

## SR 9 SR 204 Intersection Improvement

## Visual Impact Assessment

## 1. Project Description

## 1.1. Purpose and Need

The purpose of the SR 9 SR 204 Intersection project is to develop and construct a project that helps to relieve congestion at the intersection of SR 9 and SR 204, as well as support planned local land-use and economic development goals in the vicinity of Frontier Village and the surrounding shopping areas.

## 1.2. Project Location and Description

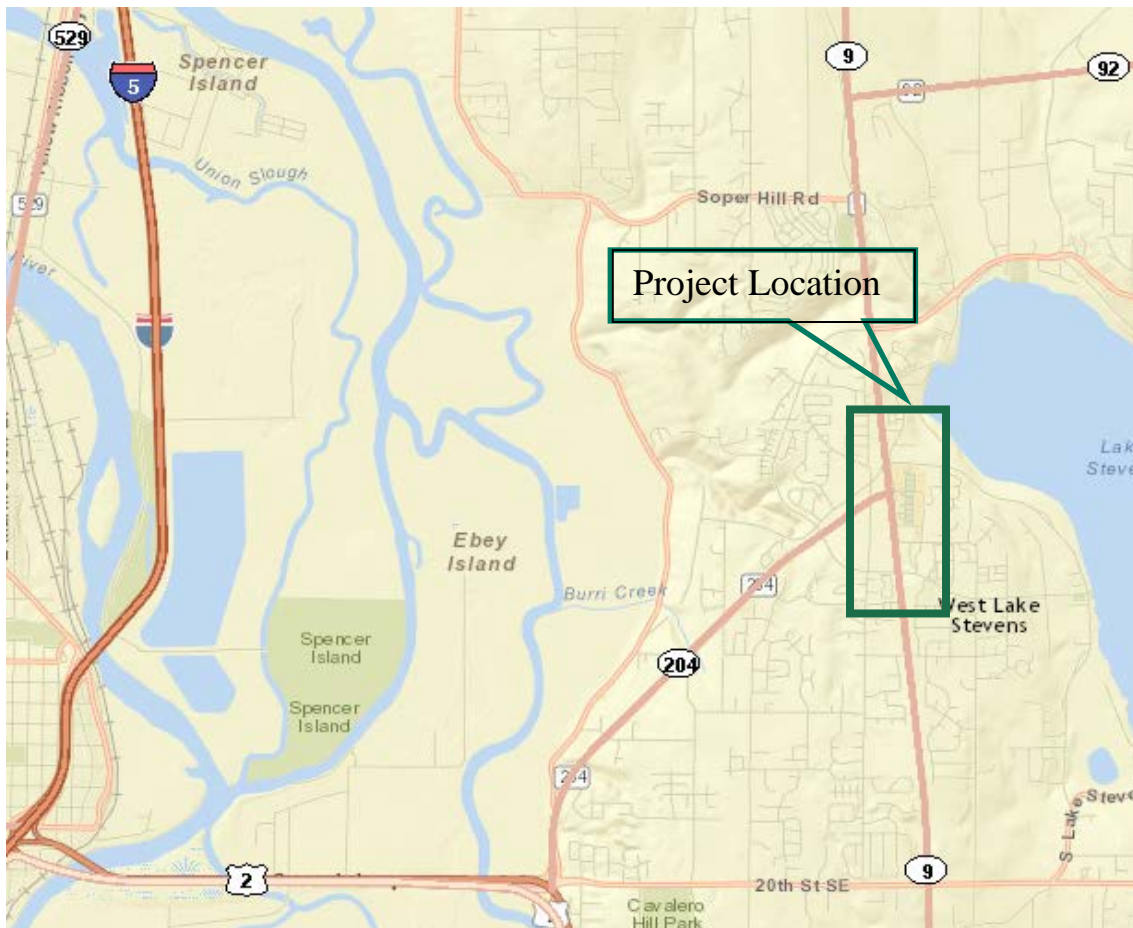


Figure 1. Project Location

## 1.3. This project will:

- Create 2 lane roaunabout at SR9/SR204 interssection..

