

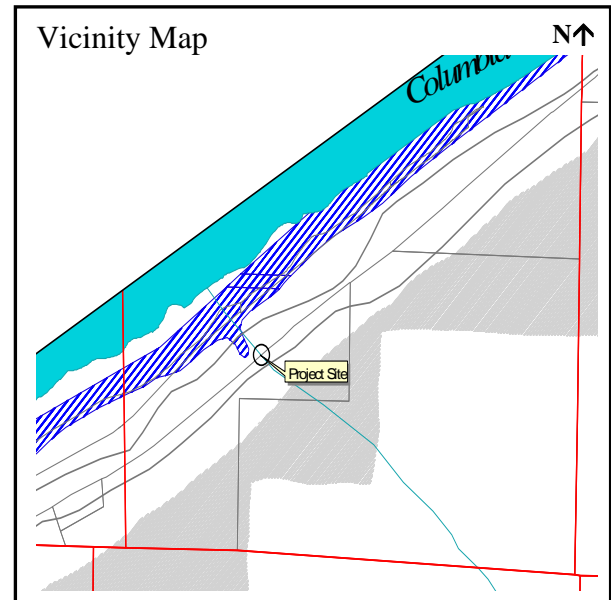


**MULTNOMAH COUNTY**  
**LAND USE AND TRANSPORTATION PROGRAM**  
 1600 SE 190<sup>TH</sup> Avenue Portland, OR 97233  
 PH: 503-988-3043 FAX: 503-988-3389  
<http://www.co.multnomah.or.us/landuse>

# NOTICE OF DECISION

This notice concerns a Planning Director Decision on the land use case(s) cited and described below.

**Case File:** T2-08-049  
**Permit:** National Scenic Area Site Review & Hillside Development Permit  
**Location:** Bridge 02194B (Moffett Creek Bridge, i-84 (Eastbound). This bridge is located approximately 4.5 miles southwest of the Urban Growth Boundary of the City of Cascade Locks at Mile Post 38.98 on I-84.  
 Sec 29, T2 North, R 7 East, W.M.  
**Applicant:** Geoff Crook  
**Owner:** Oregon Department of Transportation  
**Base Zone:** Gorge Special Open Space (GSO)  
**Overlays:** Hillside Development (HD)



**Summary:** Replace the I-84 eastbound bridge over Moffett Creek with a new Cascadian Style Bridge.

**Decision:** Approved with Conditions.

Unless appealed, this decision is effective Friday, January 2, 2009, at 4:30 PM.

Issued by:

By: \_\_\_\_\_  
 Lisa Estrin, Planner

For: Karen Schilling- Planning Director

Date: Friday, December 19, 2008

**Opportunity to Review the Record:** A copy of the Planning Director Decision, and all evidence submitted associated with this application, is available for inspection, at no cost, at the Land Use Planning office during normal business hours. Copies of all documents may be purchased at the rate of 30-cents per page. The Planning Director's Decision contains the findings and conclusions upon which the decision is based, along with any conditions of approval. For further information on this case, contact Lisa Estrin, Staff Planner at 503-988-3043, ext. 22597.

**Opportunity to Appeal:** This decision may be appealed within 14 days of the date it was rendered, pursuant to the provisions of MCC 38.0640. An appeal requires a \$250.00 fee and must state the specific legal grounds on which it is based. To obtain appeal forms or information on the procedure, contact the Land Use Planning offices at 1600 SE 190th Avenue (Phone: 503-988-3043). This decision cannot be appealed to the Columbia River Gorge Commission until all local appeals are exhausted.

**This decision is final at the close of the appeal period, unless appealed. The deadline for filing an appeal is Friday, January 2, 2009 at 4:30 pm.**

**Applicable Approval Criteria:** Multnomah County Code (MCC): *General Provisions:* § 38.0045 Review and Conditional Use Applications - Submittal Requirements

*Gorge Special Open Space (GSO):* § 38.2625 Review Uses, (D)(1),

*Site Review:* § 38.7040 SMA Scenic Review Criteria, § 38.7050 SMA Cultural Resource Review Criteria, § 38.7075 SMA Natural Resource Review Criteria, § 38.7085 SMA Recreation Resource Review Criteria, Approval Criteria and Submittal Requirements - § 38.7300- Review and Conditional Uses.

*Hillside Development:* MCC 38.5505 Permits Required, MCC 38.5515 Application Information Required, MCC 38.5520 Grading and Erosion Control Standards

Copies of the referenced Multnomah County Code sections can be obtained by contacting our office at 503-988-3043 or by visiting our website at <http://www.co.multnomah.or.us/landuse>.

### **Scope of Approval**

1. Approval of this land use permit is based on the submitted written narrative(s) and plan(s). No work shall occur under this permit other than that which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with these documents and the limitations of approval described herein.
2. **Pursuant to MCC 38.0690, this land use permit expires two years from the date the decision is final if; (a) development action has not been initiated; (b) building permits have not been issued; or (c) final survey, plat, or other documents have not been recorded, as required. The property owner(s) may request to extend the timeframe within which this permit is valid, as provided under MCC 38.0690 and 38.0700. Such a request must be made prior to the expiration date of the permit.**

### **Conditions of Approval**

The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied. Where a condition relates to a specific approval criterion, the code citation for that criterion follows in parenthesis.

1. **In the event of the discovery of cultural resources, work in the immediate area of discovery shall be suspended until a cultural resource professional can evaluate the potential significance of the discovery pursuant to MCC 38.7050 (H).**

- a. **If the discovered material is suspected to be human bone or a burial, the following procedure shall be used:**
  - i. **Stop all work in the vicinity of the discovery.**
  - ii. **The applicant shall immediately notify the U.S. Forest Service, the applicant's cultural resource professional, the State Medical Examiner, and appropriate law enforcement agencies.**
  - iii. **The U.S. Forest Service shall notify the tribal governments if the discovery is determined to be an Indian burial or a cultural resource.**
  - iv. **A cultural resource professional shall evaluate the potential significance of the discovery pursuant to MCC 38.7050 (G) (3) and report the results to the U.S. Forest Service which shall have 30 days to comment on the report.**
  - v. **If the U.S. Forest Service determines that the cultural resource is not significant or does not respond within the 30 day response period, the cultural resource review process shall be complete and work may continue.**
  - vi. **If the U.S. Forest Service determines that the cultural resource is significant, the cultural resource professional shall recommend measures to protect and/or recover the resource pursuant to MCC 38.7050 (G) (4) and (5)**
2. **Whenever sedimentation is caused by stripping vegetation, grading or other development, it shall be the responsibility of the person, corporation or other entity causing such sedimentation to remove it from all adjoining surfaces and drainage systems prior to issuance of occupancy or final approvals for the project. [MCC 38.5520(B)(1)]**
3. **No in-water work or ground disturbance is authorized within the No Work Area as shown on Sheet No. 3, Construction Limits [Exhibit A.14.a(1)]. If the erosion control measures fail, it is the responsibility of ODOT to return the No Work Area or Creek to as nearly as possible to its original or equal condition. In the event of erosion control failure into Moffett Creek or the No Work Area, ODOT shall apply for any necessary permit to work in these areas. [MCC 38.5520(B)(2)]**
4. **Upon completion of the replacement bridge over Moffett Creek, the permanent plantings specified in the restoration and mitigation plans shall be installed or seeded within one year. These permanent plantings shall achieve a minimum of 80 percent vegetative coverage of the disturbed areas within 1 year of project completion. Soil-stabilizing methods and erosion control measures shall be maintained until the disturbed areas have an 80 percent vegetative cover. [MCC 38.7075(P)(4) & MCC 38.7075(Z)(1)]**
5. **ODOT shall provide to Land Use Planning a progress report that documents milestones, successes, problems, and contingency action once a year as part of their annual monitoring program. Prior to any ground disturbance, ODOT shall establish photographic monitoring stations for the project site. These stations shall be used to monitor the mitigation plan's progress. [MCC 38.7075(X)]**
6. **A final monitoring report shall be submitted to Multnomah County for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. Multnomah County shall submit copies of the monitoring report to the U.S. Forest Service; who shall offer technical assistance to the local government in helping to evaluate the completion of the mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until ODOT's restoration and mitigation plans satisfy the restoration and enhancement guidelines. [MCC 38.7075(Y)]**

7. **All stock piled materials shall be located within the area of ground disturbance as delineated by Exhibit A.4.f and shall be covered with mulch, protective covering or other appropriate erosion control measures to prevent erosion into streams or drainageways. [MCC 38. 5520(l)]**

**Notice to Mortgagee, Lien Holder, Vendor, or Seller:**

ORS Chapter 215 requires that if you receive this notice it must be promptly forwarded to the purchaser.

## **Findings of Fact**

**FINDINGS:** Written findings are contained herein. The Multnomah County Code criteria is in **bold** font. The applicants statements are identified below as ‘**Applicant:**’. Staff comments and analysis are identified as ‘**Staff:**’ and address the applicable criteria. Staff comments may include a conclusionary statement in *italic*.

### ***Project Description***

#### **Applicant: SUMMARY**

ODOT has developed plans to replace State Bridge 02194B (Moffett Creek Bridge, I-84 eastbound). Bridge 02194B is located approximately 4.5 miles from the Urban Growth Boundary (UGB) of the City of Cascade Locks, in Multnomah County in northwestern Oregon within Section 02 of Township 07E North, Range 29. The bridge is located on I-84 at Mile Post (MP) 38.98 as it crosses over Moffett Creek near the southern bank of the Columbia River. The bridge is located approximately 20 miles from the western boundary of the Columbia River Gorge National Scenic Area and requires a National Scenic Area Site review. A pre-application meeting was held on January 31, 2008. See Exhibit A.1.0 Pre-filing Notes.

#### **PROJECT DESCRIPTION**

Replacement of the Moffett Creek Bridge, eastbound I-84, is part of the third Oregon Transportation Investment Act (OTIA III). In 2003, the Oregon State Legislature passed OTIA III which provides \$1.3 billion for the repair and replacement of bridges on State highways. From this legislation and federal funding provided by the Federal Highway Administration (FHWA) ODOT has developed the OTIA III Statewide Bridge Delivery Program to repair and replace bridges over the next 8 to 10 years. Bridge 02194B is one of the bridges scheduled for replacement in 2009, and for project design and construction purposes, is contained within Bundle 209. See Exhibit B 1.0 - Project Vicinity Map, which contains all of the bridges within Bundle 209.

**Bridge 02194B Existing Structure:** Bridge 02194B, constructed in 1962, is a five-span (50 ft-110 ft-138 ft-110 ft-50 ft), 458 foot long structure comprised of steel plate girder main spans and reinforced concrete deck girder approaches. It accommodates two lanes of traffic with a 31-foot, 5-inch horizontal clearance and overall deck width of 35 feet, 2 inches. The substructure consists of reinforced concrete, four two-column bents and caps on spread footings at each bent and two abutments. Existing bents vary from approximately 45 to 100 feet in height. This bridge is scheduled for replacement due to insufficient load capacity, cracking in the reinforced concrete girder approach spans, and the poor state of the connections between the bridge components that comprise the substructure. Additionally, severe cracking was noted in the deck and Bents 2 and 5, and the existing roadway shoulders are substandard.

**Bridge 02194B Replacement Structure:** The replacement bridge will accommodate the same number of travel lanes (two, 12 ft wide travel lanes) but will be widened by approximately 10 feet in order to accommodate standard shoulder widths (6 feet left, 12 feet right). These features plus the new bridge rails (1 foot, 6-inch plus 2-inch ledge) will constitute a total out-to-out deck width of 45 feet, 4inches. The vertical profile of the new bridge will closely match the existing bridge, in order to minimize the amount roadway approach work required.

The new bridge will closely match the length of the existing structure. The new bridge will be 460 feet long and will include composite steel girders designed to accommodate a Cascadian style structure. Three spans (130 ft – 200 ft – 130 ft) will be constructed with two, two-column bents and two abutments. This span arrangement will allow bents to be placed further away from Moffett Creek than the existing bents, minimizing environmental impacts.

The horizontal alignment of I-84 will transition to the south by approximately 18 feet at the widest point in order to accommodate staged construction, resulting in an additional 15.5-foot separation between westbound (WB) and eastbound (EB) I-84. This shift will necessitate the construction of two retaining

walls along the south face of the project. The west retaining wall will occur prior to the eastbound approach of the structure and will be a cut wall. This wall will be within the view of the observer and will accommodate a future shared-use path (constructed by others). The east retaining wall will occur to the east of the structure, will be a fill wall, and will not be within the view of roadway observers or any key viewing area (KVA).

No additional right-of-way is required for the replacement of the bridge. See Exhibit B 2.0- Right-of-Way Map.

**I-84 Corridor Strategy:** ODOT has developed plans to replace Bridge 02194B in accordance with the aesthetic standards developed for the *I-84 Corridor Strategy, Bridge Features for Mainline I-84 Bridges (I-84 Corridor Strategy)* (November 2005). The Columbia River Gorge Commission, the US Forest Service, Multnomah County, ODOT, the Federal Highway Administration (FHWA) and numerous others including members of the public, actively participated in the development of the *I-84 Corridor Strategy* with the objective of meeting public safety and mobility needs while also meeting National Scenic Area provisions of the Columbia River Gorge.

A wide range of agencies, stakeholder groups and the public-at-large participated in the development of the *I-84 Corridor Strategy*, resulting in a series of guidelines for use on the replacement of the Moffett Creek Bridge and numerous other activities involving the I-84 transportation system within the Columbia River Gorge. Key to these activities was the work of a three layer committee structure which collaboratively developed policies, strategies, and general design standards for actions involving the I-84 corridor. Resulting guidelines show harmony in form, line, color, silhouette, texture in order to meet the scenic standards of the Columbia River Gorge and reasonableness for the safety, mobility and funding requirements of ODOT.

The multi-agency “Level 1” group, the first tier of the three layer committee structure, was instrumental in developing these guidelines. While today some of the agency representatives have changed, the Level 1 group still meets to provide the assurance that actual project designs meet the original objectives sought by the *I-84 Corridor Strategy*.

Two Level 1 group meetings during the development of the design for the Moffett Creek Bridge. An I-84 Strategy Level 1 team meeting was held on February 28, 2008, to discuss a number of I-84 bridge bundle projects, with Bundle 209 – Moffett Creek being among them. At this meeting, the need to shift eastbound I-84 to the south was discussed with the Level 1 team and that this shift would accommodate the future placement of a user path to the south of the west retaining wall. Action items were to review simulations of the detour, retaining wall and trail (user path) at the team’s next meeting.

The simulations were shown to the Level 1 team at a meeting held on June 4, 2008.

The simulations can be found in Appendix D and reflect the recommendations for design modifications made at the June meeting. See Appendix A for a copy of the Level 1 team meeting notes.

**Construction Staging:** Four stages of construction are assumed in order to comply with the ODOT requirement to maintain two lanes in each direction during summer (Memorial Day to Labor Day) construction. Temporary lane closures are permitted outside of the summer period. At all stages, a minimum roadway width of 19 feet will be provided through the construction area. It requires temporary lane and shoulder closures. The work will be occurring primarily at the immediate bridge site with all stages of construction occurring within existing ODOT right of way. There will be no necessity for detouring traffic around the bridge site during any stage of construction.

Construction staging requires the bridge and roadway be constructed in halves, with the southerly half constructed first while traffic remains on the existing bridge. Once the outside lane is constructed, the traffic will shift and the inside lane and northerly half of the bridge will be constructed. Construction staging will require the permanent realignment of EB and excavation into the existing side slopes.

Permanent retaining walls will be constructed to the south of the eastbound lanes to contain the side slopes.

**Utilities:** Utilities that have the potential need for protection or relocation as a result of the project include underground and overhead electrical power line, power vaults and conduit and storm pipes.

An overhead electrical power line (including temporary poles) and underground power vaults and conduit owned by the City of Cascade Locks have recently been placed on the south side of the existing eastbound structure, and throughout the area of the alignment shift. Portions of the utilities both above and below ground conflict with the proposed construction. The conflicting lines, vaults and conduits of the City of Cascade Locks will be moved prior to or during construction of this project. The utilities will be located in or beyond the south shoulder. As part of this project, the City of Cascade Locks temporary overhead power lines will be moved underground, and inserted into conduit this project will provide in the new eastbound bridge to cross Moffett Creek. The new bridge's structure is being designed to contain the utilities. Until the utilities are permanently relocated within the new bridge structure, there will be temporary poles in the vicinity of the new bridge. Close coordination with the City of Cascade Locks is ongoing.

ODOT has various 18-, 30-, and 36-inch storm pipes that cross under the highway at various points east and west of the EB structure and which may need to be extended or relocated.

**Vicinity Description:** The areas to the north of the project contain forestland, the Columbia River, Moffett Creek, the Old Columbia River Highway, and Union Pacific Railroad (UPRR) tracks. The areas to the south of the bridge contain forestland and Moffett Creek. The John B. Yeon State Scenic Corridor abuts the south property line of ODOT's in the project area and spans an area approximately one mile east of Moffett Creek and approximately five miles west of Moffett Creek.

## 1.00 *Administration and Procedures*

### 1.01 **Type II Case Procedures**

**MCC 38.0530(B): ...Upon receipt of a complete application, notice of application and an invitation to comment are mailed to the Gorge Commission; the U.S. Forest Service; the Indian tribal governments; the State Historic Preservation Office; the Cultural Advisory Committee; and property owners within 750 feet of the subject tract. The Planning Director accepts comments for 14 days after the notice of application is mailed and renders a decision...**

**Staff:** The application was submitted August 5, 2008 and was deemed complete as of October 23, 2008. An "Opportunity to Comment" notice was mailed on October 31, 2008 to all property owners within 750 feet of the subject property and to various Gorge Agencies and Indian Tribes in compliance with MCC 38.0530. Comments were received from the Friends of the Columbia Gorge (Exhibit D.1), the State Historic Preservation Office (SHPO) and the US Forest Service (USFS). The Friend's comments are related to the approval criteria. The US Forest Service and SHPO comments were directed towards the Cultural Resource Review criteria listed under MCC 38.7050.

### 1.02 **Proof of Ownership**

#### **MCC 38.0550 Initiation of Action**

**Except as provided in MCC 38.0760, Type I – IV applications may only be initiated by written consent of the owner of record or contract purchaser. PC (legislative) actions may only be initiated by the Board of Commissioners, Planning Commission, or Planning Director.**

**Staff:** The proposed project is located at Mile Post 38.98 on Interstate-84 in Township 2 North, Range 7 East, Section 29. The property is owned by the Oregon Department of Transportation.

Geoff Crook of ODOT has been designated the applicant in this case and has signed the General Application Form (Exhibit A.1). *This criterion has been met.*

1.03 **MCC 38.0560 Code Compliance And Applications.**

**Except as provided in subsection (A), the County shall not make a land use decision, or issue a building permit approving development, including land divisions and property line adjustments, for any property that is not in full compliance with all applicable provisions of the Multnomah County Land Use Code and/or any permit approvals previously issued by the County.**

**(A) A permit or other approval, including building permit applications, may be authorized if:**

- (1) It results in the property coming into full compliance with all applicable provisions of the Multnomah County Code. This includes sequencing of permits or other approvals as part of a voluntary compliance agreement; or**
- (2) It is necessary to protect public safety; or**
- (3) It is for work related to and within a valid easement over, on or under an affected property.**

**(B) For the purposes of this section, Public Safety means the actions authorized by the permit would cause abatement of conditions found to exist on the property that endanger the life, health, personal property, or safety of the residents or public. Examples of that situation include but are not limited to issuance of permits to replace faulty electrical wiring; repair or in-install furnace equipment; roof repairs; replace or repair compromised utility infrastructure for water, sewer, fuel, or power; and actions necessary to stop earth slope failures.**

**Staff:** There are no known violations associated with this project.

2.00 **General Provisions**

2.01 **§ 38.0045 REVIEW AND CONDITIONAL USE APPLICATIONS - SUBMITTAL REQUIREMENTS**

**(A) The following additional information shall be submitted for all review and conditional uses:**

- (1) A list of Key Viewing Areas from which the proposed use would be visible.**

**Applicant:** Interstate 84, on which the bridge replacement is located, is a Key Viewing Area (KVA), and the KVA from which the structure will be most visible. A section of the Historic Columbia River Highway (HCRH) is located to the north of the bridge and is a secondary Key Viewing Area. The bridge may also be visible from portions of the Columbia River.

**Staff:** Topographically, the replacement bridge is visible from Beacon Rock, the Columbia River, the Historic Columbia River Highway, Interstate -84, the Pacific Crest Trail, and State Route 14.

