
CHAPTER 5.8 Visual Quality and Aesthetics

Temporary project activities will result in noticeable changes to visual quality wherever demolition and construction occur. Operation of the project could affect structures, vegetation, and views and create new sources of shadow, glare, or light. As part of the project design, WSDOT has incorporated measures to minimize the project's effects on visual quality, and will adhere to all applicable aesthetic design guidelines and visual quality standards. Although the completed highway will look different than it does today, that look is intended to fit the character of the area as the highway serves the transportation needs of the community.

Please refer to the Visual Quality and Aesthetics Technical Memorandum in Appendix R for additional information about the visual quality and aesthetics analyses.

Why are visual quality and aesthetics considered in this EA?

Construction or modification of 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 quality of the landscape is an integral part of any environmental assessment and is required by law. The project team used FHWA's visual quality assessment method (FHWA 1989) to ensure that potential changes to visual quality and aesthetics resulting from the project are adequately and objectively considered.

How did WSDOT identify and evaluate visual quality and aesthetics?

The project team visited the entire proposed project corridor several times to develop qualitative assessments and descriptions of existing landscape conditions. They reviewed community planning documents and U.S. Geological Survey and geographic information system (GIS) maps to identify existing or possible future conditions. The team also identified views or routes that are designated by code or in planning documents as requiring special consideration because of their scenic value.

The team evaluated the project engineering plans and documents and compared them to existing conditions and planning documents. They also reviewed relevant information from other reports for this EA.

The team used a visual quality assessment matrix, a tool developed by WSDOT, to provide another means of evaluating visual quality. This matrix lists the numeric rankings assigned to visual quality parameters and components for selected views throughout the study area.

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

A **viewshed** is the area that can be seen from a given viewpoint or group of viewpoints; it is also that area from which that viewpoint or group of viewpoints can be seen.

