

# **Visual Quality Assessment**

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## **North Spokane Corridor 2009 Redesign – Spokane River to Francis Avenue**

**Spokane County, WA**

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## **EXECUTIVE SUMMARY**

This visual quality assessment evaluated the effects of the proposed “2009 Redesign” modifications. These changes affected the existing and proposed viewsheds. This report will document these changes for the North Spokane Corridor (NSC) FSEIS Re-Evaluation process. The assessment process was performed in conformance with current Federal standards and formats.

Generally, the visual quality of the currently proposed design modification will slightly lower the existing visual values. Several factors affected these values within the current project limits. Over the 13 year span between the original 1997 and current 2010 assessments, the industrial/commercial component within the viewsheds has expanded. The most substantive change is the current proposal to construct the corridor alignment “at-grade”, with some segments elevated on earthen berms. This design modification greatly differs from the previous “below-grade” design.

There are three viewpoints common to the “2009 Redesign”, the “North Spokane Freeway FEIS” (April, 1997), and the “North Spokane Corridor FSEIS” (September, 2000). Analyzing these common viewpoints confirmed a slight decrease in visual quality. There was less than a 0.50 point difference among these view locations reported in the three documentation efforts. This validates the minor amount of change within the corridor within the 13 year period.

The visual quality of the Spokane River riparian areas increased slightly. This improvement results from increased stewardship efforts to vegetate the shorelines and improve water quality. In contrast, the visual quality *from* the alignment and *toward* the adjacent residential/commercial/industrial neighborhoods decreased slightly. This is attributed to deteriorating property maintenance and lack of new development.

### Existing

The assessment of the existing perspectives incorporated five additional viewpoints, and produced “Average to Moderately Low” values. Factors that contribute to these values include:

- the general lack of maintenance to residential lots and housing;
- the effect of the declining Hillyard Central Business District (CBD);
- the high percentage of warehouse complexes adjoining many of properties within the project limits; and
- the effect of the sprawling BNSF railroad yard paralleling most of the proposed alignment.

### Proposed

The proposed construction will contribute additional decline of visual quality, producing “Moderately Low to Low” values. The construction of additional urban elements within the viewshed will negatively affect the vividness, intactness, and unity of the urban environment. Earthen berms and noise walls will also contribute a negative effect. These elements block background views of undeveloped, wooded ridges located east and west of the project viewshed.

## **1.0. INTRODUCTION**

### **1.1. OVERVIEW OF THE NORTH SPOKANE CORRIDOR PROJECT**

The Washington State Department of Transportation (WSDOT) is in the process of constructing the North Spokane Corridor (NSC). This facility is proposed to relieve vehicular congestion by providing an efficient travel route for traffic movements through the Spokane metropolitan area.

The NSC project consists of 10.5 miles of new limited access highway. It is located in the Northeastern part of the City of Spokane and adjacent unincorporated Spokane County. The NSC project is a separated 4-8 lane alignment. Ultimately, it will connect the US 395 corridor North of Spokane (Wandemere vicinity) to I-90 in Eastern Spokane (Thor/Freya Street). At present, a 3-mile portion of the NSC between Freya Street and Farwell Avenue is open to two-lane traffic, with another connecting segment under contract.

This Re-evaluation process is required to update the current document prepared for the NSC; the National Environmental Policy Act (NEPA) Final Supplemental Environmental Impact Statement (FSEIS) and Record of Decision (11/13/00). The Re-evaluation process will address the effects of the design modifications to the natural and human environment.

### **1.2 2009 REDESIGN**

The 2009 Redesign portion of the NSC project will modify the project in the Hillyard vicinity. The redesigned segment begins at the Spokane River (approximate Station 95+25). The proposal proceeds northward to Francis Avenue (approximate Station 265+00) where it connects to the finished two-lane corridor. These design changes propose to:

1. Shift the NSC to the east side of the existing BNSF railroad corridor.
2. Raise the NSC profile to cross over, instead of beneath Euclid and Wellesley Avenues.
3. Redesign improvements to the City and County network connections.