- 2.02 **(2) A map of the project area. The map shall be drawn to scale. The scale of the map shall be large enough to allow the reviewing agency to determine the location and extent of the proposed use and evaluate its effects on scenic, cultural, natural, and recreation resources. The map shall be prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail. If a parcel is very large, the map does not have to show the entire parcel. Rather, it may show only those portions of the parcel affected by the proposed use. The map shall include the following elements:**



- (a) North arrow;
- (b) Map scale;
- (c) Boundaries, dimensions, and size of the subject parcel;
- (d) Significant terrain features or landforms;
- (e) Groupings and species of trees and other vegetation on the parcel;
- (f) Location and species of vegetation that would be removed or planted;
- (g) Bodies of water and watercourses;
- (h) Location and width of existing and proposed roads, driveways, and trails;
- (i) Location and size of existing and proposed structures;
- (j) Location of existing and proposed services, including wells or other water supplies, sewage disposal systems, power and telephone poles and lines, and outdoor lighting; and
- (k) Location and depth of all proposed grading and ditching.
- (l) Proposed uses in streams, ponds, lakes, and their buffer zones shall include the exact boundary of the ordinary high water-mark or normal pool elevation and the prescribed buffer zone; and a description of actions that would alter or destroy the stream, pond, lake, or riparian area.
- (m) Proposed uses in wetlands or wet-lands buffer zones shall include the exact boundary of the wetland and the wetlands buffer zone; and a description of actions that would alter or destroy the wetland.
- (n) Proposed uses on parcels contiguous to established recreation sites shall provide a buffer between the proposed use and recreation site sufficient to insure that the proposed use will not detract from the use or enjoyment of the recreation site.
- (o) New uses located in, or providing recreation river access to, the Columbia River or its fish bearing tributaries shall include the following supplemental information:
  - 1. The site plan shall show adjacent river areas at least 1/2 mile up-stream and downstream from the project site, the locations at which river access is planned, and the locations of all tribal fishing sites known to the project applicant.
  - 2. The site plan text shall include an assessment of the potential effects that new uses may have on Indian treaty rights. The assessment shall:
    - a. Describe the type of river access and uses proposed, estimated period when the development would be used, and anticipated levels of use (people, boats, and other uses) during peak-use periods.
    - b. List tribal commercial fishing seasons in the project vicinity, as established by the four treaty tribes.
    - c. List tribal ceremonial fishing seasons in the project vicinity.
    - d. Based on the above factors, assess the potential effects that the proposed uses may have on Indian treaty rights.

**Applicant:** The following maps and plan sheets can be viewed for the information required:

- (a) See maps in Appendix B.
- (b) See maps in Appendix B and Exhibits F 1.0 and 1.1 - Landscaping and Site Restoration Plan.
- (c) See Exhibits B 3.0 – 3.2.
- (d) See maps in Appendix B and Exhibits F 1.0 and 1.1 - Landscaping and Site Restoration Plan.

- (e) See simulations, Exhibits D 6.0 thru 6.3.
- (f) See Exhibits F 1.0 and 1.1 - Landscaping and Site Restoration Plan.
- (g) See Exhibit B 3.2, Exhibit B 4.0 and Exhibits F 1.0 and 1.1 - Landscaping and Site Restoration Plan.
- (h) See Exhibits B 3.0 – 3.2 and B 4.0.
- (i) See Exhibits B 3.0 – 3.2 and B 4.0.
- (j) See Exhibits B 3.0 – 3.2.
- (k) See Exhibits 5.0 – 5.4.
- (l) See Exhibit B 4.0.
- (m) This project is not within a wetland or wetland buffer area. See Exhibit H 5.0 – Wetland Determination Report.
- (n) The nearest recreation site is the HCRH trail across Moffett Creek. Currently I-84 WB provides a buffer between the trail and the I-84 EB Moffett Creek Bridge. This buffer would continue to function during construction of the new Moffett Creek I-84 EB Bridge.

**Staff:** Please see the exhibit list at the end of the staff report for a complete list of all exhibits submitted by the applicant, staff and others. The above required information has been provided by the applicant.

- 2.03            **(3) Elevation drawings shall show the appearance of proposed structures and shall include natural grade, finished grade, and the geometrical exterior of at least the length and width of structures as seen from a horizontal view. Elevation drawings shall be drawn to scale.**

**Applicant:** See Appendix C - Design Details, Exhibit C 1.0 – Arch\_Panels 02-25-08, for the elevation drawing as required above.

**Staff:** Revised Appendix C has been labeled by planning staff as Exhibit A.15. Revised Exhibit C1.0 is labeled as A.15.a. The above required information has been provided by the applicant. In addition to the design drawings, color simulations can be found in Exhibit A.6.f through A.6.j. *This submittal requirement has been provided.*

- 2.04            **(B) Supplemental information will be required for:**
- (1) Forest practices in the Special Management Area,**
  - (2) Production and development of mineral resources in the General Management Area,**
  - (3) Proposed uses visible from Key Viewing Areas, and**
  - (4) Proposed uses located near cultural resources, wetlands, streams, ponds, lakes, riparian areas, sensitive wildlife habitat, and sensitive plant sites.**

**Applicant:** (1) and (2) above do not apply to this project. Information responding to (3) and (4) from above is addressed in MCC 38.7040 SMA Scenic Review Criteria, MCC 38.7050 SMA Cultural Resource Review Criteria, and MCC 38.7075 SMA Natural Resource Review Criteria.

**Staff:** Staff concurs that (1) and (2) are not applicable. The necessary information has been supplied by the applicant for (3) and (4).

### 3.00    *Gorge Special Open Space Criteria*

### 3.01 § 38.2625 REVIEW USES

**(D) The following uses may be allowed on lands designated GSO, pursuant to MCC 38.0530 (B), when consistent with an open space plan approved by the U.S. Forest Service and upon findings that the NSA Site Review standards of MCC 38.7000 through 38.7085 have been satisfied:**

**(1) Changes in existing uses including reconstruction, replacement, and expansion of existing structures and transportation facilities, except for commercial forest practices.**

**Applicant:** This proposal is for the replacement of an existing bridge and therefore may be allowed on lands designated GSO. The applicable open space plan approved by the U.S. Forest Service for this area is the *Columbia Tributaries West Watershed Analysis*. I-84 is identified as an existing transportation facility in the USFS-approved open space plan. The *Columbia Tributaries West Watershed Analysis* recognizes that “Every potential proposal for new development or uses cannot be anticipated at this time”. New SMA open space uses and developments are considered consistent if they:

- 1) Do not conflict with this watershed analysis and
- 2) Meet the National Scenic Area Management Plan guidelines or Multnomah County implementing ordinances for Open Space and for protection of scenic, natural, cultural and recreational resources.

See Appendix D – Exhibit D.1.0 - West Watershed Analysis, for a copy of applicable requirements from the *Columbia Tributaries West Watershed Analysis*.

The project does not conflict with the watershed analysis because of the following reasons:

- a) No new travel lanes are being added to I-84;
- b) The project is not increasing the amount of traffic using I-84;
- c) No bents are being constructed in the active channel;
- d) No demolition or removal of bents will occur in the active channel; and
- d) Native plantings will be used in restoration areas.

Additionally, the project complies with the NSA Management Plan guidelines as demonstrated in this application. Consistency of this project with the *I-84 Corridor Strategy* contributes to its compliance with the USFS-approved open space plan. This strategy and its guidelines “provides the framework to help ODOT to manage and improve the Interstate 84 facilities within the Columbia River Gorge National Scenic Area (CRGNSA) in a manner that meets public safety and transportation needs while also meeting the National Scenic Area provisions.”

This project is also allowed as a Review Use pursuant to MCC 38.0530 (B) – Decision Making Process and MCC 38.7000 – 38.7085 – Site Review. Findings for the Site Review, satisfying the MCC criteria, are presented in the sections below.

**Staff:** The eastbound bridge over Moffett Creek was constructed in 1962 prior to the National Scenic Area being adopted and is part of the Interstate – 84 transportation facilities. The proposed project will replace the existing bridge with a new structure and expand it to allow for standard shoulder widths for safety purposes. The US Forest Service’s Open Space plan titled *Columbia Tributaries West Watershed Analysis* indicates that new development and uses in the SMA Open Space are considered consistent with the Plan if they do not conflict with the watershed analysis and if they comply with the County’s implementing ordinances. Planning staff has not identified any conflicts with the watershed analysis. Planning staff contacted Diana Ross, USFS to discuss if

there were any concerns. She indicated that the USFS reviewed the project as part of the Level 1 team and the bridge is in compliance. The replacement bridge project has demonstrated compliance with MCC 38.7000 through 38.7085 in the findings below. *This criterion has been met.*

### 3.02 § 38.2660 DIMENSIONAL REQUIREMENTS

#### (C) Minimum Yard Dimensions – Feet

Front	Side	Street Side	Rear
30	10	30	30

**Maximum Structure Height – 35 feet**

**Minimum Front Lot Line Length – 50 feet.**

**(E) Structures such as barns, silos, windmills, antennae, chimneys, or similar structures may exceed the height requirement if located at least 30 feet from any property line.**

**Staff:** The proposed replacement bridge does not qualify as a *Building* as defined in MCC 38.0015. A *Building* is defined as “A structure used or intended to support or shelter any use or occupancy. Buildings have a roof supported by columns or walls. They include, but are not limited to, dwellings, garages, barns, sheds and shop buildings.” While Chapter 38, does not define a *Yard*, the above dimensional requirements are consistent with the County’s other zoning chapters. Other chapters define a *Yard* as “An open space, on a lot with a building and bounded on one or more sides by such building, such space being unoccupied and unobstructed from 30 inches above the ground upward, except as otherwise specified in the district. ...” Since a bridge does not qualify as a building, the above yard requirements are not applicable.

The height of the replacement bridge is approximately 110 to 115 ft from lowest exposed bridge element to top of bridge rail. As discussed above, the bridge is considered a structure and may exceed the maximum structure height of 35 provided it is a minimum of 30 ft from any property line. The proposed eastbound bridge is 74+ ft south right-of-way edge and 308+ ft from the northern right-of-way edge. *The proposed bridge is exempt from the maximum height requirement. These criteria have been met.*

### 4.00 SMA Site Review Criteria

#### 4.01 § 38.7040 SMA SCENIC REVIEW CRITERIA

The following scenic review standards shall apply to all Review and Conditional Uses in the Special Management Area of the Columbia River Gorge National Scenic Area with the exception of rehabilitation or modification of historic structures eligible or on the National Register of Historic Places when such modification is in compliance with the national register of historic places guidelines:

**(A) All Review Uses and Conditional Uses visible from KVAs. This section shall apply to proposed development on sites topographically visible from KVAs:**

**(1) New developments and land uses shall be evaluated to ensure that the scenic standard is met and that scenic resources are not adversely affected, including cumulative effects, based on the degree of visibility from Key Viewing Areas.**

**(2) The required SMA scenic standards for all development and uses are summarized in the following table.**

<b>REQUIRED SMA SCENIC STANDARDS</b>
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LANDSCAPE SETTING	LAND USE DESIGNATION	SCENIC STANDARD
Coniferous Woodland, Oak-Pine Woodland	Forest (National Forest Lands), Open Space	NOT VISUALLY EVIDENT

**Applicant:** The landscape setting for this property is “Coniferous Woodlands” landscape and, as designated in the MCC 38.7040 (A)(2), the scenic standard for open space is “Not Visually Evident”. “Not Visually Evident” is defined in MCC 38.0015 - Definitions as:

“A visual quality standard that provides for development or uses that are not visually noticeable to the casual visitor. Developments or uses shall only repeat form, line, color, and texture that are frequently found in the natural landscape, while changes in their qualities of size, amount, intensity, direction, pattern, etc., shall not be noticeable.”

This project is visible from I-84 and the HCRH Key Viewing Areas. Because the bridge is on I-84, the approach to the bridge has relatively high visibility, although most of the bridge structure will be at or below grade. The HCRH is approximately 250 feet to the north of the replacement bridge and WB I-84 resides between it and EB I-84. Natural vegetation and existing WB I-84 provides a partial screen between the replacement bridge and this KVA. It is anticipated that the replacement bridge will be less visually evident to a greater degree than the existing bridge due to the use of the Cascadian style structure and the use of dark earthtone colors on the structure and other project elements. The new bridge is approximately 750 feet from the shoreline of the Columbia River, another KVA. Views observed from field visits indicated that the structure is likely within the view of the Columbia River but that this view is subordinate to views from both I-84 WB and the HCRH which are more proximate.

**Staff:** The proposed bridge is a Review Use in the GSO zone. SHPO and the US Forest Service have determined that the bridge is not eligible for listing or on the National Register of Historic Places. In addition to being visible from I-84, the Columbia River and the Historic Columbia River Highway (HCRH), the new bridge may be visible from Beacon Rock, the Pacific Crest Trail and State Route 14. The distance between these three additional KVAs and the bridge is significant. Existing vegetation, the use of dark earth tones and the restoration plantings required as part of the Natural Resource criteria will help to reduce visibility from the various KVAs. The KVA that the bridge is most visible from I-84 itself, but at the speed of travel typically occurring on the interstate, the cumulative effect that persons traveling along it will be minimal.

To achieve the standard of *Not Visually Evident*, the proposed bridge repeats form, line, color, and texture that are found in the natural landscape (Exhibit A.15.a - .f & A.6.a - .j). The replacement bridge will continue to maintain independent east and west bound lanes and have significant distance between the west bound bridge and the eastbound bridge to maintain air and light between the two structures. The bridge is designed in the Cascadian style to integrate the arch shape into its design. The façade of the bridge will be textured with the effect of a dry-stack masonry. The colors of the bridge follow the color strategy of the Corridor Plan (Exhibit A.6). *This criterion has been met.*

4.02 **(3) In all landscape settings, scenic standards shall be met by blending new development with the adjacent natural landscape elements rather than with existing development.**

**Applicant:** The design of the bridge is in accordance with the *I-84 Corridor Strategy* (November 2005) which developed guidelines especially for the goal of blending bridges with the natural landscape elements of the Gorge, including specific guidance for architectural and aesthetic features of bridges, roadway and right-of-way features, and for applying color to I-84. See Appendix D – Scenic Standards for a demonstration of this project’s consistency with the NSA

and the *I-84 Corridor Strategy*.

**Staff:** The proposed project is located in the Coniferous Woodlands landscape setting. The SMA landscape setting indicates that buildings shall be encouraged to have a vertical overall appearance and utilize plant species native to the landscape setting. The proposed Cascadian design uses a textured bridge façade and retaining walls (Exhibit A.15.e & Exhibit A.6.i), has linear edges and piers that add to the vertical appearance of the bridge. Dark brown earth tones will be used on the bridge to blend with the surrounding landscaping. All restoration plantings will use native species. The bridge project will mimic natural and existing landscape elements in the area.

The colors to be used on the various project elements are as follows:

Project Element	Proposed Color/Treatment	I-84 Strategy Plan Consistency
Concrete Steel Plate Girders	Grade 50 Weathering Steel	Consistent
W-Beam Guardrail	Grade 50 Weathering Steel	Consistent
Steel Bridge Rail	Sherwin-Williams Otter (#6041) / Color #1	Consistent
Bridge Facade	Sherwin-Williams “Black Fox” (#7020) / Color #2	Consistent
Portions of Bents (piers) and Pylons Receiving Architectural Treatment (stone pattern)	Sherwin-Williams “Black Fox” (#7020) / Color #2	Consistent
Retaining Walls	Sherwin-Williams “Black Fox” (#7020) / Color #2	Consistent
Bent and Pylon Trims	Miller Paint “Dapper” (#0192)	Consistent
Abutments	Miller Paint “Dapper” (#0192)	Consistent
Bridge Rail Base (Concrete)	Miller Paint “Dapper” (#0192)	Consistent

Both Color #1 & #2 s are a shade of dark brown and are the recommended colors from the I-84 Corridor Strategy Plan. The use of materials and colors found within the adjacent landscape will allow the proposed bridge to blend into adjacent landscape. *This criterion has been met.*

4.03

**(4) Proposed developments or land use shall be sited to achieve the applicable scenic standards. Development shall be designed to fit the natural topography and to take advantage of vegetation and land form screening, and to minimize visible grading or other modifications of landforms, vegetation cover, and natural characteristics. When screening of development is needed to meet the scenic standard from key viewing areas, use of existing topography and vegetation shall be given priority over other means of achieving the scenic standard such as planting new vegetation or using artificial berms.**

**Applicant:** The design of the bridge is in accordance with the *I-84 Corridor Strategy*, which includes specific guidance regarding the aesthetic treatment of the bridges to be placed within the Columbia River Gorge National Scenic Area. This guidance is intended to minimize mainline

bridge features within non-visually evident locations. Please see Appendix C – Design Details, and Appendix D – Scenic Standards for pictorials and further details as to how this project has been sited to achieve the applicable standards. Grading and vegetation removal and retaining wall placement has been minimized to the extent practicable for project engineering and in order to stay within existing right-of-way. Landscaping that is to occur to disturbed areas will be with native plants. Screening is not available as a strategy to achieve the NSA requirements. See Appendix F, Exhibits F 1.0 – 1.1 - Landscaping and Site Restoration Plan.

Artist simulations of the new bridge structure and the west retaining wall can be found in Appendix D.

**Staff:** Appendix D has been labeled by planning staff as Exhibit A.6. The location of the bridge is site specific to allow the continuation of I-84 over Moffett Creek. The horizontal alignment of I-84 will shift to the south by approximately 18 ft to accommodate staged construction. The new bridge location will require the construction of two retaining walls on the south side of the project. The west retaining wall will be constructed prior to the eastbound approach and will support a cut area. The west retaining wall will allow for a recreational path in the future. The east retaining wall will support fill and will have limited visibility, if at all from the KVAs. The use of these retaining walls will allow the interstate to continue at a similar grade without significant topographic changes and vegetation removal that stable cut or fill slopes would require. The restoration plan will install native vegetation to restore disturbed areas and help blend the bridge into the surrounding landscape and help screen the structure from the various KVAs. *This criterion has been met.*

4.04

**(5) The extent and type of conditions applied to a proposed development or use to achieve the scenic standard shall be proportionate to its degree of visibility from key viewing areas.**

**(a) Decisions shall include written findings addressing the Primary factors influencing the degree of visibility, including but not limited to:**

- 1. The amount of area of the building site exposed to key viewing areas,**
- 2. The degree of existing vegetation providing screening,**
- 3. The distance from the building site to the key viewing areas from which it is visible,**
- 4. The number of key viewing areas from which it is visible, and**
- 5. The linear distance along the key viewing areas from which the building site is visible (for linear key viewing areas, such as roads).**

**Applicant:** The bridge project has been designed in accordance with the *I-84 Corridor Strategy* which includes specific guidance for designing bridges, roadway and right-of-way features, and for applying color to I-84. Elements of the primary factors influencing the degree of visibility addressed below correspond to MCC 38.7040 subsection (5)(a 1-5):

- (a)1. The amount of the site exposed to KVAs is approximately 275 feet.
- (a)2. The degree of existing vegetation providing screening from I-84 is zero, while vegetation providing screening from the Historic Columbia River Highway is less than 50% at some sections along the KVAs. Vegetation and railroad, historic trail bridge, and the interstate freeway bridge provide screening from the Columbia River is greater than 75% at some sections.”
- (a)3. The distance from the bridge site to the KVAs from which it is most visible (I-84) is

immediate. The distance from the bridge site to westbound I-84 is approximately 150 feet and to the Historic Columbia River Highway is approximately 250 feet. The distance to the southern shoreline of the Columbia River is approximately 750 feet.

- (a)4. The number of KVAs from which the bridge is visible is three: I-84 (eastbound and westbound), the Historic Columbia River Highway, and the Columbia River.
- (a)5. The linear distance along the primary key viewing area (I-84) from which the bridge site is visible is approximately one half mile. The linear distance along the secondary key viewing area (Historic Columbia River Highway) is approximately 250 feet. The Columbia River is approximately 750 feet away.