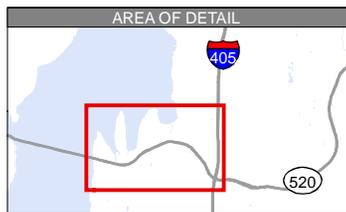
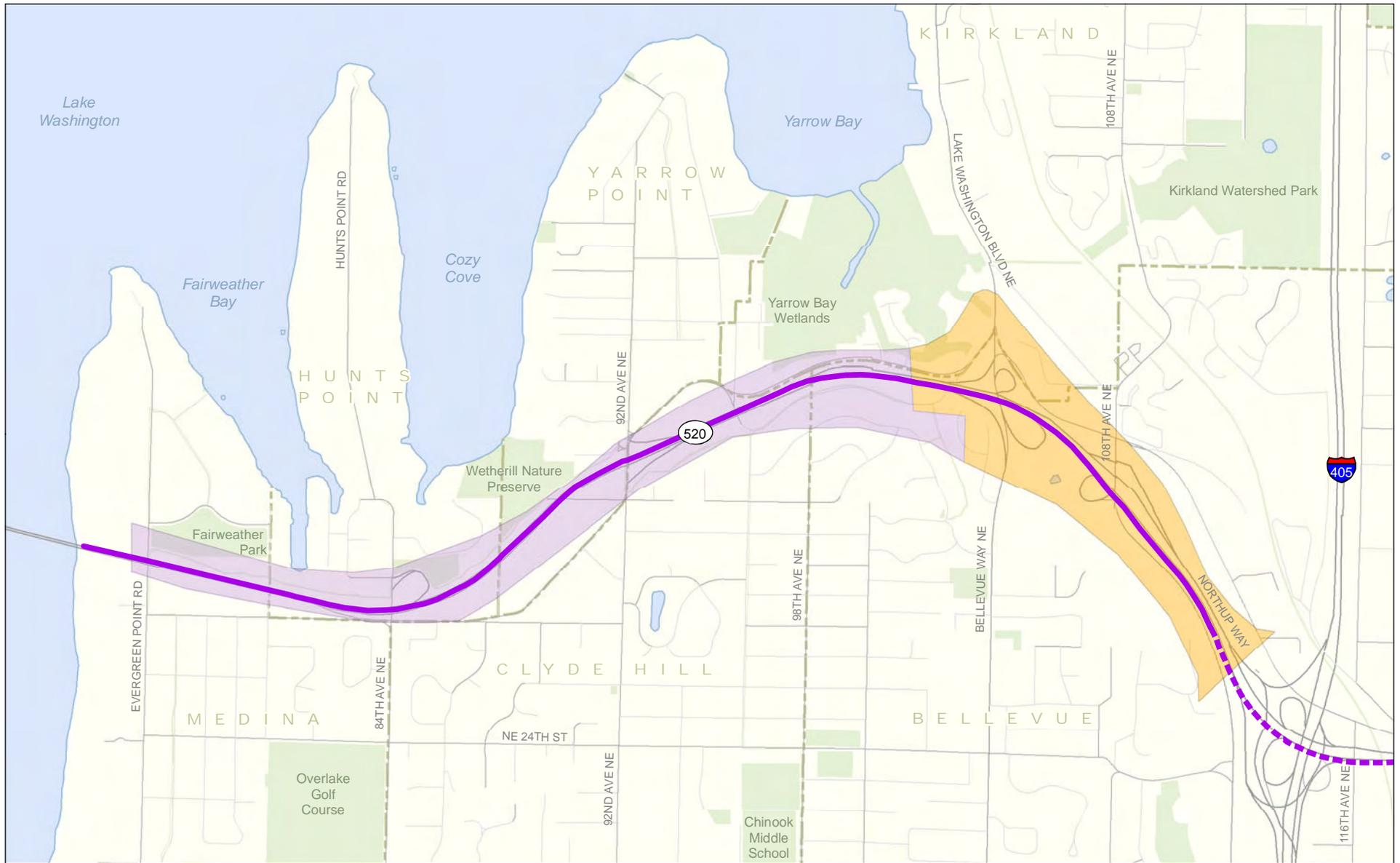
The area studied in this visual quality assessment is called the project viewshed. For this project, the viewshed is the aggregate area that has views of or from SR 520.

The Eastside viewshed is defined primarily by its rolling terrain. The viewshed is further defined by the masses of tall trees and dense shrubs that line the highway. The Eastside viewshed is somewhat larger than the project area because SR 520 at Evergreen Point Road is visible from Lake Washington and the highway through the Eastside is visible from hillside locations that are beyond the limits of the Eastside project area. The project area east of I-405 was not included in this analysis because restriping the highway will not affect the views; therefore, the restriping will not have an effect on visual quality or character.

What is the current visual quality of the study area?

A **landscape unit** is a place or district with clear landform or land cover boundaries that form an outdoor area with similar visual character and visual continuity. For example, a landscape unit can be a single neighborhood, or several neighborhoods combined.

Visual quality is evaluated for smaller areas within the viewshed called *landscape units*. These smaller landscape units differ from each other in that they have their own sense of place and some degree of clear views within the unit (Exhibit 5-29). Overall, visual quality for each landscape unit is described as low, moderate, or high to indicate the presence (or lack) of memorable features and the intactness of the landscape and unity of the features.



- Construction Extent
- Restriping Extent
- Mixed Use Landscape Unit
- Points Landscape Unit
- Park
- City Limits



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 5-29. Landscape Units

Medina to SR 202: Eastside Transit and HOV Project

Points Landscape Unit

The Points landscape unit has a rural residential character with an overall moderate visual quality for most views to and from SR 520. In the vicinity of Evergreen Point Road, visual quality is high for the westward view because of the expansive view across Lake Washington with the Seattle shoreline in the middle ground and the Olympic Mountains in the distance.

Views toward the highway from residences are usually partially or fully screened by vegetation or fences. Houses below the highway typically do not have a view of the highway or its walls because of the trees along the highway, so views have an intact rural quality. Residences on hillsides in Clyde Hill and Yarrow Point have overall moderate to high quality views that are seasonally screened by vegetation. Views that contain the highway have reduced quality proportional to how much the highway dominates the view.