### **1.3. VISUAL QUALITY ASSESSMENT ORGANIZATION AND SCOPE**

This visual quality assessment was prepared by WSDOT Environmental Services Office staff, in cooperation with the Eastern Region. The documentation provides consistency with the visual quality discipline reports of the project Final Environmental Impact Statement (FEIS, 1997) and Final Supplemental Environmental Impact Statement (FSEIS, 2000). The analysis followed the guidelines of the U.S. Department of Transportation, Federal Highway Administration (FHWA) publication *Visual Assessment for Highway Projects*, March 1981.

A viewpoint is a specific physical location where a visual assessment is performed. A viewshed is the area extending from the foreground to the horizon which is being analyzed. Viewpoints and viewsheds were selected from and toward the proposed corridor, assessing these location factors:

- visibility of the project,
- accessibility to the public,
- frequency of public use, and
- representative of the overall impacts within the study area.

The visual analyses were performed at existing and proposed observer points. The following criteria were assessed on a scale ranging from 0 to 7:

1. Vividness (memorability of landscape components)
2. Intactness (integration of natural and human components)
3. Unity (compositional harmony of the view).

The assessments are relative to the visual quality of the regional landscape. They integrate separate assessments of landform, water, vegetation, and the man-made elements in the fore, middle, and background. The man-made element includes buildings, developed lots, transportation structures, vehicles, and other transport elements such as railroad cars, signals, and related facilities.

## **1.4 AFFECTED ENVIRONMENT**

The proposal's landscape setting is the Columbia Basin province in the eastern region of Washington State. The native terrain was originally rolling hills bisected by the Spokane River and its' associated floodplain valley. Large portions of the NSC corridor have been altered by residential and industrial uses.

The original vegetation contained within the NSC project limits was a Ponderosa Pine forest with steppe or shrub-steppe vegetation community influences. The annual precipitation averages approximately 17 to 18 inches per year. Residential shade trees, ornamental shrubs, and grass have replaced most of the native vegetation in the urbanized area.

## **1.5 VIEW ORIENTATION**

### ***From* The Proposed Alignment**

Typical viewpoints *from* the proposal are directed at the surrounding terrain from the perspective of a vehicle driver or passenger. Two of the original 16 *from* viewpoints<sup>1</sup> are within the project limits of the 2009 Redesign proposal<sup>2</sup>. These original and Redesign viewpoints on the Spokane River crossing were assessed to provide a uniform comparison with past documentation:

- M (Redesign Viewpoint (RV)1 at Sta. 95+25) looking east, and
- N (RV2 at Sta. 95+25) looking west.

1. See Appendix C, *From* plan sheet, *Quad 1, Hartson-Euclid, 1997*.
2. See Appendix A, *2009 Redesign Plan and Profile, Sheet 1, 2010*.

Typical viewsheds *from* the proposal are experienced while traveling the proposed roadway structure, from the perspective of a driver or passenger. Only one of the original seven *from* viewsheds<sup>1</sup> is within the project limits of the 2009 Redesign proposal<sup>2</sup>. This original viewshed was DD, looking north and south along the corridor. It is located adjacent to the Hillyard Central Business District (CBD) between the Wellesley Avenue and Francis Avenue overpasses.

Additional viewshed locations were assessed along the 2009 Redesign corridor with a similar north-south orientation. These values are also described in the table below.