**Staff:** Currently, the eastbound bridge is an existing structure which was built in the 1960s without any of the dark earth tones, textures and design proposed. This bridge is visible from the same KVAs. The proposed bridge utilizes the strategies, textures, colors and materials outlined in the I-84 Corridor Strategy Plan to improve the vistas from the various KVAs by building a bridge that is *Not Visually Evident* from them. The resulting bridge will be dark earth-toned, will not use reflective building materials, will be located within an evergreen landscape and will not use lighting. Considering how close a number of the KVAs are to the project, the proposed conditions relating to the design are necessary to ensure that the proposed bridge complies with the standards outlined in the NSA Site Review criteria. *This criterion has been met.*

4.05

**(b) Conditions may be applied to various elements of proposed developments to ensure they are visually subordinate to their setting as seen from key viewing areas, including but not limited to:**

- 1. Siting (location of development on the subject property, building orientation, and other elements),**
- 2. Retention of existing vegetation,**
- 3. Design (color, reflectivity, size, shape, height, architectural and design details and other elements), and**
- 4. New landscaping.**

**Applicant:** The design of the bridge is in accordance with the *I-84 Corridor Strategy*, which includes specific guidance for designing bridges, roadway and right-of-way features, for applying color to I-84, and regarding landscaping and vegetation management. Compliance with this guidance is intended to minimize mainline bridge features within non-visually evident locations.

Architectural treatments are being applied within the project area in order to meet the visual standards. A Cascadian bridge style is being designed with a reduction to the number of spans (from five to three). The exterior facades of the structure (including the bents) are being designed with pre-cast panels to mimic a dry-stacked rock treatment. The bridge's substructure (i.e., girders) are to be of Grade 50 weathered steel, and with the all other visible elements (e.g., the concrete façade panels placed exterior to the girders, the rock texture of the west retaining wall, the guard rail, signs, etc.) designed to meet the palate of the *I-84 Corridor Strategy's* "Dark Earth Tones" *Color Picker*.

Two retaining walls are planned in order to minimize the extent of cuts and fills along the south face of the project. Because the west retaining wall is in a cut section directly facing I-84, this cast-in-place wall will be faced with concrete which is formed to resemble a dry-stacked rock wall, in color and texture. Although the east retaining wall is in a fill section and away from the view of the roadway observer, the same special architectural treatment planned for the cut wall will also be applied to this fill wall.



Re-grading and vegetation removal has been minimized to the extent practicable for project engineering. New landscaping will use only native plant species.

A number of exhibits have been prepared to further demonstrate how this project has been developed to be consistent with the NSA scenic standards. See Appendix C – Design Details for architectural drawings of the project; Appendix D – Scenic Standards for text and photo simulations related to the project setting, especially in relation to the a number of the KVAs; Exhibit D 4.0 for the color use on the project elements; and Exhibits F 1.0 – 1.1 - Landscaping and Site Restoration Plan.

**Staff:** The proposed conditions are related to the cultural and natural resource criteria. The proposed bridge design utilizes the various elements outlined in the I-84 Corridor Strategy Plan to achieve visual subordination in the Coniferous Woodland landscape setting and from the KVAs. No additional conditions are needed. *This criterion has been met.*

- 4.06                   **(6) Sites approved for new development to achieve scenic standards shall be consistent with guidelines to protect wetlands, riparian corridors, sensitive plant or wildlife sites and the buffer zones of each of these natural resources, and guidelines to protect cultural resources.**

**Applicant:** Although this proposal does not include new development, the site will be consistent with guidelines to protect wetlands, riparian corridors, and sensitive plant or wildlife sites, as described in further detail below.

**Staff:** The subject application is for the construction of a new bridge to replace the existing eastbound bridge over Moffett Creek. Since project does not restore the existing bridge but replaces it, the proposed bridge is a new development. The proposed project has complied with the SMA Natural Resource standards of MCC 38.7075, as found in findings 6.01 through 8.00 of this decision. *This criterion has been met.*

- 4.07                   **(7) Proposed developments shall not protrude above the line of a bluff, cliff, or skyline as seen from Key Viewing Areas.**

**Applicant:** Both the existing and replacement bridges are below the line of bluffs, cliffs and skyline.

**Staff:** The terrain in the area rises from the north (Columbia River) towards the south. I-84 is near the bottom of the slope. South of the interstate the terrain rises rapidly from 90 ft above datum to 800 ft above datum (Exhibit B.2). The proposed bridge is far below the ridgeline as viewed from the lowest elevation KVA – the Columbia River. *This criterion has been met.*

- 4.08                   **(8) Structure height shall remain below the average tree canopy height of the natural vegetation adjacent to the structure, except if it has been demonstrated that compliance with this standard is not feasible considering the function of the structure.**

**Applicant:** The new structure will be below the average canopy height of the natural vegetation adjacent to the structure. See Exhibits D 6.0 – 6.3 for photo simulations which demonstrate compliance.

**Staff:** The trees and vegetation to the south are taller than the highway. *This criterion has been met.*

- 4.09                   **(9) The following guidelines shall apply to new landscaping used to screen development from key viewing areas:**

**(a) New landscaping (including new earth berms) to achieve the required scenic**

standard from key viewing areas shall be required only when application of all other available guidelines in this chapter is not sufficient to make the development meet the scenic standard from key viewing areas. Development shall be sited to avoid the need for new landscaping wherever possible.

(b) If new landscaping is necessary to meet the required standard, existing on-site vegetative screening and other visibility factors shall be analyzed to determine the extent of new landscaping, and the size of new trees needed to achieve the standard. Any vegetation planted pursuant to this guideline shall be sized to provide sufficient screening to meet the scenic standard within five years or less from the commencement of construction.

(c) Landscaping shall be installed as soon as practicable, and prior to project completion. Applicants and successors in interest for the subject parcel are responsible for the proper maintenance and survival of planted vegetation, and replacement of such vegetation that does not survive.

(d) The Scenic Resources Implementation Handbook shall include recommended species for each landscape setting consistent with the Landscape Settings Design Guidelines in this chapter, and minimum recommended sizes of new trees planted (based on average growth rates expected for recommended species).

**Applicant:** Landscaping and site restoration is consistent with the *I-84 Corridor Strategy*, and its guidance on landscaping and vegetation management. Required grading and vegetation removal has been minimized to the extent practical for engineering and construction. All replanting will use native species. See Exhibits F 1.0 – 1.1 - Landscaping and Site Restoration Plan for details.

**Staff:** The design, texture and colors of the proposed bridge make the structure *Not Visually Evident* from the KVAs. Revegetation of disturbed areas is proposed but is not intended to or required to screen the bridge. The revegetation is required due to the construction staging areas within the Moffett Creek buffer. All new plantings will use native species. *This criterion is not applicable.*

- 4.10           **(10) Unless expressly exempted by other provisions in this chapter, colors of structures on sites visible from key viewing areas shall be dark earth tones found at the specific site or the surrounding landscape. The specific colors or list of acceptable colors shall be included as a condition of approval. The Scenic Resources Implementation Handbook will include a recommended palette of colors as dark or darker than the colors in the shadows of the natural features surrounding each landscape setting**

**Applicant:** Colors for the project have been selected from the *I-84 Corridor Strategy* guideline which was developed by the Columbia River Gorge Commission and the US Forest Service. The steel girders will be comprised of Grade 50 weathering steel. All other visible elements (e.g., the concrete façade panels placed exterior to the girders, the rock texture of the west retaining wall, the guard rail, signs, etc.) will meet the palate of the *I-84 Corridor Strategy's "Dark Earth Tones" Color Picker*. See Exhibit D 4.0 - Color Use on Project Elements + Color Chips for a demonstration of this compliance.

**Staff:** All chosen colors are dark earth tones. Please see additional findings under Section 4.01 above. *This criterion has been met.*

- 4.11           **(11) The exterior of buildings on lands seen from key viewing areas shall be composed of non-reflective materials or materials with low reflectivity. The Scenic**

**Resources Implementation Handbook** will include a recommended list of exterior materials. These recommended materials and other materials may be deemed consistent with this guideline, including those where the specific application meets approval thresholds in the “Visibility and Reflectivity Matrices” in the **Implementation Handbook**. Continuous surfaces of glass unscreened from key viewing areas shall be limited to ensure meeting the scenic standard. Recommended square footage limitations for such surfaces will be provided for guidance in the **Implementation Handbook**.

**Applicant:** The subject of this application does not regard a building. Therefore, this section does not apply.

**Staff:** Staff concurs that the proposed structure is not a building. A *building* is a structure used or intended to support or shelter any use or occupancy. Buildings have a roof supported by columns or walls. The purpose of a bridge is not to shelter any use but to allow travel over a ravine, stream, etc. No glass is proposed. *This criterion is not applicable.*

- 4.12           **(12) Any exterior lighting shall be sited, limited in intensity, shielded or hooded in a manner that prevents lights from being highly visible from Key Viewing Areas and from noticeably contrasting with the surrounding landscape setting except for road lighting necessary for safety purposes.**

**Applicant:** No lighting is proposed for this project

**Staff:** The existing bridge does not have lighting adjacent to it. No lighting is proposed for the replacement bridge (Exhibit A.18). *This criterion has been met.*

- 4.13           **(13) Seasonal lighting displays shall be permitted on a temporary basis, not to exceed three months duration.**

**Applicant:** No season lighting is proposed for this project.

**Staff:** *This criterion is not applicable.*

- 5.00           **(B) The following shall apply to all lands within SMA landscape settings regardless of visibility from KVAs (includes areas seen from KVAs as well as areas not seen from KVAs):**

**(2) Coniferous Woodlands and Oak-Pine Woodland: Woodland areas shall retain the overall appearance of a woodland landscape. New developments and land uses shall retain the overall visual character of the natural appearance of the Coniferous and Oak/Pine Woodland landscape.**

**(a) Buildings in the Coniferous Woodland landscape setting shall be encouraged to have a vertical overall appearance and a horizontal overall appearance in the Oak-Pine Woodland landscape setting.**

**(b) Use of plant species native to the landscape setting shall be encouraged. Where non-native plants are used, they shall have native appearing characteristics.**

**Applicant:** Because buildings are not involved in this project, (a) from above does not apply. Regarding (b), only native plant species will be used in the project landscaping and site restoration. See Exhibits F 1.0 – 1.1- Landscaping and Site Restoration Plan for details.

**Staff:** The I-84 right-of-way has limited vegetation due to the nature of the use. Along the edges, and sometimes within the center of the interstate, vegetation exists. The replacement on an existing bridge in the interstate system will not alter the overall visual character of the surrounding

forested landscape. The proposed bridge structure will utilize a Cascadian design with a dry-stack stone treatment which is historically found within the western Gorge. The colors chosen are all dark earth tones that can be found in the Coniferous Woodland landscape setting. While the bridge is not a building, it will have a vertical appearance from the pylons as viewed from the future trail beneath and along the Interstate. The restoration plantings beneath the new bridge will use native plantings found in the existing landscape setting. *These criteria have been met.*

5.01 (C) SMA Requirements for KVA Foregrounds and Scenic Routes

**(1) All new developments and land uses immediately adjacent to the Historic Columbia River Highway, Interstate 84, and Larch Mountain Road shall be in conformance with state or county scenic route standards.**

**Applicant:** The state scenic route standards to be followed are the *I-84 Corridor Strategy* guidelines, and the project is being designed to conform to these guidelines. See Exhibit D 2.0 - Consistency with NSA Scenic Standards. The replacement bridge over Moffett Creek is on I-84.

**Staff:** The I-84 Corridor Strategy Team has reviewed the proposed bridge and retaining walls designs and has found them to be consistent with the scenic route standards (Exhibit A.3.b & c). *This criterion has been met.*

5.02 **(2) The following guidelines shall apply only to development within the immediate foregrounds of key viewing areas. Immediate foregrounds are defined as within the developed prism of a road or trail KVA or within the boundary of the developed area of KVAs such as Crown Pt. and Multnomah Falls. They shall apply in addition to MCC 38.7040(A).**

**(a)The proposed development shall be designed and sited to meet the applicable scenic standard from the foreground of the subject KVA. If the development cannot meet the standard, findings must be made documenting why the project cannot meet the requirements of 38.7040(A) and why it cannot be redesigned or wholly or partly relocated to meet the scenic standard.**

**Applicant:** This project is not within the immediate foreground view of any KVA since there is nothing east of the EB bridge that is a KVA. Views from this project do not obstruct the views of any of the KVAs.

**Staff:** I-84 is a Key Viewing Area and the proposed bridge is within the developed road prism of the KVA. These criteria are applicable. Based on the findings in Section 4.01 through 4.13 above, the project has met the applicable standards listed in MCC 38.7040(A)(1) through (A)(13). The bridge is *Not Visually Evident* from the various KVAs. *This criterion has been met.*

5.03 **(b)Findings must evaluate the following:**

- 1. The limiting factors to meeting the required scenic standard and/or applicable provisions of 38.7040(A),**
- 2. Reduction in project size;**
- 3. Options for alternative sites for all or part of the project, considering parcel configuration and on-site topographic or vegetative screening;**
- 4. Options for design changes including changing the design shape, configuration, color, height, or texture in order to meet the scenic standard.**

**Applicant:** The design of bridge structure conforms to the guidelines in the *I-84 Corridor Strategy, Bridge Features for Mainline I-84 Bridges*, the scenic standards for the Columbia River Gorge National Scenic Area. In response to the evaluation criteria noted above, the following

additional information is offered:

1. The project has been minimized to the extent practicable. This bridge was scheduled for replacement due to insufficient load capacity, cracking in the reinforced concrete girder approach spans, and poor state of the connections between the bridge components that comprise the substructure. Additionally, severe cracking was noted in the deck and Bents 2 and 5, and the existing roadway shoulders are substandard.
2. In order to minimize the construction footprint, all work is to be conducted within ODOT's right-of-way. The profile elevation of the new structure matches closely the profile elevation of the structure to be replaced.
3. Consideration of alternatives sites would not be a practicable alternative due to the need to maintain the functionality of I-84.
4. Options for design changes were considered as necessary in order to conform to the NSA scenic standard (i.e., the *I-84 Corridor Strategy*). See Exhibit D 2.0 - Consistency with the NSA Scenic Standard. In addition to meeting the scenic standard, the resulting three spans of the new structure and the placement of the west retaining wall allow for the future placement of a shared-use path.

**Staff:** The criteria under (b) above are not applicable as the proposed bridge has demonstrated compliance with MCC 38.7040(A).

5.04

**(c) Form, line, color, texture, and design of a proposed development shall be evaluated to ensure that the development blends with its setting as seen from the foreground of key viewing areas:**

**1. Form and Line - Design of the development shall minimize changes to the form of the natural landscape. Development shall borrow form and line from the landscape setting and blend with the form and line of the landscape setting. Design of the development shall avoid contrasting form and line that unnecessarily call attention to the development.**

**2. Color - Color shall be found in the project's surrounding landscape setting. Colors shall be chosen and repeated as needed to provide unity to the whole design.**

**3. Texture - Textures borrowed from the landscape setting shall be emphasized in the design of structures. Landscape textures are generally rough, irregular, and complex rather than smooth, regular, and uniform.**

**4. Design - Design solutions shall be compatible with the natural scenic quality of the Gorge. Building materials shall be natural or natural appearing. Building materials such as concrete, steel, aluminum, or plastic shall use form, line color and texture to harmonize with the natural environment. Design shall balance all design elements into a harmonious whole, using repetition of elements and blending of elements as necessary.**

**Applicant:** As detailed in Exhibit D 2.0 - Consistency with the Scenic Standard, the project is designed, textured, colored and landscaped to conform to the guidelines in the *I-84 Corridor Strategy*, to visually minimize the bridge within the existing landscape. Existing vegetation will be retained to the maximum extent practicable to allow engineering and construction. Site restoration will use only native plant species found in the surrounding landscape. The "Cascadian" bridge style was selected thru the stakeholder-lead process pursued for the development of the *I-84 Corridor Strategy* for settings like that found at Moffett Creek due to its

high visibility. The eastbound profile grade (of I-84) is over 30 feet higher than the westbound profile grade. This grade difference affords high visibility of the eastbound structure from the westbound highway bridge, the HCRH trail and the Columbia River.

In general, the following is planned:

- The superstructure beams will be haunched girders using an elliptical form;
- Elliptical concrete facade panels, placed exterior to the main girders;
- Form-liner for bridge façade shall resemble natural rock ( in color and texture);
- Columns, tapered and rectangular in shape;
- Open Bridge railing.

Exhibit C 1.0 depicts the haunched steel girder behind concrete facade panels. The geometry of the façade panels was developed to reflect the elliptical arching forms shown in the *I-84 Corridor Strategy* and the geometry of the girder web is shown with a conventional web depth at the piers and a parabolic taper to mid-span. The arched shapes which resulted from the collaborative processes of the *I-84 Corridor Strategy* are not dimensioned; therefore the concrete facade drawings were developed by proportioning and assumption.

#### *West Retaining Wall*

The west retaining wall will be placed at the edge of the roadway shoulder directly facing eastbound I-84. It will have a cast-in-place concrete face that will utilize a form-liner resembling natural rock, in color and texture. See Exhibit D 6.3 - Simulation of EB I-84 West Retaining Wall for photo simulation.

#### *East Retaining Wall*

The east retaining wall will be placed at the edge of the eastbound roadway shoulder, but is facing away from I-84 and the public view. As such, an MSE retaining wall will be used with the same special architectural form-liner as the west retaining wall.

No rendering is provided for the east retaining wall since it is not within the view shed of any of the KVAs.

**Staff:** To help ODOT design replacement bridges for I-84, ODOT, Columbia River Gorge Commission, USDA Forest Service, the Federal Highway Administration and the Oregon Counties in the National Scenic Area developed the I-84 Corridor Strategy. This Strategy outlined appropriate designs, textures, form and line and colors for the Western and Eastern Columbia River Gorge Area. The proposed bridge and retaining walls integrate the approved elements and colors of the Strategy to blend with its setting as seen from the key viewing area of Interstate-84. *These criteria have been met.*

- 5.05                    **(3) Right-of-way vegetation shall be managed to minimize visual impact of clearing and other vegetation removal as seen from Key Viewing Areas. Roadside vegetation management should enhance views out from the highway (vista clearing, planting, etc.).**

**Applicant:** Project grading and vegetation removal will be minimized to the maximum extent practicable to allow engineering and construction. Site restoration will use only native plant species found in the surrounding landscape. These activities conform to the *I-84 Corridor Strategy* guidelines landscaping and vegetation management.

The realignment of I-84 and the placement of the west retaining wall will require the removal of approximately 600 trees. Approximately ½ of these trees are 6 to 12 inches diameter at breast

height (dbh) with the other half being greater than 12 inches dbh. Absent the retaining wall, the impact to the trees would have been greater in order to place a standard side slope. This impact which was avoided by the placement of a wall resulted in the saving of 1800 to 3200 trees of similar size.

**Staff:** The above criterion is not applicable because the construction of a replacement bridge is not a vegetation management project. ODOT has designed the project to minimize tree removal.

5.06                    **(4) Encourage existing and require new road maintenance warehouse and stockpile areas to be screened from view from Key Viewing Areas.**

**Applicant:** This proposal does not include any new road maintenance warehouses or stockpile areas, therefore this criterion is not applicable.

**Staff:** Staff concurs.

5.07                    **(5) Development along Interstate 84 and the Historic Columbia River Highway shall be consistent with the scenic corridor strategies developed for these roadways.**

**Applicant:** The replacement of the bridge over Moffett Creek is on I-84. The bridge design is consistent with the *I-84 Corridor Strategy* guidelines.

**Staff:** Staff concurs. See Sections 4.01 through 5.02 for additional findings. *This criterion has been met.*

5.08                    **(D) SMA Requirements for areas not seen from KVAs**

**Unless expressly exempted by other provisions in MCC 38.7040, colors of structures on sites not visible from key viewing areas shall be earth-tones found at the specific site. The specific colors or list of acceptable colors shall be approved as a condition of approval, drawing from the recommended palette of colors included in the Scenic Resources Implementation Handbook.**

**Applicant:** The east retaining wall which will not be visible to the observer shall receive the same color and texture treatment as the west retaining wall, which is visible to the observer. See Exhibit D 2.0 – Consistency with Scenic Standards.

**Staff:** The replacement bridge is visible from various KVAs. *This criterion is not applicable.*

6.00                    ***SMA Cultural Review Criteria***

6.01                    **§ 38.7050 SMA CULTURAL RESOURCE REVIEW CRITERIA**

**(A) The cultural resource review criteria shall be deemed satisfied, except MCC 38.7050 (H), if the U.S. Forest Service or Planning Director does not require a cultural resource survey and no comment is received during the comment period provided in MCC 38.7025 (B).**

**(B) If comment is received during the comment period provided in MCC 38.7025 (B), the applicant shall offer to meet with the interested persons within 10 calendar days. The 10 day consultation period may be extended upon agreement between the project applicant and the interested persons.**

**(1) Consultation meetings should provide an opportunity for interested persons to explain how the proposed use may affect cultural resources. Recommendations to avoid potential conflicts should be discussed.**

**(2) All written comments and consultation meeting minutes shall be incorporated into the reconnaissance or historic survey report. In instances where a survey is not required, all such information shall be recorded and addressed in a report that**

typifies a survey report; inapplicable elements may be omitted.

