"The waves became so high we were compelled to return about two miles to a place we could unload our canoes, which we did in a small nitch."

- Capt. William Clark,
Nov. 10, 1805

Washington State Department of Transportation

November 17, 2006

Dear Friend of Lewis and Clark:

On behalf of the Washington State Department of Transportation and the National Park Service, we are pleased to provide you with the *Dismal Nitch Safety Rest Area Master Plan.* It is our hope that you will be excited, as we are, about the future opportunities for commemorating this important site. We have tried to strike a balance at the site, providing an attractive safety rest area for the public while also creating a chance for park visitors to learn more about the rich history of this area.

In 2004, Congress established the Dismal Nitch unit of the Lewis and Clark National Historical Park. This important site related to the Corps of Discovery and its experience in the Lower Columbia region will also remain an important component of the State of Washington's Safety Rest Area program.

In 2005, three Washington State Agencies; the Washington State Department of Transportation, State Historical Society and the Department of General Administration, joined with the National Park Service to develop a Master Plan for this historical area. Meanwhile, the Conservation Fund, with cooperation of area landowners, acquired lands to the north of the highway that will ensure the permanent protection of the forested setting adjacent to this magnificent site. These lands to the north were transferred to the National Park Service for management in the Lewis and Clark National Historical Park on September 22, 2006, as part of Phase One implementation of this master plan.

We would like to extend our appreciation to everyone in the Lower Columbia region and elsewhere who attended the public meetings, and shared perspectives on the draft. Your contributions helped to shape this document.

We look forward to the implementation of the *Dismal Nitch Safety Rest Area Master Plan* and the completion of improvements planned for the site. These changes will leave a legacy for visitors today and for future generations who visit the Lewis and Clark National Historical Park.

Douglas B. MacDonald
Secretary of Transportation

Chip Jenkins
Superintendent
Lewis and Clark National Historical Park

ACKNOWLEDGEMENTS

This document is a Master Plan for the redevelopment of the Dismal Nitch Safety Rest Area in Pacific County Washington. On October 19, 2005 the Washington State Transportation Commission recognized this site as significant by changing its name from the Megler Safety Rest Area to Dismal Nitch Safety Rest Area. This site is also a Unit of the Lewis & Clark National Historical Park, the newest National Park in the United States, as designated by Congress.

Several state agencies in Washington and the U.S. Department of the Interior's National Park Service have a stake in the planning and operation of the Dismal Nitch Safety Rest Area.

Photo Credits

Existing conditions on site, at Fort Columbia, and vicinity: Jeff Bouma, Gingi Cabot, Peter Hockaday, Shawn Kemna, Devin Kleiner, Diori Kreske, and Jim St. John

Images from "In Full View" reprinted with permission of the author, Rex Ziak.

Image of historic Megler Ferry Landing from old postcard, reprinted in the Cultural Resources Survey by AINW.

Other images of wildlife, natural features, national park and state park structures and signage are from public websites maintained by public agencies.

Landscape design images are from the photo files of EDAW, Landscape Architects.

Interpretive display images are from D. Jensen & Associates, ltd.

Selected photos from Dismal Nitch taken by Jim Sayce and used with permission.

Dismal Nitch partnership agencies:

Washington State Department of Transportation (WSDOT)

WSDOT owns the land and will continue to operate and maintain the Safety Rest Area (SRA). The Federal Highway Administration is responsible for project compliance with the National Environmental Policy Act (NEPA), and WSDOT administers federal funding and federal compliance. WSDOT will lead implementation of this Master Plan.

National Park Service (NPS)
U.S. Department of the Interior

The Dismal Nitch site is a Unit of the Lewis and Clark National Historical Park. The NPS and the State of Washington will work together to develop the interpretive and display materials and other elements to implement this Master Plan. The national park service owns and protects approximately 154 acres of land at the Dismal Nitch Site.

Washington State Historical Society (WSHS)

WSHS is the lead agency for developing the Master Plan and vision for this facility. Upon completion of the Master Plan, WSHS will continue to participate as one of the key state partnership agencies.

Washington State Department of General Administration (GA)

GA provides the Project Management of this Master Planning project for the State of Washington on behalf of WSHS.

LOOKING WEST FROM DISMAL NITCH DOWN THE COLUMBIA RIVER TO THE PACIFIC OCEAN

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Nancy Bird, Planner
Diori Kreske, Planner
Kirk Prindle, Biologist
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David Evans & Associates, Civil Engineering

Jim St. John, Project Civil Engineer
Victor Vaskelis, Design Engineer

One+Two Inc., Interpretive & Graphics

Tip Wilson, Principal
Tim Smith, Designer

Archaeological Investigations Northwest, Inc. (AINW)

Jo Reese, Corporate Vice President and Senior
Archaeologist

EXECUTIVE SUMMARY

This Master Plan for the Dismal Nitch Safety Rest Area is designed to establish a structured guide for the expansion and improvements of the existing site, in recognition of its new role as a Unit of the Lewis & Clark National Historical Park. The pivotal events that were endured by the Lewis and Clark Corps of Discovery shaped national history for decades to come. The Dismal Nitch SRA will recall this story, while serving the local public and travelers visiting in a memorable setting on the shore of the Columbia River.

1. BACKGROUND

What is the importance of this site?

Located near the mouth of the Columbia River and a mile east of the Astoria-Megler Bridge in Washington State, Dismal Nitch was an important and unique site for the Lewis & Clark Voyage of Discovery of 1804 to 1806. It was a major camp site for five nights and six days for the Corps of Discovery in November 1805, where they were pinned down by bad weather virtually in sight of the Pacific Ocean, their destination. The story of the ordeals of the Lewis & Clark Corps at the Dismal Nitch has become legendary as one of their most dangerous moments on the voyage, as they survived the perilous weather and the river trapped against cliffs, drifting trees and impenetrable forest.

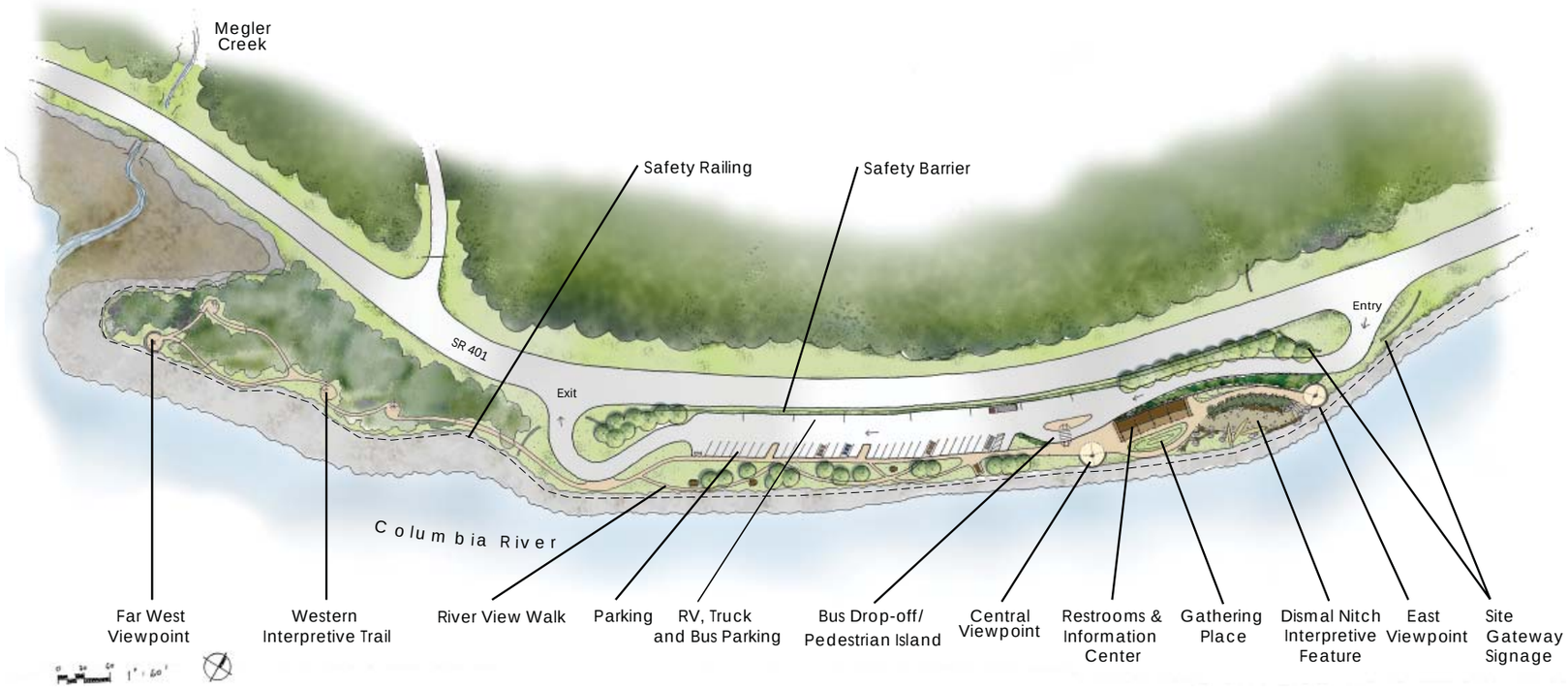
What is the opportunity today?

Today's Dismal Nitch site serves as a SRA on State Route 401, and in 2005 was designated by Congress as the Dismal Nitch Unit of the Lewis and Clark National Historical Park. The site has panoramic views of the Columbia River and key Lewis & Clark landmarks. The scenic value, and geographic location creates an opportunity for the site to become a gateway to the new national park as the arrival point for visitors, providing maps, information and valuable orientation toward the park's many features. At the same time the site will continue to serve as a SRA, upgraded and enhanced for travelers in Pacific County.

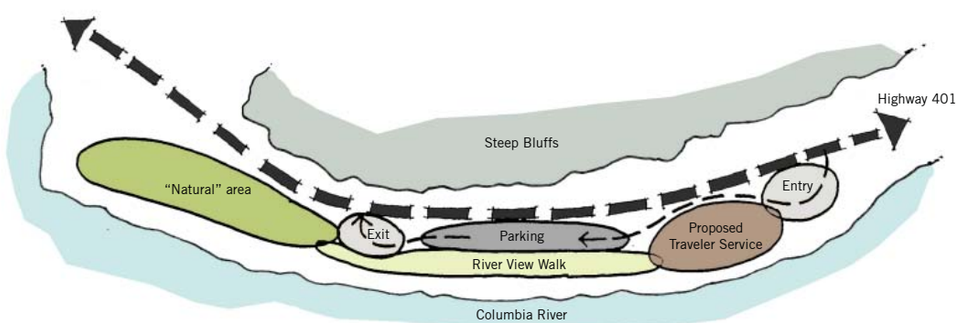
Why are these improvements needed?

For the benefit of local residents, tourists, and national park visitors, the proposed improvements in this Master Plan will revive the unique history of the Dismal Nitch site, so named by Captain William Clark. Memories of the Corps of Discovery and their ordeal here in November 1805 will be re-created. The SRA will accommodate increased levels of visitation, and will operate at a greater level of safety. Its service life will be extended, with improvements focused on a safer highway entry and exit, a protective and decorative barrier at the highway, and pedestrian safety improvements throughout. Landscaping will be provided to create a greener, more visitor-friendly, sustainable environment.

VICINITY MAP



OVERALL SITE PLAN



SITE DIAGRAM

Who is leading this project and what is their role?

Multiple partners are involved in the management and direction of the project, and it is being developed through a partnership of the State of Washington and the National Park Service. The design team has worked closely with all stakeholders during the development of the Master Plan document. The Washington State Department of Transportation (WSDOT) will continue to own, operate and maintain the SRA. WSDOT will develop the necessary agreements with the National Park Service to fully create the Dismal Nitch Gateway to the Lewis and Clark National Historical Park.