- Viewshed RV3, approximate Sta. 117+00, is a raised-grade location north of the Spokane River between existing Grace and Jackson Avenues. This viewshed was selected to access the effect of noise walls proposed along the corridor's eastern and western Right-of-Way (R/W) lines<sup>2</sup>. The descriptions of the proposed noise walls follows:
  - a. Eastern noise wall: 5,960' in length, beginning with a 3.5' barrier on the Spokane River Bridge, Sta. 95+25, tapering up to an 8' height beginning at Sta. 103+80, and maintaining the 8' height until Sta. 140+40 (with an exception at the Euclid Ave. overpass) when it steps up to 10' height. It will remain 10' tall where it will terminate at Sta. 154+60. It is proposed from the Spokane River Bridge to the north end of Wildhorse Park, between approximate Stations 95+25 to 154+60.<sup>3</sup>
  - b. Western noise wall: 2,290' in length, beginning with a 3.5' barrier on the Spokane River Bridge, Sta. 94+90, tapering up to a 12' height beginning at Sta. 103+70, and maintaining the 12' until Sta. 116+70, where it will taper down to 8' in two foot increments, ending at Sta. 117+70. It is proposed from the Spokane River Bridge northward to Brace Avenue, from approximate Stations 94+90 to 117+70<sup>4</sup>.
- Viewshed RV4, Sta. 152+00, is a raised-grade location north of Euclid Avenue near Wildhorse Park. This viewshed was selected to access the effect of the continuous noise wall along the corridor's eastern R/W line<sup>4</sup>.
- Viewshed RV5, Sta. 172 +50, is an at-grade location south of the Wellesley Avenue Overpass<sup>5</sup>.
- Viewshed RV6, Sta. 205+00, is at a raised-grade location at the original DD viewshed evaluation vicinity, adjacent to the Hillyard CBD. This location was selected to provide a uniform comparison with past documentation<sup>5</sup>.
- Viewshed RV7, Sta. 225+00, is at a depressed-grade location south of the Francis Avenue Overpass<sup>6</sup>.
- Viewshed RV8, Sta. 250+00, is an at-grade location south of the currently constructed North Spokane Corridor two-lane segment<sup>6</sup>.

3. See Appendix A, East Side Wall Plan and Profile, Sheet 1, 2010.

4. See Appendix A, West Side Wall Plan and Profile, Sheet 2, 2010.

5. See Appendix A, 2009 Redesign Plan and Profile, Sheet 2, 2010.

6. See Appendix A, 2009 Redesign Plan and Profile, Sheet 3, 2010.

<b>2009 Revision View</b>	<b>1997 FEIS View</b>	<b>Approx. Station</b>	<b>Street Vicinity</b>
RV1	M – Viewpoint East	Sta. 98+00	Spokane River
RV2	N – Viewpoint West	Sta. 98+00	Spokane River
RV3		Sta. 117+00	Grace/Jackson Ave.
RV4		Sta. 152+00	Wildhorse Park
RV5		Sta. 172+50	Wellesley Ave.
RV6	DD – Viewshed N & S	Sta. 205+00	Rowan Ave.
RV7		Sta. 225+00	Francis Ave.
RV8		Sta. 250+00	Constructed NSC two-lane corridor

**Table 1. Views from the NSC Corridor**

**Toward the Proposed Alignment**

Typical views are directed *toward* the proposal from the surrounding neighborhoods. Two of the original ten residential neighborhoods<sup>7</sup> are within the project limits of the 2009 Redesign proposal<sup>2</sup>. These original neighborhoods were Y1 and Y2. Y1 is adjacent to the Spokane River on the east and west sides. Y2 is adjacent to the east side from Euclid to Wild Horse Park. These original and Redesign neighborhood viewsheds were assessed to provide a uniform comparison with past documentation:

- Y1 (Neighborhood Viewshed (NV)1 and NV2 from Sta. 98+00 to at Sta. 135+00) east and west of the corridor, and
- Y2 (NV3 and NV4 from Sta. 135+50 to Sta. 155+00) east side.

Additional neighborhood locations were assessed along the 2009 Redesign corridor with similar orientation. These values are also described in Table 2. Views toward the NSC Corridor.

- Neighborhood Viewshed (NV) 3 location is similar to RV3, though located near the eastern and western R/W lines. These neighborhood views were evaluated the visual effects of the two proposed noise walls from both sides of the corridor, with east and west perspectives<sup>1</sup>.
- Neighborhood Viewshed NV4 location is similar to RV4, though located near the eastern R/W line. The views evaluated the effects of the noise wall proposed along the corridor’s eastern R/W line with a west perspective. It included the residential neighborhood adjacent to Wildhorse Park<sup>1</sup>.
- Note: Only western perspectives could be analyzed for NV4 through NV8 due to the Hillyard CBD location. The NV4 through NV8 locations were similar to RV4 through RV8, though located near the eastern R/W line.