- Improve capacity and operations at the SR 9/Market Place intersection by adding a through lane on SR 9 in each direction.
- Improve access from/to northbound SR 9 at 4th Street NE.
- Improve mobility at the southbound SR 9, Vernon Road off-ramp as necessary for acceptable operations.
- Improve operations at the entrance to Frontier Village by closing and abandoning 92nd AVE NE.
- Improve the 7th Place NE, Vernon Rd, and SR 204 intersection to enhance operations.
- Improve the intersection at Vernon Road and N Davies Road intersection to improve traffic flow.
- Enhance stormwater quality and quantity.

## 2. Methodology

The public nature and visual importance of highways necessitates that visual impacts, both beneficial and adverse, be evaluated and considered when a highway project is developed. The extent of visual impacts frequently influences community acceptance of the project. Clearly, describing and mitigating the impacts of projects avoids unnecessary delay to the needed improvements.

The FHWA Guidelines for the Visual Impact Assessment of Highway Projects (2015) provides the basis for this evaluation of visual quality on the [SR 9/SR204 Interchange Improvement](#) project. This methodology synthesizes past visual analysis guidance and describes a process for better understanding how people define visual quality and interpret changes to it. Project complexity, controversy, and scope have guided the level of this analysis, according to the FHWA guidance.

This visual quality analysis identifies the changes to the views and character, the likely viewers of the project and their sensitivity to change, where changes will be visible, and then evaluates the impact the project's changes will have on those viewers.

This analysis evaluates aspects of project character including landforms, waterforms, structures, transportation facilities and infrastructure. It describes the primary characteristics in terms of form, scale, massing, materials, construction method or engineering details. The historical context affects the character of a project environment.

This report describes the affected population in the context of viewer preferences and interests using the terms natural harmony, cultural order, project coherence, and vividness. *Natural harmony* is the term that is roughly equivalent to the previously used term of intactness. *Cultural order* is the term used to describe what was once termed as project unity. *Project coherence* describes understandability of the environment. *Vividness* describes the intensity or memorability of how one experiences the landscape. The viewer may find the experience of an aspect of the view memorable and if the new project retains that sense of memorability or preference, the viewer continues to

experience high visual quality. Visual quality is the degree to which project components, and how they work together, meet the ideals and preferences of the viewers.

### 3. Affected Environment

#### 3.1. Regulatory Context

Federal regulatory requirements and guidance affecting visual quality and assessment include:

- NEPA National Environmental Policy Act (Sec. 101 [42 U.S.C §4331])
- Federal Highway Act of 1970 (Sec. 109(h) [23 U.S.C.])
- National Scenic Byways Program Intermodal Surface Transportation Efficiency Act (ISTEA) 23 U.S.C. §162
- National Scenic Areas
- Wild and Scenic Rivers Act (Sec. 1b [16 U.S.C. § 1273])
- National Trails System Act [16 U.S.C. § 1242
- National Monuments [16 U.S.C. § 431]
- National Historic Preservation Act (Sec. 106 [36 CFR Part 800])
- Section 4(f) of the Department of Transportation Act of 1966 (23 CFR part 774)

State regulatory requirements and guidance affecting visual quality and assessment include:

- SEPA State Environmental Policy Act
- Scenic and Recreation Highway Act of 1967 (RCW 47.39)
- Highway Advertising Control Act – Scenic Vistas Act (RCW 47.42)
- Scenic River System (RCW 79A.55)
- Open Space, Agricultural, Timberlands – Current Use – Conservation Futures (RCW 84.34.020)
- WSDOT Roadside Policy Manual (2015)
- 2015-2035 City of Lake Stevens Comprehensive Plan

#### 3.2. Area of Potential Effect (APE)

The Area of Potential Effect (APE) is the area visible from, adjacent to and outside the highway right of way defined by topography, without any land cover such as structures or vegetation.

There is a gradual decline in elevation from the beginning of the project just south of Market PL intersection to a mile north of the SR 9/SR 204 intersection. The views toward the highway and from the highway would be relatively open and expansive through most of the project corridor since there are no significant topographic changes and geologic features that would interrupt visibility.

Extensive views would be available to surrounding lands due to limited topography changes and the project area location at the crest of the hill. The flattened topography can provide distant views to any taller features such as buildings, walls, trees, etc.