**(C) The procedures of MCC 38.7045 shall be utilized for all proposed developments or land uses other than those on all Federal lands, federally assisted projects and forest practices.**

**(D) All cultural resource information shall remain confidential, according to the Act, Section 6(a)(1)(A). Federal agency cultural resource information is also exempt by statute from the Freedom of Information Act under 16 USC 470 hh and 36 CFR 296.18.**

**(E) Principal investigators shall meet the professional standards published in 36 CFR part 61.**

**(F) The U.S. Forest Service will provide for doing (1) through (5) of subsection (G) below for forest practices and National Forest system lands.**

**Applicant:** (A) ODOT recognizes and accepts this requirement. While this project is all within ODOT right-of-way, a cultural resources survey was conducted in accordance with the Oregon State Historical Preservation Officer's (SHPO) requirements. The SHPO concurred on 5/22/07 to a "No Effect" finding regarding the archeological properties and on 06/08/07 a "No Adverse Effect" finding regarding the historic properties. See Exhibit E 1.0 - SHPO Concurrence Letter.

The following findings were based on previously conducted archaeological research and fieldwork described in the following reports: "*Archaeological Survey of Bridges 02194A/B (Interstate 84 over Moffett Creek at Milepoint 38.98), Multnomah County, Oregon. UO Museum of Natural and Cultural History Report No. 2005-178*;" the Environmental Baseline Report prepared by Parametrix entitled "*Oregon Department of Transportation, OTIA III Statewide Bridge Delivery Program, Multnomah County, ODOT Region, Bridges: 02062A/02062B, 02176A, 02194A/02194B, 06875/06875A, 06945, 06945A, 13514E, Lower Columbia and Willamette Basins, Interstate 84*;" and "*Preliminary Summary of Archaeological Survey of Additional Areas, July 2008, by AINW*."

The Area of Potential Effect (APE) for this bridge replacement contains two National Register eligible Historic Properties (the Historic Columbia River Highway and its Moffett Creek Bridge), and one potentially eligible Historic Property (Union Pacific Railroad bridge over Moffett Creek).

The Historic Columbia River Highway Historic and its Moffett Creek Bridge are located approximately 250 feet northwest of the I-84 eastbound Moffett Creek Bridge (02194B) and are separated from project activities by the I-84 westbound Moffett Creek Bridge. These resources will be easily avoided by construction activities and, therefore, the elements that make them eligible for the National Register will remain unchanged. They will not be adversely affected by the bridge replacement activities.

The Union Pacific Railroad Bridge (UPRR) over Moffett Creek is potentially eligible for inclusion in the National Register as part of a linear historic district that includes the historic UPRR alignment. The UPRR Bridge over Moffett Creek is approximately 750 feet northwest of the subject replacement of Bridge 02194B. This resource will easily be avoided by the bridge replacement, as it is not in the immediate vicinity of the subject Bridge.

Bridge construction activities will be confined to areas within the existing right-of-way that are void of documented historical and archaeological resources. The Historic Moffett Creek Bridge, the Historic Columbia River Highway, and the UPRR Bridge are of a great enough distance away from planned construction activities that they will easily be avoided and remain unaffected.

#### ***Archaeological Section:***

Two prehistoric sites and nine historic sites have been previously documented near the project area



and are outside of the project area; they were not relocated during the most recent field survey (2005). These sites cluster on the banks of the Columbia River and were recorded during a drought when the River was unseasonably low. The status of their National Register Eligibility is unknown. These sites will be actively avoided. The two archaeological studies (UO in 2005 and AINW in 2008) found no archaeological resources within the project.

Also see Exhibit E 2.0 - SHPO Programmatic Agreement on Ineligible Bridges, for a copy of the March 28, 2005 *Programmatic Agreement Memo* which documents that Bridge 02194B is not considered eligible for the National Register.

(B) ODOT recognizes and accepts these consultation requirements.

(C) This proposal is federally assisted; therefore the application must be reviewed under the SMA cultural resources standards MCC 38.7050.

ODOT understands that all cultural resource information will be kept confidential.

(D) & (E) The Cultural Resources Survey was conducted in compliance with ODOT's *Cultural Resources Manual* and SHPO requirements which prescribe the professional standards to be met.

(F) This proposal does not include forest practices, nor are there any National Forest Service lands within the right-of-way; therefore, this section is the responsibility of the applicant.

**Staff:** Staff concurs. *The above criteria have been met.*

6.02 (G) **If the U.S. Forest Service or Planning Director determines that a cultural resource survey is required for a new development or land use on all Federal lands, federally assisted projects and forest practices, it shall consist of the following:**

**(1) Literature Review and Consultation**

**(a) An assessment of the presence of any cultural resources, listed on the National Register of Historic Places at the national, state or county level, on or within the area of potential direct and indirect impacts.**

**(b) A search of state and county government, National Scenic Area/U.S. Forest Service and any other pertinent inventories, such as archives and photographs, to identify cultural resources, including consultation with the State Historic Preservation Office (SHPO) and tribal governments.**

**(c) Consultation with cultural resource professionals knowledgeable about the area.**

**(d) If the U.S. Forest Service determines that there no recorded or known cultural resource, after consultation with the tribal governments on or within the immediate vicinity of a new development or land use, the cultural resource review shall be complete.**

**(e) If the U.S. Forest Service determines that there is the presence of a recorded or known cultural resources, including those reported in consultation with the tribal governments on or within the immediate vicinity of a new development or land use, a field inventory by a cultural resource professional shall be required.**

**Applicant:** This is a federally assisted project; therefore these MCCs are relevant.

The Cultural Resources Survey was conducted in compliance with ODOT's *Cultural Resources Manual* and SHPO requirements which prescribe the procedures to be followed in order to meet the federal guidelines.

**Staff:** A literature review was completed. Steps (a) through (e) were completed. *These criteria*

*have been met.*

6.03

**(2) Field Inventory**

**(a) Tribal representatives shall be invited to participate in the field inventory.**

**(b) The field inventory shall consist of one or the other of the following standards, as determined by the cultural resource professional:**

**1. Complete survey: the systematic examination of the ground surface through a controlled procedure, such as walking an area in evenly-spaced transects. A complete survey may also require techniques such as clearing of vegetation, angering or shovel probing of subsurface soils for the presence of buried cultural resources.**

**2. Sample survey: the sampling of an area to assess the potential of cultural resources within the area of proposed development or use. This technique is generally used for large or difficult to survey parcels, and is generally accomplished by a stratified random or non-stratified random sampling strategy. A parcel is either stratified by variables such as vegetation, topography or elevation, or by non-environmental factors such as a survey grid.**

**Under this method, statistically valid samples are selected and surveyed to indicate the probability of presence, numbers and types of cultural resources throughout the sampling strata. Depending on the results of the sample, a complete survey may or may not subsequently be recommended.**

**(c) A field inventory report is required, and shall include the following:**

**1. A narrative integrating the literature review of subsection (1) above with the field inventory of subsection (2) (b) above.**

**2. A description of the field inventory methodology utilized under subsection (2) (b) above, describing the type and extent of field inventory, supplemented by maps which graphically illustrate the areas surveyed, not surveyed, and the ration-ale for each.**

**3. A statement of the presence or absence of cultural resources within the area of the new development or land in use.**

**4. When cultural resources are not located, a statement of the likelihood of buried or otherwise concealed cultural resources shall be included. Recommendations and standards for monitoring, if appropriate, shall be included.**

**(d) Report format shall follow that specified by the Oregon State Historic Preservation Office.**

**(e) The field inventory report shall be presented to the U.S. Forest Service for review.**

**(f) If the field inventory determines that there are no cultural resources within the area of the new development or land use, the cultural resource review shall be complete.**

**(3) Evaluations of Significance**

**(a) When cultural resources are found within the area of the new development**

or land use, an evaluation of significance shall be completed for each cultural resource relative to the criteria of the National Register of Historic Places (36 CFR 60.4).

(b) Evaluations of cultural resource significance shall be guided by previous and current research designs relevant to specific research questions for the area.

(c) Evaluations of the significance of traditional cultural properties should follow National Register Bulletin 38, Guidelines for the Evaluation and Documentation of Traditional Cultural Properties, within local and regional contexts.

(d) Recommendations for eligibility of individual cultural resources under National Register Criteria A through D (36 CFR 60.4) shall be completed for each identified resource. The U.S. Forest Service shall review evaluations for adequacy.

(e) Evidence of consultation with tribal governments and individuals with knowledge of the cultural resources in the project area, and documentation of their concerns, shall be included as part of the evaluation of significance.

(f) If the U.S. Forest Service determines that the inventoried cultural resources are not significant, the cultural resource review shall be complete.

(g) If the determines that the inventoried cultural resources are significant, an assessment of effect shall be required.

**Applicant:** The Cultural Resources Surveys were conducted in compliance with ODOT's *Cultural Resources Manual* and SHPO requirements which prescribe the procedures to be followed. ODOT understands that the US Forest Service review will be conducted during the application completeness review period. SHPO originally concurred that the existing right-of-way in which all construction activities will take place are void of documented historical and archeological resources and that other resources known to be significant are a great enough distance away from planned construction activities that they will easily be avoided and remain unaffected. These findings support the SHPO concurrence on 5/22/07 to a "No Effect" finding regarding the archeological properties and on 06/08/07 to a "No Adverse Effect" finding regarding the historic properties. See Exhibit E 1.0 - SHPO Concurrence Letter. A subsequent survey of an expanded project area has been completed and shovel testing conducted; no evidence of an archaeological site was found, and an additional finding will be provided. Also see Exhibit E 2.0 - SHPO Programmatic Agreement on Ineligible Bridges, for a copy of the March 28, 2005 *Programmatic Agreement Memo* which documents that Bridge 02194B is not considered eligible for the National Register.

The determination resulted in a "No Effect" finding regarding the archeological properties and a "No Adverse Effect" finding regarding the historic properties. See Exhibit E 1.0 - SHPO Concurrence Letter. Also see Exhibit E 2.0 - SHPO Programmatic Agreement on Ineligible Bridges, for a copy of the March 28, 2005 *Programmatic Agreement Memo* which documents that Bridge 02194B is not considered eligible for the National Register. The additional archaeological study completed in July 2008 also results in a finding of "No Effect."

**Staff:** Field inventory of the project area has been completed. The US Forest Service has completed the review and has found that No Historic Properties or Cultural Resources Effected. SHPO has concurred. *The Cultural and Historic Resource Criteria have been satisfied.*

#### 6.04 (H) Discovery During Construction

**All authorizations for new developments or land uses shall be conditioned to require the immediate notification of the Planning Director in the event of the inadvertent discovery of cultural resources during construction or development.**

**(1) In the event of the discovery of cultural resources, work in the immediate area of discovery shall be suspended until a cultural resource professional can evaluate the potential significance of the discovery pursuant to MCC 38.7050 (G) (3).**

**(2) If the discovered material is suspected to be human bone or a burial, the following procedure shall be used:**

**(a) Stop all work in the vicinity of the discovery.**

**(b) The applicant shall immediately notify the U.S. Forest Service, the applicant's cultural resource professional, the State Medical Examiner, and appropriate law enforcement agencies.**

**(c) The U.S. Forest Service shall notify the tribal governments if the discovery is determined to be an Indian burial or a cultural resource.**

**(d) A cultural resource professional shall evaluate the potential significance of the discovery pursuant to MCC 38.7050 (G) (3) and report the results to the U.S. Forest Service which shall have 30 days to comment on the report.**

**(3) If the U.S. Forest Service determines that the cultural resource is not significant or does not respond within the 30 day response period, the cultural resource review process shall be complete and work may continue.**

**(4) If the U.S. Forest Service determines that the cultural resource is significant, the cultural resource professional shall recommend measures to protect and/or recover the resource pursuant to MCC 38.7050 (G) (4) and (5)**

**Applicant:** In the event of the inadvertent discovery of cultural resources during construction, ODOT and its contractors will adhere to the guidelines listed above.

**Staff:** A condition of approval has been included to remind ODOT of this requirement.

**7.00 SMA Natural Resource Review Criteria**

**7.01 § 38.7075 SMA NATURAL RESOURCE REVIEW CRITERIA**

**All new developments and land uses shall be evaluated using the following standards to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered.**

**(A) All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in MCC 38.7075 (2)(a) and (2)(b). These buffer zones are measured horizontally from a wetland, stream, lake, or pond boundary as defined in MCC 38.7075 (2)(a) and (2)(b).**

**(1) All buffer zones shall be retained undisturbed and in their natural condition, except as permitted with a mitigation plan.**

**(2) Buffer zones shall be measured outward from the bank full flow boundary for streams, the high water mark for ponds and lakes, the normal pool elevation for the Columbia River, and the wetland delineation boundary for wetlands on a horizontal scale that is perpendicular to the wetlands, stream, pond or lake boundary. On the main stem of the Columbia River above Bonneville Dam, buffer zones shall be**

**measured landward from the normal pool elevation of the Columbia River. The following buffer zone widths shall be required:**

- (a) A minimum 200 foot buffer on each wetland, pond, lake, and each bank of a perennial or fish bearing stream, some of which can be intermittent.**
- (b) A 50-foot buffer zone along each bank of intermittent (including ephemeral), non-fish bearing streams.**
- (c) Maintenance, repair, reconstruction and realignment of roads and railroads within their rights-of-way shall be exempted from the wetlands and riparian guidelines upon demonstration of all of the following:**
  - 1. The wetland within the right-of-way is a drainage ditch not part of a larger wetland outside of the right-of-way.**
  - 2. The wetland is not critical habitat.**
  - 3. Proposed activities within the right-of-way would not adversely affect a wetland adjacent to the right-of-way.**

**Applicant:** (1) This application is for the replacement of a bridge that crosses Moffett Creek; therefore, construction will occur within this resource's buffer zone (200 feet on either side of the Ordinary High Water Mark (OHWM). ODOT adheres to several local, state and federal rules which prohibit the discharge or placement of wastes into waters of the state including discharges which could cause a violation of water quality standards and those which could cause a violation to water quality permit conditions.

ODOT holds several National Pollutant Discharge Elimination System (NPDES) permits, including the 1200-CA general construction permit which is applicable to this project. This permit requires a site specific erosion control plan for construction activities which disturb a total of one or more acres. The general permit also requires control of construction site pollutants other than sediment, such as oil, gasoline and solvents. Measures used to conform to these requirements are called Best Management Practices (BMPs). These measures are outlined in ODOT's Standard Specifications and Special Provisions 280 and 290 (Appendix F) regarding erosion control and environmental protection. These requirements are placed upon ODOT's contractors in order to avoid and minimize environmental impacts. Bridge contractors will prepare and carry out a Pollution and Erosion Control Plan that includes a spill containment and control plan and erosion and sediment controls, as required by ODOT's Standard Specifications and Special Provisions 280 and 290.

Additionally, an improved stormwater collection system which will be installed as part of the project will improve water quality overall. Water quality will be permanently protected by constructing a stormwater collection system that conveys surface run-off from the new structure to a passive stormwater facility. Additionally, the existing catch basins and culverts on the west side of the structure will be replaced with new inlets and culverts to convey the design storm and match the existing drainage pattern. A cut-off ditch will be constructed at the top of or behind the new west retaining wall to intercept water from the hillside and pipe it to the catch basins of the roadway. Similarly, the runoff from the areas to the east and west of the new structure will sheet flow to the roadside ditch and discharge to Moffett Creek. See Exhibit H 4.0 - Draft Stormwater Report for a technical discussion of these project features and Exhibit G 1.0 - Mitigation Plan.

(2) The replacement bridge crosses Moffett Creek and is therefore within a buffer zone. The 200-foot buffer for this project has been measured from the full flow boundary or the Ordinary High Water Mark (OHWM) of Moffett Creek. The outside edges of the buffer approximately align with the steep V-shaped valley. At the outside edges of each side of the buffer are the roadway fill

prisms for the bridge approach slabs. The buffer zone is shown on Exhibit B 4.0 - Construction Access Plan. No wetlands were encountered during the site investigation and as a result of sampling. See Exhibit H 5.0 – Wetland Determination Report for the findings of this effort.

**Staff:** Moffett Creek is a perennial stream with a 200 ft buffer zone. The proposed bridge construction will require encroachment into this buffer zone to within 20 ft from the edge of ordinary high water. ODOT has submitted a mitigation plan to repair the buffer area when the construction is complete on the bridge.

7.02

**(3) The buffer width shall be increased for the following:**

- (a) When the channel migration zone exceeds the recommended buffer width, the buffer width shall extend to the outer edge of the channel migration zone.**
- (b) When the frequently flooded area exceeds the recommended riparian buffer zone width, the buffer width shall be extended to the outer edge of the frequently flooded area.**
- (c) When an erosion or landslide hazard area exceeds the recommended width of the buffer, the buffer width shall be extended to include the hazard area.**

**Applicant:** No widening of the buffer zone is required since Moffett Creek flows through a steep V-shaped valley, in an unconstrained, broad single channel. The channel of Moffett Creek does not migrate outside of the V-shaped valley. There is no documented frequently-flooded area and landslide hazard areas are outside of the 200-foot buffer.

**Staff:** The V-shaped valley has restricted Moffett Creek to a single channel. The 200 ft buffer encompasses the stream channel and frequently flooded areas. No additional buffer zone is required.

7.03

**(4) Buffer zones can be reconfigured if a project applicant demonstrates all of the following:**

- (a) The integrity and function of the buffer zones is maintained.**
- (b) The total buffer area on the development proposal is not decreased.**
- (c) The width reduction shall not occur within another buffer.**
- (d) The buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.**

**Applicant:** No reconfiguration of the buffer zone is requested. Moffett Creek flows through a steep V-shaped valley, in an unconstrained, broad single channel. The 200-foot buffer each side of OHWM approximately aligns with the steep V-shaped valley; at the edges of each side of the buffer are the roadway fill prisms for the bridge approach slabs.

**Staff:** Staff concurs. *This criterion is not applicable.*

7.04

**(5) Requests to reconfigure buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource**

**and its long term function.**

**Applicant:** No reconfiguration of the buffer zone is requested.

**Staff:** Staff concurs.

- 7.05           **(6) The local government shall submit all requests to reconfigure sensitive wild-life/plant or water resource buffers to the U.S. Forest Service and the appropriate state agencies for review. All written comments shall be included in the project file. Based on the comments from the state and federal agencies, the local government will make a final decision on whether the reconfigured buffer zones are justified. If the final decision contradicts the comments submitted by the federal and state agencies, the local government shall justify how it reached an opposing conclusion.**

**Applicant:** No reconfiguration any buffer zone is requested. Therefore, this section does not apply.

**Staff:** Staff concurs.

- 7.06           **(B) When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.**

**Applicant:** The buffer zone will be disturbed due to the following activities:

1. Temporary access will need to be constructed in order to remove the existing bents and existing structure; and
2. Temporary access will need to be prepared in order to build the new bents and place the new structure.

Site restoration will use only native plant species of the Columbia River Gorge and will conform to the landscaping guidelines of the *I-84 Corridor Strategy, Roadside and ROW Features – Landscaping and Vegetation Management*. See Exhibits F 1.0 and 1.1 - Landscaping and Site Plan.

**Staff:** Exhibits F1.0 and F.1.1 have been labeled by planning staff as Exhibits A.8.a and A.8.b. The proposed plants listed on Exhibit A.8.a & A.8.b are all native species listed in the Scenic Resources Implementation Handbook. *This criterion has been met.*

- 7.07           **(C) The applicant shall be responsible for identifying all water resources and their appropriate buffers.**

**Applicant:** The single water resource within the project area - Moffett Creek - and its appropriate buffer is shown on Exhibit B 4.0 - Construction Access Plan.

**Staff:** ODOT has identified Moffett Creek and its appropriate buffer. Exhibit B4.0 has been labeled by planning staff as Exhibit A.4.f. *This criterion has been met.*

- 7.08           **(D) Wetlands Boundaries shall be delineated using the following:**

- (1) The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U. S. Department of the Interior 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wet-lands.**
- (2) Some wetlands may not be shown on the wetlands inventory or soil survey maps. Wetlands that are discovered by the local planning staff during an inspection of a potential project site shall be delineated and protected.**
- (3) The project applicant shall be responsible for determining the exact location of a**

wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the '1987 Corps of Engineers Wetland Delineation Manual (on-line Edition)'.