7. Appendix C, **Toward** Plan sheets, Quad 1, Hartson-Euclid, and Quad 2, Euclid-Lincoln, 1997.)

<b>2009 Revision View</b>	<b>1997 FEIS View</b>	<b>Approx. Station</b>	<b>Street Vicinity</b>
NV1	Y1– Views East	Sta. 98+00	N of Spokane River
NV2	Y1 – Views West	Sta. 98+00	N of Spokane River
NV3	Y2 – Views West	Sta. 117+00	Grace/Jackson Ave.
NV4	Y2 – Views West	Sta. 152+00	Wildhorse Park
NV5		Sta. 172+50	Wellesley Ave.
NV6		Sta. 205+00	Rowan Ave.
NV7		Sta. 225+00	Francis Ave.
NV8		Sta. 250+00	Constructed NSC two-lane corridor

**Table 2. Views toward the NSC Corridor.**

The tables, figures, and plan/profile sheets evaluating the 2009 Redesign modifications are attached in Appendix A. The Visual Analysis Matrices document the assessments *from* the project in Tables 1 and 2, and *toward* the project in Table 3. The plan and profile sheets illustrating the locations of the proposed noise walls, corridor elevations, and viewpoints are labeled Sheets 1 – 3. Appendix B illustrates views with representative pictures taken during the 2009 Redesign visual quality assessment.

The appropriate 1997 FEIS tables and figures are attached in Appendix C, and the 2000 FSEIS tables and figures are attached in Appendix D. Both Appendices C and D are attached for reference.

## **2.0 RESULTS OF THE ANALYSIS**

The effects of the proposed “2009 Redesign” modifications on the existing viewsheds were evaluated for the current NEPA Re-Evaluation process. The visual quality assessment was performed in conformance using current Federal standards and formats.

There are three viewpoints contained within the “2009 Redesign” project limits that corresponded to the previous assessments (North Spokane Freeway FEIS”, 1997 and “North Spokane Corridor FSEIS”, 2000).

Several factors affected the visual quality within the current project limits. Over the 13 year span between the assessments, the industrial/commercial component within the viewsheds has expanded. The currently proposed design changes the alignment dramatically. The design of the original below-grade alignment is proposed to constructed “at-grade”, with some elevated segments.

The analysis of the common viewpoints indicates minor additional impact on visual quality. There is less than a 0.50 point difference between any of the view locations analyzed for the three documentation efforts.

The visual quality of the Spokane River riparian areas improved slightly. This is due to increased stewardship of the River, resulting in healthier associated vegetation.

Eastward viewshed: 1997 FEIS = 3.57, **2010 Re-Evaluation** = 3.92, Difference = +0.35.  
 Westward viewshed: 1997 FEIS = 3.63, **2010 Re-Evaluation** = 4.06, Difference = +0.43.

In contrast, the visual quality *from* and *toward* the adjacent neighborhoods decreased slightly at the common viewpoint DD. The at-grade alignment proposed in the 2009 Redesign increases the driver/passenger exposure to commercial development. It also increases the visual distractions of constant truck and automobile traffic in residential neighborhoods.

North/South viewshed: 1997 FEIS = 2.27,  
 2000 Supplemental FEIS = 2.00  
**2010 Re-Evaluation** = 1.79, Difference = -0.48.

The assessment of the proposed “2009 Redesign” alignment indicates a low visual quality currently exists. It will continue to deteriorate when the urban transportation elements are constructed.

<b>Common Viewpoints</b>	<b>1997</b>	<b>2000</b>	<b>2010</b>	<b>Increase /Decrease</b>
Spokane River Eastward	(M) 3.57		3.92	+ 0.35
Spokane River Westward	(N) 3.63		4.08	+ 0.43
Hillyard Vicinity	(DD) 2.27	2.00	1.75-1.83	- 0.48

**Table 3: Common Viewpoint Comparisons**

**From the Project**

Noise Wall locations

The existing views of the driver/passengers “from the project” are low in total visual quality in the proposed noise wall vicinity. The “total visual quality” values of existing viewsheds range from 2.75 (Average) to 1.75 (Moderately Low).

The total visual quality values of the proposed viewsheds following construction of the noise walls range from 2.00 (Moderately Low) to 1.08 (Low).