How is the public involved?

In addition to frequent contact with the partnership agencies, the design team worked with local residents in Pacific County, Washington and Astoria, Oregon. Two public workshops were held near the site in Ilwaco, WA and at Fort Columbia, WA. Chinook tribal leaders, members of the Pacific County Friends of Lewis & Clark, Long Beach Peninsula Visitors Bureau members, the Ilwaco Heritage Museum, and many others attended and contributed to the design process through input collected at these workshops.

2. PROJECT OBJECTIVES AND BENEFITS

- Improve Site and Highway Safety
- Improve Pedestrian Circulation and Site Accessibility
- Create a Gateway to the new National Park
- Improve the Natural Setting of the Site and the Safety Rest Area
- Provide enhanced traveler information, to benefit the local economy
- Reduce Driver Fatigue
- Extend the Service Life of this Facility

MEGLER CREEK

3. FEATURES OF THE NEW PLAN

The Master Plan expands the area of the Dismal Nitch SRA and adds visitor features serving the needs of the SRA and the National Park. New features include:

Three Elevated Panoramic Viewpoints
The broad sweep of the Columbia River is viewed from the slightly elevated East, Central and Far West Viewpoints.

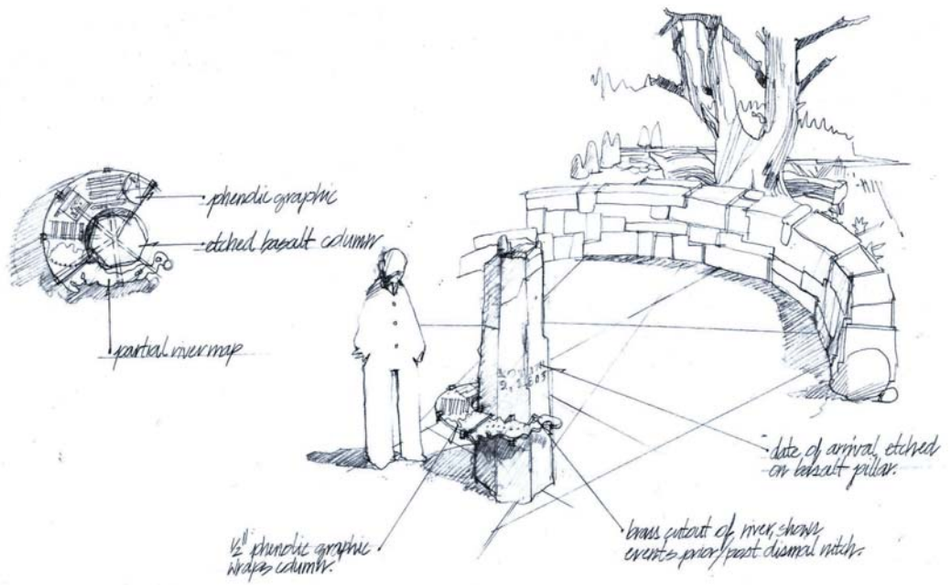
New Trails
Three new trails along the river and linking the site features are planned: Trail to the East Viewpoint, the River View Walk, and the Western Interpretive Trail.

Dismal Nitch Interpretive Feature
Presenting the Lewis & Clark experience at the Dismal Nitch site, accurately in scale with historic conditions, the re-creation will feature replicas of the members of the Corps of Discovery and their canoes.

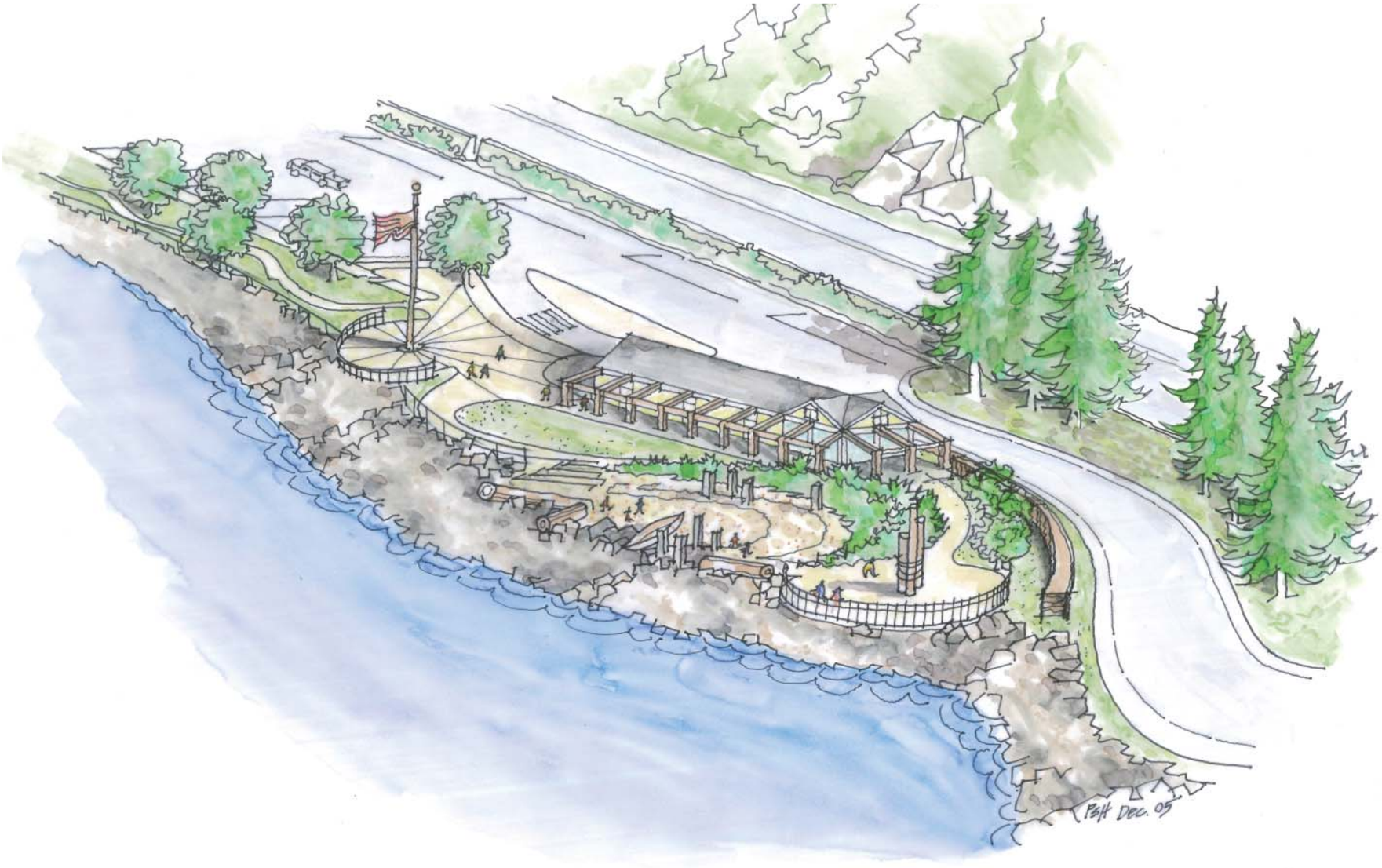
New Restroom and Information Center Building
Located conveniently by the entrance and the bus drop-off, the new building will welcome travelers and provide regional and national park information.

Improved Parking, Signage, Safety Features and Landscaping
Provided parking for cars, trucks, RV's and buses will meet current standards and ADA needs. A new entry sign is provided, along with interpretive and directional signage throughout. Safety fencing is incorporated into the design, and new landscaping will enhance the site with native plant materials.

FAR WEST ANCHOR AND VIEWPOINT



ANCHOR FEATURE



AERIAL VIEW OF BUILDING SITE

4. IMPLEMENTATION

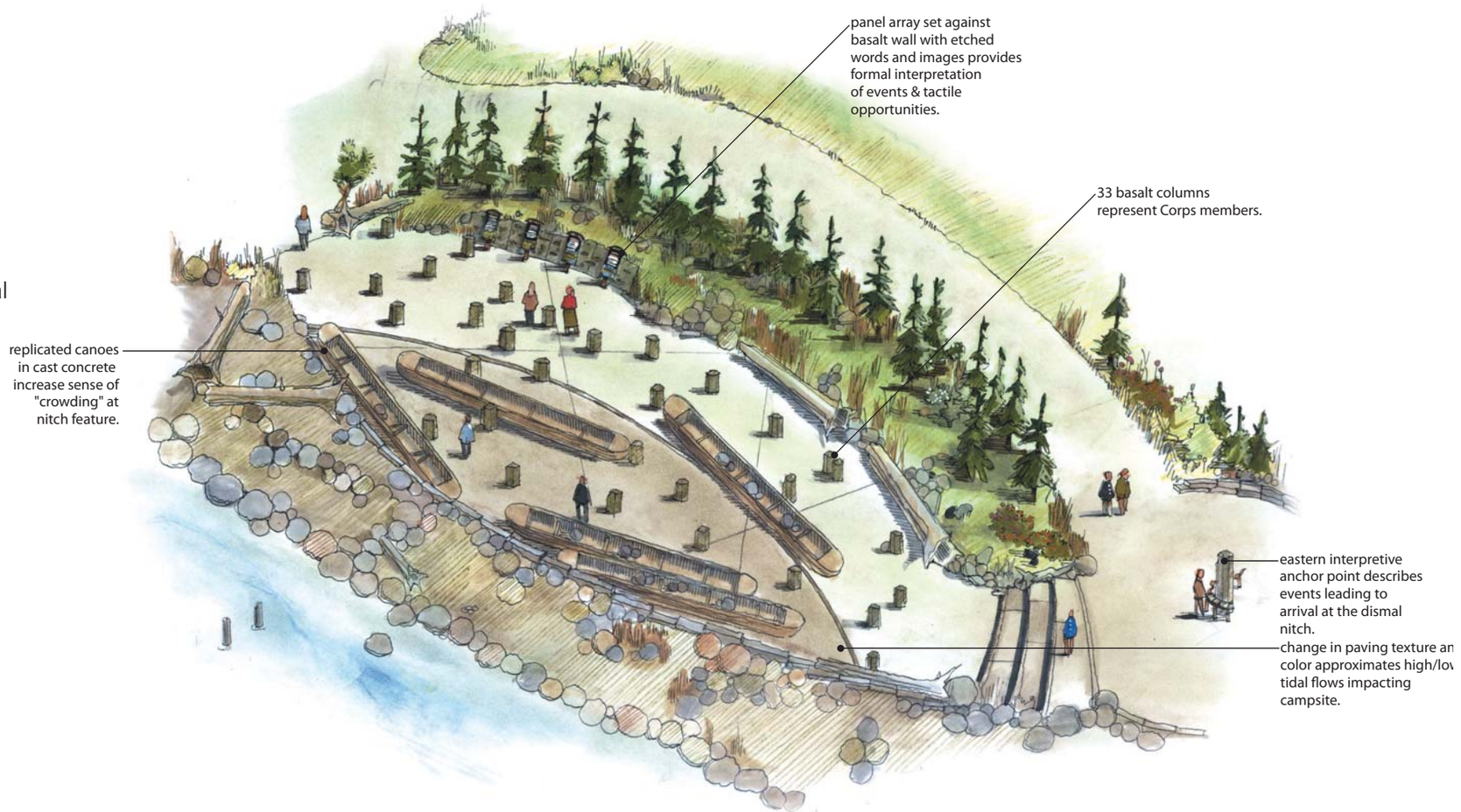
This Master Plan creates a vision for the entire project that can be funded and built in phases, to meet immediate and long term needs. As developed in this report, four phases include:

Phase I: Water System Replacement, Master Plan Design, Land Protection Acquisition (funded).