**(4) All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.**

**Applicant:** No wetlands outside of those below the OHWM of Moffett Creek are present within the project area.

**Staff:** ODOT has submitted a Wetlands/Waters of the US Determination Report for the area of proposed development. No wetlands were identified outside of the Moffett Creek riparian area (Exhibit A.10.e). *This criterion has been met.*

- 7.09 **(E) Stream, pond, and lake boundaries shall be delineated using the bank full flow boundary for streams and the high water mark for ponds and lakes. The project applicant shall be responsible for determining the exact location of the appropriate boundary for the water resource.**

**Applicant:** The bank full flow (also referred to as the ordinary high water mark (OHWM)) for Moffett Creek has been delineated and professionally surveyed. See Exhibit B 4.0 - Construction Access Plan for an illustration of this boundary.

**Staff:** Exhibit B4.0 has been relabeled by planning staff as Exhibit A.4.f. *This criterion has been met.*

- 7.10 **(F) The local government may verify the accuracy of, and render adjustments to, a bank full flow, high water mark, normal pool elevation (for the Columbia River), or wetland boundary delineation. If the adjusted boundary is contested by the project applicant, the local government shall obtain professional services, at the project applicant's expense, or the county will ask for technical assistance from the U.S. Forest Service to render a final delineation.**

**Applicant:** ODOT acknowledges the responsibility for a final delineation in the case of a dispute over accuracy of submitted delineation.

**Staff:** Multnomah County finds ODOT's delineation of the Ordinary High Water Mark to be acceptable. No comments were received from the US Forest Service indicating that a problem may exist. *This criterion has been met.*

- 7.11 **(G) Buffer zones shall be undisturbed unless the following criteria have been satisfied:**

**(1) The proposed use must have no practicable alternative as determined by the practicable alternative test. Those portions of a proposed use that have a practicable alternative will not be located in wetlands, stream, pond, lake, and riparian areas and/or their buffer zone.**

**Applicant:** The purpose of the bridge replacement is to ensure safe crossing of Moffett Creek for the traveling public on I-84, Oregon's sole east-west interstate highway. The bridge replacement meets the practicable alternative test as described in MCC 38.7075 (Q) below, since no alternative use or site can accomplish the purpose of the bridge to be replaced, and there are no practicable alternatives for the bridge that would serve the same purpose and have fewer impacts. Bridge design and construction methods have been developed to minimize negative effects on surrounding lands. The following narrative describes why ODOT has found the replacement of this bridge to be necessary.



ODOT's Bridge Engineering Section gathered data to evaluate the severity of shear cracking for bridges built from the late 1940s through the early 1960s. The evaluation used to make the baseline recommendation to replace the Moffett Creek Bridge included a review of ODOT's data, assumptions, criteria and key results. The evaluation also addressed the cracking stage of the bridge and its load rating, identification of structural elements considering feasible long-term repairs, structural and functional deficiencies, and the cost to repair and retrofit the bridge to current standards.

This bridge was scheduled for replacement due to insufficient load capacity, cracking in the reinforced concrete girder approach spans, and the poor state of the connections between the bridge components that comprise the substructure. Additionally, severe cracking was noted in the deck and Bents 2 and 5, and the existing roadway shoulders are substandard.

**Staff:** The eastbound bridge over Moffett Creek is a single element of the Interstate 84 travel lanes. It is not possible to move the bridge out of the Gorge or to a different location as the bridge is locationally dependent. It is needed to cross Moffett Creek. In addition, it is not feasible to demolish the existing bridge and reconstruct the replacement bridge in the same location. Interstate 84 is part of the Federal Highway system and is used to move freight and people from Western Oregon to Eastern Oregon and beyond. The amount of vehicle trips generated can not be rerouted onto another right-of-way as there is limited infrastructure in the area. *There is no practical alternative.*

- 7.12                    **(2) Filling and draining of wetlands shall be prohibited with exceptions related to public safety or restoration/enhancement activities as permitted when all of the following criteria have been met:**
- (a) A documented public safety hazard exists or a restoration/ enhancement project exists that would benefit the public and is corrected or achieved only by impacting the wetland in question.**
  - (b) Impacts to the wetland must be the last possible documented alternative in fixing the public safety concern or completing the restoration/enhancement project.**
  - (c) The proposed project minimizes the impacts to the wetland.**

**Applicant:** No wetlands will be filled or drained as a result of this project. No wetlands outside of those below the OHWM of Moffett Creek are present within the project area.

**Staff:** Staff concurs. *This criterion has been met.*

- 7.13                    **(3) Unavoidable impacts to wetlands and aquatic and riparian areas and their buffer zones shall be offset by deliberate restoration and enhancement or creation (wetlands only) measures as required by the completion of a mitigation plan.**

**Applicant:** There will be no impacts to wetlands as a result of this project; therefore, no mitigation regarding wetlands is required. Impacts to vegetation have been minimized to the greatest extent practical. See Exhibit F 1.0 – 1.1 - Landscaping and Site Restoration Plan, for the restoration of disturbed vegetation within the buffer area.

**Staff:** ODOT has limited the impacts to stream buffer to the minimum necessary to remove the existing bridge components and construction of the replacement bridge. The work area will be setback from the stream by at least 20 ft. After the construction is done, the staging areas and disturbed areas will be restored (Exhibit A.8.a & A.8.b). In addition, ODOT will be removing nuisance plant species and weeds as part of the restoration plan for the area. This nuisance species removal qualifies as enhancement to the site. *This criterion has been met.*

**(H) Protection of sensitive wildlife/plant areas and sites shall begin when proposed new developments or uses are within 1000 feet of a sensitive wildlife/plant site and/or area. Sensitive Wildlife Areas are those areas depicted in the wildlife inventory and listed in Table 4 of the Management Plan titled “Types of Wildlife Areas and Sites Inventoried in the Columbia Gorge”, including all Priority Habitats Table. Sensitive Plants are listed in Table 7 of the Management Plan, titled “Columbia Gorge and Vicinity Endemic Plant Species.” The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.**

**Applicant:** The location of Priority Habitats, Wildlife Areas and Sites, Endemic Plant Species, and Natural Areas within 1000 foot proximity of the project were compared to the CRNGA Management Plan sources cited MCC 38.7075(H). The findings of this review are as follows:

Table 2 Inventory of Priority Habitats, Wildlife/Plant Species and Natural Areas within 1000 Feet		
Source Document from CRNGA Management Plan	Resource Occurrence within 1000 Feet of Project	Notes
Priority Habitat Table	Riparian	Riparian vegetation along the banks of Moffett Creek
Table 2 -Wildlife Areas and Sites	Tributary fish habitat	Moffett Creek is a tributary to the Columbia River and is known habitat for anadromous salmonids.
Table 3 (or 7) – Endemic Plant Species	None occur within 1000 feet of the project area.	
Table 4 – Natural Areas	None occur within 1000 feet of the project area.	
Sensitive and Wildlife Plant Species	Lower Columbia River fall- and spring-run chinook salmon (Listed Threatened [LT])	
	Lower Columbia River summer- and winter-run steelhead (LT)	
	Columbia River chum salmon (LT)	
	Lower Columbia River/SW Washington coho salmon (LT)	
	Larch Mountain salamander	Forest Service and Oregon State Sensitive species

The findings regarding site investigations are as follows:

#### **Wildlife:**

Moffett Creek is a tributary of the Columbia River, located in the Columbia River Gorge. Moffett Creek’s confluence with the Columbia River is located in the north-central portion of the surrounding area, approximately 750 ft downstream from the bridge. Moffett Creek is a perennial stream that contained low flow at the time of survey. Moffett Creek enters from the south-central portion of the bridge area, flows northwest, and exits from the north-central portion of the area surrounding the bridge. The creek flows through a steep V-shaped valley, in an unconstrained,

broad single channel. The buffer zone is located 200 feet to each side of the OHWM. No existing bridge pier footings are below the OHWM. No new bridge pier foundations (drilled shafts) will be located within OHW.

The bridge is located in the Lower Columbia River/Sandy River sub-basin, and was surveyed for aquatic resources. Moffett Creek provides suitable habitat for Lower Columbia River fall- and spring-run Chinook salmon (Listed Threatened [LT]), Lower Columbia River summer- and winter-run steelhead (LT), Columbia River chum salmon (LT), and Lower Columbia River/SW Washington coho salmon (LT). It may also support coastal cutthroat trout, river lamprey, and Pacific lamprey during a portion of their life cycle. There are no barriers to fish passage observed in the area surrounding the bridge. An unnamed falls in Moffett Creek completely blocks fish passage approximately 0.5 mile upstream from the bridge.

Chinook and coho salmon are two of the Pacific salmon species managed under the Magnuson-Stevens Fisheries Conservation and Management Act (MSFCMA). Therefore, Moffett Creek constitutes Essential Fish Habitat (EFH). Critical habitat for the listed salmonid Evolutionary Significant Unit (ESU) that may potentially occur within the project area has been vacated by National Oceanic and Atmospheric Administration (NOAA) Fisheries, pending further rulemaking, with the exception of the Snake River sockeye salmon ESU, the Snake River fall-run Chinook salmon ESU, and the Snake River spring/summer-run Chinook salmon ESU. Moffett Creek has been identified as Essential Salmonid Habitat (ESH) by DSL.

The field crew observed high-quality substrates that may provide suitable spawning habitat for anadromous salmonids. Potential spawning habitat for anadromous salmonids was observed within the area of the bridge, according to an Oregon Department of Fish & Wildlife (ODFW) biologist's October 2003 field observations. Aquatic habitats within the bridge area break down as follows: riffle, 40 percent; pool, 30 percent; rapid, 20 percent; and glide, 10 percent. Fish cover elements are generally sparse or absent, although there are large numbers of boulders and moderate amounts of overhanging vegetation. Large woody debris components include six single pieces, two accumulations, and two jams. Riparian vegetation is dominated by native trees and saplings. Riparian vegetation provides some potential for future large wood recruitment.

Construction activities may have short-term impacts on spawning habitat within Moffett Creek. BMPs will be implemented to minimize impacts to listed aquatic species.

Oregon Natural Heritage Information Center (ORNHIC) data indicates that the Larch Mountain salamander is reported to occur within 2 miles of the area of the bridge. Documented sightings occurred in 1982, one along the Tanner Creek Trail, and the other near the Eagle Creek Trailhead (the database also indicates that this species could occur near the bridge). This species is categorized as a Federal species of concern (SOC). The USFS has categorized this species as a Sensitive Species. During the field visit there were no observations of federally or state listed species. The ORNHIC database reports no listed species as occurring within 2 miles of the bridge.

Field crews observed no evidence of roosting bats at the bridge site. Swallows and swallow nests were not found during the field visit, but nests were observed on the bridge by ODFW biologists during a reconnaissance visit. Suitable nesting habitat for migratory birds was noted. During a survey conducted in May 2008, an active pair of nesting osprey were detected in a large conifer tree approximately 100' north of the western end of the eastbound bridge.

According to the Johnson and O'Neil habitat matrix, the following species may occur in habitat present at this site: northwestern pond turtle, Pacific western big-eared bat, bald eagle, harlequin duck, Yuma myotis, northern red-legged frog, Cascades frog, Oregon spotted frog, silver-haired bat, long-legged myotis, and red tree vole. The Oregon spotted frog was extirpated from this area and its presence in the near future is highly unlikely. The northwestern pond turtle and harlequin

duck are classified as Sensitive Species by the USFS, and are further classified as a “documented occurrence”. The Oregon spotted frog is also classified as a USFS Sensitive Species, and is further classified as a “suspected occurrence”. ORNHIC data do not document the occurrence of the northwestern pond turtle, harlequin duck, and Oregon spotted frog within 2 miles of the bridge.

This project will not contribute to the need to list a Sensitive Species under the ESA, nor will it reduce the diversity and viability of Sensitive Species on USFS lands.

Work areas will be completely isolated from the active flowing stream; no work is anticipated to occur below in Moffett Creek below OHWM.

Exclusionary methods such as netting, sound, and/or hazing will be used to deter swallows and/or bats from nesting or roosting on the bridge structure. A pre-demolition inspection will be undertaken.

Stands of trees suitable for migratory bird nesting shall not be cut during the breeding season (April 15 to August 1).

Site restoration is designed to ensure that habitats and conditions disturbed by the project are restored in an ecologically sound manner that addresses habitat access, water quality, production of habitat elements, channel conditions, flows, watershed conditions, and other ecosystem processes that form and maintain productive habitats. Disturbance is limited to removal of existing bridge bents and superstructure components, construction of new bridge bents and superstructure components, and any temporary access modifications within the riparian buffer zone.

#### **Plants:**

The surrounding area of the bridge was surveyed by the rare plant crew as part of the Environmental Baseline analysis for this bridge. No state or federally listed rare plant species or species of concern were found.

ODA-listed noxious weeds found on site included the following:

- diffuse knapweed (*Centaurea diffusa*)
- Canada thistle (*Cirsium arvense*)
- bull thistle (*Cirsium vulgare*)
- Scot’s broom (*Cytisus scoparius*)
- English ivy (*Hedera helix*)
- St. John’s wort, Klamath weed (*Hypericum perforatum*)
- giant knotweed (*Polygonum sachalinense*)
- Himalayan blackberry (*Rubus discolor*)
- tansy ragwort (*Senecio jacobaea*).

Temporary construction activities may create conditions suitable for the expansion of noxious weed populations present within bridge area.

A management plan to control noxious weed populations will be implemented prior to construction, based on the *I-84 Corridor Strategy Landscaping and Vegetation Management* guidelines.

Site restoration is designed to ensure that habitats and conditions disturbed by the project are restored in an ecologically sound manner that addresses habitat access, water quality, production

of habitat elements, channel conditions, flows, watershed conditions, and other ecosystem processes that form and maintain productive habitats.

**Staff:** Moffett Creek and surrounding vegetation is possible habitat to sensitive wildlife species. No sensitive plant species were identified. Protection plans are required for the sensitive wildlife species during the replacement bridge construction period.

- 7.15 **(I) The local government shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the U.S. Forest Service and the appropriate state agencies (Oregon Department of Fish and Wildlife for wildlife issues and by the Oregon Natural Heritage Program for plant issues).**

**Applicant:** The applicant understands that Multnomah County will provide site plans to the Forest Service and the Oregon Department of Fish and Wildlife. See Appendix H.

**Staff:** During completeness review and the Opportunity to Comment, the US Forest Service, Oregon Fish and Wildlife and Oregon Natural Heritage Program were given the opportunity to review and comment on the proposed site plans. No comments were received. Staff contacted the US Forest Service to verify that they had no comments on the proposed plans. Diana Ross, USFS, concurred. *This criterion has been met.*

- 7.16 **(J) The U.S. Forest Service wildlife biologists and/or botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:**

- (1) Identify/verify the precise location of the wildlife and/or plant area or site.**
- (2) Determine if a field survey will be required.**
- (3) Determine, based on the biology and habitat requirements of the affected wildlife/plant species, if the proposed use would compromise the integrity and function of or result in adverse affects (including cumulative effects) to the wildlife or plant area or site. This would include considering the time of year when wildlife or plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season.**
- (4) Delineate the undisturbed 200 ft buffer on the site plan for sensitive plants and/or the appropriate buffer for sensitive wildlife areas or sites, including nesting, roosting and perching sites.**
  - (a) Buffer zones can be reconfigured if a project applicant demonstrates all of the following: (1) the integrity and function of the buffer zones is maintained, (2) the total buffer area on the development proposal is not decreased, (3) the width reduction shall not occur within another buffer, and (4) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.**
  - (b) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant, (1) identifies the precise location of the sensitive wildlife/plant or water resource, (2) de-scribes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and (3) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wild-life/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term**

**function.**

**(c) The local government shall submit all requests to reconfigure sensitive wildlife/plant or water resource buffers to the U.S. Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the local government will make a final decision on whether the reduced buffer zones is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the local government shall justify how it reached an opposing conclusion.**

**Applicant:** The applicant understands that Multnomah County will provide site plans and field records to the Forest Service and the Oregon Department of Fish and Wildlife. See Appendix H – Baseline Reports for the field records. See Exhibits F 1.0 and 1.1 - Landscaping and Site Restoration Plan.

**Staff:** The U.S. Forest Service reviewed the proposed project through the I-84 Corridor Strategy team and found that the proposal construction plan would not compromise the integrity and function of or result in adverse affects (including cumulative effects) to the wildlife area or site. No additional field surveys were requested as part of this land use application. *This criterion has been met.*

7.17

**(K) The local government, in consultation with the State and federal wildlife biologists and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse affects to the wildlife or plant area or site:**

**(1) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington Department of Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander (Rodrick and Milner 1991).**

**(2) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.**

**(3) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.**

**(4) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.**

**(5) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.**

**(6) The site plan is consistent with the "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000).**

**(7) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.**

**(8) The site plan illustrates that new developments and uses, including bridges,**

culverts, and utility corridors, shall not interfere with fish and wildlife passage.

(9) Maintain, protect, and enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands) as listed in the Priority Habitats

Table. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are considered in documenting integrity and function.

<b>PRIORITY HABITATS TABLE</b>	
<b>Priority Habitats</b>	<b>Criteria</b>
<b>Aspen stands</b>	<b>High fish and wildlife species diversity, limited availability, high vulnerability to habitat alteration.</b>
<b>Caves</b>	<b>Significant wildlife breeding habitat, limited availability, dependent species.</b>
<b>Old-growth forest</b>	<b>High fish and wildlife density, species diversity, breeding habitat, seasonal ranges, and limited and declining availability, high vulnerability.</b>
<b>Oregon white oak woodlands</b>	<b>Comparatively high fish and wild-life density, species diversity, declining availability, high vulnerability</b>
<b>Prairies and steppe</b>	<b>Comparatively high fish and wild-life density, species diversity, important breeding habitat, declining and limited availability, high vulnerability.</b>
<b>Riparian</b>	<b>High fish and wildlife density, species diversity, breeding habitat, movement corridor, high vulnerability, dependent species.</b>
<b>Wetlands</b>	<b>High species density, high species diversity, important breeding habitat and seasonal ranges, limited availability, high vulnerability.</b>
<b>Snags and logs</b>	<b>High fish and wildlife density, species diversity, limited availability, high vulnerability, dependent species.</b>
<b>Talus</b>	<b>Limited availability, unique and dependent species, high vulnerability.</b>
<b>Cliffs</b>	<b>Significant breeding habitat, limited availability, dependent species.</b>
<b>Dunes</b>	<b>Unique species habitat, limited availability, high vulnerability, dependent species.</b>

**Applicant:** The applicant understands that the site plans submitted with this application will be reviewed by appropriate agencies to ensure the criteria listed above are met. During a survey conducted in May 2008, an active pair of nesting osprey were detected in a large conifer tree approximately 100 feet north of the western end of the eastbound bridge.

See Appendix H – Baseline Reports, especially Exhibit H 1.0 – Environmental Conditions.

Additionally, see Appendix G – Mitigation Plan.

**Staff:** Appendix H, Exhibit H1.0 and Appendix G have been labeled by planning staff as Exhibits A.10, A.10.a, A.17 & A.9 respectfully. The site plan, erosion control plans, restoration plan, mitigation plan, etc. were made available to the USFS for review. They have no concern with the proposed project and the construction methods proposed. *This criterion has been met.*

- 7.18      **(L) The wildlife/plant protection process may terminate if the local government, in consultation with the U.S. Forest Service and state wildlife agency or Heritage program, determines (1) the sensitive wildlife area or site is not active, or (2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the local government shall incorporate them into its development review order and the wildlife/plant protection process may conclude.**

**Applicant:** The project construction activities are within the buffer zone of Moffett Creek and cannot be moved out of the buffer zone due to the alignment of Interstate 84 and the need to maintain the alignment within the ODOT right-of-way.

**Staff:** The wildlife protection process must continue as the USFS has not indicated that (1) the sensitive wildlife area has been abandoned, (2) the proposed use is within a buffer zone and could compromise the integrity of the wildlife area, and (3) the replacement bridge cannot be moved out of the sensitive wildlife area.

- 7.19      **(M) If the above measures fail to eliminate the adverse affects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test and prepare a mitigation plan to offset the adverse effects by deliberate restoration and enhancement.**

**Applicant:** The applicant believes that it has developed an alternative which avoids and minimizes impacts to the greatest extent practicable through the application of Environmental Performance Standards (EPSs) and with the actions proposed in the Mitigation Plan (see Exhibit G 1.0). While no adverse impacts to threatened or endangered plant or wildlife species, or to historic or archeological properties as a result of this action have been found to be likely, a Mitigation Plan has been proposed in order to mitigate negative effects to vegetation within the buffer zone, to enhance bat habitat and to avoid impacting nearby osprey nest. Bridge design and construction methods have been developed to minimize negative effects on surrounding lands.

