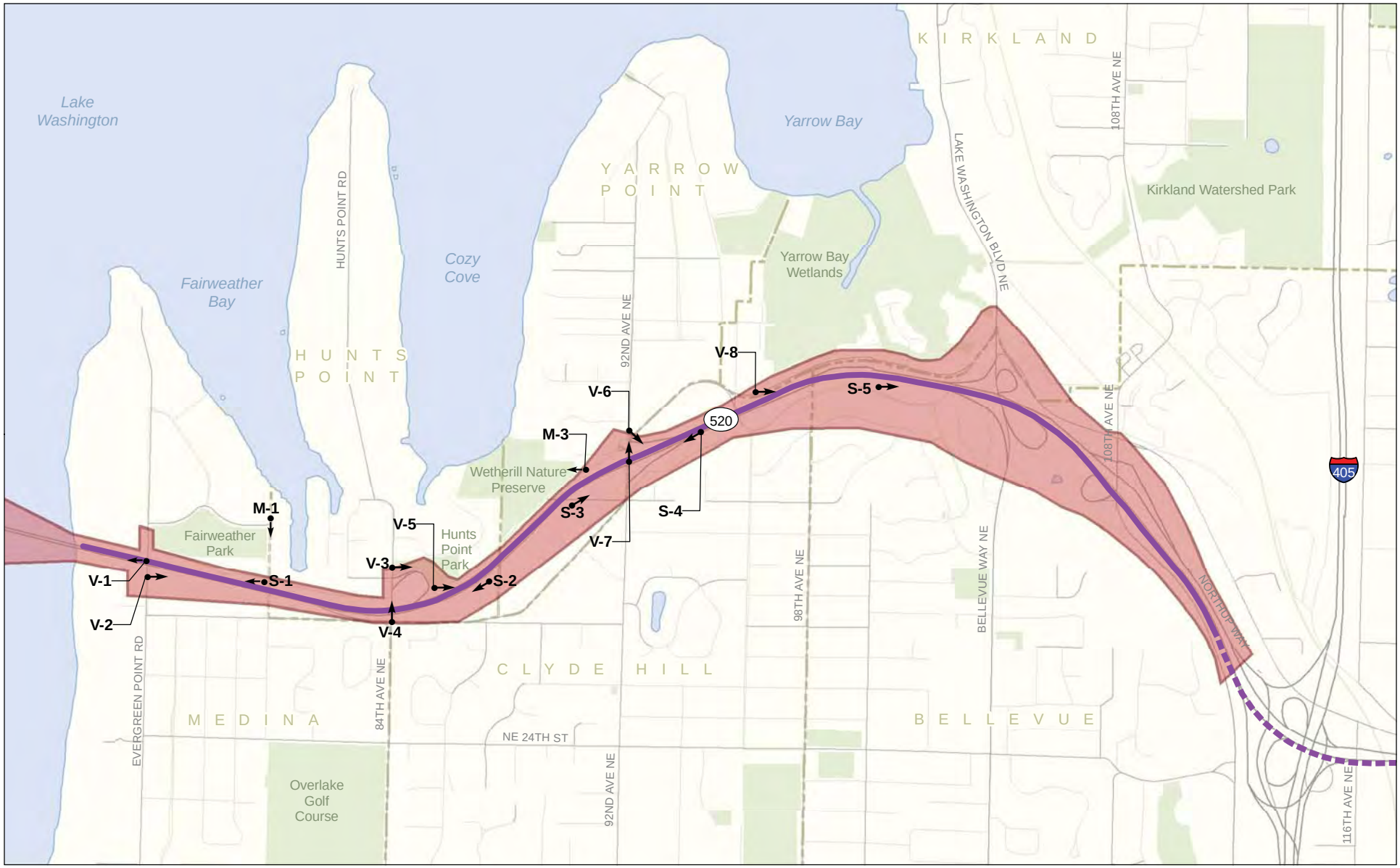
No regulations define or protect specific views in this viewshed; however, the federal and state codes listed in Section 1 of this technical memorandum offer guidance on how to include visual quality and aesthetics in an environmental assessment process. In the SR 520 Eastside project area Fairweather Park, Hunts Point Park, Wetherill Nature Preserve, and Yarrow Bay wetlands are important contributors to visual character and quality and have protection as parks and nature preserves under 4(f) and 6(f) regulations. The Social Elements Technical Memorandum (WSDOT 2009a) describes the potential project effects on parks.

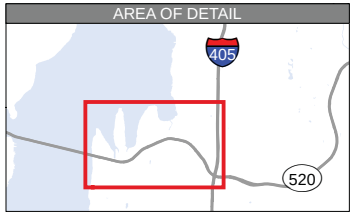
The study team reviewed community plans from nearby cities to determine what each community deemed to be of visual or scenic importance. Plans for Medina, Hunts Point, and Yarrow Point indicate that the main concerns of these communities are preservation of views of Lake Washington and the visual importance of large trees or stands of trees. All of the communities have provided input to the project team in discussions of transit and lids across SR 520 at the four bridges. The main points of the community plans are summarized below.

The *Town of Hunts Point Vision 2005 Strategic Plan* (Town of Hunts Point 2002) specifically mentions the desire for continued participation in the planning process of the SR 520 corridor. Of specific interest to Hunts Point residents is the inclusion of lids, noise walls, and landscaping; preservation of the Points Loop Trail; and protection of nature reserves as part of any changes to the SR 520 corridor.

The *City of Clyde Hill Comprehensive Plan* (City of Clyde Hill 2002) provides guidelines for land use that address neighborhood character, aesthetics, natural environment, open space, and “significant” trees and vegetation. Clyde Hill residents also are interested in lids over SR 520, as well as the integration of bicycle and pedestrian pathways into transportation corridors. Clyde Hill residents support a bicycle/pedestrian path in the SR 520 right of way and envision a “system of greenbelts adjacent to 520” and an “expressway nature trail” along SR 520 from 92nd Avenue NE to 96th Avenue NE.

Kirkland’s *Draft Comprehensive Plan 10 Year Update* (City of Kirkland 2004) describes the Lakeview neighborhood and Yarrow Bay wetlands as portals to the city and stresses the importance of the visual character and environmental sensitivity of this area, in particular the flood hazard zone and steep slopes of the Yarrow Bay wetlands.





Visualization Location and Direction

Construction Extent

Restriping Extent

Viewshed Boundary

Park

City Limits

N

0 500 1,000 2,000 Feet

Source: King County (2005) GIS Data (Street), King County (2007) GIS Data(Waterbody), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 2. **Eastside Viewshed and Viewpoint Locations**

Medina to SR 202: Eastside Transit and HOV Project

\\SIMBA\PROJ\PARAMETRIX\180171\GIS\MAPFILES\EA\VISUALQUALITY\EA_TM_VQ_VIEWSHED.MXD 10/22/2009

Medina and Yarrow Point plans do not address visual quality in the SR 520 corridor (City of Medina 1999; Town of Yarrow Point 2004). The *City of Bellevue Comprehensive Plan* (City of Bellevue 1993) does not specifically address SR 520.

What is the study area for the visual quality and aesthetics analysis?

Visual quality assessment uses two study areas: the project viewshed and landscape units. The viewshed was defined earlier as the aggregate surface area of what can be seen from and of the SR 520 project area. Viewshed boundaries are established primarily by landform and are modified by view-blocking vegetation and/or structures. If structures and vegetation are added to or removed from the study area as a result of the project then the viewshed would change. These changes can reduce or improve visual quality, which would be of concern to the affected viewers.

> A **viewshed** may be larger or smaller than the study area because geography and built and natural features determine what can and cannot be seen.

The Eastside viewshed is somewhat larger than the project area because SR 520 is visible from Lake Washington and hillside locations such as Clyde Hill, both of which are beyond the limits of the Eastside project area. The overall viewshed was first estimated by mapping the approximate limits based on topography, and then refined to account for existing vegetation and structures that limit views into or out of the project area (Exhibit 2). The project area east of 108th Avenue NE was not included in the viewshed because restriping the highway would not affect vegetation or structures and, therefore, would not have an effect on visual quality or character.

The second study areas, landscape units, are portions of the viewshed that have distinctive visual traits and visual continuity. Each landscape unit has a distinct visual character determined by the landscape and land uses. They appear as outdoor ‘rooms’ that one drives through along the corridor. Two landscape units were identified: the “Points landscape unit”, between Evergreen Point Road and Bellevue Way, and the “Mixed Use landscape unit” between Bellevue Way and just east of the 108th Avenue interchange.

Who would be affected by changes in views and visual quality in the study area and how sensitive are they to the changes?