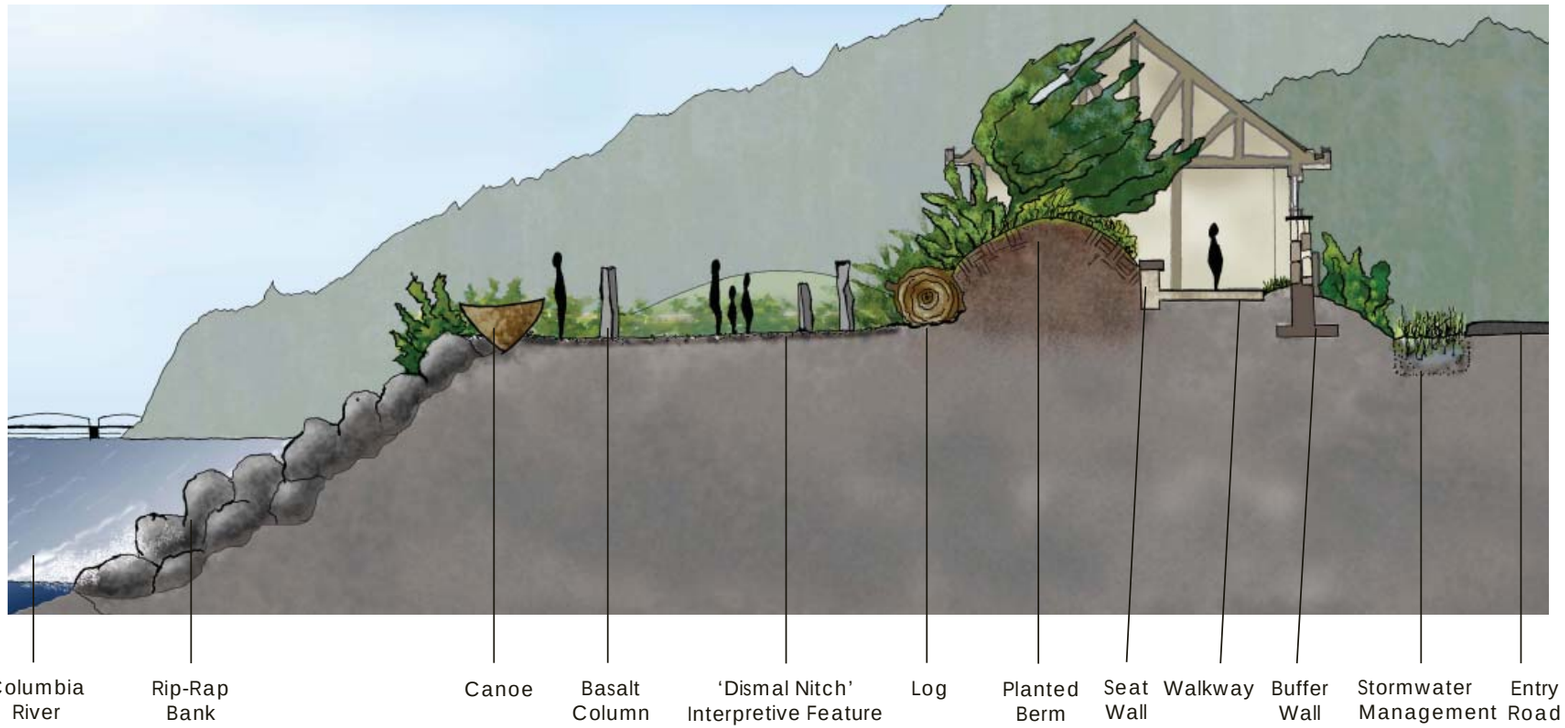
Phase II: Western Interpretive Trail and Fencing, Entry Sign (funded)

Phase III: Roads, Parking, Landscaping, Fencing, Sewer (unfunded)

Phase IV: Restroom / Info Building, Dismal Nitch Feature (unfunded)



DISMAL NITCH INTERPRETIVE FEATURE



SECTION THROUGH DISMAL NITCH INTERPRETIVE FEATURE

5. BUDGET

The following budget estimate is prepared using 2006 dollars. The total project cost is $4.3 million. A budget is developed for each of the major project phases in 2006 dollars. Project phases will be built as funds become available. $1.6 million has been secured and a remaining $2.7 million is needed from additional sources to complete this project.

Project Budget	
Phase I: Water System Replacement, Master Plan Design, NPS Land Protection and Acquisition (funded)	$1,435,000 ($590,000) ($845,000)
Phase II: Western Interpretive Trail and Fencing, Entry Sign (funded)	$175,000
Phase III: Roads, Parking, Landscaping, Fencing, Sewer (unfunded)	$992,000
Phase IV: Restroom / Info Building, Dismal Nitch Feature (unfunded)	$1,739,000
Total Project Cost	$4,341,000

LOOKING EAST FROM DISMAL NITCH UP THE COLUMBIA RIVER

Table of Contents

"The storm continued & hard rain during the last night, and this morning rainey disagreeable weather. Our buffalo robes are getting rotten, and the most of our baggage were wet. We have a very disagreeable time of it, the most oart of our Men having slept in the rain, ever since this storm began, & are continually wet"

- Sgt. Joseph Whitehouse,
Nov. 13, 1805

1.1 SITE HISTORY

The site history incorporates the histories of the Native Peoples in the area, the European and US explorers, the Lewis & Clark Corps of Discovery, the original Euroamerican settlements, fisheries and canning, the "clamshell railroad", the Megler Ferry Landing, the modern development of the Safety Rest Area, and the new development of the Lewis & Clark National Historical Park.

Much of this history has been effectively written in the Cultural Resource Survey dated November 17, 2005, prepared as part of this project by AINW and included on a CD available upon request. We summarize this history in the text below. It is recognized that the Lewis & Clark Voyage of Discovery history at the Dismal Nitch is the primary interpretive theme for the site, and this history is the reason the site is a Unit of the Lewis & Clark National Historical Park.

Native Peoples

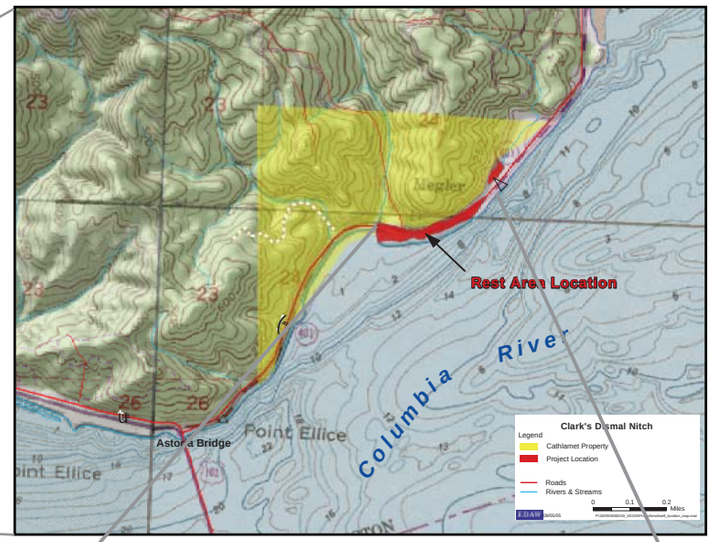
The Dismal Nitch site in its original natural state was never an ideal place for human habitation. The steep topography of the cliffs, which once dropped directly into salt water, combined with dark, narrow and steep creek valleys, made it inappropriate and insufficient compared with village sites several miles downriver or upriver.

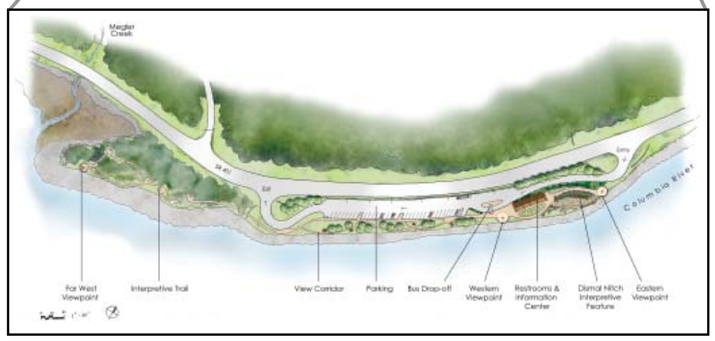
There is no evidence in the survey work that villages or clusters of native peoples lived at this site in their historic era, and the nearest Chinook village was 0.75 miles west at present day Point Ellice. Because the site for this Master Plan is nearly all landfill, placed in 1968 or before, the presence of historic artifacts or indicators of historic habitation is very unlikely. The landfill was obtained by demolition of adjacent cliffs and by importation. The destructive process of obtaining and placing landfill further ensures the low potential for discovery of historic artifacts in this place.

The Cultural Resource Survey confirms the absence of evidence of prior human habitation. This report includes a more complete history of the Native Peoples that lived on the north side of the Columbia River in this area.

Euroamerican Exploration

There is an interesting history of Euroamerican exploration and trading at the mouth of the Columbia River, as the Great River of the West was gradually discovered by explorers in the 18th and 19th centuries who arrived from the Pacific Ocean. Maritime explorers came from Spain, England, America and Russia, and those who were able to cross the bar and navigate the often foggy coast would moor in the area of Baker's Bay to trade with Native Peoples. Those who may have passed the Dismal Nitch when sailing upriver probably stayed well offshore due to shallow waters.





***SITE MAPS** LOCATION*

The Lewis and Clark Voyage of Discovery

The first of the explorers to see the full extent of the lower Columbia River and reach this part of the Pacific Ocean by land were Lewis and Clark and the Corps of Discovery. The expedition arrived in the region of the mouth of the Columbia River, distantly within sight of the Pacific Ocean, their destination, on November 8, 1805. “Oh the Joy!” was Clark’s notation in his journal, and expectations were high that they would be at the ocean in a day or two.

Instead they encountered the might of the river, the tides and the weather in a powerful winter storm, and were marooned at the place they generally called the Dismal Nitch for six days and five nights starting November 10, 1805. In front of them, barring their passage to the ocean was a large headland they named Point Distress in honor of the difficulties and obstacles it placed before them. Weather pinned them in rain, winds, high tides and hail, and there was no shelter or level camp on the river bank.

A vivid and detailed picture of the Lewis & Clark Dismal Nitch experience can be obtained from Rex Ziak’s 2002 book “In Full View…” The author has lived within 15 miles of the Dismal Nitch site for most of his life. It is the author’s view that nowhere else on the 863 day journey was the Corps of Discovery so severely tested or dangerously exposed.

As the Corps of Discovery retreated for the first time from the maelstrom at Point Distress on November 10, 1805, the first place of partial shelter they found was at a small cove about 600 feet north / northeast of our Dismal Nitch site. Here they tried to make camp on top of driftwood under a steep bank and a cliff, with no real shelter from the storm or the waves.

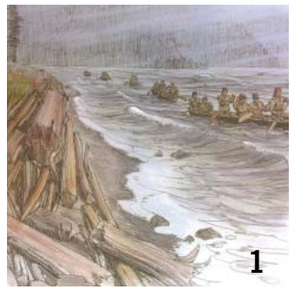
The Corps managed to camp here for two nights only, and then moved on foot crawling over rocks to a more protected “nitch” at the mouth of Megler Creek 1,800 feet to the west. This described site at the far west edge of the current project area is considered by some to be the actual “Dismal Nitch,” where the expedition waited out the storm for another three nights and four days.

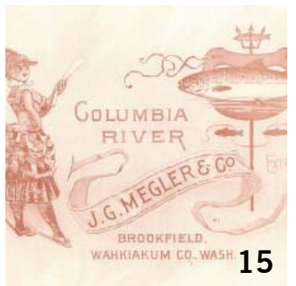
Due to 20th century construction of roads, a railroad and a ferry landing, neither historical Dismal Nitch site exists today in the physical form it had at the time of Lewis & Clark. The name Dismal Nitch comes from Captain William Clark’s Journal for November 15th, as “…this dismal nitich where we have been confined for 6 days passed, without the possibility of proceeding on, returning to a better Situation, or get out to hunt, Scerce of Provisions, and torents of rain poreing on us all the time…”

The miserable image that Clark paints indicates that the Dismal Nitch encompassed both sites, on either side of the current project area today.