### 3.3. Area of Visual Effect (AVE)

The area of visual effect (AVE) is the area visible from, adjacent to, and outside the highway right-of-way, as determined by the combination of landform, vegetation or land cover, and structures.

The AVE for this project varies along the corridor and includes 2-landscape units, described below

### 3.4. Affected Environment / Landscape Unit

The visual character of the project site changes along its length, from forested character to suburban commercial development, mixed with residential along the highway at the southernmost and northernmost segment of the project. There are 2-landscape units.



Figure 2. Landscape Units and Project Information



### 3.4.1. Landscape Unit 1

Landscape unit 1 extends from south of Market PL NE St to 4<sup>th</sup> St NE. The unit character is suburban strip mall development with natively vegetated areas still present, when viewed toward the north. This unit appears more forested to the south because trees dominate the foreground and background views. In general, a mix of mature conifers and late successional deciduous trees visually dominate the foreground views and unify this landscape unit to blend more with the natural environment. The conifers can provide year round screening for the residential properties adjacent to the highway. A few residential and commercial buildings are adjacent to the west side of SR 9 with scattered small trees in front. The buffer of trees between the buildings and the roadway provide a unifying thread of natural visual consistency in this landscape unit when viewed from the highway. However, this is not a continuous unifying feature closer to the suburban intersection of SR9 and SR 204. At 4<sup>th</sup> St NE, urban features begin to punctuate the natural visual character with a wider road, more buildings, less mature trees and ornamental landscaping. In addition, the wetland located immediately adjacent to SR 9 north of Market PL NE contains mainly deciduous small trees that contrast the evergreen-forested character that dominates the unit. The deciduous trees create a distinctive natural visual element during the growing season, but allow more visibility of adjacent land uses, particularly in the winter.



**Figure 3. Unit 1-NB looking north - Forested character**



**Figure 4. Unit 1-NB looking south – Forested with Commercial Development**

#### **3.4.2. Landscape Unit 2**

The second landscape unit extends from 4<sup>th</sup> St NE to the North end of the project limits. This landscape unit has a commercial appearance and the existing character is defined by urban elements including: traffic signals, widened expanse of pavement, signage, businesses, and a suburban shopping mall. Natural elements include a few scattered trees mainly on the west side of SR 9 and ornamental planting adjacent to businesses throughout the unit

The natural form of wetland vegetation located immediately adjacent to the defined urban elements of the SR 9 SR 204 intersection offer visual interest in the foreground by providing visual contrast in form, color and texture.

## SR 9 SR 204 Intersection Improvement

In the northernmost segment of the project, the unit transitions from commercial environment back to forested character. Early successional trees and shrubs provide screening from highway and visibility to and from the highway for the adjacent residents particularly in winter. The low slope of the topography and patchy forest character reveal the highway to neighbors adjacent to the highway.



**Figure 5. Unit 2 – NB SR 9 at SR 204 looking north - Commercial character**



**Figure 6. Unit 2 – SB looking south - Suburban commercial development**

### 3.5. Affected Population

In landscape unit 1, there are three predominant users: residential neighbors, commuters and cargo transport (trucks or vans moving goods). Residential neighbors on east side of SR 9 are likely to be highly sensitive to the visual environment because they spend their personal time at home for long durations. Commuters are regular travelers on the same route, sometimes during peak rush hour times. Commuters would be moderately sensitive to visual quality in this unit because they are regularly traveling on this route and spend more time on this roadway during peak traffic flow. Truck or van drivers would be minimally sensitive to visual quality, because they make a living using the highway to move goods.

Neighbors in landscape unit 2 are predominately retail and commercial users. The commercial and retail neighbors are likely to be minimally sensitive because they visit the area for a short duration and prefer to concentrate on the shopping activities with few distractions. As in Unit 1, motorists in this area include commuters and cargo transport and their visual sensitivities are the same.

Both units include people travelling in the area for the first time as tourists. Tourists may travel on SR 9 or in the surrounding neighborhoods, as either passengers or motorists. Their sensitivity would be high because they are taking in their surroundings as they travel for leisure. They are gathering their first impressions of an area or returning to the area to spend their leisure time.