People who would be affected by changes in the visual quality or character of their views are collectively referred to as viewers. Viewers are grouped by activity (such as resident or commuter) because viewer activity and expectations affect their awareness of and sensitivity to views. There are two categories of viewers – those with views of SR 520 and those looking outward from the highway. Viewer groups with views of the highway include residents, people engaged in recreation or visiting the area, employees and clients of businesses, and cyclists, pedestrians, and motorists on neighborhood streets and bridges that span SR 520. The viewer group with views outward from SR 520 consists of motorists, which includes transit riders, commuters, tourists, and others using vehicular travel. In this document the terms “commuter” and “motorist” refer to anyone driving or riding in a vehicle of any kind. A commuter is distinguished from a motorist by the regularity of the former’s daily travel along the same route.

> **Sensitivity** is affected by the activities the viewers are engaged in; the surrounding visual environment; and their values, expectations, and interests.

SR 520 motorists form the largest viewer group because of the large volume of traffic on SR 520 passing between the SR 520 floating bridge and I-405. This means that the majority of all viewers have viewpoints from SR 520. At standard highway speeds views are of short duration so that motorists in general and drivers in particular have only fleeting awareness of their surroundings. Motorists who frequently and/or regularly travel a highway such as commuters or service providers can become desensitized to their surroundings because of its familiarity. All of these factors combine to result in an overall lower visual sensitivity for commuters and drivers. However, passengers and transit riders may have higher sensitivity to view quality because they are free to look around and observe their surroundings. Transit riders have the added benefit of being above view-blocking traffic barriers and therefore have better views than those available from cars. Visual sensitivity is generally higher for people who are driving for pleasure, such as tourists or people heading to recreation activities. These viewer groups will have higher sensitivity to views whether they are looking from or toward the highway.

Of the viewer groups with views toward the highway, residents are considered to have the highest sensitivity because they have sustained and long-term views from their homes and neighborhood. Other viewer groups with views of SR 520 are people taking part in recreation activities such as trail and park users, visitors, and tourists. These groups tend to have moderate to high sensitivity to views because they are engaged in an activity for the pleasure of the experience. Cyclists, pedestrians, and park users tend to move slowly enough to observe their surroundings and will be inclined to do so. All of these viewers groups are likely to be concerned about changes in the visual quality of the landscape. These locations include the Points Loop Trail, Fairweather Park, Hunts Point Park, and the Wetherill Nature Preserve.

The third viewer group with views toward the highway comprises clients and employees of businesses or activity centers near the highway. Travelers here are likely to be focused on traffic and on reaching their destinations safely. This group could have extended view durations, but are likely to have moderate or even low sensitivity because they are primarily focused on their activities and, in the case of employees, tend to become accustomed to the traffic and views of the highway. Such locations in the SR 520 corridor include Bellevue Christian School students and the businesses east of Bellevue Way.

What is the current visual character of the study area?

Visual character is an objective description of the elements in a landscape unit, the relationships between the elements, and the patterns they form. Landscape elements include land and water forms, vegetation, development, and transportation and utility facilities. The visual character analysis was also informed by the WSDOT roadside classification plan, which classifies the character of the state highways

Looking south along 92nd Avenue NE bridge over SR 520

according to their landscape context. SR 520 is classified as semi-urban between Interstate 5 (I-5) and I-405, where this study area lies, and as rural east of I-405. The semi-urban roadside is defined by WSDOT as a transitional landscape where development begins to dominate over natural elements.

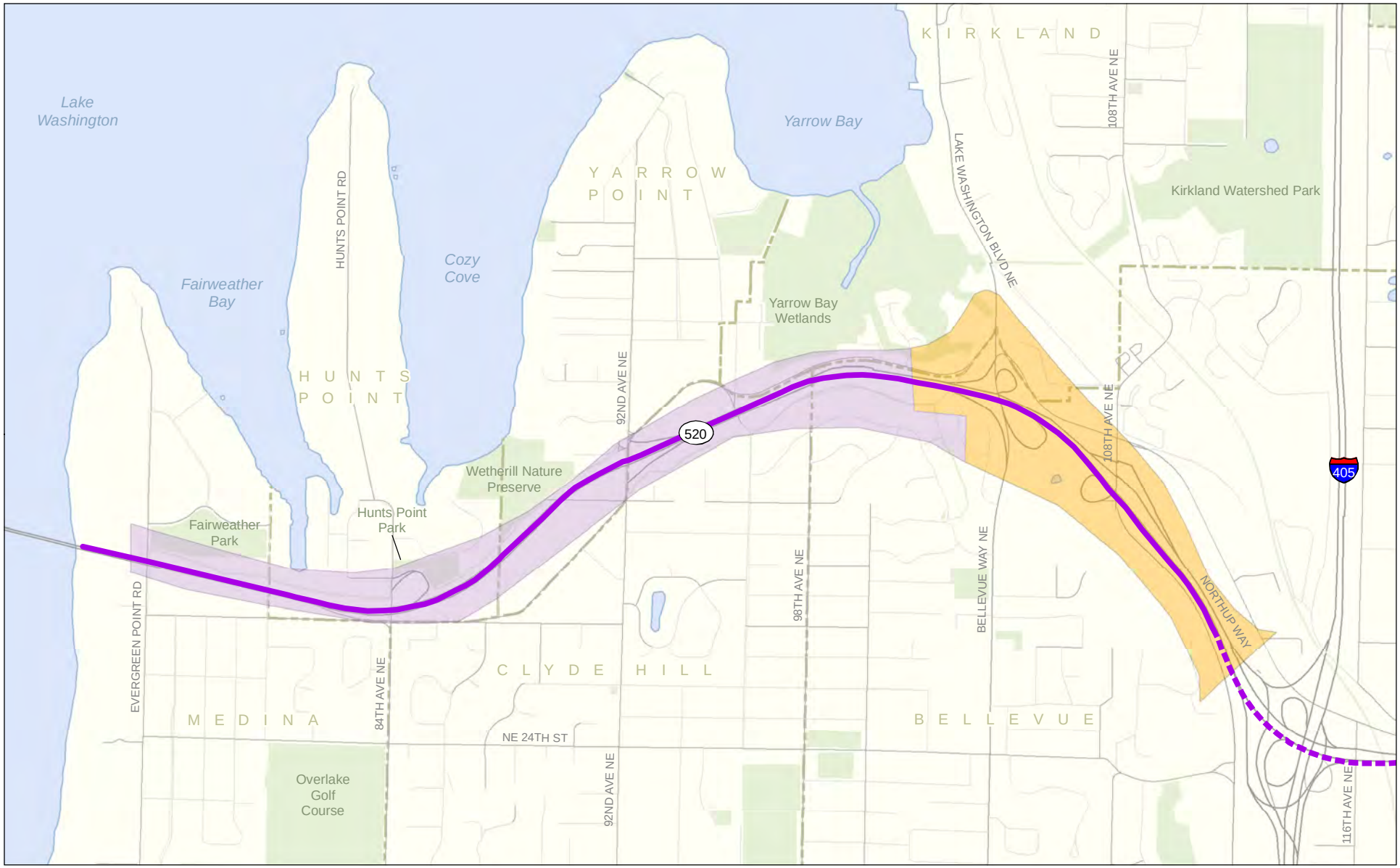
Based on site visits and previously described analyses the study team identified two landscape units (Exhibit 3). The "Points landscape unit", between Evergreen Point Road and Bellevue Way, and the "Mixed Use landscape unit", between Bellevue Way and just east of the 108th Avenue interchange. The sections below briefly describe the visual character of each landscape unit. Recall from an earlier discussion that visual character is the composite of landform, vegetation, land uses and development, transportation facilities, overhead utility structures and lighting, parks and undeveloped natural areas, water bodies, and viewpoints with views of visual resources.

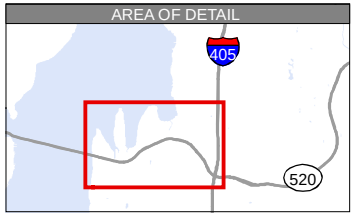
Points Landscape Unit

The rolling terrain of the Points communities is the primary character-defining attribute of Points landscape unit. The terrain is characteristic of a glacial north–south trending ridge-and-valley system. The ridges and valleys slope down into the Lake Washington basin, submerging the valleys and creating a distinctive, alternating ridge–and-bay landform (Exhibit 3). SR 520 mostly follows the rolling landform in sweeping curves, with some highway segments cut into the ridges to level the road grade. Bridges at Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE provide needed north–south connections and act as subtle landmarks for the Medina, Hunts Point, Clyde Hill, and Yarrow Point communities, respectively. A pedestrian overpass near Bellevue Christian School–Three Points Elementary connects the school to the Points Loop Trail and Fairweather Park on the north side of the freeway. The four bridges create a rhythm of visual elements for the motorist on SR 520 without being intrusive. Other visual elements along the highway consist of glare screens, electrical vaults, freeway light posts, and sign structures, but this equipment does not create visual clutter for the motorist because the dense tree buffer along the highway reduces their presence.