Pioneering Euroamerican Settlement

Directly across the Columbia River from the Dismal Nitch site is Astoria, Oregon, considered to be the first American settlement west of the Rocky Mountains.





CULTURAL HISTORY
PEOPLE
LEGEND

1. Artistic depiction, Lewis & Clark expedition Dismal Nitch, WA
2. Lewis & Clark Bicentennial postage stamp
3. Canoe carving *
4. Gillnetters at Point Ellice
5. Artistic depiction, hauling canoes ashore
6. Artistic depiction, Lewis & Clark landing at Dismal Nitch *
7. From steamer to railroad
8. Artistic depiction, trade
9. Salmon totem, Chinook tribe
10. Cliff Schneider, Chinook tribe
11. Along Ilwaco railroad
12. Drum class, Chinook tribe
13. 1960 Megler Ferry landing
14. Historic photo, salmon catch
15. J.G. Megler & Co. Cannery label graphic
16. Fisherman's mess house, Point Ellice, c.1897
17. Historic photo, northwest logging
18. Columbia River cannery
19. Astoria-Megler Bridge, looking towards Washington
20. Lewis & Clark Trail, interpretive signage and RV
21. Maritime shipping and trade
22. Recreational fisherman, Columbia River
23. Astoria-Megler Ferry
24. Columbia River, salmon catch

* Taken from "In Full View" by Rex Ziak

The "Astorians" fur trading party organized by John Jacob Astor arrived by sea at the site of today's Astoria in 1811, just five years after the Lewis & Clark Expedition departed the river to move upstream and return to St. Louis. Although this settlement lasted only five years, it started a wave of British and American fur trading activity focused on Fort Vancouver 100 plus miles upriver. Nearly all of the traders arrived by sea, passing the Dismal Nitch on their way to the Fort. Trading activity with the Native Peoples continued to increase up and down the river.

The next wave of American settlement came by land in the middle of the 19th Century. Coming mostly by the Oregon Trail from Missouri, these settlers were headed for the fertile lands of the Willamette Valley. From there some scattered throughout the territories of Oregon and Washington. Sparse settlement came back to the mouth of the Columbia River, attracted by the resources of the forests, rivers and ocean.

Fisheries and Canning

In the 19th Century at the mouth of the Columbia River the fishing and canning industry boomed. The resource seemed endless and canneries were built on every stable shore. The canneries were mostly on pilings where the water was shallow enough, and access was mostly by water, particularly on the north side of the river. Even today, legions of these original pilings are visible, making it possible to visualize the many canneries that once were there and have today virtually disappeared.

The canneries were a temporary form of settlement, built over the river and accessed by water. They generated very little land-side infrastructure, almost no roads, and only intermittent settlement.

At the Dismal Nitch site there are pilings that remain as evidence of the fish receiving station built by Marshall Kenney in 1880. Joseph Megler used the site for fish receiving in 1883. Megler, who gave his name to the area, was a leading citizen and state representative for 22 years. His main cannery was at Brookfield, Washington nearly 20 miles upriver, and he operated another fish receiving station in Astoria.

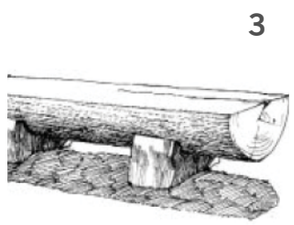
The Clamshell Railroad

The development of the Long Beach Peninsula and Ilwaco was boosted first by the harvesting of seafood (salmon, crab and oysters) and reinforced by the timber business. Communities like Chinook and Ilwaco flourished, yet remained unconnected to each other except by water. By the late 19th Century tourism was flourishing due to the popular nearby beaches. Improved access was needed to cater to tourism and to move goods to markets. The port of Ilwaco was insufficient for deep water steamers, and a deeper water port was needed. This was later developed at Megler to make a better boat connection to Astoria.

A small narrow-gauge railroad had been developed between Ilwaco and the northern villages of the Long Beach Peninsula with service that began in 1889. Owned by the Ilwaco Railroad and Navigation Company, this casual and unique little train was known as the "Clamshell Railroad" or the "Papa Train" or the "Irregular" or the "Rambling" or the "Never-get-there Railroad". Later in 1906 under the ownership of the Oregon Railroad and Navigation Company the line was extended from Ilwaco to Megler, with a new deep water port developed at Megler at the same time. Its terminus was at the east end of the present day Dismal Nitch site, and there ferries would dock, moving tourists, residents and goods across the Columbia to and from Astoria. Construction of this rail extension to Megler changed that part of the shoreline forever, and obscured the wooded shore and cliffs known to native peoples, fishermen and Lewis & Clark. Immense boulders were carved from the cliffs and poured into the river to create an embankment, to protect the rail construction from erosion. The construction of the rail terminal and ferry landing put the name "Megler" on the map, and when the four-mile long bridge was built across the Columbia in 1963-66, it was named the Astoria-Megler Bridge.

Passenger and Auto Ferries

The ferryboat era for Megler began in 1906 with the completion of the rail connection and boat landing, serving passenger boats initially. Roads on the north side of the river were slowly improved, and by 1921 it was practical to create a car ferry service from Astoria. Under the leadership of Fritz Elfving car ferry service began with service to McGowan, three miles east of Megler. Megler was a much more protected harbor, but access was controlled by a rival company, and more importantly, Megler was not served by any automobile roads. Both of these deficiencies were corrected by 1927 when the road was extended from Point Ellice to Megler.



NATIONAL PARKS
CONTEXT
LEGEND

1. Fort Clatsop entrance signage
2. National Park graphic Dismal Nitch
3. Log bench sketch
4. Boardwalk and signage
5. Ranger and school group
6. National Park graphic, Salt Works
7. Interpretive shelter sketch
8. National Park Service arrowhead logo
9. National Park graphic, Netul Landing
10. National Park graphic, Cape Disappointment
11. National Park graphic, Fort Clatsop
12. Fort Columbia
13. National Park graphic, Venturing into the West
14. National Park graphic, Fort to Sea Trail
15. Interpretive signage
16. Great Smoky Mountain National Park entrance signage
17. Drinking fountain sketch

In spite of the “Ferry Wars” between Fritz Elfving and several rival companies, and operating costs which began to exceed revenue (leading to the sale of the service to the Oregon Highway Department), service was generally continuous in the period. Boats included the North Beach, the Chessman, the Tourist, Tourist II and Tourist III. Ferryboat service from Astoria to Megler continued until 1966, when the completion of the Astoria-Megler bridge rendered the ferries redundant.

The Modern Highway Era

Before 1927 there were no automobile roads to Megler, and from 1927 to 1956 the only road to this site came along the shore from Point Ellice where it ended at the ferry terminal. The modern highway completed in 1956 was designated State Route 12B, now State Route 401. The completion of the Astoria Megler Bridge in 1966 made this part of Pacific County fully accessible from the south.

The Safety Rest Area, now designated the Dismal Nitch Safety Rest Area, was built in 1968-69 over the filled land that served the ferryboat landing. Ferry terminal structures were dismantled and pilings at the boat landing area at the east end of the site were removed. A larger area of rock fill topped by one foot of topsoil was built to accommodate the Safety Rest Area (SRA). At the west end of the current site additional rock and topsoil fill had been placed at the site from 1956 to 61 to create this unpaved and undeveloped portion of the site today.

1.2 EXISTING CONDITIONS/ TOPOGRAPHY

The project site is a 3.5-acre strip of land between SR 401 and the Columbia River. The site is approximately 1500 feet long and has an average width of 100 feet. The maximum width is 230 feet at the west end, and the minimum width is 85 feet in the center. The eastern portion of the site has been developed as a Safety Rest Area (SRA). The west 350 feet of the site is an undeveloped wooded area. The undeveloped wooded area has an abandoned dirt road with concrete barriers blocking access from the SRA west driveway.

There is access to a small cove at the mouth of Megler Creek from this area. The site is level and the grade varies from 18 to 21 feet above sea level. The high water is approximately 8.6 feet. The entire south edge of the site has a rip-rap bank that extends into the Columbia River. With the site being 6 to 18 feet above water level (depending on the tide) and the entire south side of the SRA having a chain link fence at the top of the rip-rap bank, the water is inaccessible, except at the small cove.

Paving

Approximately 30 percent of the total site is paved. The SRA has two driveways and a parking lot for 34 vehicles. There are 25 angled parking spaces for standard sized vehicles on the south side of the site facing the Columbia River which includes four ADA accessible spaces. There are nine parking spaces for large vehicles such as trucks and recreational vehicles parallel to the highway on the north side of the site.

Building

There is a 600 square foot Restroom/Information Center (picture 13 on page 8) in the center of the south side of the site.

Vegetation

The vegetation on site consists primarily of maintained turf, which occupies the areas between paving surfaces and the rip-rap shoreline (11,16). Thirty to forty mature ornamental trees, likely planted when the SRA was constructed in the 1960's, are located along the linear stretch of land between the parking lot and shoreline. These trees consist primarily of pine and oak and are in relatively good health. There is a smaller strip of lawn between the parking area and the highway. Six additional trees are between the SRA and the highway.

The vegetation on the western point consists of native species such as alder and Douglas Fir and invasive species such as blackberry (3).

The vegetation of the surrounding hills and cliffs consists of the typical second and third growth conifer forest habitat that is common to southwest Washington. Big leaf maple trees dominate the cliff immediately adjacent to the SRA (4). (See Natural History, pg. 10)

Soil

Soil within the SRA consists of Hoquiam silt loam imported as fill in the early 20th century. When the SRA was constructed on the site of the old ferry landing in 1968-1969, the existing embankment was extended to the south with additional imported fill.

Two thousand tons of heavy loose rip-rap was laid along the bank to protect it from erosion topped by one foot of topsoil for landscaping. The site had contained many pilings and most were removed within the SRA work area.

Site Furnishings

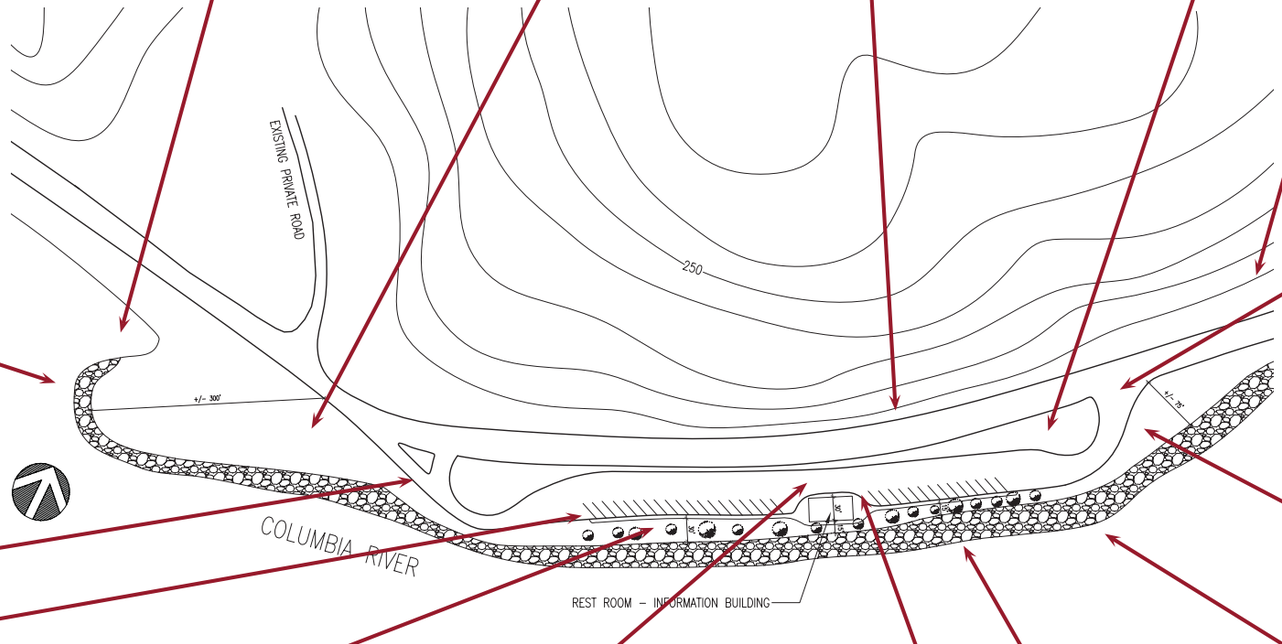
There are four 1960's-era covered picnic tables on concrete pads (one of which is ADA accessible), all of which are located between the parking lot and rip-rap shoreline (15). Standard trash cans and dumpsters (2) are located throughout the site. Site signage, including rules and regulations, could be condensed to minimize clutter.