## 4. Visual Effects Analysis

### 4.1. Project Preferred Alternative

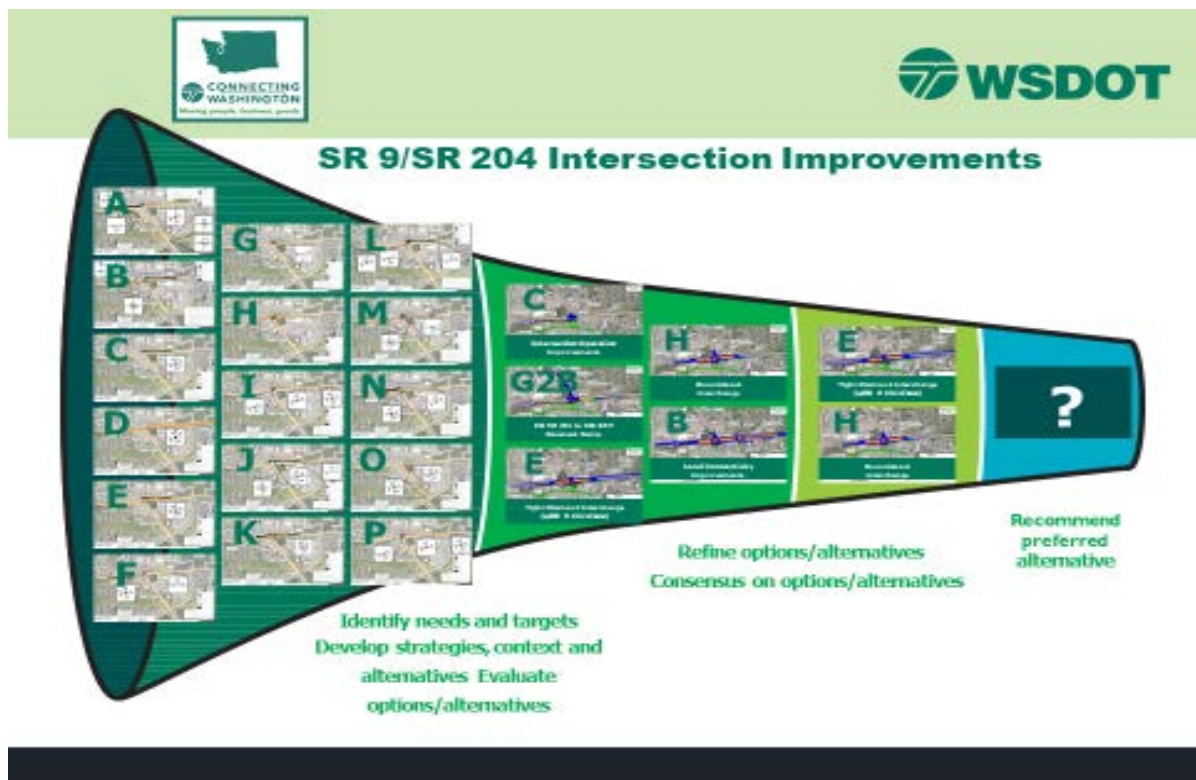
The preferred alternative for the SR 9 SR 204 Intersection Improvement project was selected by the project team based on a variety of factors, including traffic operations, stakeholder input, and constructability.