Corridor Alignment Structures

The existing views *from* the project are slightly higher for the remainder of the project. The values of existing viewsheds are highest near the north end of the project, looking toward the Mount St. Michaels Parish at 5.42 (High) to 1.75 (Moderately Low) near the center of the project adjacent to the Hillyard CBD.

The total visual quality *from* the proposed alignment will generally decrease, ranging from 4.83 (Moderately High) at the north end of the project to 1.50 (Moderately Low) near the Hillyard CBD<sup>8</sup>.

8. See Appendix A, Visual Analysis Matrix – **From the Project**, 2010).

## **Toward the Project**

### **Noise Wall locations**

The existing views of the residential and commercial neighborhoods *toward* the project are affected in the proposed noise wall vicinity. The visual quality values of existing viewsheds range from 2.92 (Average) to 2.08 (Moderately Low).

Similarly, the total visual quality values of the proposed viewsheds will diminish following the construction of the noise walls due to their urban nature. The values range from 1.17 (Low) to 1.00 (Low).

### **Corridor Alignment Structures**

The existing views *toward* the project are similar for the remainder of the project. The visual quality near the north end of the project is 2.25 (Moderately Low) decreasing to 1.25 (Low) near the center of the project adjacent to the Hillyard CBD.

The total visual quality from the proposed alignment will also decrease. This will result from the additional urban elements of the alignment structures, and the constant visual distractions caused by the traffic. The values were analyzed as 1.67 (Moderately Low) at the north end of the project. This decrease from existing resulted from the proposed earthen berm blocking out much of the horizon viewsheds. Nearer to the Hillyard CBD, the values declined to 1.08 (Low). This result reflected the urban commercial/industrial environment of both sides of the alignment<sup>9</sup>.

<b><i>From the Project</i></b>		<b>Total Visual Quality Value Ranges</b>
Noise Wall Locations	Existing	2.75 (Average) to 1.75 (Moderately Low)
	Proposed	2.00 (Moderately Low) to 1.08 (Low)
General Corridor Locations	Existing	5.42 (High) to 1.75 (Moderately Low)
	Proposed	4.83 (Moderately High) to 1.50 (Moderately Low)
<b><i>Toward the Project</i></b>		
Noise Wall locations	Existing	2.92 (Average) to 2.08 (Moderately Low)
	Proposed	1.17 (Low) to 1.00 (Low)
General Corridor Locations	Existing	2.25 (Moderately Low) to 1.25 (Low)
	Proposed	1.67 (Moderately Low) to 1.08 (Low)

**Table 4: Total Visual Quality Comparisons: Existing and Proposed**

9. See Appendix A, Visual Analysis Matrix – ***Toward the Project***, 2010.

## **3.0 IMPACTS OF OPERATION**

### **3.1 LIGHT AND GLARE IMPACTS**

The proposal will not incorporate glass or reflective materials within the roadway structure. Unfortunately, there will be additional reflection of sunlight from the glass windshields and body finishes. Luminaries placed along the alignment and at arterial interchanges to provide safer night travel will produce additional light and glare. Also, light and glare from the headlights of the increased traffic will impact residential neighborhoods in close proximity to the corridor.

The surfaces of the Noise Walls will be textured or structurally treated to eliminate glare and reflection.

### **3.2 POSSIBLE VISUAL IMPACTS OF INDUCED GROWTH**

The induced growth that may occur within the vicinities of the overcrossings will cause impacts. These impacts will result in growth within the residential, retail, and undeveloped areas in close proximity to the corridor. Fast food outlets, gas stations, small retail centers, and additional residential expansion will probably be constructed.

Generally, increased urban development usually follows improved access created by new corridor facilities. Any new developments will be regulated by the City of Spokane and Spokane County Comprehensive Plans. The Re-Evaluation document addresses the induced growth issue within the Environmental Justice Discipline Report.

### **3.3 MITIGATING MEASURES**

#### **Design Quality, Architecture, and Landscape Architecture Proposed During Facility Operation**

- A corridor-level theme of structural elements (walls, bridges, and sign bridges) has been developed. This theme will harmonize with existing structures and other landscape elements within the transportation corridor. The final design has been coordinated with the Region and neighborhood groups. Additional guidance was received from the HQ Roadside and Site Development Program, in coordination with the Architectural office.
  