Lighting

Two streetlights, one on either side of the current Restroom/Information Center, currently provide illumination for the parking lot. An additional two streetlights currently provide illumination at the entry/exit drives.

Fencing

The parking lot is currently enclosed with chain link (3 foot height) fencing (16) and metal pole gates at both the entry/exit drives (8). The fence is used to keep people off the steep rip-rap shoreline of the river and runs continuously for over 1300 feet along the length of the park. Chain link fencing is also used as a barrier between Highway 401 and the SRA parking lot.



Walkways
There is currently a concrete sidewalk adjacent to the parking lot on the south (shoreline) side which conveys users of the site to the centrally located Restroom/Information Center (11). There are no other formal trails, only user-defined trails at the western point. Pedestrians also use the turf area between the existing sidewalk and the rip-rap bank to view the river and access the picnic tables.

Interpretation
A relatively new log frame kiosk containing two graphic interpretive panels is located west of the existing Restroom/Information Center between the parking lot and shoreline (12). Two flat panel signs on log posts are located at the east end of the site.

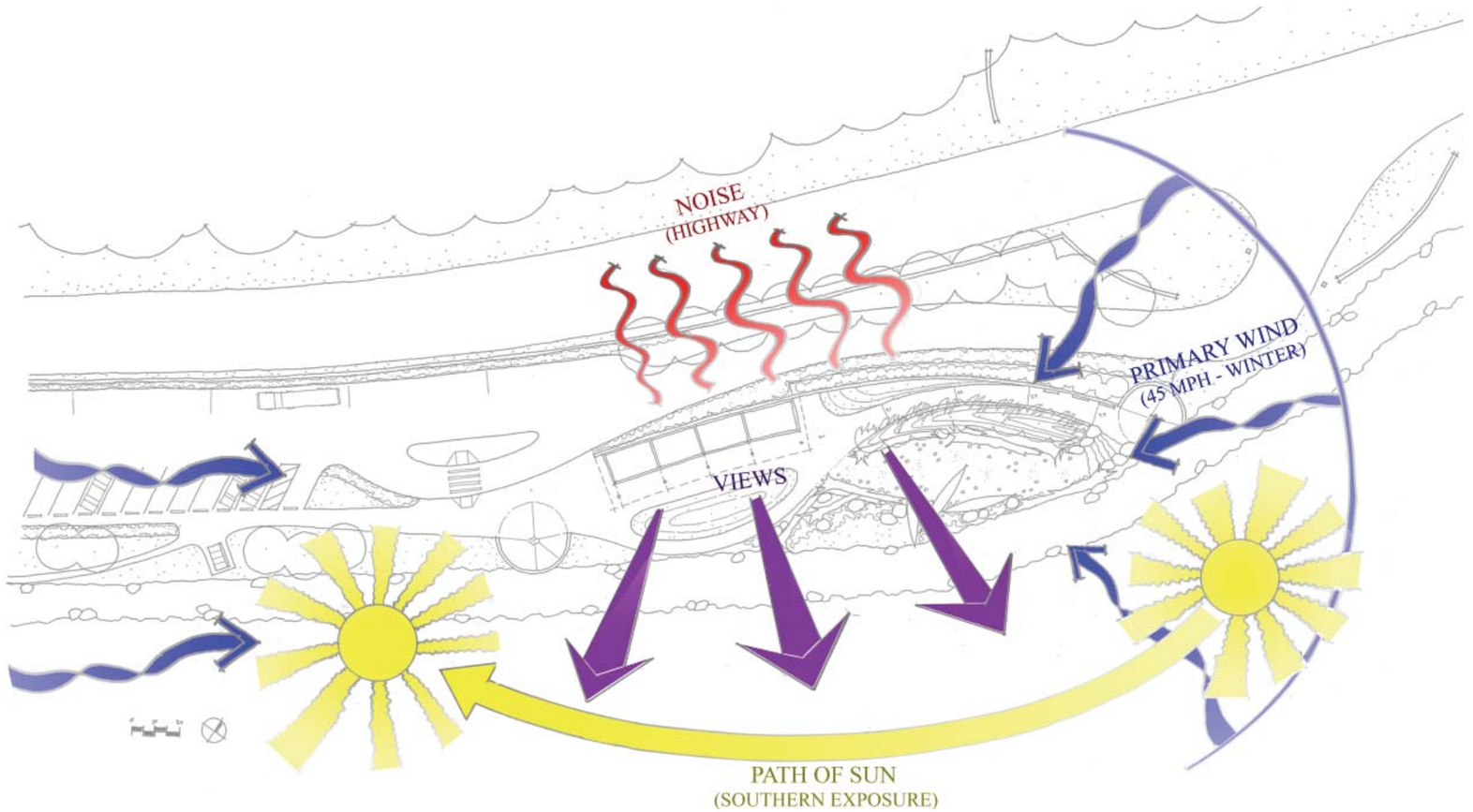
EXISTING CONDITIONS
SITE
LEGEND

1. View of Astoria-Megler Bridge
2. View of cove at beach
3. Undeveloped area overlooking far west viewpoint
4. Steep bluff above Hwy. 401, north of SRA
5. Drainage field & pet area
6. New septic field site option
7. View of Astoria-Megler Bridge to west
8. Eastern site entrance/exit
9. Western site entrance/exit
10. Interpretive signage and view of Columbia River and Mt. St. Helens to east
11. Pedestrian path and restroom structure from west
12. Interpretive signage along pedestrian path
13. Tourist Information and drinking fountains
14. SRA signage and large vehicle parking
15. Picnic structures
16. Fencing and rip-rap along river

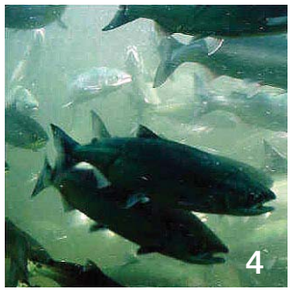
Building Site Analysis

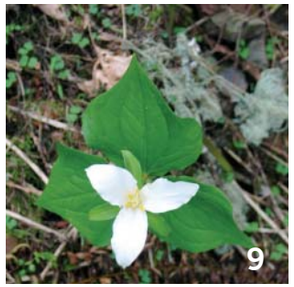
The building site has a south to southeast exposure. Prevailing winds come from upriver and from downriver, depending on the time of day and on the season. The downriver winds from the east can reach 45mph in the winter, bringing colder inland air in that season. The site is somewhat sheltered compared to Point Ellice and other headlands in the area, making nearby coves like Hungry Harbor favorite layover spots for fishermen and boaters.

Highway noise is a site issue, and the noise is exacerbated by the cliffs and topography. Noise is generated by logging trucks, motorcycles, and other vehicles, new site features designed for safety and interpretive improvements will also provide noise mitigation benefits along state route 401.



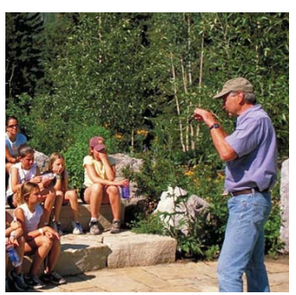
SITE ANALYSIS
DIAGRAM





NATURAL HISTORY
ENVIRONMENT
LEGEND

1. Forested ecosystem
2. Wetlands along Hwy. 401, east of site
3. Sagebrush buttercup
4. Chinook salmon run
5. Mule deer
6. Devil's club
7. View of Saddle Mountain
8. Basalt rock formation
9. Trillium
10. Rocky shoreline
11. Fern
12. Western red cedar
13. Ookow
14. Bald eagle
15. Great blue heron
16. Cove and pilings at southwest corner of the site
17. Douglas fir trees and moss
18. Blackberry
19. Salmon
20. Marbled murrelet
21. Wild rose
22. Columbia River basalt



"the natives...made their canoes remarkably neat, light, and well adapted for riding high waves. Some of their large canoes are upwards of 50 feet long and carry from 8 to 10 thousand pounds or from 20 to 30 persons. Some are...waxed, painted and ornamented with curious images. ...they are neater made than any I have ever seen and calculated to ride the waves and carry emence burthens"

- Capt. William Clark, Nov. 11, 1805

2.1 TRAFFIC CIRCULATION/ PARKING

State Route 401 is a two-lane state highway with 12-foot lanes, paved shoulders, and open drainage. The speed limit is 40 mph and increases to 55 mph east of the site. There is a cautionary speed limit of 30 mph west of the site due to a horizontal curve and limited sight distance. The site has two access driveways with full access at the eastern driveway. The western driveway has a sign prohibiting westbound traffic from making a left turn into the site due to limited sight distance. The western driveway is located at milepost 0.93 and the eastern driveway is located at milepost 1.11. The SRA parking lot is currently striped for 21 standard angle parking stalls, four handicap stalls, and nine parallel stalls designed to accommodate larger vehicles such as RV's, buses, or semi-trailers.
(See Circulation Diagrams on Next Page)

Traffic Volumes

The current average daily traffic on this segment of SR 401 is 2,600 vehicles per day, as reported in the 2004 Washington State Department of Transportation (WSDOT) Annual Traffic Report. The number of vehicles per day accessing the site was calculated based on water usage at the facility. WSDOT provided this information and has found it fairly accurate for estimating the number of vehicles at the site. The 2005 average equated to 148 vehicles per day (vpd) accessing the SRA. This is a minor increase from 2004 (145 vpd) and 2003 (137 vpd). The 85th percentile volume was also determined for the three highest usage months for the most recent three years. Using this measure the 85th percentile worked out to be 209 vpd in 2003, 244 vpd in 2004, and 233 vpd in 2005. The value from 2004 was used because it was the highest and therefore most conservative value. Typically 10 percent of the daily traffic volume occurs during the peak hour. Ten percent of the 2004 and 2005 volumes yielded little difference; 23 and 24 vehicles in the peak hour, respectively. In this case that would equal approximately 24 vehicles using the SRA in the peak hour. Since the duration of stay at a SRA is fairly short (less than 30 minutes) it can be assumed that all vehicles entering during one hour would also exit during that hour for a total of 48 trips (24 entering and 24 exiting). The proposed parking lot restriping should be able to accommodate this volume of vehicles.

Accident Data

WSDOT provided collision data from January 1, 1999 to December 31, 2004 from milepost 0.5 to 1.5. Only four collisions occurred during that time period. Two of the collisions occurred at the western driveway and took place during wet daylight conditions involving two vehicles. One collision was caused by a vehicle making a u turn and the other collision was due to a vehicle failing to yield while entering the roadway. The vehicle failing to yield was a truck and trailer combination.