Views from the motorist's viewpoint are pleasant because of the rolling, curving alignment of the highway and the continuity of the tree border and canopy, which impart a rural character to the drive. The highway dominates the motorist's forward view because the highway is a wide concrete gap in the woodlands, which reduces visual quality. This is particularly noticeable at 92nd Avenue NE and Evergreen Point Road, where extra lanes for the bus stops give the highway a more urban character. Cross-highway views for motorists are obstructed by glare screens on top of medians, but the sweeping curve of the highway continually changes the forward view. The surrounding hillsides are visible from the highway and seasonal changes in vegetation from the coloring of leaves in autumn and glimpses of the bays during winter contribute to an enjoyable driving experience.

Mixed Use Landscape Unit

In the Mixed Use landscape unit, the rolling terrain of 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. This makes the highway the visually dominant feature for motorists. However, since the highway is elevated above the landscape, the background canopy is more visible,

creating a vegetated effect that is perhaps greater than actually exists.

Views in the Mixed Use landscape unit are more open than in the Points landscape unit because the wooded slopes that channel views in the Points unit are farther from the highway in the Mixed Use unit and, in addition, have fewer trees directly adjacent to the highway. The highway is bordered by vegetation in open roadsides, intermittent bands of tree buffers, and stormwater ponds. Because of this variability, motorists on SR 520 have partial views of the Northrup Way businesses; and the business campuses to the south and the mid-rise office buildings near or up-slope from SR 520 have partial views of the highway. With the exception of a stand of mature trees along the westbound on-ramp from Bellevue, most bands of trees are a distance from the highway (around loop ramps and at the base of slopes) as far as the I-405/SR 520 interchange. Views of SR 520 from the multifamily complexes are screened by the dense canopy of street trees.

Development transitions to a highly diverse mix of small- to moderate footprint business and commercial buildings, a WSDOT maintenance facility, multifamily complexes, and parking lots. These buildings are visible to the motorist and, conversely, the highway is partially visible from most locations. The suburban character of development, combined with the wide belt of undeveloped roadside landscapes along the highway, impart an overall suburban character to this landscape unit.

Highway traffic equipment consists of electrical vaults, freeway light posts, and sign structures. Identification signs on Northrup Way businesses can be seen from the highway and there is an increase in overall visual clutter to drivers in the corridor as a result of the equipment and other signage.

Overall, visual quality in the Mixed Use landscape unit varies from low to moderately low. The landscape of the basin has been altered by the construction of the highway and other development. While there are no distinctive or memorable features in views through this area, the hillside landscapes are pleasant views for motorists.

How will project construction affect visual quality and aesthetics?

Visual quality and character will change uniformly throughout the Eastside area wherever demolition and construction occur, and will be experienced by viewers looking from and toward the project. The most noticeable temporary changes to the visual character and quality of the SR 520 corridor will result from the following:

- Demolition of existing bridges
- Construction of the new highway and bridges
- Excavation outside of the existing highway
- Removal of vegetation outside of the existing highway
- Temporary erosion control measures
- Stockpiling and staging areas for materials and equipment
- Presence of construction equipment of all sizes, including haul trucks, cranes, and barges
- Temporary traffic or construction signage
- Temporary retaining or screening walls
- Nighttime construction lighting

For the duration of construction, visual quality will be reduced for all locations having a view of the work. The presence of medium- and heavy-duty construction and demolition equipment will be out of character with this area and will detract from visual quality of accustomed views. In addition, light and glare could be increased by construction equipment, especially if work is performed at night, and the loss of roadside vegetation. Vegetation loss and excavation outside the highway, to accommodate concrete form-work for structural elements and construction access, will be highly noticeable from most viewpoints and decrease the quality of those views.