Naturalized trees and shrubs are the secondary character-defining features of the Points landscape unit. From Evergreen Point Road in Medina to Bellevue Way, the SR 520 corridor is densely and continuously lined with a mix of deciduous trees and conifers. The tall wooded edge creates a sense of enclosure and channels the motorist's views forward along the highway. Views from the highway are for the most part short to moderate distance because of the highway curves, the rises and falls of the ridge-and-valley system, and the density of the tree buffer. Motorists' views are also constrained by the headlight glare screens on medians between traffic directions. These screens can hide views of the on-coming traffic lanes without blocking views of trees on the opposite side, making the highway in these places feel narrower and more rural.

In the neighborhoods and outside of the highway the tree canopy is nearly continuous and consists of moderate- to large-sized wooded open spaces and parks, street trees, and highly diverse residential plantings. The continuity and dominance of the tree canopy is in large measure due to Fairweather Park and Nature Preserve, Hunts Point Park, the Wetherill Nature Preserve, and the Yarrow Bay wetlands (Exhibit 2) being adjacent to SR 520.





Construction Extent

Restriping Extent

Mixed Use Landscape Unit

Points Landscape Unit

Park

City Limits

N

0 500 1,000 2,000 Feet

Source: King County (2005) GIS Data (Street), King County (2007) GIS Data(Waterbody), CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 3. **Landscape Units**

Medina to SR 202: Eastside Transit and HOV Project

\\SIMBA\PROJ\PARAMETRIX\180171\GIS\MAPFILES\EA\VISUALQUALITY\EA_TM_VQ_LANDSCAPEUNIT.MXD 10/22/2009

Shrub thickets (predominantly Himalayan blackberry) merge with the tree buffer to partially screen the Points Loop Trail, parks, and residences from the highway. Conversely, the trees screen views of SR 520 from the Points neighborhoods. Many residences are on higher ground than the highway, but views from hillside homes tend to be screened by the tree canopy from late spring to late fall when the deciduous trees are fully leafed out. Homes next to the highway are screened by terrain elevation differences, backyard fences, and/or hedges.

Looking north across SR 520 at pedestrian bridge in Hunts Point

The tree-lined channel of the highway widens at the Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE overcrossings because of additional on and off lanes or ramps. SR 520 at Evergreen Point Road and 92nd Avenue NE is wider because of transit-only pull-off lanes and bus stops. The stops in themselves do not have much visual presence for the users or for passing motorists, even with small covered shelters, but the pull-off lanes noticeably increase the dominance of the highway from the motorist's viewpoint. A paved park-and-ride at Evergreen Point Road and south of SR 520 occupies the slope between the northwest corner of the elementary school play yard and SR 520. The park-and-ride and the original tolling buildings located near the east bound bus stop contribute to the highway's overall visual dominance in this area.

Development in this landscape unit consists primarily of single-family residences on large lots, waterfront residences with private docks in the bays and on Lake Washington, a few small commercial establishments, and an elementary school complex. On the north side of SR 520 development is along residential streets that wind and curve to accommodate the shoreline. Moreover, most development is at a lower elevation than SR 520, so there are few long views of SR 520 from the neighborhoods other than along the main north-south streets than contain views of the highway. South of SR 520 the terrain is generally above SR 520 and the streets follow a grid pattern that permits longer distance views from the neighborhoods toward SR 520 and regional views.

Typical tree screen along SR 520 in Hunts Point

The portion of Points Loop Trail that runs along the north side of SR 520 between Evergreen Point Road and 92nd Avenue NE is a simple asphalt path that winds through the greenbelt along the highway. For most of its route the trail is below the grade of the highway and shielded from the road by berms and slopes. The greenbelt further screens the trail from the freeway and imparts a pleasant,

rural visual character to its users. Near Hunts Point Park and Evergreen Point Road bus stops the trail is at the same level as the highway and the vegetative screen decreases to a level where SR 520 and the trail are exposed to viewers from either viewpoint.

Mixed Use Landscape Unit

The Mixed Use landscape is distinct from the Points landscape unit because the rolling, wooded channel of SR 520 in the Points landscape unit levels off to a wider, straighter highway just east of the Lake Washington Boulevard NE/Bellevue Way NE interchange. SR 520 straightens just west of the 108th Avenue NE interchange and widens because of the extra lanes and ramps for the Bellevue Way, 108th Avenue NE, and I-405 interchanges.

Development style along SR 520 also changes here, from rural residential to a mixture of uses and architectural styles that give the Mixed Use landscape unit a suburban character. Development on the north side of SR 520 is a highly diverse mix of small- to moderate footprint restaurants and office buildings near Lake Washington Boulevard, and a WSDOT maintenance facility and large multifamily complexes near 108th Avenue NE. Most of the commercial buildings are relatively new, low-rise structures of one to five stories in a wide range of architectural styles, with landscaped grounds and parking lots in front of the buildings. Development on the south side of SR 520 consists primarily of large, homogeneous business parks with well-manicured landscaping and parking lots near 108th Avenue NE and a large condominium complex near Bellevue Way.

The highway is the dominant visual feature for motorists in the Mixed Use landscape unit because of its greater width and longer range views. Views in the Mixed Use landscape unit are more open than the Points landscape unit up to the I-405/SR 520 interchange because wooded slopes are farther from the highway and trees along SR 520 are of various ages, densities, and heights. The dense, continuous tree border of the Points landscape unit gives way to interrupted bands of tree buffers, maintained roadside shoulders with mixes of grasses and shrubs, and stormwater ponds with relatively new shrub and tree plantings. Continuous bands of large trees tend to border on and off ramps. Because of the variability in vegetation heights and continuity, motorists on SR 520 in this area have partial views of the taller Northup Way buildings and billboards, and the business parks and condominiums to the south. Conversely, SR 520 is a part of views from those locations as well.

Highway traffic equipment consisting of electrical vaults, freeway light posts, signs, and sign bridges is commonly seen by motorists in the Mixed Use landscape around the interchanges. Signs and billboards on Northup Way are also visible from the highway and contribute to an overall increase in visual clutter. The absence of headlight glare screens means that all six (or more) traffic lanes are visible to the motorist and become the dominant element in any of their views.

What is the current visual quality of the study area?

Visual quality is a way of rating and describing the degree of excellence, memorability, and visual integrity of a landscape. Visual quality is rated on a scale from low to high, with a low rating generally indicating a discordant view or one lacking distinction and

> **Visual quality** describes the aesthetic level of selected views in the viewshed in terms of vividness, intactness, and unity, as defined earlier in this report in Section 2, *Methodology.*

a high rating indicating a memorable and harmonious view (Exhibit 4). Assessing likely viewer responses to these views is part of the rating process.

Exhibit 4. Definitions of Visual Quality Descriptors

Descriptor	Vividness	Unity	Intactness
Low	Low vividness indicates a landscape that lacks distinction or is nondescript.	Low unity indicates that the built features of a landscape do not fit with the natural or existing setting or from one built feature to another.	Low intactness indicates that the integrity of the landscape is greatly reduced, either by the loss of large portions of a landscape from the view or the prevalence of incompatible elements. The incompatibility can result from conflicting scales, colors, or purposes, among others.
Average	Average vividness indicates the presence of some features that create a somewhat memorable view.	Average unity indicates that built features are somewhat harmonious with the existing setting and blend with the built environment context.	Average intactness indicates the presence of some features that are not compatible with the existing landscape, or a loss of part of the landscape.
High	High vividness indicates the presence of a dominant feature or a collection of features that are distinctive and create a very memorable view.	High unity indicates that the visual elements of a landscape are in balance and harmony with each other. High unity attests to the careful design of individual components and their relationship in the landscape and to each other.	High intactness indicates that the landscape is highly natural and elements fit into the visual setting (size, color, texture, form).

The study team selected viewpoints for views from and toward the project that could be used for visualizations and/or evaluation points. Quantitative evaluations are conducted early in the assessment process and help the study team understand the scope of changes in the visual quality parameters of vividness, intactness, and unity. Visualizations are tools that become available during the assessment and very helpful for disclosing expected project effects. Four primary criteria were used to select the viewpoints (listed in Exhibit 5):

- The view is typical of the project area and is a public location with many sensitive viewers nearby and can be seen by major viewer groups.
- The view represents moderate to high changes to visual quality or character of scenic views, historic buildings, designated viewpoints, or view corridors and is a location with sensitive viewers.
- The view is for an identified viewer group and represents what a person walking, driving, or riding would see (no bird's-eye views). The motorist's view from the highway is considered from both directions of travel.