- Contour grading of the alignment structure and interchange slopes will blend "cuts and fills" into the adjacent landforms. This will require consistent earthwork efforts. Varying slope angles and rounding of slopes edges near stormwater pond areas, drainage channels and roadside ditches will be proposed. Roadway slope construction often results in extensive R/W purchases and extensive visual implications. Structural solutions such as earthen berms and retaining walls will be considered to decrease these impacts.

- A conceptual NSC Roadside Master Plan has provided guidance during the design and implementation processes. The NSC Roadside Master Plan is not finalized at this time. Native trees, shrubs, and grasses will be installed where appropriate to visually soften the structural elements. Some non-native shade trees and/or shrubs may be interspersed among the native plantings to provide continuity and cohesiveness. Blending natives with the vegetation found within the parks and residential neighborhoods adjacent to the proposed alignment will increase visual integrity.
- Planting pockets will be incorporated into the noise wall design. These pockets of vegetation offer visual breaks, and lessen the impacts of the noise walls without reducing their effectiveness. They are intended to reduce the visual monotony of the wall structures, and offer the users visual diversity within the corridor.

# VISUAL ANALYSIS MATRIX - From the Project

## NSC Design Modification East of Hillyard Vicinity

NEPA 2009 Redesign	ORIENTATION TO FACILITY	VIEWPOINT	VIEWER DISTANCE			VIEWER POSITION			VIVIDNESS					INTACTNESS			UNITY	TOTAL VISUAL QUALITY	
			FOREGROUND	MIDDLEGROUND	BACKGROUND	INFERIOR	LEVEL	SUPERIOR	LANDFORM	WATERFORM	VEGETATIVE	MANMADE	AVERAGE	DEVELOPMENT	ENCROACHMENT	AVERAGE	UNITY		
<b>Redesign View - RV</b>																			
<b>View RV1 - East</b>	EXISTING	*1997 (M)	RV1	20'	100'	300'		X		4	6	6	5	5.25	5	2	3.5	3	3.92
Spokane River Br.	PROPOSED	Eastward'	RV1'	20'	100'	400'		X		4	7	7	5	5.75	4	2	3	2	3.58
<b>View RV2 - West</b>	EXISTING	*1997 (N)	RV2	50'	150'	500'		X		4	6	6	5	5.25	5	3	4	3	4.08
Spokane River Br.	PROPOSED	Westward'	RV2'	50'	150'	600'		X		4	7	6	4	5.25	4	2	3	2	3.42
<b>View RV3 - North</b>	EXISTING	Northward	RV3	20'	100'	150'	X			3	0	2	2	1.75	2	2	2	2	1.92
Noisewall East-West	PROPOSED	Northward	RV3'	20'	100'	100'		X		2	0	2	1	1.25	1	1	1	1	1.08
<b>View RV3 - South</b>	EXISTING	Southward	RV3	50'	400'	1000'	X			6	4	5	2	4.25	2	2	2	2	2.75
Noisewall East-West	PROPOSED	Southward	RV3'	20'	100'	100'		X		3	0	2	1	1.5	1	1	1	1	1.17
<b>View RV4 - North</b>	EXISTING	Northward	RV4	20'	500'	2000'	X			4	0	2	1	1.75	2	1	1.5	2	1.75
Noisewall East Only	PROPOSED	Northward	RV4'	20'	100'	100'		X		4	0	2	1	1.75	1	1	1	1	1.25
<b>View RV4 - South</b>	EXISTING	Southward	RV4	100'	200'	2000'	X			6	0	6	2	3.5	2	2	2	2	2.50
Noisewall East Only	PROPOSED	Southward	RV4'	100'	200'	2000'		X		6	0	6	2	3.5	2	1	1.5	1	2.00
<b>View RV5 - North</b>	EXISTING	Northward	RV5	20'	500'	2000'		X		4	0	2	3	2.25	3	3	3	2	2.42
South of Wellesley	PROPOSED	Northward	RV5'	20'	500'	2000'		X		4	0	2	2	2	3	2	2.5	2	2.17
<b>View RV5 - South</b>	EXISTING	Southward	RV5	20'	400'	2000'		X		5	0	3	4	3	2	2	2	2	2.33
South of Wellesley	PROPOSED	Southward	RV5'	20'	400'	2000'		X		5	0	3	3	2.75	2	2	2	2	2.25
<b>View RV6 - North</b>	EXISTING	*1997 (DD)	RV6	20'	300'	1500'	X			5	0	4	2	2.75	2	1	1.5	1	1.75
Hillyard CBD Vic.	PROPOSED	Northward	RV6'	20'	300'	1600'		X		5	0	4	1	2.5	1	1	1	1	1.50
<b>View RV6 - South</b>	EXISTING	*1997 (DD)	RV6	30'	500'	2000'	X			6	0	6	2	3.5	1	1	1	1	1.83
Hillyard CBD Vic.	PROPOSED	Southward	RV6'	30'	500'	2000'		X		6	0	6	1	3.25	1	1	1	1	1.75