Reduced visual quality could also result from increased traffic congestion during construction. Traffic slowdowns through the study area are not unusual, but the duration and frequency of such occurrences will probably increase. These effects could result from changed or reduced access, detours through

neighborhoods, the addition of construction traffic, parking, and heavy equipment. Other less obvious visual effects could result from dust and airborne debris from grading and construction.

How will project operation affect visual quality and aesthetics?

Under the Build Alternative, SR 520 would become more suburban through the Points landscape unit and trend toward urban through the Mixed Use landscape unit. Major elements that contribute to this change in visual character and quality are described in this chapter.

Points Landscape Unit

Throughout the Points landscape unit, bands of vegetation on both sides of SR 520 will be temporarily or permanently removed by widening the highway (Exhibit 5-30). Most houses are far enough from the highway that existing tree buffers and other vegetation will remain in place to screen views of the highway; however, views for some residences will change from a vegetative buffer to a retaining and/or noise wall.

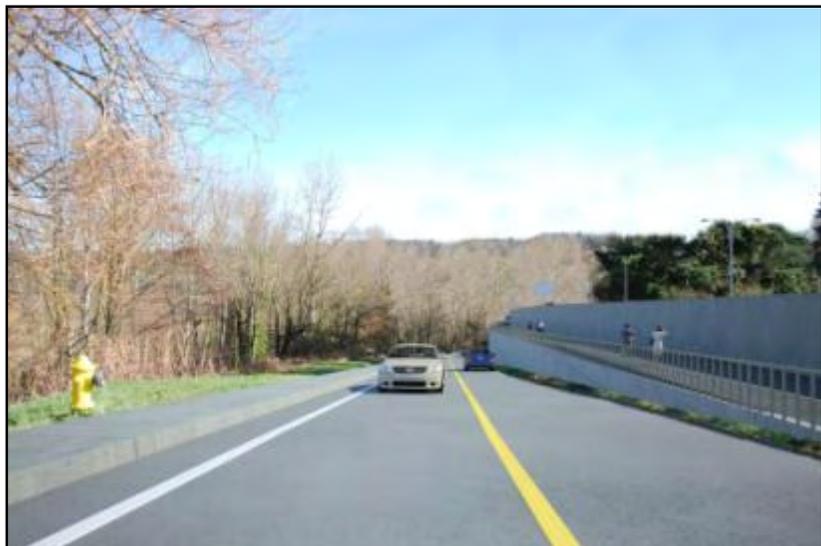
Visual quality for motorists in the Points landscape unit will decrease because the highway would change from a rural residential, tree-lined corridor of moderate scale to a wider, walled corridor with large-scale transit stops at Evergreen Point Road and 92nd Avenue NE (Exhibit 5-31). The urbanization will be very noticeable to motorists and residents alike.

The lids at Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE will enclose the corridor for vehicle occupants on the highway, but will provide open connections for community users and residents (Exhibits 5-32 through 5-35). The changes in visual quality and character of the landscape unit could be perceived as positive because of the addition of landscaping over the highway, though highway users will experience enclosure within the tunnels created by the addition of the lids. Views from the communities toward the highway could also improve because lid landscapes will visually connect to and extend park and nature preserve landscapes. Landscaping at the edges of the lids will be

visible from the highway and could be an interesting and positive contribution to motorists' views as they approach the tunnels under the lids.



Existing



Visualization

Exhibit 5-30. View Looking East along NE Points Drive from West Edge of Yarrow Bay Wetlands



Existing



Visualization

Exhibit 5-31. View Looking East along Points Loop Trail from Vicinity of Hunts Point Park Tennis Courts