- A substantial portion of the highway is visible from the viewpoint. This criterion does not include partial views of the highway unless that partial view is visually dominant because of the scale of the change in the visual landscape that may result from the project.

Exhibit 5. Location and Description of Visualization and Snapshot Viewpoints

Exhibit Number	View	Primary Visual Effects	Viewpoint Number
A-1	Looking east along SR 520 at west portal of Bellevue Way bridge	Wider highway; addition of noise walls	S-5
A-2	Looking east along NE Points Drive from west edge of Yarrow Bay wetlands	Loss of tree buffer; addition of walls and wider highway	V-8
A-3	Looking west along SR 520 toward east portal of Evergreen Point Road lid	Wider highway; addition of center transit stops and noise walls	S-1
A-4	Looking east along Points Loop Trail from vicinity of Hunts Point tennis courts	Convergence of regional path and Points Loop Trail; addition of noise walls	V-5
A-5	Looking west along SR 520 toward east portal of 92nd Avenue NE lid	Addition of planted median and terraces	S-4
A-6	Looking west from mid-span of Evergreen Point Road overcrossing	View from west part of Evergreen Point Road lid	V-1
A-7	Looking northeast at entrance of Evergreen Point Road park-and-ride	Addition of landscaped lid and transit plaza; elevated, landscaped park-and-ride lot	V-2
A-8	Looking east from SR 520 at west portal of 92nd Avenue NE lid and transit stops	Addition of landscaped lid, center transit stops, and retaining and noise walls	S-3
A-9	Looking southeast from entrance of westbound on-ramp at 84th Avenue NE	Removal of on-ramp and addition of landscaped open space	V-3
A-10	Looking north from south edge of 84th Avenue NE bridge over SR 520	Addition of landscaped lid	V-4
A-11	Looking southeast from westbound off-ramp at 92nd Avenue NE	Addition of round-about at 92nd Avenue NE and landscaped lid	V-6
A-12	Looking north along 92nd Avenue NE from bus stop	Addition of landscaped lid and transit plaza with bus stop and drop off area	V-7
A-13	Looking west along SR 520 at east portal of 84th Avenue NE lid	Addition of landscaped lid and noise walls; wider highway with regional path	S-2

Visualizations provide an accurate representation of the location and scale of proposed changes in relation to other objects as seen from those viewpoints. However, they are limited in what they can

convey because the camera's field of view can only approximate the human eye's single point field of view.

Quantitative evaluations of selected views yield numeric ratings for the details of those views for before and after the project. The difference between the before and after ratings indicate the direction (reduced/increased) and range (low to high) of the expected changes to visual quality for that view. . This information supplements the qualitative assessments and the qualitative and quantitative results are combined to obtain an overall statement of visual effects. The evaluation matrices provided in Attachment 1 contain the results of the quantitative visual quality rating analysis for sample viewpoints. Not all of the visualization viewpoints were given quantitative evaluations. The narrative below is a synthesis and discussion of the quantitative and qualitative results.

Points Landscape Unit

Visual quality in the Points landscape unit varies with location and for views of and views from SR 520. Overall visual quality of motorists' views from the highway range from moderately low to moderately high, depending on how well a stretch of highway fits with the surrounding landscape. The curving tree-lined highway is a pleasing drive because the highway maintains its tree-lined character while distant views change with every curve. Views of the highway from the communities range from moderately low to moderately high, also, because for the most part SR 520 is screened from view by vegetation primarily, but also by the variations of topography. It should be noted that local values and goals may confer visual importance on landscape components and areas that may otherwise appear unexceptional in a visual resource analysis.

Looking west along SR 520 from Evergreen Point Road overpass

The individual ratings for vividness, intactness, and unity determined the overall visual quality rating. With the exception of the view westward from the Evergreen Point Road/76th Avenue NE overcrossing, vividness of views from SR 520 is low to moderately low because there are no distinctive or memorable features. The dense tree screen is an attractive and defining visual element but is fairly uniform and is a typical landscape for this area. Vividness for views westward from SR 520 just west of the Evergreen Point Road bridge and from the overcrossing itself is moderately high because of the framed view across Lake Washington, of Husky Stadium and the Seattle shoreline in the middle ground, and of the Olympic Mountains in the distance.

Intactness ranges from moderately low to high for motorists' views on SR 520 depending on the changes in the width of the highway and the presence or absence of incompatible highway elements. Moderately low ratings are for the areas where the highway is widened for ramps and additional lanes and bordered by grass shoulders or berms. These features accentuate the inconsistency between the highway and the surrounding landform and vegetation. The moderately high ratings are for the areas where the highway is narrow (four lanes) and bordered by a continuous, dense band of trees, which

reduce the inconsistency between the highway and the landscape. Intactness for views of the highway from residences throughout the corridor ranges from moderate to high because SR 520 is not visible or only partially so from most locations. When it is visible it does not appear as an eyesore because it is in the distance or is sufficiently screened.

Unity is generally moderately high to high for motorists' views from SR 520 because the wooded edge frames forward views. The curves of the highway constrain views from the highway to short and moderate distances and the ascent and descent of the roadway create views of distant hillsides. The highway and trees are the dominant elements in the motorist's forward view, but the narrowness of SR 520 in most places maintains a balance between the two elements. With one exception, unity for residential and other views toward the highway ranges from average to high because the highway is only partially visible from most locations. The exception occurs at the view from Points Loop Trail at Hunts Point Park, which has an unobstructed view of SR 520.

Mixed Use Landscape Unit

Overall visual quality in the Mixed Use landscape unit varies with location and for views of and from SR 520. Overall visual quality for motorists' views from the highway ranges from low to moderately low, depending primarily on the width of the highway and the presence of visual clutter in the form of advertising and highway signs. The highway is bordered by vegetation of various ages, types, and sizes that allow intermittent views to and from businesses and condominiums around SR 520. Visual quality for views of the highway from the developed areas ranges from low to moderately low because the width of SR 520 makes it a noticeable part of the foreground and/or middle ground to varying levels depending on viewer group.

The individual ratings for vividness, intactness, and unity determined the overall visual quality ratings. Vividness in the Mixed Use landscape unit ranges from low to moderately low for all viewer groups because there are no memorable or distinctive architectural or landscape features that capture a viewer's attention.

For all viewer groups, intactness varies with location and ranges from moderately low to moderately high. The moderately low rating is for areas where large portions of the native land form were altered and vegetation was lost for construction of the highway and other development. Because of its width, interchanges, and lack of unifying roadside vegetation, SR 520 does not blend with or visually connect to its surroundings through this area. The moderately high rating is for areas where vegetation has matured and is of sufficient extent to frame or screen views from and toward the highway. In addition, views include the wooded slopes of Bridle Trails in the distance and Bellevue and Kirkland to the south and north, which combine to create the appearance of a more continuous canopy than actually exists. The rating was boosted by the quality of development south SR 520 because it appears to have followed the natural land form and includes well maintained formal landscapes.

For all viewer groups, unity is low to moderately low because the width, interchanges, visual clutter from traffic signage, and variability of unifying roadside vegetation, prevent SR 520 from blending with or visually connecting to its surroundings. The highway is the dominant element in the

motorist's forward view, and is not balanced by the scale of development or vegetation, or planted medians that might reduce the scale of the highway to create more harmonious short or long range views.

4. Potential Effects of the Project

The effects of the project on the visual quality and aesthetics of a landscape would differ according to changes in the following factors:

- The proposed width or elevation of the highway and resulting encroachment on adjacent landscapes.
- The proposed addition or removal of structures or vegetation.
- The degree to which new structures would contrast or blend with the existing landscape.

Visual quality changes due to construction activities and operation are discussed in the sections below.

How would construction of the project affect visual quality and aesthetics?

All viewer groups would experience changes to visual quality and character throughout the project area, whether looking from or toward the project. The most noticeable effects would occur at the four bridge areas and on the north side of SR 520 where most of the earthwork would occur for widening the highway and constructing the stormwater ponds. Construction of the new interchange at 108th Avenue NE would result in visual clutter in the driver's forward view and would be partially visible from some higher elevation viewpoints, such as the condominiums and business buildings.

Excavation and fill earthwork would occur throughout the corridor at different times, but most intensively on the north side for widening SR 520 and adding the regional bike path. Temporary retaining walls would be likely to have very different visual character from the naturalized slopes they are replacing. Earthwork and wall construction would result in extensive loss of mature roadside vegetation. The visual effects of these changes would be immediately noticeable to all viewer groups. All local viewer groups (residents, park visitors, and trail users) would be particularly sensitive to these changes to visual quality.