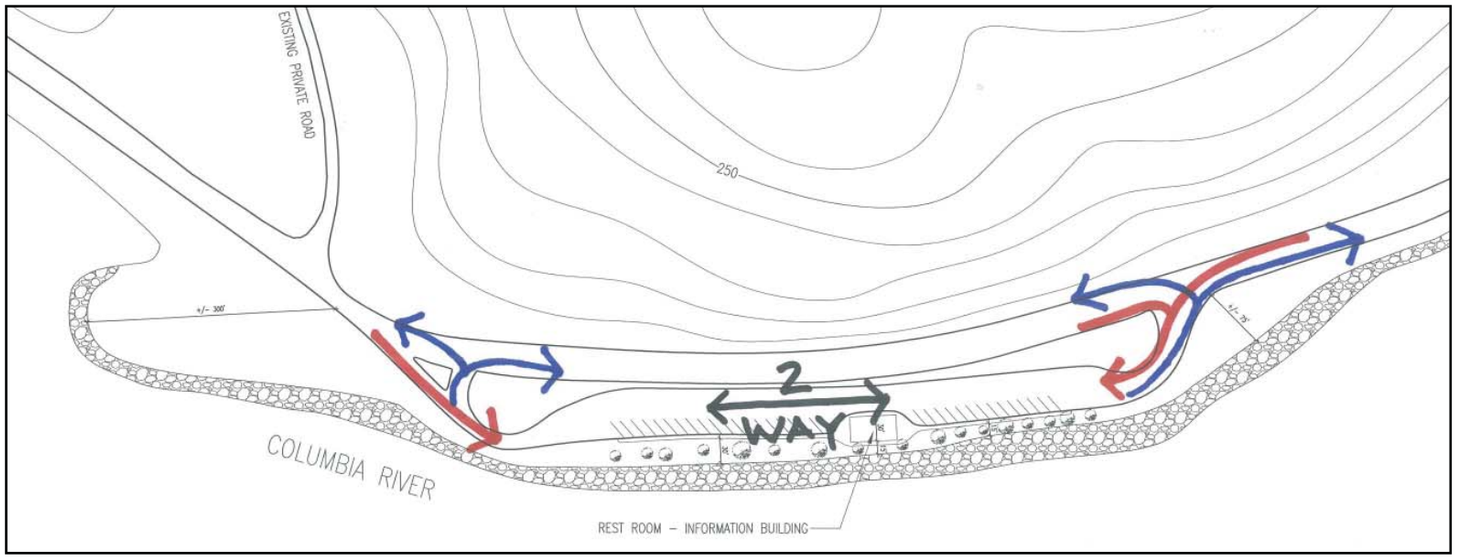
Safety Improvements

There is a chain link fence along the edge of the highway shoulder between the highway and the SRA. Safety standards have changed since this was first built and this barrier needs updating. A decorative stone-faced concrete barrier is proposed along the edge of shoulder to provide a safe separation and maximize the "national park-like" aesthetic of the site. This design approach is similar to the barriers used on SR 410 within Mt. Rainier National Park. The current driveway configuration has 2-way traffic within the parking lot. Vehicles parallel parking can face either direction, which is unusual and can cause confusion. The driveways narrow to 20 foot widths at both ends of the parking lot, which is narrow for two-way traffic. The current eastbound entrance on the west side is designed like an off ramp from the highway and encourages traffic to enter the SRA at a high speed. The two-way traffic flow does not allow for a single bus-drop off to be designed to serve all busses.

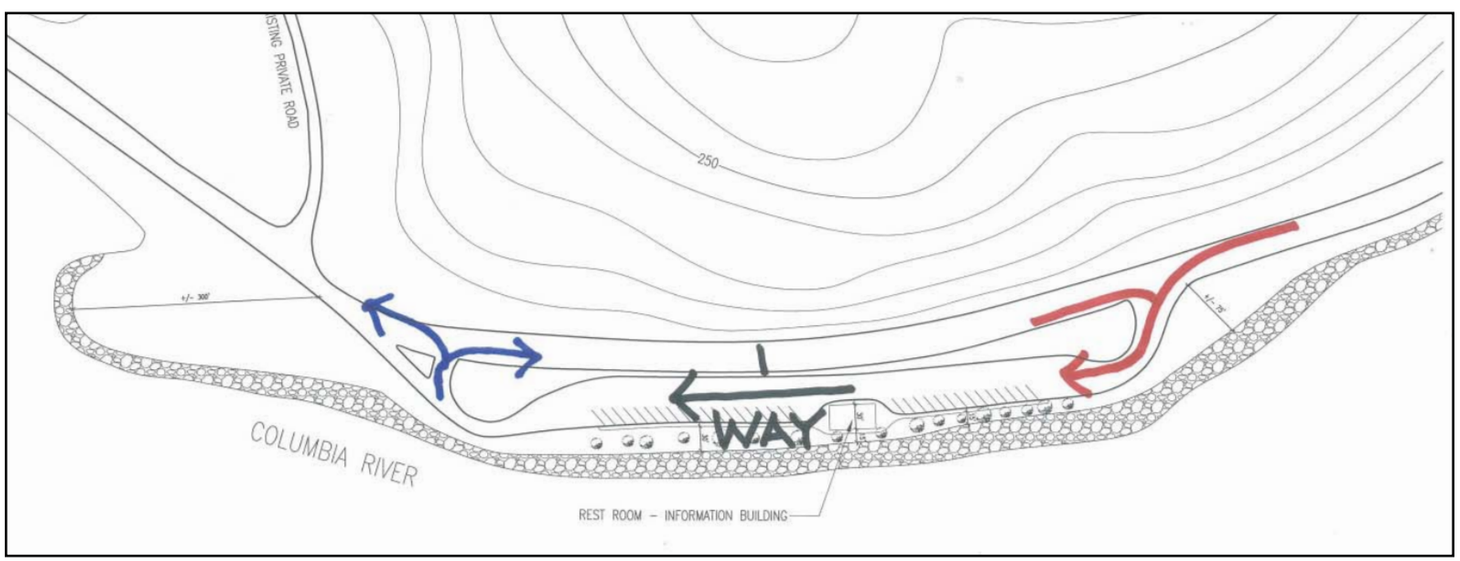
In order to create a safer facility, a one-way system was designed (See Circulation B diagram). The traffic flow is from east to west, because traffic is prohibited from entering the SRA at the west end due to extremely low sight distances. One-way traffic flow reduces the number of potential conflicts at each of the driveways. The driveway locations were adjusted to provide the maximum stopping sight distances possible at this location. With a one-way traffic pattern, a bus loading zone was designed on the southwest side with a passenger loading island. The curves on entry and exit driveways were designed for WB-50 truck turns. Curves were placed in the alignment of the driveways to provide traffic calming prior to entering the parking area. Two additional sections of decorative concrete barriers are proposed along the driveways located near the river bank.

The speed limit on the highway adjacent to the SRA is 40 miles per hour. The reduction from 55 to 40 miles per hour occurs at the east side of the site. Additional speed reduction to 30 miles per hour is advised for the curves at the west end of the site. It is proposed to expand the 40 mile per hour speed zone so that vehicles are approaching the east entrance at 40 miles per hour. It is recommended that the speed reduction sign be moved approximately 720 feet east of the current location. Even with the improved sight distances at the relocated driveways the design criteria for 40 miles per hour is not met and approval of a design deviation will be required from WSDOT.

CIRCULATION A:
CURRENT CONDITION



CIRCULATION B:
ONE WAY- EAST TO WEST



2.2 UTILITIES

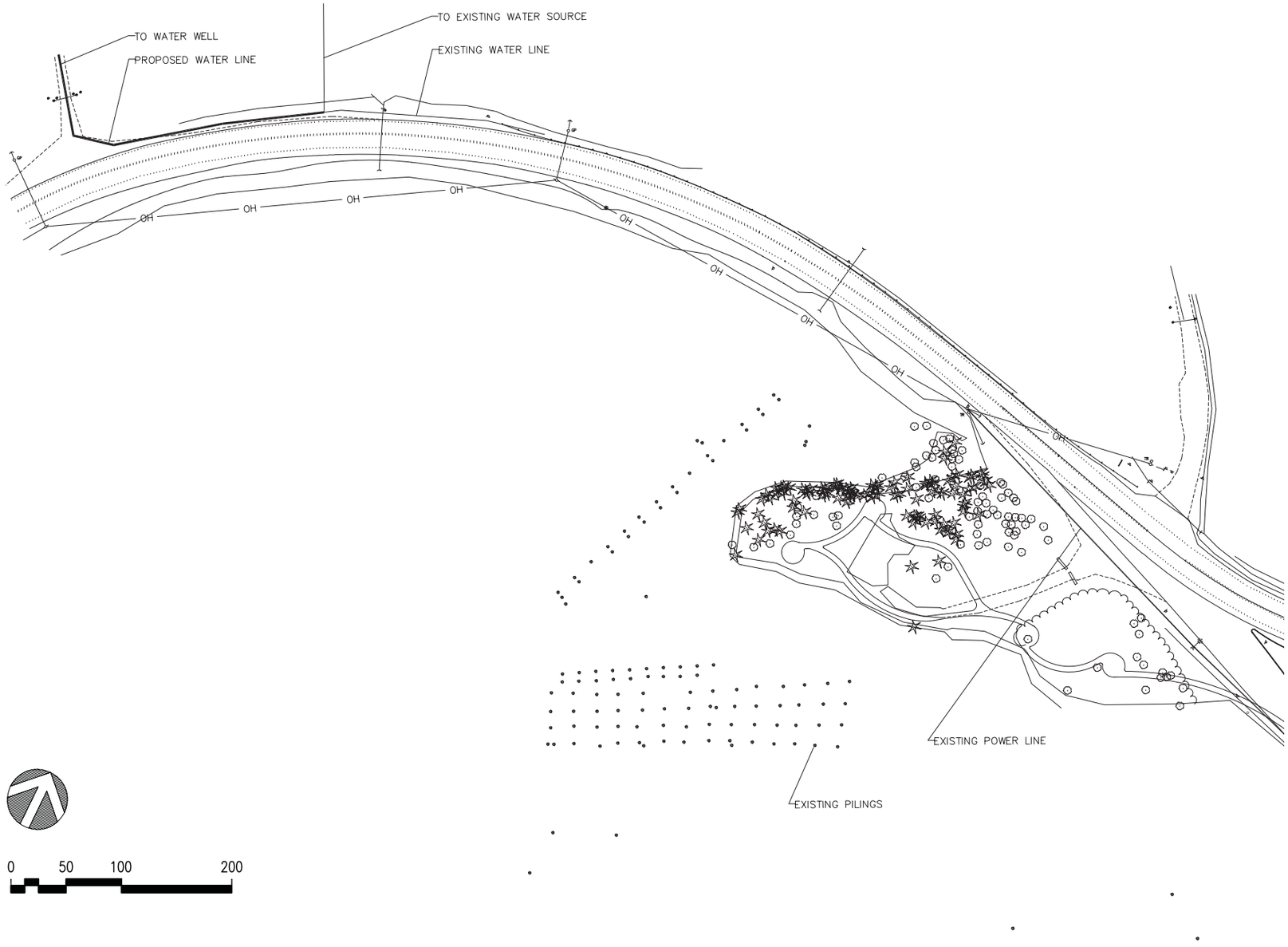
Existing Utilities (water, power, sewer)

The Restroom/Information Center Building is currently served by water, sewer, and power. Water is provided by a small impoundment on an unnamed creek approximately 1,300 feet west of the site. There is a 2-inch drain pipe along SR 401 from the water inlet to the site. The water is treated by a filter located in the maintenance room of the Restroom/Information Center. The susceptibility of the transmission pipe to freezing and high turbidity in this water source results in a shutdown of the SRA during the winter months. The creek can run dry during the summer which also results in the closure of the SRA. There is not adequate water for irrigation.