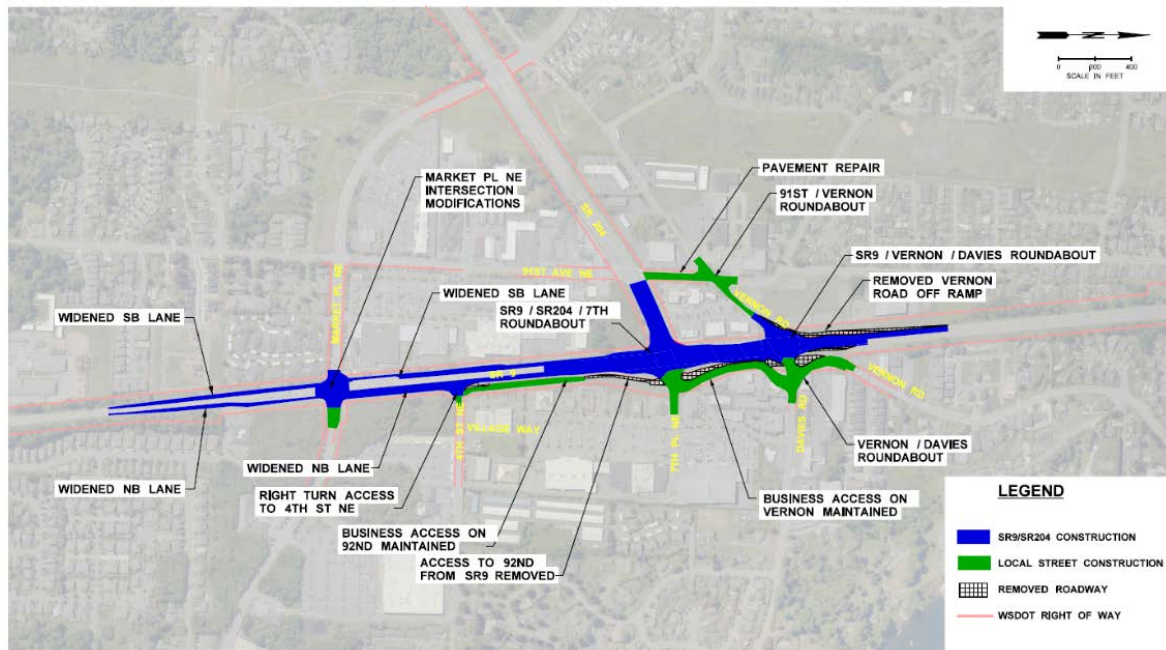
- Added southbound through lane on SR 9 from Lundeen Parkway to approximately 1,200 feet south of the Market Place intersection. Southbound SR 9 will still have a southbound right turn lane at SR 204 in addition to the three through lanes and one left turn lane.
- Added northbound through lane on SR 9 from approximately 1,200 feet south of the Market Place intersection to Lundeen Parkway. The added lane would become a northbound right turn lane (trap right) prior to the intersection with Lundeen Parkway.
- Added SR 9 northbound right-turn pocket to 4<sup>th</sup> Street NE.
- The SR 9/SR 204 intersection would be converted to a 2-lane roundabout.



## SR 9 SR 204 Intersection Improvement

- A new crossing of SR 9 would be created at SR 9/N Davies Road via a two-lane roundabout and the current SB SR 9 to Vernon Road off-ramp would be replaced with a two way segment between the SR 9/N Davies Road and 91<sup>st</sup> Avenue NE/Vernon Road intersection.
- The 91<sup>st</sup> Avenue NE/Vernon Road intersection would be converted to a single lane roundabout
- Vernon Road east of SR 9 between N Davies Road and 7<sup>th</sup> Place NE will serve local business access but is not intended to serve through trips.
- 7<sup>th</sup> Place NE will directly intersect with the SR 9/SR 204 roundabout, providing more direct connections for Frontier Village.
- 92<sup>nd</sup> Avenue NE will be closed at 7<sup>th</sup> Place NE and 4<sup>th</sup> Street NE.
- Two northbound and two southbound through lanes will extend from south of Market Place to SR 204.
- Added SR 9 northbound right-turn pocket to 4<sup>th</sup> Street NE.
- New noise wall on both north bound and south bound from 4<sup>th</sup> St SE to Market Pl.
- New stormwater treatment pond on north bound.





**Figure 7: Proposed Project**

### 4.1.1 Landscape Unit 1

Natural harmony in this unit is moderate, due to its forested character, which is uniform along much of the highway. Vegetation completely blocks views of the road for the residences on east side of the highway. However, residences on the west side of SR 9 are exposed to the highway due to scattered remnant buffer vegetation between the highway and their property. The trees in the foreground on the east side of SR 9 increase the natural harmony for all the neighbors and motorists alike. Overall, the mature trees play a role in creating the enclosure that supports the intact, natural views.

The foreground vegetation also dominates the motorists' views in this unit because the topography along the roadway is flat and the highway geometric form is straight. The vegetation removal may open up wider views of the cascades in the distance for motorists. However, motorists are not likely to see this landscape unit as highly vivid or memorable because there are no unique visual features.