Vividness:  
 7- Very High  
 6- High  
 5- Moderately High  
 4- Average  
 3- Moderately Low  
 2- Low  
 1- Very Low  
 -- Non existent

Intactness:  
 Development:  
 7 - No development  
 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  
 Encroachment (undesirable eyesores):  
 7 - None  
 6 - Few  
 5 - Some  
 4 - Average  
 3 - Several  
 2 - Many  
 1 - Very Many

Unity:  
 7 - Very High  
 6 - High  
 5 - Moderately High  
 4 - Average  
 3 - Moderately Low

Existing  
 Proposed

**Rater's Total Visual Quality Score Breakdown**  
 7 - Dramatic, Pristine Natural Environment with water, mountains, and mature vegetation or Superb example of built environment in dramatic physical setting.  
 6 - Very High  
 5 - High  
 4 - Moderately High  
 3 - Average  
 2 - Moderately Low  
 1 - Low

# VISUAL ANALYSIS MATRIX - From the Project

## NSC Design Modification East of Hillyard Vicinity

NEPA 2009 Redesign	ORIENTATION TO FACILITY	VIEWPOINT	VIEWER DISTANCE			VIEWER POSITION			VIVIDNESS					INTACTNESS			UNITY	TOTAL VISUAL QUALITY			
			FOREGROUND	MIDDLEGROUND	BACKGROUND	INFERIOR	LEVEL	SUPERIOR	LANDFORM	WATERFORM	VEGETATIVE	MANMADE	AVERAGE	DEVELOPMENT	ENCROACHMENT	AVERAGE	UNITY				
<b>Redesign View - RV</b>																					
<b>View RV7 - North</b>	EXISTING	Northward	RV7	20'	300'	1000'			X			5	0	4	2	2.75	3	2	2.5	2	2.42
South of Francis	PROPOSED	Northward	RV7'	20'	300'	1000'			X			5	0	4	1	2.5	2	2	2	1	1.83
<b>View RV7 - South</b>	EXISTING	Southward	RV7	50'	500'	2500'			X			6	0	6	2	3.5	3	2	2.5	2	2.67
South of Francis	PROPOSED	Southward	RV7'	50'	500'	2500'			X			6	0	6	2	3.5	2	2	2	1	2.17
<b>View RV8 - North</b>	EXISTING	Northward	RV8	30'	700'	1000'			X			7	0	6	6	4.75	6	5	5.5	6	5.42
St. Michaels View	PROPOSED	Northward	RV8'	30'	700'	1000'			X			7	0	6	5	4.5	5	5	5	5	4.83
<b>View RV8 - South</b>	EXISTING	Southward	RV8	30'	500'	700'			X			4	0	3	3	2.5	3	3	3	2	2.50
South of Built NSC	PROPOSED	Southward	RV8'	30'	500'	700'			X			4	0	3	1	2	3	2	2.5	1	1.83

Vividness:  
 7 - Very High  
 6 - High  
 5 - Moderately High  
 4 - Average  
 3 - Moderately Low  
 2 - Low  
 1 - Very Low  
 -- Non existent

Intactness:  
 Development:  
 7 - No development  
 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  
 Encroachment (undesirable eyesores):  
 7 - None  
 6 - Few  
 5 - Some  
 4 - Average  
 3 - Several  
 2 - Many  
 1 - Very Many