Some of the temporary construction walls would be quite tall and therefore visible to motorists, residents, and park and trail users. The east-bound off ramps and new segment of the Points Loop Trail to Bellevue Way (southbound) would require terraces with moderately tall walls for support. There would be a complete clearing of vegetation and extensive earthwork at the other corners (northwest, northeast, and southeast) of the new Bellevue Way interchange as part of the new fish-passage culverts installation and Yarrow Creek re-alignment. Terraced retaining walls from 20 feet to 60 feet high would be constructed to create room for the new stormwater pond system.

Variable and intermittent effects on visual character and quality would result from increased traffic congestion during construction, construction signage, and construction traffic. The presence of medium- and heavy-duty construction and demolition equipment would be out of character with this residential area and would detract from visual quality of accustomed views. Traffic slowdowns through the study area are not unusual, but the duration and frequency of such occurrences would probably increase. These effects would combine to create a great deal of visual clutter and variability.

Other visual effects could result from new light and glare sources. Light and glare could be increased locally by construction equipment, especially if work were performed at night. Subtle visual effects could result from dust and airborne debris from earthwork and construction. Taken as a whole these effects would be highly noticeable. The effects would be temporary because they would only be associated with construction, but could last from weeks to months.

How would operation of the project affect visual quality and aesthetics?

The SR 520 highway would become more suburban in character under the Build Alternative. Operation of the project could affect vegetation and views, and create new sources of shadow, glare, or light, which will be discussed in the following section. The major changes to visual character and quality are described in this section, and the changes in the visual quality ratings for vividness, intactness, and unity will be discussed at the end of each landscape unit subsection. Attachment 2 includes the visualizations referenced in the following discussion and labeled as ‘A.2-1’ through ‘A.2-13’.

Build Alternative

Points Landscape Unit

The greatest visual changes in the Points landscape unit would result from the following:

- Absence of the mature vegetative buffer along the highway.
- Presence of SR 520 close to homes that are built next to the WSDOT right of way.
- Presence of continuous noise walls of varying heights (8 to 28 feet high) on both sides of the highway from Evergreen Point Road to Bellevue Way.
- Presence of landscaped lids at Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE. The Bellevue Way bridge would be replaced with a wider bridge.
- Presence of two transit stops in the center of the highway on the east side of Evergreen Point Road and west side of 92nd Avenue NE, which would include elevator towers (35 to 45 feet tall) and safety walls.

From Evergreen Point Road to Bellevue Way/Lake Washington Boulevard E, the visual character and quality of SR 520 would change from that of a tree-lined corridor to a walled suburban highway (see A.2-1). This is not an inherently negative change, but in this case the changes would reduce vividness, intactness, and unity from their existing ratings for motorists in the area. The decreases would be due to the wider expanse of concrete, replacement of tall enclosing trees with continuous retaining and

noise walls, and the addition of landscaped lids at community crossings. Motorists, as well as a few residents with close proximity views of the highway, would be most affected by these changes. Highway design includes landscaping that is intended to soften the overall effect of the continuous walls. The Mitigation section below further discusses this type of design component.

The lids, which could create the feel of moving through a tunnel, at Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE would be a noticeable change from the simple rhythm of the existing overpasses and the openness of the corridor. Tall retaining walls at the lid portals would increase the presence and visual impact of the lids generally (see A.2-2). This increased presence would be further amplified by the transit stops in the center of the highway at Evergreen Point Road and 92nd Avenue NE. These transit stops would include 35- to 45-foot-tall elevator shafts, stairs, and protective walls between highway traffic and transit riders. These stops and new architectural features would create a more urban character at these two locations.

The transit stop elevators would be taller than other structures in the roadway and therefore visible to motorists on the highway. The protective walls and canopies over the passenger platforms would decrease the apparent width of the highway by interrupting the motorist's view, but would also create narrow channels for motorists. The total effect of the transit stops and lid tunnels would change in the visual character and scale of the highway, which would change motorists' experience as well. The motorist would drive through canyons of walls punctuated with tunnels (see A.2-3 and A.2-4).

The park-and-ride lot at Evergreen Point Road would be an improvement relative to the existing facility. Landscaping, lighting, and striping in the lot would organize the space, which would result in a more urban character and could improve visual quality for users of the facility as well as area motorists. Views of the landscaped lid and transit plaza architectural features would contribute to the overall increase in visual quality for community and transit users (see A.2-5).

For Evergreen Point Road and 84th Avenue NE the new lids could create stronger visual connections to adjacent parks by enhancing the entrances or providing viewpoints (see A.2-6). At the 84th Avenue NE lid, the removal of the westbound on-ramp would allow the creation of a park-like open space that would visually and physically connect to Hunts Point Park (see A.2-7) and the Points Loop Trail. At the 92nd Avenue NE lid, a new landscaped roundabout could contribute to a more defined sense of community gateway for Yarrow Point and Clyde Hill (see A.2-8).

Views from the communities' sides of the Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE overpasses would improve because lid landscapes and pathways would replace the existing narrow sidewalks and direct views of SR 520 below (see A.2-9 and A.2-10). Motorists and pedestrians on the overpasses spanning SR 520 and regional path users are the primary viewer groups that would benefit from these changes in visual quality and character. However, lid edges (portals) would be visible to motorists on the highway and could contribute to the re-creation of a green-edged highway from motorists' viewpoints.

Views from residences, preserves, and park and trail users would also have a high level of change because the retaining walls would replace wooded slopes and would be quite tall in places (see A.2-11). The widened highway would move the Points Loop Trail northward and in places the trail would

be at the base of high walls (see A.2-12). The loss of trees and presence of unscreened walls would result in an observable reduction of intactness and unity ratings. The elevators could also be visible to residences at higher elevations if there are no screening trees or walls nearby.

Changes in visual quality due to project effects described above are reflected in the numeric ratings provided in the evaluation matrix (Attachment 1) for vividness, intactness, and unity. Vividness of views from SR 520 would slightly decrease from the existing conditions range of low/moderately low (2.0-3.0) to very low/low (1.0 to 2.0) after the project. The viewpoint at Evergreen Point Road could increase in vividness, from moderately high to high, because the viewpoint would be closer to the lake and would have a wider field of view until vegetation becomes tall enough to frame the view as it does now. Vividness of views toward SR 520 would not change.

Intactness for views from the highway would decrease from its range of moderately low/high (3.5 to 6.0) to very low/moderate (2.5 to 4.5) due to the greater width of the highway and the presence new, large highway elements. The new elements would not be compatible with a rural residential landscape. Intactness for views of the highway from residences would also decline from moderately high/high (4.0 to 7.0) to low/moderately low (2.5 to 4.5) due to the loss of screening vegetation, addition of stormwater ponds near residences, parks, and trails, and exposed retaining walls that are visible from their homes, the Points Loop Trail, and natural areas.

Unity for motorists' views from SR 520 would also decrease from its range of low/moderately high (2.0 to 5.0) to low/moderately low (2.0 to 3.0) due to the loss of wooded roadside edge that frames forward views and acts as a unifying feature. Unity for residential and other views toward the highway would decrease from moderate/high (4.0 to 6.0) to low/high (2.0 to 6.0) due to the loss of screening vegetation, addition of stormwater ponds, and exposed retaining walls.

Mixed Use Landscape Unit

The most noticeable visual changes in the Mixed Use landscape unit would be due to the absence of mature vegetation around Bellevue Way and the presence of 20 to 60 foot tall retaining walls for the Yarrow Creek realignment and stormwater pond. The new interchange at Bellevue Way would result in moderate changes in visual character or quality for all viewer groups in this landscape unit because the widening and new or removed ramps would be consistent with the character of the existing highway facilities (see A.2-13). However, part of the retaining wall for stormwater pond I3 on the southeast side of Bellevue Way could be up to 60 feet, which would be a large change from the remaining with the wooded slopes south of the pond. If unscreened by tall trees the wall would be the dominant feature in west-facing views for motorists and south-facing views from some locations along Northup Way. The new stream and ponds would be visible until their vegetation matured and created a more natural appearance.

The new 108th Avenue NE interchange would have center on/off-ramps that would interrupt the current concrete plane of the highway. The new ramp configurations and signage would create a more complicated visual field than now exists, and these features would establish a more urban character in this area.