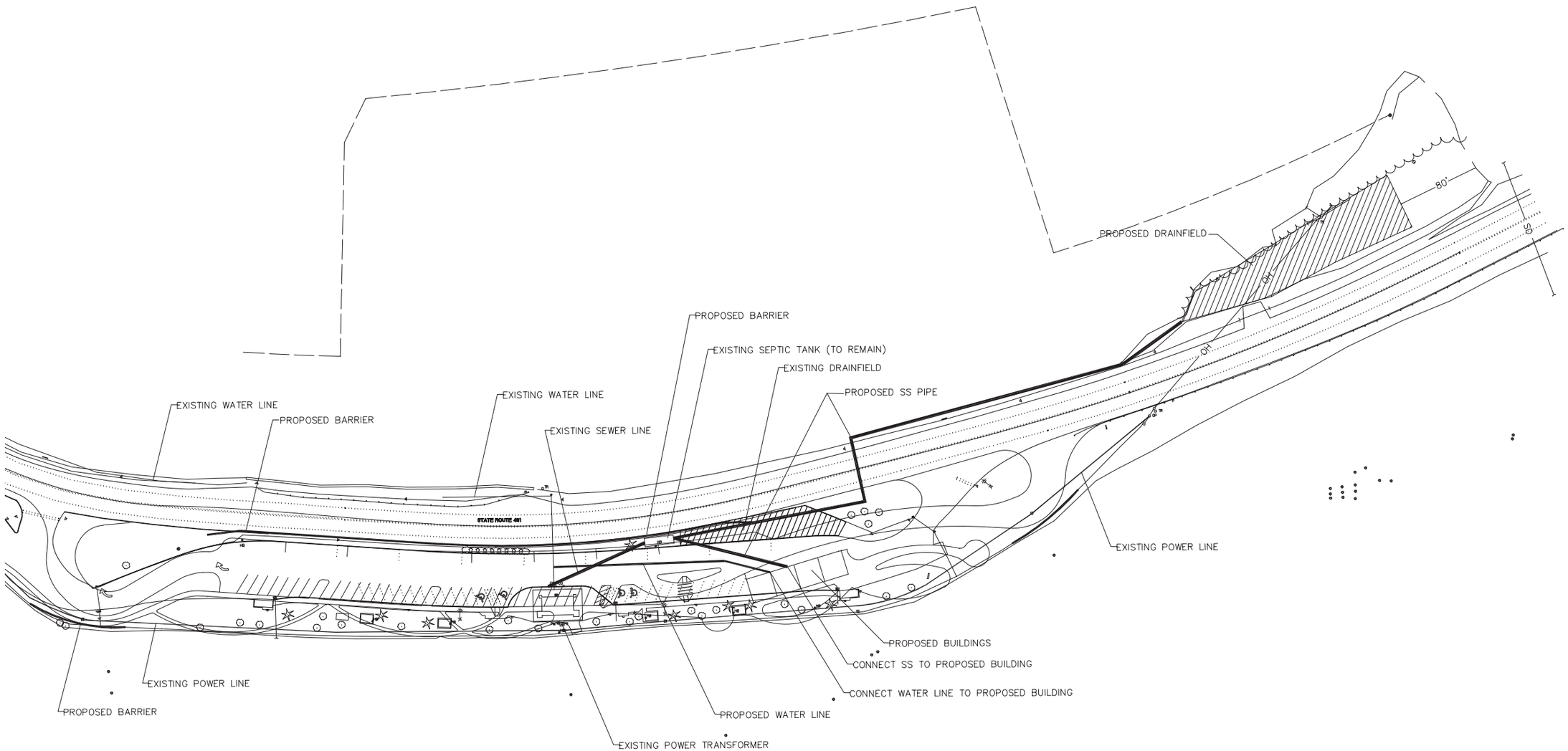
Sewer service is provided by an on-site system. There is a 6,000-gallon septic tank between the parking area and the highway just east of the Restroom/Information Center. A 1,000-square-foot drain field is located between the septic tank and the east driveway.

Power is provided by the local electric utility. Current and proposed demand can be met and no adjustments are required.

All of the stormwater is currently drained into the Columbia River via sheet flow over the bank or through three existing catch basins which are piped directly into the river. Megler Creek crosses SR 401 in a 48 inch corrugated metal pipe culvert at the west end of the site.



UTILITY DRAWING
Proposed & Existing Utility Plan


PROPOSED DRAINFIELD
80'
50'
OH
OH
PROPOSED BARRIER
EXISTING SEPTIC TANK (TO REMAIN)
EXISTING DRAINFIELD
PROPOSED SS PIPE
EXISTING WATER LINE
PROPOSED BARRIER
EXISTING WATER LINE
EXISTING SEWER LINE
STATE ROUTE 401
EXISTING POWER LINE
PROPOSED BUILDINGS
CONNECT SS TO PROPOSED BUILDING
CONNECT WATER LINE TO PROPOSED BUILDING
EXISTING POWER LINE
PROPOSED BARRIER
PROPOSED WATER LINE
EXISTING POWER TRANSFORMER

Water

The following information on the water system is from a Water System Rehabilitation Concept Report prepared by WSDOT dated September 8, 2005.

Proposed New Water System (Phase 1)

Eliminating seasonal closures and making improvements to allow facility operation 365 days a year is an objective of the proposed system. The existing water system off site will be replaced, with a new well source and piping directly associated with the new source.

WSDOT is in the process of drilling a test well approximately 2,000 feet northwest of the site adjacent to a gravel road on land owned by a conservation trust fund north of the existing impoundment. If this well site is feasible WSDOT plans to construct a transmission line from the well to the existing water transmission line along SR 401.

The project would also include abandonment of the existing surface water impoundment structures, erosion and sedimentation control measures during construction, clearing and grading required to install the transmission line, chlorination at the well-head, and a power-out alarm and manual transfer switch for the well pump.

Sewer

The following information on the sewer system is from a Sewer System Rehabilitation Concept Report prepared by WSDOT dated August 24, 2005. WSDOT can be contacted for more information.

Existing Sewer System

The existing on-site sewage treatment system is a septic system consisting of a 6,000-gallon tank and three 60-foot-long drain lines. This is the original 1969 installation - no upgrades to the system have been made. Tank and observable pipes were in good condition when inspected in 2004

Proposed New Sewer System (Phase 3)

This Master Plan implements substantial site and building improvements that will require construction of a new septic drainfield to current standards.

A new drain field site was identified on the north side of the highway east of the SRA that is within the WSDOT right-of-way, and which meets the criteria for setback from the ordinary high-water mark. This site is approximately 800 feet from the SRA building, so a pump system may be required for transmission in addition to the distribution pump in the drain field. The transmission line across the highway will be bored in order to minimize traffic delays. Detailed investigation of the drain field site and design of the septic system is required in a future phase of design.

The new drain field conceptual design size is 5,000 SF plus 5,000 SF of reserve area. The drain lines, in a conventional drain field, would be nine 100-foot-long lines installed in three groups of three lines each. (One group would be installed on the reserve area and not placed into service immediately.)

2.3 SITE DRAINAGE

Project boundaries encompass approximately 3.5 acres and are defined by the area formed between the existing edge of the shoulder of SR 401 and the existing fence along the water. This area encompasses all proposed construction/demolition of buildings, asphalt parking, gravel paths, and landscaping areas.

Approximately 34 percent of the area within project boundaries is classified as impervious surface consisting of asphalt, concrete, and building. The proposed project will reduce the total impervious/ paved surface coverage up to approximately 27 percent. Approximately .25 acres (11 percent) of existing pervious area will be transformed into impervious areas.

Project Area Summary

- Project Area = 3.5 ac (152,651 SF)
- Existing Pervious = 2.30 ac (100,156 SF)
- Existing Impervious = 1.20 ac (52,495 SF)
- Proposed Impervious = .93 ac (40,615 SF)
- Proposed Pervious = 2.57 ac (112,033 SF)
- Total Proposed Area = 3.5 ac
- Existing Pervious to Proposed Impervious = .25 ac (11,081 SF)
- Maximum Net New Impervious Area = 0 ac (0 SF)

note: ac = acre foot

Drainage Basin and Existing Condition

The 3.5-acre project area contains one distinct drainage basin. All of the stormwater is currently drained into the Columbia River via sheet flow over the bank or through three existing catch basins which are piped directly into the river. The existing project area has no flow control or water quality treatment, however it meets the current standards which are triggered by site improvements.

Drainage Criteria

The proposed drainage criteria is from the Highway Runoff Manual (WSDOT 2004) and Hydraulics Manual (WSDOT 2004). Additional guidance on the design of best management practices (BMPs) is from the Stormwater Management Manual for Western Washington (Department of Ecology 2005) and the Low Impact Development Technical Guidance Manual (Puget Sound Action Team 2005). The Highway Runoff Manual was selected as the primary design criteria because this project is located within the WSDOT right-of-way.

The significant drainage requirement is to provide basic water quality treatment and erosion control during construction. The project is exempt from flow control because there is direct discharge into the Columbia River.

Design Concept Proposal (Phase 3)

The project proposes to provide basic water quality treatment for all of the proposed pollution generating impervious surface. This includes new, replaced, and existing impervious areas.

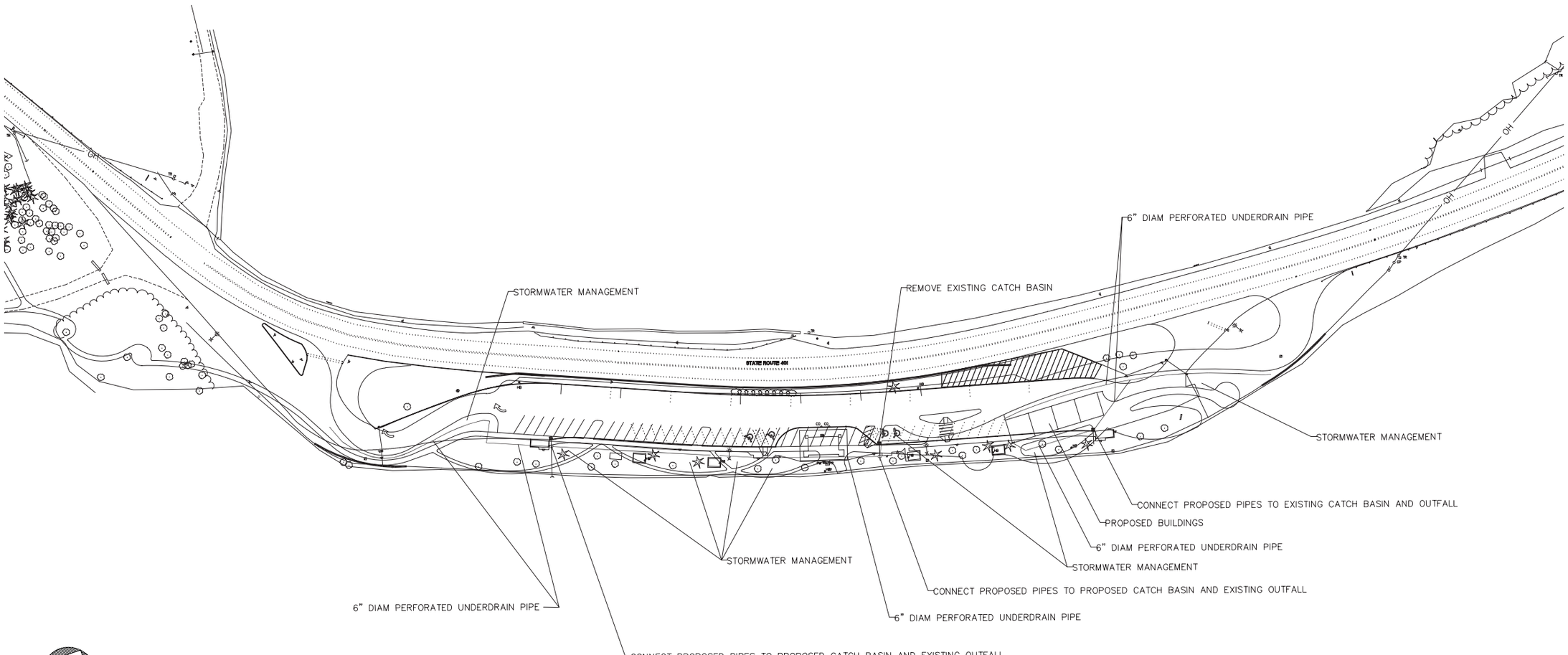
The preferred design is to sheet flow the water from the parking lot across the sidewalks and into raingardens. The raingardens will be approximately 5 feet wide and consist of two feet of composted soil. An underdrain will be provided below the composted soil for drainage to the three existing outflow pipes. Catch basins will also be relocated to the raingardens to provide surface overflows to the existing outfalls. No new pipe outfalls will be added to the project.