The following narrative describes why ODOT has found the replacement of this bridge to be necessary.

- a. In order to allow for continual passage along I-84, the basic purpose of the project requires the use of eastbound I-84 over Moffett Creek at the site of the project. The basic purpose of the project can not be reasonably accomplished at any other site which would avoid or result in less adverse effects.
- b. The basic purpose of the project can not be reasonably accomplished by reducing its size, scope or configuration, or by further changing the design in any way that would avoid or result in less adverse effects. The location of I-84 requires the crossing of Moffett Creek. The proposed structure is designed within two feet of the original structure length. The added width is necessary in order to provide for the safety measure of standard shoulder widths. The Cascadian Bridge Style will be used for the replacement bridge, which was developed to respond to regional architecture.



- c. This proposal is for the replacement of a bridge along I-84. Alternatives to the proposed replacement bridge would not be practical, would cause increased environmental impacts, and would not meet transportation needs as efficiently. The following narrative describes how ODOT made the determination that the bridge should be replaced.

ODOT's Bridge Engineering Section gathered data to evaluate the severity of shear cracking for bridges built from the late 1940s through the early 1960s. The evaluation used to make the baseline recommendation to replace the bridge included a review of ODOT's data, assumptions, criteria and key results. The evaluation also addressed the cracking stage of each bridge and its load rating, identification of structural elements considering feasible long-term repairs, structural and functional deficiencies, and the cost to repair and retrofit the bridge to current standards.

The primary issues driving the replacement of this bridge are the insufficient load capacity, cracking in the reinforced concrete girder approach spans, and the poor state of the connections between the bridge components that comprise the substructure.

Additionally, severe cracking was noted in the deck and Bents 2 and 5, and the existing roadway shoulders are substandard. Repairing the bridge was found to not be cost-effective.

ODOT developed Environmental Performance Standards (EPSs) in order to provide a set of clear, consistent resource environmental protection directives for contractors working on ODOT's OTIA III bridge projects, with an improved ability to monitor and ensure regulatory compliance. The EPSs were cooperatively developed by a multi-disciplinary team of key federal and state agencies including planners, scientists, engineers, and regulatory specialists in an effort to provide design and construction sideboards resulting in context sensitive bridge repair and replacement projects. Its goal was to create well-integrated and consistent terms and conditions that would meet each participating agency's regulatory requirements.

EPSs define the acceptable level of effect that a project activity may have upon the environment, thereby limiting or avoiding impacts to the environment through the use of proper design, construction, and construction-related practices. The EPSs were designed to avoid and minimize adverse effects to natural resources, including Federally-listed species, State-listed species, State sensitive species, and their habitats. To meet the goals of the EPSs, projects are restricted to the terms and conditions specified in the relevant EPSs unless authorized by the multi-disciplinary team. This project has been developed per the requirements of applicable EPSs. No variances to the approved EPSs have been requested for this project. See Exhibit G 2.0 for more information regarding the applicable EPSs.

**Staff:** The measures under (L) cannot be achieved. The replacement bridge application will need to meet the no practical alternative test under (Q) below. A mitigation plan has been provided to restore and enhance the area after construction of the new bridge and removal of the old structure.

7.20

**(N) The local government shall submit a copy of all field surveys (if completed) and mitigation plans to the U.S. Forest Service and appropriate state agencies. The local government shall include all comments in the record of application and address any written comments submitted by the state and federal wildlife agency/heritage programs in its development review order. Based on the comments from the state and federal wildlife agency/heritage program, the local government shall make a final decision on whether the proposed use would be consistent with the wildlife/plant policies and guidelines. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the local government shall justify how it reached an opposing conclusion.**

**Applicant:** The applicant acknowledges that Multnomah County will submit copies of all field surveys and mitigation plans to the USFS and appropriate state agencies. See Exhibit H 1.0 - Environmental Conditions, which contains the requested field surveys and Exhibit G 1.0 - Mitigation Plan.

**Staff:** Multnomah County provided the opportunity to comment on all submitted evidence. No comments were submitted by the USFS, ODFW or Oregon Natural Heritage Program. Planning staff contacted USFS to verify that they had no issues with the plan. Diana Ross indicated that they had no issues with the reports or mitigation plan as their concerns were address with ODOT through a Memorandum of Understanding. *This criterion has been met.*

- 7.21      **(O) The local government shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a sensitive wildlife/plant area or site.**

**Applicant:** The applicant understands Multnomah County may require the revision of the mitigation plan as necessary to ensure the bridge replacement will not adversely affect a sensitive wildlife/plant area or site.

**Staff:** No revisions are needed.

- 7.22      **(P) Soil productivity shall be protected using the following guidelines:**

- (1) A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.**
- (2) New developments and land uses shall control all soil movement within the area shown on the site plan.**
- (3) The soil area disturbed by new development or land uses, except for new cultivation, shall not exceed 15 percent of the project area.**
- (4) Within 1 year of project completion, 80 percent of the project area with surface disturbance shall be established with effective native ground cover species or other soil-stabilizing methods to prevent soil erosion until the area has 80 percent vegetative cover.**

**Applicant:** (1) Exhibits B 5.0 – 5.4 - Grading and Erosion Control Plan is included in this application. ODOT's Standard Specifications and Special Provisions 280 will also be required of the contractor in order to control soil erosion and stream sedimentation. (See Exhibits F 2.0 – 2.1.)

(2) Exhibits B 5.0 – 5.4 - Grading and Erosion Control Plan is included in this application. ODOT's Standard Specifications and Special Provisions 280 will also be required of the contractor in order to control soil erosion. (See Exhibits F 2.0 – 2.1.)

(3) This project is for the replacement of an existing structure. In order to provide for this replacement, standards must be met which comply with national and state roadway safety standards. ODOT will disturb the least amount of land necessary but still required in order to meet the safety of the traveling public and the construction workers. ODOT's Standard Specification and Special Provision 280 require that exposed soils be protected within seven to 14 days of exposure. In addition permanent stabilization is to occur as specified on Exhibits F 1.0 – 1.1 - Landscaping and Site Restoration Plan.

(4) ODOT requires that its contractors meet the provisions of Standard Specification and Special Provisions 1030 and 1040 regarding the establishment of seeding and plantings. These provisions require that native seeding be established with 45 days, and that other plantings be established

within one calendar year from the date of acceptance of the project plantings. Generally, ODOT requires a success criteria of 90% or better for both permanent seeding and other plantings.

**Staff:** ODOT has submitted a Hillside Development Permit (HDP) which addresses soil erosion and stream sedimentation issues (Exhibit A.4.g – k, A.14.a - c ) The information submitted includes narrative addressing the HDP criteria and erosion control plans. Erosion control measures were designed to protect areas outside of the disturbance area from sedimentation and cut and fill slopes from erosion. The replacement bridge over Moffett Creek is part of the larger land use known as Interstate – 84. Interstate – 84 runs from Portland Oregon to the Idaho border. This construction project does not exceed 15 percent of the interstate corridor. ODOT's restoration plan requires a 90% coverage rate be established within 5 years. A condition of approval has been included requiring an 80% native vegetative cover within 1 year of project completion. *As conditioned, this criterion has been met.*

7.23

**(Q) An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes. A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:**

- (1) The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.**
- (2) The basic purpose of the use cannot be reasonably accomplished by reducing its proposed size, scope, configuration, or density, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.**
- (3) Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the proposed use. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a Management Plan amendment to demonstrate that practicable alternatives do not exist.**

**Applicant:** The bridge replacement can not meet the practicable alternative test since no alternative use or site can accomplish the purpose of the bridge to be replaced, and there are no practicable alternatives for the bridge that would serve the same purpose and have fewer impacts. Bridge design and construction methods have been developed to minimize negative effects on surrounding lands. The following narrative describes why ODOT has found the replacement of this bridge to be necessary.

ODOT's Bridge Engineering Section gathered data to evaluate the severity of shear cracking for bridges built from the late 1940s through the early 1960s. The evaluation used to make the baseline recommendation to replace the bridge included a review of ODOT's data, assumptions, criteria and key results. The evaluation also addressed the cracking stage of each bridge and its load rating, identification of structural elements considering feasible long-term repairs, structural and functional deficiencies, and the cost to repair and retrofit the bridge to current standards.

The primary issues driving the replacement due of this bridge are the insufficient load capacity, cracking in the reinforced concrete girder approach spans, and the poor state of the connections between the bridge components that comprise the substructure. Additionally, severe cracking was noted in the deck and Bents 2 and 5, and the existing roadway shoulders are substandard. The existing 458-foot long bridge will be replaced with be with a 460-foot long bridge built to current

ODOT standards.

No adverse impacts to threatened or endangered plant or wildlife species, or to historic or archeological properties as a result of this action have been found to be likely, based upon the field studies and coordination with resource agencies. A mitigation plan has been developed to mitigate for negative effects to the buffer zone, in order to avoid impacting a nearby osprey nest and to enhance bat habitat. In addition, Environmental Performance Specifications (EPS) have been developed to define the acceptable level of effect that a project activity may have upon the environment, thereby limiting or avoiding impacts to the environment through the use of proper design, construction, and construction-related practices. To meet the goals of the performance standards, projects will be restricted to the terms and conditions specified in the relevant performance standards unless authorized by a multi-disciplinary team representing various resource and regulatory agencies.

**Staff:** (1) Interstate - 84 runs across Oregon from west to east through the Columbia River Gorge. It was constructed prior to designating this area a National Scenic Area. Moffett Creek flows approximately perpendicular to Interstate -84. A bridge is needed for autos and trucks to travel over the creek. The purpose of Interstate – 84 is vehicle travel. Without the replacement of the bridge in the new location, it would not be feasible to maintain vehicle travel across Northern Oregon. If the bridge was moved to the north or south, it would still cross Moffett Creek.

(2) The basic purpose of the bridge replacement is to provide two travel lanes and safe roadway shoulders for use by travelers during flat tires, engine trouble, etc. To reduce the bridge's width would not allow proper shoulder width construction. To reduce the bridge's length would require additional fill materials and encroachment into the buffer area. To change the length of the bridge would impact the Moffett Creek buffer zones.

(3) ODOT looked at restoring the bridge versus replacing it. The engineers determined that it was not feasible as the bridge was significantly below the load capacity needed for commercial vehicles traveling across the state.

Based upon the above three findings, there is no practical alternative to replacing the Moffett Creek Bridge at its proposed location. *This criterion has been met.*

7.24 **(R) The Mitigation Plan shall be prepared when:**

**(1) The proposed development or use is within a buffer zone (wetland, pond, lakes, riparian areas, wildlife or plant areas and/or sites).**

**(2) There is no practicable alternative as determined by MCC 38.7075 (Q).**

**Applicant:** See Exhibit G 1.0 - Mitigation Plan.

**Staff:** Exhibit G1.0 has been labeled by planning staff as Exhibit A.9.a. The bents for the replacement bridge will be within the 200 ft buffer of Moffett Creek. Planning staff found in section 7.23 above that there is no practicable alternative for the bridge. ODOT has prepared a mitigation plan. *This criterion has been met.*

7.25 **(S) In all cases, Mitigation Plans are the responsibility of the applicant and shall be prepared by an appropriate professional (botanist/ecologist for plant sites, a wildlife/fish biologist for wildlife/fish sites, and a qualified professional for water resource sites).**

**Applicant:** The Mitigation Plan was prepared by Peter M Geiger, Supervising Environmental Scientist with Parsons Brinckerhoff. The landscaping and restoration plan portion of the Mitigation Plan was prepared by Michael Boardman, Boardman Studios. Michael Boardman is an Oregon- registered Landscape Architect.

**Staff:** No comments were received from the USFS or ODFW that the above professionals are not qualified. *This criterion has been met.*

- 7.26 **(T) The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources, and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.**

**Applicant:** The applicant has developed a design that protects the buffer zone to the greatest extent possible, and restores the site with appropriate native plant species (see Grading and Erosion Control Plan, and Landscaping and Site Restoration Plan). Impacts requiring mitigation are outlined in Exhibit G 1.0 - Mitigation Plan. In addition, ODOT, thru a multi-disciplinary team representing various resource and regulatory agencies, developed Environmental Performance Specifications (EPSs) for the OTIA III Bridge Delivery Program. These EPSs define the acceptable level of effect that a project activity may have upon the environment, thereby limiting or avoiding impacts to the environment through the use of proper design, construction, and construction-related practices. To meet the goals of the performance standards, projects will be restricted to the terms and conditions specified in the relevant performance standards unless authorized by the multi-disciplinary team.

**Staff:** The USFS and ODFW had the opportunity to review the restoration and mitigation plans submitted by ODOT. No revisions have been proposed or required by these agencies. *This criterion has been met.*

- 7.27 **(U) The applicant shall submit the mitigation plan to the local government. The local government shall submit a copy of the mitigation plan to the U.S. Forest Service, and appropriate state agencies. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the local government shall justify how it reached an opposing conclusion.**

**Applicant:** ODOT understands and accepts this requirement.

**Staff:** ODOT submitted a mitigation plan. Multnomah County provided opportunity to comment to the USFS, ODFW, and Oregon Natural Heritage Program. No comments were received. *This criterion has been met.*

- 7.28 **(V) A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation**

**Applicant:** No wetland creation is required as mitigation for this project.

**Staff:** Staff concurs. *This criterion is not applicable.*

- 7.29 **(W) Mitigation plans shall include maps, photographs, and text. The text shall:**

**(1) Describe the biology and/or function of the sensitive resources (e.g. Wildlife/plant species, or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required. Reference published protection and management guidelines.**

**(2) Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the sensitive resources. Include the size, scope, configuration, or density of new uses being**

proposed within the buffer zone.

**(3) Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for examples, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).**

**(4) Show how restoration, enhancement, and replacement (creation) measures will be applied to ensure that the proposed use results in minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats.**

**(5) Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the local government, appropriate state agencies, and U.S. Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.**

**Applicant:** (1) Please refer to G 1 - Mitigation Plan. The mitigation plan describes the biology and/or function of the buffer zone that will be affected by the bridge project.

(2) As further explained in Exhibit G 1.0 – Mitigation Plan, design specifications and BMPs are incorporated to protect the buffer zone during bridge replacement. ODOT's Special Provision 290 requires that measures be taken to restrict access within the No Work Area (which is illustrated on Exhibit B 4.0 - Construction Access Plan). A cordon will be placed so that no access can be gained within the restricted area. In addition, ODOT's Special Provision 280 requires, among other techniques, the implementation of an Erosion Control Plan in order to protect slopes, river banks and water resources from temporary and permanent stormwater runoff. For specific measures taken to preserve these resources, please refer to Exhibit B 4.0 - Construction Access Plan, and Exhibits B 5.0 – 5.4 - Grading and Erosion Control Plan, and Appendix F for the Standard Specification and Special Provisions 280 and 290.

(3) Minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats will occur during bridge replacement. For specific measures taken to preserve these resources, please refer to Exhibit B 4.0 - Construction Access Plan and Exhibits B 5.0 – 5.4 - Grading and Erosion Control Plan, and Exhibit G 1.0 - Mitigation Plan.

(4) Efforts have been made to avoid sensitive resources. Of the four two-column bents which currently exist within the buffer zone, the new bridge design will require the placement of only two two-column bents. The existing center span of 138 feet will be widened to 200 feet with the new structure, providing a greater clear zone across the buffer area. Construction techniques to be employed include closing I-84 eastbound temporarily so that access can be gained from I-84 instead of from areas within the buffer zone. However, because the bridge replacement will occur within a buffer zone, it is not possible to avoid all impacts. Construction access will be restricted to areas depicted on Exhibit B 4.0 - Construction Access Plan. Mitigation for unavoidable impacts will occur as specified in Exhibit G 1.0 – Mitigation Plan.

(5) ODOT's requirement for site restoration requires annual monitoring for five years or longer until restoration performance criteria are met. A copy of the records kept annually will be submitted to the county until the final monitoring report is submitted to the County for review upon completion of the site restoration plan. Photographs will be taken from photographic monitoring stations in order to monitor the progress of mitigation. The applicant believes that this requirement will fulfill the monitoring requirements noted in (X) above. See Exhibit G 1.0 -

Mitigation Plan additional detail regarding the monitoring plan.

**Staff:** Exhibit G1.0, Exhibit B4.0 and Exhibits B 5.0 – 5.4 have been relabeled as Exhibits A.9.a, A.4.f, and A.4.g through A.4.k. The mitigation plan and other exhibits contain the above required information. *This criterion has been met.*

- 7.30 **(X) At a minimum, a project applicant shall provide to the local government a progress report every 3-years that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor all mitigation progress.**

**Applicant:** ODOT's requirement for site restoration requires annual monitoring for five years or longer until restoration performance criteria are met. A copy of the records kept annually will be submitted to the county until the final monitoring report is submitted to the County for review upon completion of the site restoration plan. Photographs will be taken from photographic monitoring stations in order to monitor the progress of mitigation. The applicant believes that this requirement will fulfill the monitoring requirements noted in (X) above. See Exhibit G 1.0 - Mitigation Plan additional detail regarding the monitoring plan.

**Staff:** ODOT's narrative meets the above criteria. *This criterion has been met.*

- 7.31 **(Y) A final monitoring report shall be submitted to the local government for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The local government shall submit copies of the monitoring report to the U.S. Forest Service; who shall offer technical assistance to the local government in helping to evaluate the completion of the mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the restoration and enhancement guidelines.**

**Applicant:** A final monitoring report will be submitted to the County for review upon completion of the site restoration, enhancement, and/or replacement activity. The applicant accepts that the local government will submit copies of the monitoring report to the U.S. Forest Service; who shall offer technical assistance to the local government in helping to evaluate the completion of the mitigation plan. The applicant accepts that in instances where restoration and enhancement efforts have failed, the monitoring process is to be extended until the applicant satisfies the restoration and enhancement guidelines.

**Staff:** ODOT has accepted responsibility for a final monitoring report. A condition of approval has been included to remind all parties of this requirement in the future. *This criterion will be met through a condition of approval.*

- 7.32 **(Z) Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:**

**(1) Restoration and enhancement efforts shall be completed no later than one year after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.**

**Applicant:** The Moffett Creek Bridge Replacement Project will implement temporary seeding periodically to protect ground disturbed during construction. Final restoration and enhancement activities (seeding and plantings) will occur at the completion of all construction activities. Construction of the Moffett Creek replacement bridge is expected to extend over two construction

seasons.

**Staff:** The restoration and mitigation plans will restore the buffer zone by planting native vegetation in the area of the replacement bridge and where the existing bridge is located. The nuisance plants will be removed as part of the program and enhance these areas to a better condition than if these nuisance species were allowed to proliferate in the area. Stormwater from the new bridge will be handled in bio-swales. Moffett Creek will be maintained in its natural setting. A condition of approval has been included requiring that upon completion of the bridge, the permanent plantings of the native vegetation shall be completed within one year. *As conditioned, this criterion has been met.*

7.33

**(2) All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.**

**Applicant:** ODOT's OTIA III EPSs regarding *Habitat Avoidance and Removal Minimization* and *Site Restoration* address techniques to be applied in order to achieve the avoidance, protection, replacement, and maintenance criteria sought in (2) above. The requirements during construction and regarding fencing, conservation buffers, and noxious weed control are reflected in the project specifications and specials provide in Appendix F. For example, ODOT requires that its contractors meet the provisions of Standard Specification and Special Provisions 1030 and 1040 regarding the establishment of seeding and plantings. These provisions require that native seeding be established with 45 days, and that other plantings be established within one calendar year from the date of acceptance of the project plantings. Generally, ODOT requires a success criterion of 90 percent or better for both permanent seeding and other plantings, exceeding the 75 percent requirement noted above. Post-construction, a monitoring and maintenance plan will occur annually for five years or greater as necessary to achieve the design standards.

**Staff:** ODOT's plans are designed to meet the above criterion. *This criterion has been met.*

7.34

**(3) Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.**

**Applicant:** Habitat will be rehabilitated to a natural condition, in composition, structure and function. See Exhibits F 1.0 – 1.1 – Landscaping and Site Restoration Plan. Invasive weeds will also be controlled as part of the project. Existing bridge bent piers will be cut 3 feet below ground surface and the footings will remain in the ground to minimize soil disturbance and further impacting the buffer area. Moffett Creek will be protected by the placement and routine inspection of “diapers” on equipment and by the implementation of containment measures adequate to prevent pollutants from construction and demolition materials from entering Moffett Creek. A new stormwater system has been designed to maintain the natural conditions occurring at the project site and to minimize impact to the water quality and quantity. Run-off from the new bridge will be to a water quality facility (i.e., bio-filtration swale) so that no direct flow from the bridge occurs to Moffett Creek. See Exhibits F 1.0 and 1.1 and Exhibits 3.0 and 3.1 -Standard and Special Provision 290 for more details regarding the requirements place on the construction contractor.