Changes in visual quality due to project effects described above are reflected in the numeric ratings provided in the evaluation matrix (Attachment 1) for vividness, intactness, and unity. Vividness would not change from its range of low/moderately low (1.5 to 3.0) for views from or toward the highway. Intactness would decrease slightly within its range of moderately low/moderately high for views from and toward the highway because of loss of vegetation near Bellevue Way. Unity would also decrease from its range of low/moderately low because of the combined effects of loss of vegetation, earthwork, and new center ramps to 108th Avenue NE.

No Build Alternative

Under the No Build Alternative visual quality would remain as it is today because no buildings, bridges, or vegetation would be removed as part of the No Build Alternative and landscaped lids and noise walls would not be constructed. No new sources of light, glare, or shadow would be introduced in the Eastside study area under the No Build Alternative because transit stops and new traffic management signage would not be built. It is assumed that the structures, highway, and vegetation at the road edge would be maintained in their current condition. The main agent for change would be changes in vegetation that is visible from the highway, additional development along SR 520 in the Kirkland/Bellevue area, and the expected increase in traffic congestion.

Would the project create new sources of shadow, glare, or light?

Build Alternative

Points Landscape Unit

Glare, lighting, shade, and shadowing in the Points landscape unit would be different than existing conditions and possibly more noticeable. Increases in the amount of ambient and direct light in the corridor are likely to occur because of new or brighter sources in many locations. Highway lighting located along the outside edge of the highway rather than in the median would be closer to homes and create increased levels of ambient and/or direct illumination. Noise walls could block ambient or stray light in many locations and the lights would be shielded to minimize stray light.

Safety and guidance lighting would be installed at the transit stop areas including the plazas on top of the lids, the stairs and elevators to the transit platforms, and the waiting platforms at highway level. The new park-and-ride at Evergreen Point Road and drop-off area at 92nd Avenue NE would be illuminated, as well. All locations where pedestrians, bicycles, and vehicles cross paths would be lit and the bicycle tunnel under 92nd Avenue NE would have all-day lighting for safety purposes. These sources of light could be detectable from some of the residences near the lids, but all new light sources would be shielded or downcast to prevent stray light.

The loss of vegetation along the highway would eliminate the screening function of nighttime illumination provided by trees and shrubs. The new walls could block some stray nighttime light, but would also change the quality of daytime light and shadow on the trail, regional path, and landscapes adjacent to the highway. Vegetation provides a softer, filtered shade that varies with changes in foliage over the seasons whereas walls create a hard-edged and dense shade.

Transit stops will create complex shade/shadow conditions because of the architecture, lighting, and walls. The elevator shafts and overhead canopies at the Evergreen Point Road and 92nd Avenue NE transit platforms could be new sources of glare if glass or another reflective material is used. Glare from on-coming headlights would be screened by glare shields similar to that in place now or by planted medians.

The tunnels under the lids would introduce sudden changes in light levels for motorists. These effects would be addressed through lighting design to ease the transitions from light to dark and vice versa. Additional information on this can be found in the Transportation Discipline Report (2009c).

Mixed Use Landscape Unit

Overhead lighting, shade, and shadowing would be similar to existing conditions. No new sources of glare would be expected, and new walls would not affect light-shade conditions for residences. Outside of the highway, shade and shadowing could change because of the loss of vegetation in some locations.

No Build Alternative

No new sources of light, glare, or shadow would be introduced in the Medina to I-405 study area under the No Build Alternative.

5. Mitigation

How will adverse effects from construction be avoided or minimized?

Several best practices would be applied to minimize or avoid negative visual effects that could arise from construction of the project. Approaches for minimizing construction effects may include the following:

- Shield and/or construction site lighting to reduce the amount of light spilling onto nearby residences and businesses, especially for night-time work.
- Minimize visual obtrusiveness by locating construction equipment and stockpiled materials in areas that are less visually apparent and less visible from the road or to residents and businesses.
- Screen construction staging areas from view with opaque fencing or vegetation.

How will adverse effects from operation of the project be avoided or minimized?

The project would produce a wider, more suburban highway corridor with transit stops, continuous walls, more signage, different types of landscape, and different views. Several well-established best practices would be applied to minimize or avoid negative visual effects that could arise from operation of the project. Best management practices for minimizing operation effects may include the following:

- Preserve existing vegetation in the corridor to the maximum extent feasible.

- Provide landscaped planters adjacent to the highway to screen and/or minimize the presence of walls that are visible from the highway and from the communities.
- Replant or enhance roadside vegetation, street trees, and landscaping for screening or community identity and aesthetics.
- Limit visual effects on public parks and preserves by minimizing visible changes in the setting of the resource.
- Design tunnel lighting and plantings around tunnel entrances to help motorists' eyes adapt to the changes in light levels.
- Shield permanent facility lighting to reduce the amount of light spilling onto nearby residences and businesses.

In addition to the best management measures mentioned above, a number of additional approaches would be applied to minimize unavoidable effects. Many of these approaches are the result of a 3-year outreach process for developing aesthetic design goals and establishing conceptual engineering designs. The outreach process began in 2006 with a series of citizens' design advisory workshops and culminated in 2008 with a series of workshops at the jurisdictional level. The essential aesthetic goals deal with re-establishing the tree buffer that now screens views of the highway and is a highly valued characteristic of this area.

To minimize the visual changes resulting from the operation of the project the following approaches would be applied:

- Create visual unity and consistency throughout the SR 520 corridor by adhering to the agreed-upon vision of a naturalistic contemporary visual character.
- Design permanent facilities to meet agreed-upon aesthetic design goals by choosing harmonious and appropriate forms and colors, and minimizing the thickness or bulk of bridges and other structures. Other elements that should support aesthetic design goals include lighting, railings, sign bridges, structures, and walls.
- Use lids to enhance community connectivity across SR 520 and provide opportunities to enhance visual quality for all viewer groups.
- Treat the surfaces of walls that are visible from SR 520 with a pattern that would minimize the scale and lengths of the walls, be interesting but not distracting, and establish a distinctive character for the Medina to I-405 corridor.
- Design transit stops in a manner that is sensitive to the character of the rural residential context.
- Apply a pattern to the surface of walls and structures seen from the communities' side that responds to and blends with the existing visual character of the communities.
- Design the architecture of the transit stops to be appropriate for the character and scale of the Points communities.

6. Conclusion

The visual quality and character of the Medina to I-405 highway corridor would be different after completion of the project. The character of the roadway would be more suburban and the experience of both the motorist and the viewer of the freeway would be of a less natural-appearing landscape. The overall ratings of the roadway's vividness, unity, and intactness for all viewer groups would be diminished, although the rated visual quality of some portions of the roadway would improve for particular viewer groups. The mitigation measures that would be implemented as part of the project would help ensure as good a fit as possible for the project within the community.

7. References

City of Bellevue. 1993. *City of Bellevue Comprehensive Plan*. http://www.ci.bellevue.wa.us/departments/Development/pdf/cp_parks_hi.pdf, last updated November 2004, accessed December 18, 2008.

City of Clyde Hill. 2002. *City of Clyde Hill Comprehensive Plan*. http://www.clydehill.org/main/doc_library/CompPlan10-28-02.pdf, last updated October 28, 2002, accessed December 18, 2008.

City of Kirkland. 2004. *Draft Comprehensive Plan 10 Year Update*. http://www.ci.kirkland.wa.us/depart/planning/comp_plan.htm, last updated December 2004, accessed December 18, 2008.

City of Medina. 1999. *Draft Comprehensive Plan.* http://www.medina-wa.gov, last updated July 12, 1999, accessed July 20, 2004.

FHWA. 1989. V*isual Impact Assessment for Highway Projects*. FHWA-HI-88-054. 1981, reprinted 1989.

Town of Hunts Point. 2002. *Town of Hunts Point Vision 2005 Strategic Plan*. http://www.hunts-point.wa.us/Old/FiveYearPlan.htm, updated October 18, 2002, accessed July 20, 2004.

Town of Yarrow Point. 2004. *Title 18 Planning* (Comprehensive Plan). http://www.ci.yarrow-point.wa.us, updated June 1, 2004, accessed July 20, 2004.

WSDOT. 2004. *Environmental Procedures Manual, Section 459: Visual Impacts, Light and Glare*. http://www.wsdot.wa.gov/fasc/Engineering Publications/Manuals/EPM/459.pdf, updated March 2004, accessed July 20, 2004.

WSDOT. 2007. *Roadside Classification Plan*.

WSDOT. 2009a. *Social Elements Technical Memorandum; SR 520, Medina to SR 202: Eastside Transit and HOV Project*. November 2009.

WSDOT. 2009c. *Transportation Discipline Report; SR 520, Medina to SR 202: Eastside Transit and HOV Project*. November 2009.