Existing



Visualization

**Exhibit 5-32. View Looking West from Mid-span of Evergreen Point Road
Overcrossing**



Existing



Visualization

**Exhibit 5-33. View Looking West from Entrance of the Evergreen Point Road
Park-and-Ride**

SR 520, MEDINA TO SR 202: EASTSIDE TRANSIT AND HOV PROJECT
ENVIRONMENTAL ASSESSMENT



Existing



Visualization

Exhibit 5-34. View Looking East from SR 520 Mainline toward 92nd Avenue NE Lid



Existing



Visualization

Exhibit 5-35. View Looking Southeast from Westbound Off-ramp at 92nd Avenue NE

The transit stops in the center of the highway at Evergreen Point Road and 92nd Avenue NE will be visually dominant for motorists. Structures of the transit stops could create a channel-like entrance to the tunnels under these two lids, but could also reduce the apparent width of the highway for the motorist. Transit structures include 35- to 45-foot-tall elevator shafts and stairs at the lid edge, canopies over the waiting platforms, and protective walls between highway traffic and transit riders. The protective walls will extend from the lid edge to the end of the waiting platforms. However, if designed creatively, the walls and transit stops could be perceived as an interesting addition to the corridor. The presence of noise walls will block views from the residential areas outside the highway.

Mixed Use Landscape Unit

For the most part, the redesigned interchanges at Bellevue Way NE and 108th Avenue NE will not result in noticeable changes to visual character or quality in this landscape unit because the changes will be consistent with the scale and materials of existing highway facilities. The landscape features will be similar because stormwater ponds will be rebuilt in approximately the same locations.

New stormwater ponds in the southeast corner of the Bellevue Way NE interchange will require the addition of very tall retaining walls in this corner, which will result in notable changes to views and landscape quality. These retaining walls will replace a wooded slope and will be out of scale and inconsistent with the surroundings. The walls will be a dominant feature to westbound motorists and viewers in the Northrup Way area, unless the walls are screened by vegetation.

The widening of the Bellevue Way Bridge over SR 520, to accommodate a landscaped sidewalk, will improve pedestrians' experience of walking over the bridge. This landscaping will provide a buffer between vehicles and pedestrians and, also, physically and visually connect the signature boulevard plantings on Bellevue Way NE and Lake Washington. The planted edge will be visible to motorists and could be perceived as a positive contribution to views in this interchange area.

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

Points Landscape Unit

Overhead highway lighting, shade, and shadowing in the Points landscape unit will be somewhat greater than existing conditions. The extra width of the highway could require more illumination than the current highway does. In this case, if highway lighting is located along the outside edge of the highway, rather than in the median, the lights will be closer to homes near the highway. Shielding on the lamps and noise walls will prevent much or most of the stray light from reaching nearby residences. The loss of trees along the highway will result in greater exposure to lighting for many locations along the north side of SR 520.

Safety lighting will be located on all lids along streets and at locations where pedestrians, bicycles, and vehicles cross paths. Additional lighting will provide guidance and safety at the two transit stops and their plazas on top of the lids. Stairs and elevators, the new park-and-ride at Evergreen Point Road, and the drop-off area at 92nd Avenue NE will also require safety lighting. This lighting could be detectable by the residents near the lids, unless screened by lamp shields, noise walls, or dense shrub hedges. In addition, the bicycle tunnel at 92nd Avenue NE will be lit at all times for safety.

The glass elevator shafts and overhead canopies at the Evergreen Point Road and 92nd Avenue NE transit platforms could be other possible new sources of glare if the materials are reflective. These new sources of light and glare will most affect motorists and could be apparent night (lighting) or day (sun glare).

The tunnels under the three lids will be an appreciable change for motorists due to the potential for sharp changes in light levels. These changes can be ameliorated by using special lighting and shading vegetation near the tunnel portals.

Mixed Use Landscape Unit

Overhead lighting, shade, and shadowing will be similar to existing conditions. No new sources of glare are expected because there will be no tunnels or lids added to this portion of the project. Noise walls could block some light from the highway. Outside of the highway, shade and shadowing could change because of the loss of vegetation in some locations.

What will happen to visual quality and aesthetics if WSDOT does not build this project?

Under the No Build Alternative, visual quality would remain as it is today because no buildings, bridges, or vegetation would be removed and no landscaped lids or noise walls would 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 conditions. The main agent for change would be changes in vegetation that are visible from the highway.