**Staff:** Exhibits F1.0 & F1.0 and Exhibits 3.0 & 3.1 have been labeled by planning staff as Exhibits A.8.a, A.8.b, A.8.e & A.8.f. Upland areas surrounding the bridge are characterized by a



mixture of native and weedy plant communities. Plant species that were commonly observed in the bridge abutment slopes include an upland forest vegetative community dominated by English ivy (nuisance species), Douglas-fir, and big-leaf maple. Other canopy species adjacent to Moffett Creek include Red Alder and Balsam Poplar. Saplings and shrubs include salmonberry, common snowberry, Himalayan blackberry (nuisance species), and Japanese knotweed (nuisance species). Groundcover species include English ivy (nuisance species), piggy back plant (*Tolmiea menziesii*), wild currants (*Ribes* sp.) and sword fern (*Polystichum munitum*).

The above nuisance species will be removed from the construction area as part of the restoration and mitigation plans. Vegetation species to be planted include Big leaf Maple, Red Alder, Pacific Dogwood, Red Elderberry, Douglas Fir, Western Red Cedar, Vine Maple, Serviceberry, Oregon Grape, Mockorange, Red-Flowering Current, Baldhip Rose, and Salmonberry. These species are all native species. The disturbed areas will be returned to their natural condition through the restoration and mitigation plans (Exhibit A.8 & A.9). *This criterion has been met.*

- 7.35           **(4) If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the County, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.**

**Applicant:** No off-site mitigation is required. All restoration activities will occur within the ODOT right-of-way within the existing buffer of Moffett Creek.

**Staff:** Staff concurs. *This criterion is not applicable.*

- 7.36           **(5) Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods. Replacement shall occur as close to the original plant site as practicable. The project applicant shall ensure that at least 75 percent of the replacement plants survive 3 years after the date they are planted**

**Applicant:** No sensitive plants will be destroyed by the project as there are no known occurrences of sensitive plants in the immediate project area. Applicable replacement requirements are addressed in (Z)(2) above.

**Staff:** Staff concurs. *This criterion has been met.*

- 7.37           **(6) Nonstructural controls and natural processes shall be used to the greatest extent practicable.**

**(a) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.**

**Applicant:** The bridge replacement project is being designed to minimize the structural components to the greatest extent practicable and to accommodate additional future uses to serve multiple purposes:

1. The current Moffett Creek Bridge does not have any bridge piers below the OHWM of Moffett Creek; the replacement bridge will retain that condition.
2. The current Moffett Creek Bridge has four bents within the riparian buffer zone; the replacement bridge will have only two bents within the riparian buffer.
3. An overhead electrical power line owned by the City of Cascade Locks has recently

been moved to the south side of the existing EB structure, in the area of the alignment shift. Eventually, the City of Cascade Locks plans to move the power lines underground, and attach them to the bridge to cross Moffett Creek, which is being accounted for in the bridge design.

4. The conceptual plans for a future shared-use path (to be built by others) are being accommodated in the design of the retaining walls and the bridge structure.

**Staff:** The replacement bridge has been designed to reduce the impacts to the natural resources in the area of Moffett Creek. The bridge will serve multiple purposes and be open to the general public. The design of the bridge will accommodate the construction of a pedestrian path in the future. *This criterion has been met.*

- 7.38                    **(b) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as determined by MCC .38.7075 (Q).**

**Applicant:** This proposal is for bridge replacement and does not include placing stream channels in culverts.

**Staff:** Staff concurs. *This criterion has been met.*

- 7.39                    **(c) Fish passage shall be protected from obstruction.**

**Applicant:** Fish passage is currently unobstructed by the existing EB Moffett Creek bridge; this condition will not change with the new structure. No work will be performed below the OHWM, i.e., no existing bents need to be removed from within Moffett Creek and no new bents or any other fill or removal activities will occur within Moffett Creek. These conditions ensure that fish passage will be protected and remain in its current condition.

**Staff:** Staff concurs. *This criterion has been met.*

- 7.40                    **(d) Restoration of fish passage should occur wherever possible.**

**Applicant:** The project proposes no change to the current situation of no barriers to fish passage, therefore no mitigation is required.

**Staff:** Staff concurs. *This criterion has been met.*

- 7.41                    **(e) Show location and nature of temporary and permanent control measures that shall be applied to minimize erosion and sedimentation when riparian areas are disturbed, including slope netting, berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.**

**Applicant:** Temporary and permanent control measures to minimize erosion and sedimentation when riparian areas are disturbed are shown on Exhibits B 5.0 – 5.4 - Grading and Erosion Control Plan and Exhibits F 1.0 – 1.1 - Landscaping and Site Restoration Plan.

**Staff:** Exhibits B5.0 through B5.4 and Exhibits F1.0 & F1.1 have been labeled by planning staff as Exhibits A.4.g through A.4.k and Exhibits A.8.a & A.8.b. ODOT has submitted erosion control plans that use many of the listed measures above. *This criterion has been met.*

- 7.42                    **(f) Groundwater and surface water quality will not be degraded by the proposed use. Natural hydrologic conditions shall be maintained, restored, or enhanced in such a manner that replicates natural conditions, including current patterns (circulation, velocity, volume, and normal water fluctuation), natural stream channel and shoreline dimensions and materials, including slope, depth,**

**width, length, cross-sectional profile, and gradient.**

**Applicant:** A new stormwater system has been designed to maintain the natural conditions occurring at the project site and to minimize impact to the water quality and quantity. Run-off from the new bridge will be to a water quality facility so that no direct flow from the bridge occurs to Moffett Creek. The runoff from the bridge deck site will drain to the series of catch basins provided at both sides. The storm pipe will convey the runoff from the bridge inlet collection system and route it the median west of the bridge to the stormwater facility before discharging to existing culverts and ditches within the ODOT right-of-way. The treated flows will be dispersed by an outfall splash pad and sheetflow down the median.

The existing catch basins and culverts on the west side of the bridge will be replaced with new inlets and culverts to convey the design storm. Similar to the existing drainage system, the runoff from the area to the east of the bridge will sheet flow to the roadside ditch and discharge to Moffett Creek. A cut-off ditch will be constructed at the top of the retaining wall to intercept water from the hillside and pipe it to the catch basins on the roadway.

A total of .52 acres has been calculated as the capture quantity of the new water quality facility. Stormwater treatment is based on 100% of the total area of the new bridge and 140% of the flare area of the realigned roadway. The impervious area of the new bridge has been calculated at 0.48 acres. The net new impervious flare area of the roadway has been calculated at 0.026 acres. Stormwater treatment needs to accommodate 0.52 acres of stormwater.

The water quality facility that is best suited for the site is a bio-filtration swale. The bio-filtration swale will be 100-feet in length with 1:3 side slopes, minimum of 4-foot bottom width, longitudinal slope of 1.0% and a 1.5-foot depth including 6-inches of freeboard.

The inlets and ditches will be designed based on 10-year storm event while the cross-culverts will be sized based on the 50-year storm.

The design of the Stormwater Management System is based on ODOT Hydraulics Manual (2005), ODOT PD-05 Stormwater Quality Mitigation Operational Notice (4/2006) and OBDP Design Technical Memorandum (August 7, 2007). See Exhibit H 4.0 - Draft Stormwater Report.

**Staff:** ODOT will be handling the stormwater run-off from the roadway through a stormwater system. This system will not degrade Moffett Creek as it will prevent e sediments and petroleum products from entering the creek. The Moffett Creek channel will not be encroached upon or disturbed by the construction of the replacement bridge and demolition of the existing bridge over Moffett Creek. *This criterion has been met.*

- 7.43 **(g) Those portions of a proposed use that are not water-dependent or that have a practicable alternative will be located outside of stream, pond, and lake buffer zones.**

**Applicant:** Those portions of the bridge replacement activities that have a practicable alternative outside of stream, pond, and lake buffer zones are located outside of those zones.

**Staff:** The location of the proposed replacement bridge does not have a practical alternative that would not affect the Moffett Creek buffer. *This criterion has been met.*

- 7.44 **(h) Stream bank and shoreline stability shall be maintained or restored with natural revegetation.**

**Applicant:** The stream bank and shoreline will be maintained as part of this project. They will be unaffected as they reside within a designated No Work Area.

**Staff:** No disturbance will occur to the stream bank. *This criterion has been met.*

- 7.45 (i) The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

**Restoration: 2: 1**

**Creation: 3: 1**

**Enhancement: 4: 1**

**Applicant:** This project does not include any wetland impacts; consequently, there are no wetland restoration or creation requirements. See Exhibit H 5.0 – Wetland Determination Report.

**Staff:** Staff concurs. Exhibit H5.0 has been labeled by planning staff as Exhibit A.10.e. *This criterion is not applicable.*

- 7.46 (7) Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the local government to ensure compliance. The U.S. Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the local government to help evaluate such reports and any subsequent activities associated with compliance.

**Applicant:** This project does not include any wetland impacts; consequently, there are no wetland restoration or creation requirements.

**Staff:** Staff concurs. *This criterion is not applicable.*

- 7.47 (8) Wetland restoration/enhancement can be mitigated successfully by donating appropriate funds to a non-profit wetland conservancy or land trust with explicit instructions that those funds are to be used specifically to purchase protection easements or fee title protection of appropriate wetlands acreage in or adjacent to the Columbia River Gorge meeting the ratios given above in MCC 38.7075 (Z) (6) (i). These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

**Applicant:** This project does not include any wetland impacts; consequently, there are no wetland restoration or creation requirements.

**Staff:** Staff concurs. *This criterion is not applicable.*

8.00 § 38.7085 SMA RECREATION RESOURCE REVIEW CRITERIA

(A) The following shall apply to all new developments and land uses:

- (1) New developments and land uses shall be natural resource-based and not displace existing recreational use.
- (2) Protect recreation resources from adverse effects by evaluating new developments and land uses as proposed in the site plan. An analysis of both on and off site cumulative effects such as site accessibility and the adverse effects on the Historic Columbia River Highway shall be required.
- (3) New pedestrian or equestrian trails shall not have motorized uses, except for emergency services.
- (4) Mitigation measures shall be provided to preclude adverse effects on the

recreation resource.

**(5) The facility standards contained herein are intended to apply to individual recreation facilities. For the purposes of these standards, a recreation facility is considered a cluster or grouping of recreational developments or improvements located in relatively close proximity to one another. Recreation developments or improvements to be considered a separate facility from other developments or improvements within the same Recreation Intensity Class must be separated by at least one-quarter mile of un-developed land (excluding trails, pathways, or access roads) from such developments or improvements.**

**(6) New development and reconstruction of scenic routes (see Part III, Chapter 1 of the Management Plan) shall include provisions for bicycle lanes.**

**(7) The Planning Director may grant a variance of up to 10 percent to the standards of Recreation Intensity Class 4 for parking and camp-ground units upon demonstration that:...**

**(8) New interpretive or education programs and/or facilities shall follow recommendations of the Interpretive Strategy for the Columbia River Gorge National Scenic Area.**

**(9) Proposals to change the Recreation Intensity Class of an area to a different class shall require a Plan Amendment pursuant to MCC 38.0100.**

**(10) A demonstration that the proposed project or use will not generate traffic, either by type or volume, which would adversely affect the Historic Columbia River Highway, shall be required prior to approval.**

**Staff:** (1) Interstate -84 was constructed prior to the adoption of the National Scenic Area. The proposed replacement bridge is a single component in the overall travel system and will replace an existing bridge. The proposed bridge has been designed to accommodate in the future a pedestrian trail below the bridge for recreational use. No existing trail occurs under the existing Moffett Creek bridge. No recreational uses will be impacted.

(2) The replacement bridge over Moffett Creek will occur within ODOT's existing right-of-way. No impacts to the adjacent recreational use have been identified.

(3) If a pedestrian trail is constructed under the new bridge in the future, it will not be for motorized vehicles. The future trail is not part of the applicant's request and may require separate NSA review in the future.

(4) No adverse effects have been identified.

(5) No recreational development is proposed at this time.

(6) The replacement bridge will have wider shoulders that can accommodate bicycle travel if needed.

(7) No recreational developments have been proposed as part of this project.

(8) No new interpretive or education programs and/or facilities are proposed as part of this application.

(9) The proposed replacement bridge is not recreational proposal. No change to the recreational class is proposed.

(10) The proposed bridge replacement has been designed to maintain the existing travel lanes of Interstate – 84. No impacts to the Historic Highway have been identified by this short-term

project. No significant travel volume will be created by the proposed project.

*These criteria have been met.*

9.00 **Hillside Development & Erosion Control Criteria**

9.01 **§ 38.5505 PERMITS REQUIRED**

**Hillside Development Permit:** All persons proposing development, construction, or site clearing (including tree removal) on property located in hazard areas as identified on the "Slope Hazard Map", or on lands with average slopes of 25 percent or more shall obtain a Hillside Development Permit as prescribed by this subdistrict, unless specifically exempted by MCC 38.5510.

**Staff:** Slopes in the development area exceed 25%. ODOT has applied for a Hillside Development Permit to authorize the construction of the replacement bridge over Moffett Creek. *This criterion has been met.*

9.02 **§ 38.5515 APPLICATION INFORMATION REQUIRED**

**An application for development subject to the requirements of this subdistrict shall include the following:**

(A) A map showing the property line locations, roads and driveways, existing structures, trees with 8-inch or greater caliper or an outline of wooded areas, watercourses and include the location of the proposed development(s) and trees proposed for removal.

(B) An estimate of depths and the extent and location of all proposed cuts and fills.

(C) The location of planned and existing sanitary drainfields and drywells.

(D) Narrative, map or plan information necessary to demonstrate compliance with MCC 38.5520 (A). The application shall provide applicable supplemental reports, certifications, or plans relative to: engineering, soil characteristics, stormwater drainage, stream protection, erosion control, and/or replanting.

**Staff:** The above information has been provided (Exhibits A.4.g through A.4.k, A.10, A.13, A.14, A.16, & A.17).

9.03 **(E) A Hillside Development permit may be approved as a Type II decision only after the applicant provides:**

(1) Additional topographic information showing that the proposed development to be on land with average slopes less than 25 percent, and located more than 200 feet from a known landslide, and that no cuts or fills in excess of 6 feet in depth are planned. High groundwater conditions shall be assumed unless documentation is available, demonstrating otherwise; or

(2) A geological report prepared by a Certified Engineering Geologist or Geotechnical Engineer certifying that the site is suitable for the proposed development; or,

(3) An HDP Form– 1 completed, signed and certified by a Certified Engineering Geologist or Geotechnical Engineer with his/her stamp and signature affixed indicating that the site is suitable for the proposed development.

(a) If the HDP Form– 1 indicates a need for further investigation, or if the Director requires further study based upon information contained in the HDP Form– 1, a geotechnical report as specified by the Director shall be prepared

and submitted.

**(F) Geotechnical Report Requirements**

**(1) A geotechnical investigation in preparation of a Report required by MCC 38.5515 (E) (3) (a) shall be conducted at the applicant's expense by a Certified Engineering Geologist or Geotechnical Engineer. The Report shall include specific investigations required by the Director and recommendations for any further work or changes in proposed work which may be necessary to ensure reasonable safety from earth movement hazards.**

**(2) Any development related manipulation of the site prior to issuance of a permit shall be subject to corrections as recommended by the Geotechnical Report to ensure safety of the proposed development.**

**(3) Observation of work required by an approved Geotechnical Report shall be conducted by a Certified Engineering Geologist or Geotechnical Engineer at the applicant's expense; the geologist's or engineer's name shall be submitted to the Director prior to issuance of the Permit.**

**(4) The Director, at the applicant's expense, may require an evaluation of (a) If the HDP Form- 1 or the Geotechnical Report by another Certified Engineering Geologist or Geotechnical Engineer.**

**Staff:** A geotechnical report has been provided and can be found as Exhibit A.10.b.

- 9.04 **(G) Development plans shall be subject to and consistent with the Design Standards For Grading and Erosion Control in MCC 38.5520 (A) through (D). Conditions of approval may be imposed to assure the design meets those standards.**

**Staff:** ODOT's proposed erosion control and stormwater plans are consistent with MCC 38.5520 (A) through (D). Please see additional findings below. *This criterion has been met.*

9.05 **§ 38.5520 GRADING AND EROSION CONTROL STANDARDS**

**Approval of development plans on sites subject to a Hillside Development Permit shall be based on findings that the proposal adequately addresses the following standards. Conditions of approval may be imposed to assure the design meets the standards:**

**(A) Design Standards For Grading and Erosion Control**

**(1) Grading Standards**

**(a) Fill materials, compaction methods and density specifications shall be indicated. Fill areas intended to support structures shall be identified on the plan. The Director or delegate may require additional studies or information or work regarding fill materials and compaction;**

**Applicant:** The contractor is required to furnish the fill materials, compaction methods and density specifications as specified in ODOT standard specifications and special provisions 330 (Earthwork), 510 (Structure Excavation and Backfill); and 641 (Aggregate Subbase, Base, Shoulders). The fill lines are indicated on plan sheets 3 to 3A4. See Exhibit B6.0 – Alignment and General Construction plan sheets and Exhibits F7.0 – 9.1 – (addendums to the standard specifications and special provisions).

**Staff:** Exhibit B6.0 has been labeled as Exhibit A.14.a. (1) & (2). Exhibit F7.0 – F9.1 have been labeled as Exhibit A.16.a -f. Exhibit F7.0 through F9.1 identify the specifications for earthwork, structural excavation & backfill, and Aggregate Subbase, Base and Shoulders. *This criterion has*

*been met.*

- 9.06 **(b) Cut and fill slopes shall not be steeper than 3:1 unless a geological and/or engineering analysis certifies that steep slopes are safe and erosion control measures are specified;**

**Applicant:** Based on geotechnical analyses which have been certified by our engineering staff, permanent cut and fill slopes as steep as 1.5:1 will be allowed on the project, as described in the Foundation Design Report. Sheet numbers 3 and 3A to 3A-4 show the alignment, general construction limits, and no work zones. Erosion control measures are specified on Exhibits B5.0 – 5.4 and in ODOT’s standard and special provision 280 (Exhibits F2.0 – 2.1). See Exhibit B6.0 – Alignment and General Construction plan sheets, and Exhibit H6.0 – Draft Foundation Design Report.

**Staff:** The Foundation Design Report has been labeled as Exhibit A.17.a. Sheets 3, 3A to 3A-4 have been labeled as Exhibits A.14.a, (1) & (2). Exhibits B5.0 through B.5.4 has been labeled as Exhibits A.4.g through A.4.k. Exhibit B.6 has been labeled as Exhibit A.14.a Exhibits F2.0 & F.2.1 has been labeled as Exhibits A.8.c & A.8.d. ODOT’s engineers have determined that 1.5:1 (horizontal : vertical) are safe for this project. Erosion control measures have been specified. *This criterion has been met.*

- 9.07 **(c) Cuts and fills shall not endanger or disturb adjoining property;**

**Applicant:** All cuts and fills occur within ODOT ROW. Two retaining walls are to be constructed along EB I-84 in order to minimize the size of the cut and fill to occur in this area. See Exhibit B3.0 – 3.2 for the location of the walls in relationship to ODOT ROW.

**Staff:** Exhibits B3.0 through B3.2 have been labeled as Exhibit A.4.c through A.4.e. All work will occur within the existing I-84 right-of-way. The proposed bridge is 70+ ft from the southern right-of-way boundary and approximately 300+ ft from the northern boundary. The cut and fill will be supported by retaining walls were necessary. Engineering has been completed to ensure that the bridge and its related cuts and fills will be stable and not move or slide in the future. *This criterion has been met.*

- 9.08 **(d) The proposed drainage system shall have adequate capacity to bypass through the development the existing upstream flow from a storm of 10-year design frequency;**

**Staff:** ODOT has indicated that the one new culvert will handle a 50 year/24 hour storm event. The replacement bridge will maintain the carrying capacity of Moffett Creek. The carrying capacity of the creek is significantly large then the 10 year storm event. *This criterion has been met.*

- 9.09 **(e) Fills shall not encroach on natural watercourses or constructed channels unless measures are approved which will adequately handle the displaced streamflow for a storm of 10-year design frequency;**

**Applicant:** Fill slopes will not encroach on natural watercourses. Sheet numbers 3 and 3A to 3A-4 show the alignment, general construction limits, and no work zones. See Exhibit B6.0 – Alignment and General Construction plan sheets.