Neighbors currently experience moderate to low levels of cultural order in this unit, because it has consistent strip mall development and suburban elements. The residential buildings have an orderly suburban development character at the interchange of SR 9 and Market Place. The character of the area is moderately developed but well kept.

The Project construction will add a new pond NB (Figure 8) and new walls on NB and SB that would remove most of the established vegetation on the east and west side of SR 9. The noise walls will provide a solid visual barrier between roadway and residences and the views will become more urban in character. The vegetation removal would negatively affect the forested character in unit 1, because it exposes the larger highway facility to nearby businesses and residences. These changes will give more urban character and interrupt unbroken forest views, reducing the natural harmony and intactness of unit 1. However, the project will begin to create more visual coherence by introducing standard architectural and urban elements that will help connect landscape units 1 and 2. The effect will increase overall visual project coherence with the surrounding environment.



**Figure 8. Unit 1-NB Direction; Detention Pond would be on right side in photo**

### **4.1.2 Landscape Unit 2**

The natural harmony is minimal in landscape unit 2 due to increased development, particularly at the intersection of SR 9 and SR 204. The area has significant encroachment from neighboring businesses and lacks natural harmony that would be available if a dense vegetative buffer remained. Sparse vegetation punctuates the visual environment in an inconsistent manner that detracts from the overall visual coherence.





**Figure 9. Unit 2; New roundabout will be constructed at the intersection of SR 204 and SR 9**

Cultural order, or the continuity of style and appearance of the built environment, is poorly integrated with the existing vegetation and has no emphasis on coherence. The buildings and parking lots vary in form and alignment, without unified landscape composition. The existing vegetation between the developed properties in Frontier Village does not enforce the natural character of the highway. Widening the highway, with view of the new roundabouts, would add visual complexity for travelers and new sources of light and glare. Trees and native vegetation will be installed in the center of the roundabout to alleviate the effect of increased expansiveness of the build structure and highway character and will have a moderate coherence and order of the visual environment. Construction of the roundabouts with additional vegetation would not decrease natural harmony and could have a beneficial impact on project coherence. The proposed changes would be compatible with the suburban neighborhoods nearby, which would have a beneficial impact on cultural order.

Travelers may observe the greatest degree of change in this area because all new project elements will be highly visible to them. Users would experience a widened highway, 2 roundabouts, higher traffic volume, lower speed, and less congestion. The motorists' sensitivity to their surroundings will be reduced since the traffic light at the intersection on SR 9 highway will be removed and travel time will be reduced. Previously, motorists were idle at the stoplights, allowing longer viewing times of the vicinity.

Visual quality could be improved with a more unified landscape composition in the center of roundabout and surrounding roadside. Urban elements such as signs splitter islands, sidewalks, street trees, pedestrian fixtures, and utilities can be integrated into the



existing visual environment. These elements may provide a more orderly and coherent visual environment by introducing a standard language of the architectural elements of the transportation system. Overall, the Project would have a neutral to slightly beneficial impact on visual quality in unit 2 primarily due to an increase in cultural order with architectural and urban elements.

## 5. Mitigation

WSDOT will apply Context Sensitive Solutions (CSS) to avoid, minimize, enhance or compensate for the visual impacts of the project. CSS is a theoretical and practical approach to transportation decision-making and design that takes into consideration the communities and lands through which streets, roads, and highways pass. The following specific measures could reduce visual impacts caused by the project:

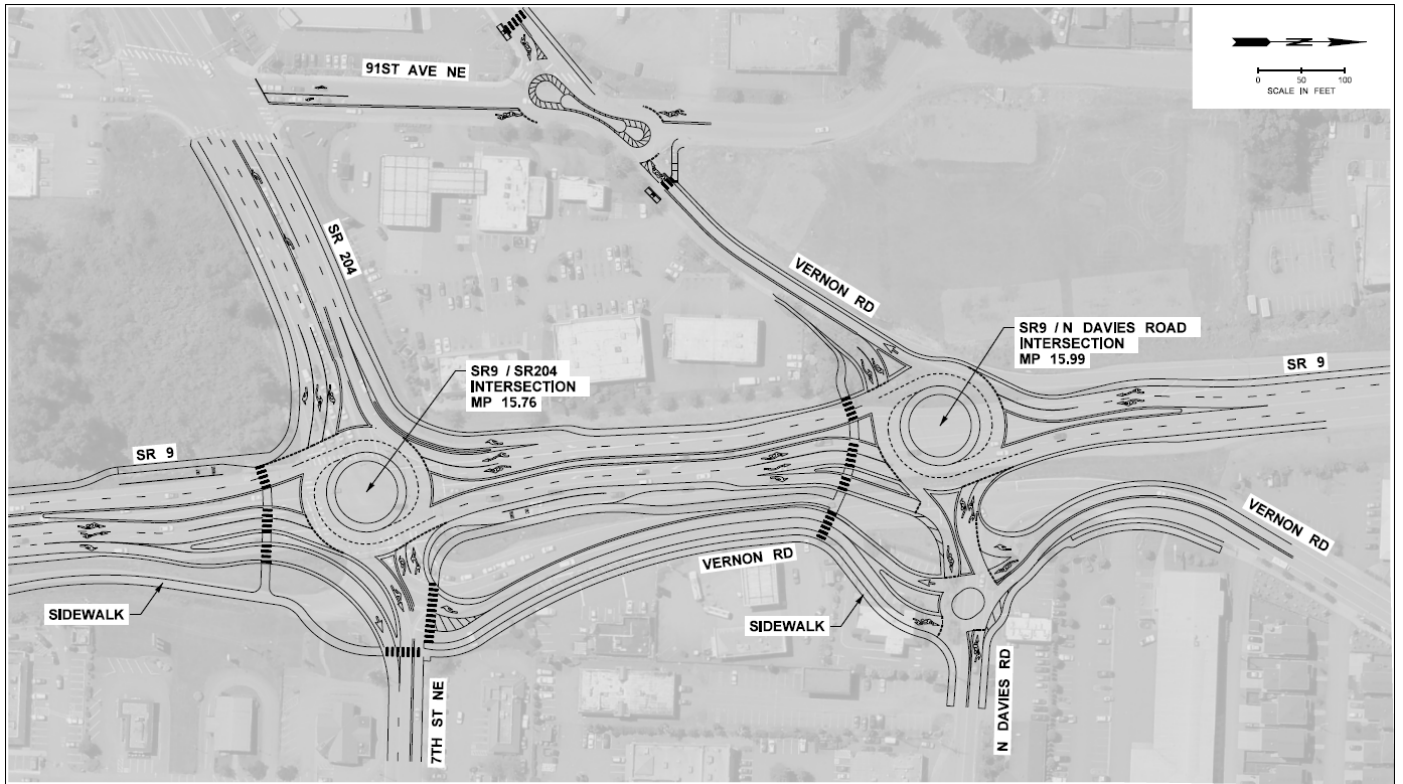
- Minimize vegetation removal to preserve forested character.
- Reestablish buffer vegetation where appropriate along the corridor.
- Select wall colors, materials, and textures that provide an appropriate aesthetic balance for the new project and existing character.
- Align materials, forms, fixtures and finishes of roadway structures and retaining walls to be consistent with those used throughout the corridor.
- Minimize the visual impact of the walls with a green over gray strategy, applying a varied planting structure to include a combination of trees, shrubs and vines.
- Design ponds, storm water ditches, and swales to have a natural appearance to better blend in with the forested character of the area.
- Place signs, lights, cameras, and signals to minimize vegetation removal. Poles would be dark brown paint or bronze brown anodized. If city has standard colors for lighting they can be followed to create continuity for scenic highway.

## 6. During Construction

To reduce the temporary visual effects during construction, the project should consider the following possible mitigation:

- Locate storage and staging areas in areas that are not visually prominent, where possible.
- To minimize vegetation clearing, locate construction access in areas selected to avoid removing vegetation that can shield views of construction.
- Minimize temporary construction signage and create clear, concise driver guidance in the construction zone.
- For nighttime activities, use downcast lighting sources and shield highway lighting.

## SR 9 SR 204 Intersection Improvement



**Figure 10. Proposed project at intersection SR9/SR204**