Attachment 1

Visual Quality Assessment Matrix

The study team used a quantitative visual quality assessment matrix to evaluate visual quality. This matrix lists the numeric ratings assigned to visual quality parameters and landscape components for selected views in the study area. The ratings for each of the visual quality parameters – vividness, unity, and intactness – are given for each view, and the average is then calculated. The ratings are listed at the bottom of the page.

SR 520, Medina to SR 202: Eastside Transit and HOV Project

VISUAL QUALITY ASSESSMENT

VIEWS TO THE ROAD

Revised

10/27/2009

		Evergreen Pt Rd overcrossing		*Evergreen Pt Rd park-&-ride*		*78th Avenue NE*		*Points Loop Trail at 84th*		*Yarrow Wetlands*		*Points Loop at Wetherill*	
	VIEW UNIT NUMBER	**V-1**	**V-1**	**V-2**	**V-2**	**M-1**	**M-1**	**V-5**	**V-5**	**V-8**	**V-8**	**M-2**	**M-2**
	(E=existing, P=proposed)	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**
VIEW DISTANCE	FOREGROUND	√	√	√	√	√	√	√	√	√	√	√	√
	MIDDLE GROUND	√	√	√	√	√	√	√	√	√	√	√	√
	BACKGROUND	√	√	√	√							√	√
VIEWER POSITION	INFERIOR					√	√						
	LEVEL			√	√			√	√	√	√	√	√
	SUPERIOR	√	√										
VIVIDNESS	LAND	6.0	5.0	3.0	3.0	2.0	2.0	2.0	2.0	4.0	3.0	4.0	3.0
	WATER	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	VEGETATION	5.0	5.0	4.0	4.0	5.0	1.0	4.0	4.0	6.0	4.0	5.0	4.0
	MAN-MADE	5.0	5.0	1.0	5.0	4.0	2.0	1.0	2.0	1.0	3.0	1.0	3.0
	AVERAGE	**5.3**	**5.3**	**2.0**	**3.0**	**2.8**	**1.3**	**1.8**	**2.0**	**2.8**	**2.5**	**2.5**	**2.5**
INTACTNESS	MAN MADE	4.0	2.0	4.0	3.0	5.0	2.0	4.0	3.0	7.0	4.0	5.0	4.0
	NATURAL ENVIRONMENT	6.0	6.0	4.0	6.0	7.0	3.0	3.0	5.0	7.0	3.0	7.0	3.0
	AVERAGE	**5.0**	**4.0**	**4.0**	**4.5**	**6.0**	**2.5**	**3.5**	**4.0**	**7.0**	**3.5**	**6.0**	**3.5**
UNITY	**OVERALL**	**6.0**	**6.0**	**4.0**	**6.0**	**6.0**	**2.0**	**1.0**	**4.0**	**6.0**	**3.0**	**5.0**	**3.0**
	TOTAL VISUAL QUALITY	**5.4**	**5.1**	**3.3**	**4.5**	**4.9**	**1.9**	**2.1**	**3.3**	**5.3**	**3.0**	**4.5**	**3.0**

Evaluation Scale

VIVIDNESS

7= VERY HIGH
6= HIGH
5= MODERATELY HIGH
4= AVERAGE
3= MODERATELY LOW
2= LOW
1= VERY LOW TO NON-EXISTENT

INTACTNESS

(MAN-MADE)

7= NO DEVELOPMENT TO NON-EXISTENT
6= LITTLE DEVELOPMENT
5= SOME DEVELOPMENT
4= AVERAGE LEVEL OF DEVELOPMENT
3= MODERATELY HIGH DEVELOPMENT
2= HIGH LEVEL OF DEVELOPMENT
1= VERY HIGH LEVEL OF DEVELOPMENT

(NATURAL ENVIRONMENT)

7=VERY HIGH
6=HIGH
5=MODERATELY HIGH
4=AVERAGE
3=MODERATELY LOW
2=LOW
1=VERY LOW TO NON-EXISTENT

UNITY

7= VERY HIGH
6= HIGH
5= MODERATELY HIGH
4= AVERAGE
3= MODERATELY LOW
2= LOW
1= VERY LOW

SR 520, Medina to SR 202: Eastside Transit and HOV Project

VISUAL QUALITY ASSESSMENT

VIEWS FROM THE ROAD

Revised
10/27/2009

		Evergreen Pt Rd threshold		*84TH Ave NE - EB off*		*84th to 92nd*		*Evergreen Pt bus stops*		*92nd to 84th*		*Bellevue Way west portal*		*108th Ave EB*		*108th Ave WB*		*Bellevue Way east portal*	
	VIEW UNIT NUMBER	**MP 4.08**	**MP 4.08**	**MP 4.40**	**MP 4.40**	**MP 4.78**	**MP 4.78**	**MP 4.24**	**MP 4.24**	**MP 5.03**	**MP 5.03**	**MP 5.97**	**MP 5.97**	**MP 6.16**	**MP 6.16**	**MP 6.44**	**MP 6.44**	**MP 6.08**	**MP 6.08**
	(E=existing, P=proposed)	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**	**E**	**P**
VIEW DISTANCE	FOREGROUND	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	MIDDLE GROUND	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	BACKGROUND	√	√	√	√	√	√					√	√	√	√	√	√		
VIEWER POSITION	INFERIOR																		
	LEVEL	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	SUPERIOR																		
VIVIDNESS	LAND	3.0	1.0	4.0	1.0	2.0	1.0	4.0	1.0	2.0	2.0	2.0	2.0	1.0	1.0	3.0	3.0	1.0	1.0
	WATER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
	VEGETATION	4.0	2.0	5.0	4.0	4.0	3.0	4.0	3.0	5.0	5.0	4.0	4.0	2.0	2.0	5.0	5.0	2.0	2.0
	MAN-MADE	1.0	2.0	1.0	5.0	2.0	2.0	3.0	5.0	2.0	5.0	2.0	2.0	2.0	2.0	4.0	4.0	3.0	4.0
	AVERAGE	**2.0**	**1.3**	**2.5**	**2.5**	**2.0**	**1.5**	**2.8**	**2.3**	**2.3**	**3.0**	**2.0**	**2.0**	**1.3**	**1.3**	**3.0**	**3.0**	**1.5**	**2.3**
INTACTNESS	DEVELOPMENT	3.0	1.0	4.0	1.0	5.0	3.0	3.0	4.0	5.0	3.0	5.0	5.0	2.0	2.0	3.0	3.0	4.0	3.0
	ENCROACHMENT	4.0	2.0	7.0	5.0	7.0	5.0	6.0	3.0	7.0	6.0	5.0	5.0	3.0	3.0	5.0	4.0	5.0	5.0
	AVERAGE	**3.5**	**1.5**	**5.5**	**3.0**	**6.0**	**4.0**	**4.5**	**3.5**	**6.0**	**4.5**	**5.0**	**5.0**	**2.5**	**2.5**	**4.0**	**3.5**	**4.5**	**4.0**
UNITY	**OVERALL**	**2.0**	**1.0**	**5.0**	**2.0**	**5.0**	**3.0**	**4.0**	**2.0**	**6.0**	**4.0**	**3.0**	**2.0**	**2.0**	**2.0**	**3.0**	**2.0**	**3.0**	**4.0**
	TOTAL VISUAL QUALITY	**2.5**	**1.3**	**4.3**	**2.5**	**4.3**	**2.8**	**3.8**	**2.6**	**4.8**	**3.8**	**3.3**	**3.0**	**1.9**	**1.9**	**3.3**	**2.8**	**3.0**	**3.4**

Evaluation Scale

VIVIDNESS
7= VERY HIGH
6= HIGH
5= MODERATELY HIGH
4= AVERAGE
3= MODERATELY LOW
2= LOW
1= VERY LOW TO NON-EXISTENT

INTACTNESS
(MAN-MADE)
7= NO DEVELOPMENT TO NON-EXISTENT
6= LITTLE DEVELOPMENT
5= SOME DEVELOPMENT
4= AVERAGE LEVEL OF DEVELOPMENT
3= MODERATELY HIGH DEVELOPMENT
2= HIGH LEVEL OF DEVELOPMENT
1= VERY HIGH LEVEL OF DEVELOPMENT

(NATURAL ENVIRONMENT)
7=VERY HIGH
6=HIGH
5=MODERATELY HIGH
4=AVERAGE
3=MODERATELY LOW
2=LOW
1=VERY LOW TO NON-EXISTENT

UNITY
7= VERY HIGH
6= HIGH
5= MODERATELY HIGH
4= AVERAGE
3= MODERATELY LOW
2= LOW
1= VERY LOW

Attachment 2

Visualizations

These visualizations illustrate the changes in scale, massing, or form of the new structures or landscapes relative to existing conditions from the viewpoint of a person walking or motoring through a public space. These images represent views that

- are typical of other project views from a public location with sensitive viewers nearby;
- represent moderate to high changes to visual quality or character of scenic views, historic buildings, designated viewpoints, or view corridors;
- can be seen by a large number of sensitive viewers; and
- include a substantial portion of the roadway.