**Staff:** The replacement bridge allows ODOT to maintain the permanent placement of fill approximately 200 ft from Moffett Creek. Moffett Creek will continue to flow in its natural channel. *This criterion has been met.*

- 9.10 **(2) Erosion Control Standards**



**(a) Stripping of vegetation, grading, or other soil disturbance shall be done in a manner which will minimize soil erosion, stabilize the soil as quickly as practicable, and expose the smallest practical area at any one time during construction;**

**Applicant:** ODOT will comply with this requirement. ODOT's Standard Specification and Special Provisions 280 require the contractor to control soil erosion, and ODOT's Standard Specification and Special Provisions 320 and 1030 specify the allowances for clearing and grubbing and the allowable conditions for both temporary and permanent seeding. See Appendix F for a copy of these specifications.

**Staff:** ODOT has designed an erosion control plan (Exhibit A.4.g through A.4.k) that minimizes that amount of soil disturbance at any one time. The erosion control measures proposed will prevent soil erosion out of the area and stabilize the un-vegetated slopes by use of matting. Appendix F has been labeled as Exhibit A.16. *This criterion has been met.*

9.11 **(b) Development Plans shall minimize cut or fill operations and ensure conformity with topography so as to create the least erosion potential and adequately accommodate the volume and velocity of surface runoff;**

**Applicant:** ODOT believes that its design plans adhere to this requirement. See Exhibit B6.0 – Alignment and General Construction plan sheets GA through GA-5 – Grading and Erosion Control Plans. Also see Exhibit H 4.0 – Draft Stormwater Report regarding the accommodation of surface runoff.

**Staff:** Exhibits B6.0, GA through GA-5, and H4.0 have been labeled as Exhibits A.14. & A.10.d. The Design Drawings (Exhibit A.15.e) demonstrate that the natural topography will be maintained to the extent possible for the construction of the replacement bridge. The use of retaining walls prevents the need for larger cut or fill slopes for the project. Surface water created from the new impervious surfaces will be handled by bio-swales adjacent to the public roadway. *This criterion has been met.*

9.12 **(c) Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development;**

**Applicant:** ODOT will comply with this requirement. ODOT's Standard Specification and Special Provision 1030 specify the allowable conditions for both temporary and permanent seeding. See Appendix F for a copy of these specifications.

**Staff:** Special Provision 1030 (SP 1030) has been labeled as Exhibit A.8.i & .j. SP 1030 states "Temporary seeding is indicated for disturbed soils and slopes that are not finished grade and which will be exposed for two months or more before being disturbed again." In addition the steeper slopes will have matting installed to stabilize these slopes and hold the temporary vegetation. *This criterion has been met.*

9.13 **(d) Whenever feasible, natural vegetation shall be retained, protected, and supplemented;**

- 1. A 100-foot undisturbed buffer of natural vegetation shall be retained from the top of the bank of a stream, or from the ordinary high watermark (line of vegetation) of a water body, or within 100-feet of a wetland;**
- 2. The buffer required in 1. may only be disturbed upon the approval of a mitigation plan which utilizes erosion and stormwater control features designed to perform as effectively as those prescribed in the currently adopted edition of the "Erosion Prevention & Sediment Control Plans**

**Technical Guidance Handbook (1994)" and the "City of Portland Stormwater Quality Facilities, A Design Guidance Manual (1995)" and which is consistent with attaining equivalent surface water quality standards as those established for the Tualatin River Drainage Basin in OAR 340;**

**Applicant:** The replacement bridge crosses Moffett Creek and is therefore within a buffer zone. The 200-foot buffer for this project has been measured from the full flow boundary or the Ordinary High Water Mark (OHWM) of Moffett Creek. The outside edges of the buffer approximately align with the steep V-shaped valley. At the outside edges of each side of the buffer are the roadway fill prisms for the bridge approach slabs. The buffer zone is shown on Exhibit B4.0 – Construction Access Plan.

Natural vegetation is being retained, protected and supplemented according to the areas restricted from work, areas protected thru the employment of typical Best Management Practices (BMPs) (e.g., flagging of construction and disturbance areas), and thru the implementation of a Mitigation Plan which includes a Site Restoration Plan. See Appendix G1.0 – Mitigation Plan, and Exhibits F1.0 – 1.1 – Landscaping and Site Restoration Plan.

ODOT has submitted a Mitigation Plan with this application in order to mitigate adverse effects to vegetation in the project area due to the disturbance of Moffett Creek's buffer zone. This Mitigation Plan contains multiple features including erosion and stormwater control features that have been designed in compliance with ODOT's standard practices and ODOT's Bulletin GE07-02B (07/24/07). In addition, ODOT holds several National Pollutant Discharge Elimination System (NPDES) permits, including the 1200-CA general construction permit which is applicable to this project. This permit requires a site specific erosion control plan for construction activities which disturb a total of one or more acres. The general permit also requires control of construction site pollutants other than sediment, such as oil, gasoline and solvents. While ODOT projects are not necessarily designed per the guidance documents noted above, requirements placed on ODOT contractors are specific to the task and monitored at regular intervals or as conditions dictate to ensure strict compliance with erosion and sediment control features. See Exhibit B6.0 – Alignment and General Construction plan sheets, Appendix F, Appendix G and Appendix H for evidence of the steps taken to date, and to be required of the contractor. See Exhibit F10.0 – ODOT's Stormwater Bulletin for a copy of ODOT's Bulletin GE 07-02B (07/24/07).

**Staff:** To construct the bridge, work will occur within the above 100 ft buffer area. ODOT has submitted Grading and Erosion Control plans which plan which will perform as effectively as those prescribed in the Erosion Prevention Handbook listed above (Exhibits A.4.g - .k) ODOT has also submitted a restoration and mitigation plan for the buffer area (Exhibit A.8.a & .b and Exhibit A.9). *This criterion has been met.*

9.14 **(e) Permanent plantings and any required structural erosion control and drainage measures shall be installed as soon as practical;**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures, and ODOT's Standard Specification and Special Provisions 1040 for permanent planting requirements. These specification can be found in Appendix F.

**Staff:** ODOT will be constructing bio-swales for stormwater detention (Exhibit A.14) and restoring with permanent planting all disturbed areas (Exhibit A.8). A condition of approval requires the installation of the permanent plantings within one year of completion of the bridge. *This criterion has been met.*

- 9.15 **(f) Provisions shall be made to effectively accommodate increased runoff caused by altered soil and surface conditions during and after development. The rate of surface water runoff shall be structurally retarded where necessary;**

**Applicant:** ODOT will comply with this requirement. See Exhibit B6.0 – Alignment and General Construction plan sheets GA through GA-5 – Grading and Erosion Control Plans. Also see Exhibit H4.0 – Draft Stormwater Report regarding the accommodation of surface runoff.

**Staff:** ODOT will be using Slope Protection Matting on disturbed slopes, bio-swales, check dams, inlet protection, temporary sediment traps and sediment fences to control and retard surface water run-off from the construction site and finished project. *This criterion has been met.*

- 9.16 **(g) Sediment in the runoff water shall be trapped by use of debris basins, silt traps, or other measures until the disturbed area is stabilized;**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures. These specifications can be found in Appendix F.

**Staff:** The erosion control plan (Exhibit A.4.g - .k) shows that ODOT will be using check dams, sediment fence, protection matting, inlet protection and a temporary sediment trap to prevent sediment from moving out of the disturbed areas. *This criterion has been met.*

- 9.17 **(h) Provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surface of fills by installation of temporary or permanent drainage across or above such areas, or by other suitable stabilization measures such as mulching or seeding;**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures. These specifications can be found in Appendix F.

**Staff:** ODOT will utilize slope protection matting across disturbed slopes. *This criterion has been met.*

- 9.18 **(i) All drainage provisions shall be designed to adequately carry existing and potential surface runoff to suitable drainageways such as storm drains, natural watercourses, drainage swales, or an approved drywell system;**

**Applicant:** ODOT will comply with this requirement. See Exhibit H4.0 – Draft Stormwater Report regarding the accommodation of surface runoff.

**Staff:** Exhibit H4.0 has been labeled as Exhibit A.10.d. ODOT will be using bio-swales to contain stormwater from the finished bridge (Exhibit A.4.g – k, A.14). *This criterion has been met.*

- 9.19 **(j) Where drainage swales are used to divert surface waters, they shall be vegetated or protected as required to minimize potential erosion;**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures. These specifications can be found in Appendix F. Also see Exhibit B7.0 – Typical Bio-Swale Section for vegetated drainage details.

**Staff:** Appendix F has been labeled as Exhibit A.16. Exhibit B7.0 has been labeled as Exhibit A.14.b. The bio-swale will be vegetated. *This criterion has been met.*

- 9.20 **(k) Erosion and sediment control devices shall be required where necessary to prevent polluting discharges from occurring. Control devices and measures**

which may be required include, but are not limited to:

- 1. Energy absorbing devices to reduce runoff water velocity;**
- 2. Sedimentation controls such as sediment or debris basins. Any trapped materials shall be removed to an approved disposal site on an approved schedule;**
- 3. Dispersal of water runoff from developed areas over large undisturbed areas.**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures. These specifications can be found in Appendix F.

**Staff:** ODOT will be using sediment fences, check dams, inlet protection, slope protection matting and Permanent Rip Rap Scour Basin and bio-swales to disperse runoff. *This criterion has been met.*

- 9.21 **(1) Disposed spoil material or stockpiled topsoil shall be prevented from eroding into streams or drainageways by applying mulch or other protective covering; or by location at a sufficient distance from streams or drainageways; or by other sediment reduction measures;**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 280 regarding the installation of erosion control measures. These specifications can be found in Appendix F.

**12/11/08 Clarification:** We have not designated a stockpile area within the project limits. All of the generated earthen materials (through excavation) will be trucked off-site for disposal. All new materials will be stored within the ODOT right-of-way.

**12/12/08 Clarification:** There are no stockpiling or disposal sites within the project limits. We are awaiting a response from OBDP, who are contacting District 2C and District 8 of ODOT to see whether there are any preapproved disposal sites in the corridor. If there are not, the contractor will be required to dispose of the material and obtain whatever permits are required to do so, presumably outside the corridor.

**Staff:** No stockpiling of spoil materials or topsoil will occur. *This criterion has been met.*

- 9.22 **(m) Such non-erosion pollution associated with construction such as pesticides, fertilizers, petrochemicals, solid wastes, construction chemicals, or wastewaters shall be prevented from leaving the construction site through proper handling, disposal, continuous site monitoring and clean-up activities.**

**Applicant:** ODOT will comply with this requirement. See ODOT's Standard Specification and Special Provisions 290 regarding the property handling, disposal, continuous site monitoring and clean-up activities required of the contractor. These specifications can be found in Appendix F.

**Staff:** ODOT's standards contained in 290 outline how the contractor is to handle all these materials on the job site. Appendix F has been labeled as Exhibit A.8 & A.16. *This criterion has been met.*

- 9.23 **(B) Responsibility**

- (1) Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the person, corporation or other entity causing such sedimentation to remove it from all adjoining surfaces and drainage**

systems prior to issuance of occupancy or final approvals for the project;

(2) It is the responsibility of any person, corporation or other entity doing any act on or across a communal stream watercourse or swale, or upon the floodplain or right-of-way thereof, to maintain as nearly as possible in its present state the stream, watercourse, swale, floodplain, or right-of-way during such activity, and to return it to its original or equal condition.

**Staff:** Conditions of approval have been included to remind ODOT of their responsibility.

## 10.00 **Conclusion**

Based on the findings and other information provided above, the applicant has carried the burden necessary for the approval of the NSA Site Review and Hillside Development Permit application in the GSO zone. This approval is subject to the conditions of approval established in this report.

## 11.00 **Exhibits**

*The Site Plan and Design Drawings have been included as part of this mailing. All other exhibits, except those listed as confidential are available on line at the County's website or in the case file and are available at the Land Use Planning office located at 1600 SE 190<sup>th</sup>, Portland, Oregon.*

'A' Applicant's Exhibits

'B' Staff Exhibits

'C' Procedural Exhibits

Exhibit #	# of Pages	Description of Exhibit	Date Received/ Submitted
A.1	1	NSA Application Form	8/5/08
A.2	57	Table of Contents a. Narrative Statements	8/5/08
A.3	15	Appendix A – Minutes a. Exhibit A.1.0 – Prefiling Notes b. Exhibit A.2.0 – Level 1 Meeting Notes 2.27.08 c. Exhibit A.3.0 – Level 1 Meeting Notes 6.4.08 d. Exhibit A.4.0 – Open House Summary Report	8/5/08
A.4	18	Appendix B – Maps a. Exhibit B 1.0 – Project Vicinity Map b. Exhibit B 2.0 – Right-of-Way Map c. Exhibit B 3.0 – Project Area Map (1 of 3) d. Exhibit B 3.1 – Project Area Map (2 of 3) e. Exhibit B 3.2 – Project Area Map (3 of 3) f. Exhibit B 4.0 – Construction Access Plan g. Exhibit B 5.0 – Grading and Erosion Control Plan (1 of 5) h. Exhibit B 5.1 – Grading and Erosion Control	8/5/08

		Plan (2 of 5) i. Exhibit B 5.2 – Grading and Erosion Control Plan (3 of 5) j. Exhibit B 5.3 – Grading and Erosion Control Plan (4 of 5) k. Exhibit B 5.4 – Grading and Erosion Control Plan (5 of 5)	
A.5	17	Appendix C Design Drawings a. Exhibit C 1.0 – Plan and Elevation b. Exhibit C 2.0 – Construction Staging c. Exhibit C 3.0 – Typical Section d. Exhibit C 4.0 – Bent Details e. Exhibit C 5.0 – Architectural Details f. Exhibit C 6.0 – Bridge Rail g. Exhibit C 7.0 – ODOT SP501 – Bridge Removal	8/5/08
A.6	24	Appendix D – Scenic Standards a. Exhibit D 1.0 – West Watershed Analysis b. Exhibit D 2.0 – Consistency with Scenic Standards c. Exhibit D 3.0 – CS <sup>3</sup> Decision Matrix d. Exhibit D 4.0 – Color Use of Project Elements + Color Chips e. Exhibit D 5.0 – ODOT Special Provision 542 – Architectural Treatment f. Exhibit D 6.0 - Simulation from EB I-84 g. Exhibit D 6.1 – Simulation from WB I-84 h. Exhibit D 6.2 – Simulation from HCRH i. Exhibit D 6.3 - Simulation of EB I-84 West Retaining Wall j. Exhibit D 6.4 – Simulation of EB I-84 West Retaining Wall End Treatments	8/5/08
A.7	11	Appendix E – Cultural Resources a. Exhibit E 1.0 – ODOT Request for Concurrence Letter b. Exhibit E 2.0 – Programmatic Agreement on Ineligible Bridges c. Exhibit E3.0 – Archaeology Report	8/5/08

		(Confidential)	
A.8	123	<p>Appendix F – Natural Resources</p> <ul style="list-style-type: none"> <li>a. Exhibit F 1.0 – Landscaping and Site Restoration Plan (1 of 2)</li> <li>b. Exhibit F 1.1 – Landscaping and Site Restoration Plan (2 of 2)</li> <li>c. Exhibit F 2.0 – ODOT Standard Specification 280 – Erosion and Sediment Control</li> <li>d. Exhibit F 2.1 – ODOT Special Provision 280 – Erosion and Sediment Control</li> <li>e. Exhibit F 3.0 – ODOT Standard Specification 290 – Environmental Protection</li> <li>f. Exhibit F 3.1 – ODOT Special Provision 290 – Erosion and Sediment Control</li> <li>g. Exhibit F 4.0 – ODOT Standard Specification 320 – Clearing and Grubbing</li> <li>h. Exhibit F 4.1 – ODOT Special Provision 320 Clearing and Grubbing</li> <li>i. Exhibit F 5.0 – ODOT Standard Specification 1030 – Seeding</li> <li>j. Exhibit F 5.1 – ODOT Special Provision 1030 - Seeding</li> <li>k. Exhibit F 6.0 – ODOT Standard Specification 1040 – Planting</li> <li>l. Exhibit F 6.1 – ODOT Special Provision 1040 - Planting</li> </ul>	8/5/08
A.9	23	<p>Appendix G – Mitigation Plan and EPS</p> <ul style="list-style-type: none"> <li>a. Exhibit G 1.0 – Mitigation Plan</li> <li>b. Exhibit G 2.0 – Environmental Performance Standards</li> </ul>	8/5/08
A.10	89	<p>Appendix H – Baseline Reports</p> <ul style="list-style-type: none"> <li>a. Exhibit H 1.0 – Environmental Conditions</li> <li>b. Exhibit H 2.0 – Geotechnical Report</li> <li>c. Exhibit H 3.0 – Hydraulic Technical Report</li> <li>d. Exhibit H 4.0 – Draft Stormwater Report</li> <li>e. Exhibit H 5.0 – Wetland Determination Report</li> <li>f. Hillside Development Form - 1</li> </ul>	8/5/08
A.11	4	<p>Appendix I – Photos</p> <ul style="list-style-type: none"> <li>a. Exhibit I 1.0 - Photos</li> </ul>	8/5/08

A.12	31	Archaeological Survey (Confidential)	9/5/08
A.13	7	Narrative Addendum	9/23/08
A.14	21	Revised Appendix B Exhibits <ul style="list-style-type: none"> <li>a. Exhibit B.6 - Sheets No. 1 – 5 General Construction <ul style="list-style-type: none"> <li>(1) Sheet No. 3 – Construction Limits</li> <li>(2) Sheets No. GA – GA-5 Erosion Control Plan</li> </ul> </li> <li>b. Exhibit B7.0 - Sheet No. 2B – Bio-Swale Details</li> <li>c. Exhibit B8.0 - Sheet No. GC – GC- 5 West Retaining Wall Plan and Elevation <ul style="list-style-type: none"> <li>(1) Sheet No. GC-6 – West Retaining Wall Plan General Notes and Pile Schedule</li> <li>(2) Sheet No. GC-7 – GC-8 West Retaining Wall Details 1 &amp; 2</li> <li>(3) Sheet No. GC-9 East Retaining Wall Plan and Elevation</li> </ul> </li> </ul>	9/23/08
A.15	14	Revised Appendix C Exhibits <ul style="list-style-type: none"> <li>a. Exhibit C.1.0 – Plan and Elevation</li> <li>b. Exhibit C.2.0 – Construction Staging</li> <li>c. Exhibit C.3.0 – Typical Section</li> <li>d. Exhibit C.4.0 – Bent Details</li> <li>e. Exhibit C.5.0 – Architectural Details</li> <li>f. Exhibit C.6.0 – Bridge Rail</li> </ul>	9/23/08
A.16	57	Revised Appendix F Exhibits <ul style="list-style-type: none"> <li>a. Exhibit F.7.0 – ODOT Standard Specification 330 – Earthwork</li> <li>b. Exhibit F.7.1 – ODOT Special Provision 330 – Earthwork</li> <li>c. Exhibit F.8.0 – ODOT Standard Specification 510 – Str. Ex and Bkfill</li> <li>d. Exhibit F.8.1 – ODOT Special Provision 510 – Str. Ex and Bkfill</li> <li>e. Exhibit F.9.0 – ODOT Standard Specification 641 – Agg Base, Subbase, Shldrs</li> </ul>	9/23/08
A.17	89	Revised Appendix H Exhibits <ul style="list-style-type: none"> <li>a. Exhibit H.6.0 – Draft Foundation Design Report</li> </ul>	9/23/08
A.18		Peter Geiger Emails Regarding Moffett Creek Bridge	



		Project	
<b>‘B’</b>		<b>Staff Exhibits</b>	<b>Date of Document</b>
B.1	1	Moffett Creek Terrain	12/11/08
B.2	110	I-84 Corridor Strategy Plan November 2005	No Date
<b>‘C’</b>		<b>Administration &amp; Procedures</b>	<b>Date</b>
C.1	4	Incomplete Letter	9/5/08
C.2	1	ODOT’s Acceptance of 180 Day Time Period	9/11/08
C.3	1	Completeness Letter – Day 1 (10/23/08)	10/28/08
C.4	2	Opportunity to Comment	10/29/08
C.5	65	Administrative Decision	12/19/08
<b>‘D’</b>	<b>#</b>	<b>Comments</b>	<b>Date</b>
D.1	8	US Forest Service Review of Archaeological Permit for Moffett Creek	6/9/08
D.2	2	US Forest Service Cultural Comments	8/13/08
D.3	4	SHPO Concurrence Letter	8/21/08
D.4	6	Friends of the Columbia Gorge	11/12/08
D.5	1	Comments from Confederated Tribes and Bands	11/14/08