Unity:  
 7 - Very High  
 6 - High  
 5 - Moderately High  
 4 - Average  
 3 - Moderately Low

Existing  
 Proposed

**Rater's Total Visual Quality Score Breakdown**  
 7 - Dramatic, Pristine Natural Environment with water, mountains, and mature vegetation or Superb example of built environment in dramatic physical setting.  
 6 - Very High  
 5 - High  
 4 - Moderately High  
 3 - Average  
 2 - Moderately Low  
 1 - Low

# VISUAL ANALYSIS MATRIX - Toward the Project

## NSC Design Modification East of Hillyard Vicinity

NEPA 2009 Redesign	ORIENTATION TO FACILITY	VIEWPOINT	VIEWER DISTANCE			VIEWER POSITION			VIVIDNESS					INTACTNESS			UNITY	TOTAL VISUAL QUALITY	
			FOREGROUND	MIDDLEGROUND	BACKGROUND	INFERIOR	LEVEL	SUPERIOR	LANDFORM	WATERFORM	VEGETATIVE	MANMADE	AVERAGE	DEVELOPMENT	ENCROACHMENT	AVERAGE	UNITY		
<b>Neighborhood View - NV</b>																			
<b>NV1 - Eastward</b>	EXISTING	*1997 Y1	NV1	10'	40'	400'		X		3	6	5	6	5	3	5	4	3	4.00
Spokane River Br.	PROPOSED	Eastward'	NV1'	10'	40'	400'		X		3	6	5	5	4.75	2	3	2.5	3	3.42
<b>NV2 - Westward</b>	EXISTING	*1997 Y1	NV2	10'	70'	200'		X		4	7	6	4	5.25	4	4	4	3	4.08
Spokane River Br.	PROPOSED	Westward'	NV2'	10'	70'	200'		X		4	7	6	4	5.25	2	2	2	2	3.08
<b>NV3 - Eastward</b>	EXISTING	*1997 Y2	NV3	20'	100'	300'	X			3	0	3	3	2.25	3	4	3.5	3	2.92
Noisewall East-West	PROPOSED	Eastward'	NV3'	20'	100'	100'		X		2	0	1	1	1	1	1	1	1	1.00
<b>NV3 - Westward</b>	EXISTING	*1997 Y2	NV3	30'	100'	400'	X			5	0	3	3	2.75	2	3	2.5	3	2.75
Noisewall East-West	PROPOSED	Westward'	NV3'	30'	100'	100'		X		2	0	1	1	1	1	1	1	1	1.00
<b>NV4 - Westward</b>	EXISTING	*1997 Y2	NV4	10'	200'	250'		X		4	0	5	2	2.75	2	1	1.5	2	2.08
Wild Horse Park Vic	PROPOSED	Westward'	NV4'	10'	100'	100'		X		4	0	1	1	1.5	1	1	1	1	1.17
<b>NV5 - Westward</b>	EXISTING	Westward	NV5	20'	200'	250'		X		3	0	2	1	1.5	2	1	1.5	2	1.67
South of Wellesley	PROPOSED	Westward'	NV5'	20'	200'	250'		X		3	0	2	1	1.5	1	1	1	1	1.17
<b>NV6 - Westward</b>	EXISTING	Westward	NV6	10'	300'	350'		X		2	0	2	1	1.25	2	1	1.5	1	1.25
Sanson / Rowan Vic	PROPOSED	Westward'	NV6'	10'	300'	350'		X		2	0	2	1	1.25	1	1	1	1	1.08
<b>NV7 - Westward</b>	EXISTING	Westward	NV7	20'	400'	700'		X		2	0	3	2	1.75	2	2	2	2	1.92
South of Francis Av.	PROPOSED	Westward'	NV7'	20'	400'	700'	X			2	0	3	1	1.5	1	1	1	1	1.17
<b>NV8 - Westward</b>	EXISTING	Westward	NV8	20'	500'	550'	X			2	0	4	3	2.25	3	2	2.5	2	2.25
South of Built NSC	PROPOSED	Westward'	NV8'	20'	500'	550'		X		2	0	4	2	2	2	2	2	1	1.67

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 Proposed

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