The team used photograph-based visualizations and single frame snapshots from a video fly-through to supplement the viewshed and landscape unit analyses. Both of these formats are computer-generated images that illustrate the before and after views as seen from a pedestrian's or motorist's viewpoint. Photograph-based visualizations are computer-generated images where the 3-D designs of the proposed structures are superimposed on a photograph of the existing view. This type of visualization has the advantage of illustrating the changes in a real setting.

Single frame snapshots are entirely computer-generated animations of the project and the surroundings. These are used for locations where it was difficult or impossible to take a photograph. In Exhibit 2 visualization viewpoints are labeled "V-#" and the snapshots labeled with "S-#". Both types of images help the study team and concerned parties understand the changes in visual character and quality that result from the project.

Visualizations

A-1 **Still 2** Looking west along SR 520 Mainline toward 84th Avenue NE

A-2 **Still 4** Looking west along SR 520 roadway toward 92nd Avenue NE lid

A-3 **Still 1** Looking west along SR 520 mainline toward Evergreen Point Road lid

A-4 **Still 3** Looking east from SR 520 mainline toward 92nd Avenue NE lid

A-5 **Viewpoint 2** Looking west from entrance of park-and-ride

A-6 **Viewpoint 1** Looking west from mid-span of Evergreen Point Road overcrossing

A-7 **Viewpoint 3** Looking southeast from westbound on-ramp at 84th Avenue NE

A-8 **Viewpoint 6** Looking southeast from westbound off-ramp at 92nd Avenue NE

A-9 **Viewpoint 7** Looking north along 92nd Avenue NE from bus stop

A-10 **Viewpoint 8** Looking east along NE Points Drive from west edge of Yarrow Bay wetlands

A-11 **Viewpoint 4** Looking north from south edge of 84th Avenue NE bridge over SR 520

A-12 **Viewpoint 5** Looking east along Points Loop Trail from vicinity of Hunts Point tennis courts

A-13 **Still 5** Looking east toward Bellevue Way from SR 520 mainline

Existing View

- 84th Avenue NE overpass
- Dense mix of conifer and decidous roadside tree screen
- Median headlight glare screens

Visualization

- Landscaped lid
- Regional Bicycle and Pedestrian Path meets lid

Exhibit A-1 SR 520 Mainline at 84th Avenue NE Lid – Still 2

Looking west along SR 520 Mainline toward 84th Avenue NE

Existing View

- 92nd Avenue NE overpass in distance
- Seattle skyline just visible above 92nd Avenue NE
- Partial conifer tree screen along SR 520

Visualization

- Terraced planters
- HOV in center lanes
- Addition of retaining walls with noise walls on top

Exhibit A-2 SR 520 Mainline at 92nd Avenue NE – Still 4

Looking west along SR 520 roadway toward 92nd Avenue NE lid

Existing View

- Mature trees line roadway
- Three Points Elementary School vicinity
- Bus flyover stops

Visualization

- Loss of mature roadside tree screen
- Addition of retaining walls and noise wall
- Transit station in center of SR 520
- Traffic management signs

Exhibit A-3 SR 520 Mainline Evergreen Point Road – Still 1

Looking west along SR 520 mainline toward Evergreen Point Road lid

Existing View

- 92nd Avenue NE overpass
- Dense mix of conifer and decidous roadside tree screen

Visualization

- 92nd Avenue NE landscaped lid and transit station at lid edge
- Elevator towers and stairways leading to covered waiting platform
- Addition of noise walls

Exhibit A-4 SR 520 Mainline at 92nd Avenue NE Transit Station – Still 3

Looking east from SR 520 mainline toward 92nd Avenue NE lid

Existing View

- Paved park-and-ride with capacity for 55 to 60 vehicles
- Adjacent to Bellevue Christian/Three Points Elementary School

---

Visualization

- Landscaped lid with transit plaza and elevators and stairs for access to transit station
- New striped park-and-ride lot at same level as lid surface
- Transit rider drop-off drive
- Space for 60 to 65 vehicles

Exhibit A-5 Evergreen Point Road Park-and-Ride - Viewpoint 2

Looking northeast from the entrance of park-and-ride

Existing View

- Evergreen Point Road floating bridge over Lake Washington
- Views to west of Lake Washington and Olympic Mountains
- Continous tree canopy and tree screen between SR 520 and adjacent residences

---

Visualization

- Overlook on the Evergreen Point Road lid
- Western portion of landscaped lid

Exhibit A-6 Lake Washington from Evergreen Point Road overcrossing - Viewpoint 1

Looking west from mid-span of Evergreen Point Road overcrossing

Existing View

- Westbound on-ramps and round-about at Hunts Point
- Mature street trees along west side of Hunts Point town hall (to left outside picture)

Visualization

- Westbound on-ramps removed and landscaped
- Open space provides greater connection to lid and Hunts Point Park
- Improved wayfinding for trail access and safety
- New round-about for traffic calming

Exhibit A-7 Hunts Point Town Hall Vicinity - Viewpoint 3

Looking southeast from westbound on-ramp at 84th Avenue NE

Existing View

- Westbound off-ramp from SR 520 to 92nd Avenue NE
- Well-established evergreen tree screens between residences and SR 520

Visualization

- New roundabout for traffic calming
- Improved pedestrian wayfinding, access and safety across lid
- Transit station access on west side of lid (off right side of picture)
- New pedestrian walkway spans eastbound on-ramp

Exhibit A-8 92nd Avenue NE Yarrow Point Roundabout and Lid in Yarrow Point - Viewpoint 6

Looking southeast from westbound off-ramp at 92nd Avenue NE

Existing View

- Stairs from drop-off area to 92nd Avenue bus stop at highway level
- Connection between Clyde Hill and Yarrow Point
- Pedestrian walkway only on northbound (east) side of bridge
- Overhead utilities

Visualization

- Transit rider drop-off drive with short-term waiting area
- Bus stop pull-out near transit plaza
- Clear sight-lines across transit plaza for user safety
- Gateways to Clyde Hill and Yarrow Point communities

Exhibit A-9 Yarrow Point – Clyde Hill Gateway and Lid - Viewpoint 7

Looking north along 92nd Avenue NE from south edge of lid

Existing View

- Wooded edge on steep slopes along south edge of Yarrow Bay Wetlands area
- Continuous conifer tree screen along SR 520

Visualization

- Loss of vegetation on SR 520 slopes
- Addition of noise walls
- Addition of regional bike path connecting to Lake Washington Boulevard East

---

Exhibit A-10 NE Points Drive at Yarrow Bay wetlands - Viewpoint 8

Looking east along NE Points Drive from west edge of Yarrow Bay wetlands

Existing View

- Active interchange with west-bound on ramp and east-bound off-ramp
- Gateway to Hunts Point
- Gas station in southeast corner
- Pedestrian walkway only on southbound (west) side of bridge
- Cell tower

Visualization

- Park-like landscaping on lid with gathering areas and walking paths.
- Westbound on-ramp area landscaped to complement Hunts Point Park
- Hunts Point gateway sign monument
- Pedestrian sidewalks on both sides of 84th Avenue NE

Exhibit A-11 Hunts Point – 84th Avenue NE Gateway - Viewpoint 4

Looking north from south edge of 84th Avenue NE bridge over SR 520

Existing View

- Points Loop Trail: 10-foot-wide asphalt paved, community-maintained trail
- Hunts Point Park and tennis courts to north (off left side of picture)
- Blackberry thickets along trail and SR 520

Visualization

- Noise walls between trail/path and SR 520
- Merge of Points Loop Trail and Regional Bicycle and Pedestrian Path for access to 84th Avenue NE lid

---

Exhibit A-12 Points Loop Trail near Hunts Point Park - Viewpoint 5

Looking east along Regional Bike Path and Points Loop Trail from vicinity of Hunts Point tennis courts

Existing View

- SR 520 mainline
- Mature trees along roadway
- Gateway to Cities of Kirkland and Bellevue

Visualization

- Addition of noise walls
- Wider highway
- Continuation of HOV lane
- New Bellevue Way bridge over SR 520

Exhibit A-13 SR 520 Mainline Bellevue Way Bridge – Still 5

Looking east toward Lake Washington Boulevard and Bellevue Way off-ramp to the south of Yarrow Bay wetlands