Alternative Solutions (Phase 3)

An alternative design is to enhance the existing system. This solution may be utilized as a temporary condition until the walkway and adjacent landscaping is regraded to construct the raingardens. The existing site is graded so that the stormwater sheet flows from the north to the south and is collected in three existing catch basins along the southern edge of the project. Each catch basin has a storm drain pipe discharging directly into the Columbia River. Filtration inserts that provide basic treatment can be added to each catch basin.

Future Considerations — Megler Creek Culvert

Although the scope of this master plan does not include Megler Creek, which crosses SR 401 in a 48-inch corrugated metal pipe culvert at the west end of the site, it is noted there is public interest in improvements for salmon passage. The Master Plan recommends that this be studied by the appropriate agencies. The improvement or replacement of the culvert should be considered for a future project. A substantial portion of the lower reach of this stream and the drainage basin for this stream are under the ownership of the National Park Service.



UTILITY DRAWING
Proposed & Existing Drainage Plan

2.4 SITE PLANNING PROCESS/ PUBLIC INVOLVEMENT

The site planning process for the Dismal Nitch SRA followed a logical sequence, designed to coordinate planning with the needs of a multi-agency client, against a background of public involvement and inclusion of local interests. The process included:

A. Existing Conditions / Site Research

The site is an existing operating SRA, and the built conditions were surveyed for this project. Cultural resources were also surveyed for the project area. A site visit by the client and consultant team occurred in August, 2005.

B. Programming for Proposed Uses

A range of functional, recreational and interpretive programs were proposed to the multi-agency client and to the local public in the workshop at Ilwaco. Parking was limited due to the size of the site, and recreational uses were limited due to shoreline development restrictions, access limits and the dangerous nature of the river. The program elements focused instead on interpretive opportunities, as well as the basic needs of the SRA.

C. Land Use Planning Options — Defining Core Functions of the Site

The basis of land use planning for the Dismal Nitch site was strongly dependent on the existing site dimensions and orientation, plus the traffic and safety planning as outlined above. The planning did not alter the shoreline or extend the landfill and rip-rap embankment into the Columbia River. The narrow dimensions of the site allowed for only one east/west parking zone, with a narrow strip of landscaping along the river's edge, 15' to 30' wide typically.

Given the one-way traffic scheme, the design team developed several options for the placement of the two primary features of the site. These two key features are:

- The Restroom/Information Center
- The primary Lewis & Clark Interpretive Feature

Early in the planning we designated a primary interpretive feature as the re-creation of the "Dismal Nitch". We recognized this idea as a destination for visitors to the site, being a Unit of the Lewis & Clark National Historical Park. A place was saved for this interpretive feature, yet to be designed.

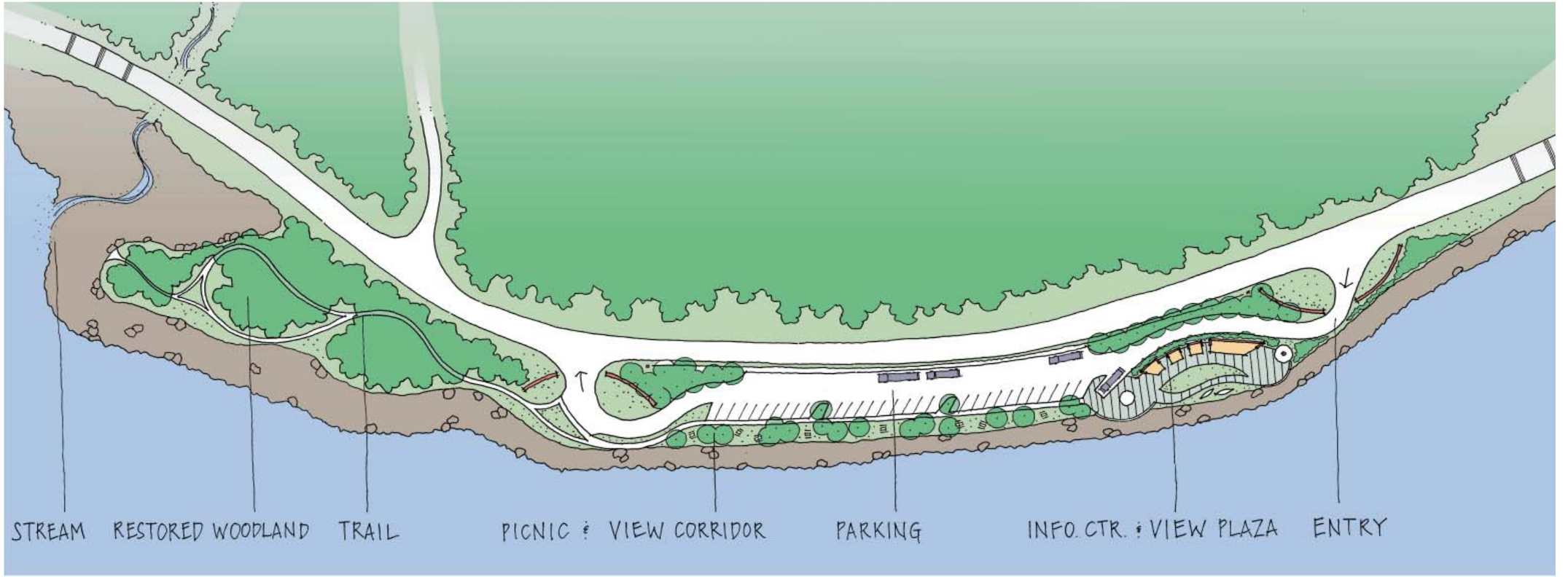
The placement of the Restroom/Information Center should accommodate accessibility with visibility to the parking lot, visitor convenience, and personal safety for its users. Three alternatives were evaluated for the main SRA building location A) At the east end of the site, B) At the center of the site, and C) At the west end of the site. Each option had legitimate pluses:

A) East End: Best visibility, best safety, reasonable parking convenience.

B) Center: Best parking convenience, good visibility & safety.

C) West End: Good access to open space and natural areas, poor parking convenience, poor visibility and safety.

After full evaluation of these options in the public workshop and by the partnership agencies, the preferred plan selected the East End location for the development of the Restrooms(See opposite page). Other land use decisions related to placement of the roads, parking, bus drop-off and the Dismal Nitch Interpretive Feature.



SITE SCHEME- EAST END

D. Public Involvement

Of critical importance to the planning of the Dismal Nitch SRA has been the involvement of the Pacific County and Columbia River public. The project is being developed by public agencies, for the public good, and it is essential that it meet with the approval of citizens and taxpayers in the community.

Two public workshops were held, October 13, 2005 at the Ilwaco Heritage Museum, and December 12, 2005 at Fort Columbia.

Workshop 1/ What We Heard

- Inform the public about the master planning process and the involvement of the public agencies.
- Offer possible land uses and interpretive themes for the public to evaluate.
- Describe and illustrate the planning effort to date, including the planning and landscape goals, and possible design concepts.

Important concepts and themes that came out of the first workshop included:

- The primary theme of interest to citizens is the Lewis & Clark story of the Dismal Nitch. There is knowledge and pride in the local story of the Corps of Discovery, who first saw the Ocean (their destination) in Pacific County.
- The concept of a site with a beautiful natural area at its western end with great views, and an enhanced SRA to the east with development becoming more natural to the west, was offered and endorsed by several at the workshop.

Workshop 2/ What We Heard

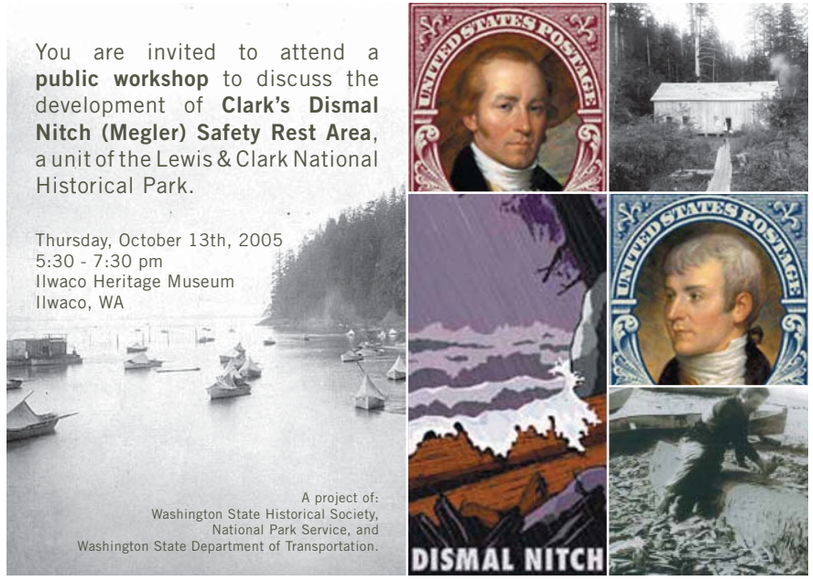
The second workshop was timed to present illustrated concepts for the major features of the Dismal Nitch, under the guidelines of a preferred Master Plan concept. The public was asked to visualize and comment upon this Master Plan.

Workshop feedback:

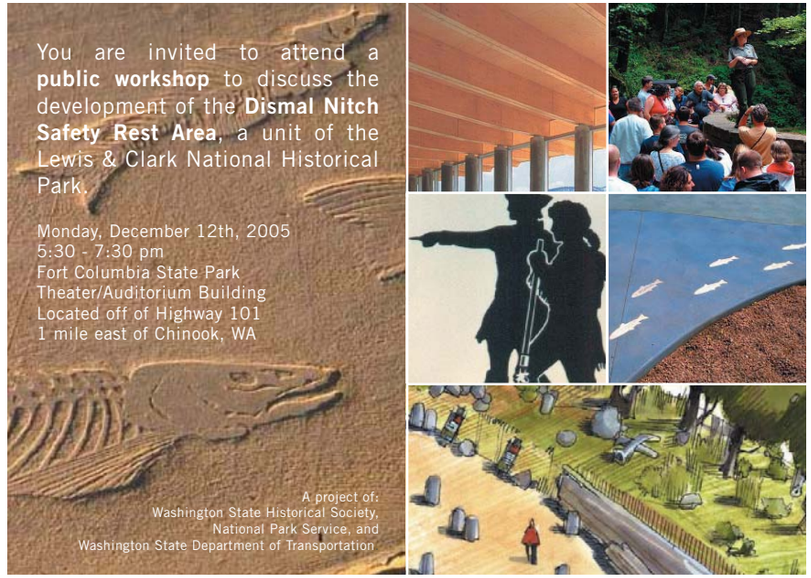
- In general, the workshop comments were supportive of the planning approach, architectural direction, and interpretive themes and concepts.
- The Lewis & Clark interpretive ideas were positively received, and the public is also interested in local themes including the ferryboat history and canning /fishing history.
- The public recognizes the Dismal Nitch as a gateway to the national park, and the historic theme in the architectural design was well received as a concept that will bind all of the Lewis & Clark National Park sites.
- There is public interest in the sustainability and energy conservation elements proposed, visualizing the site as a demonstration project for appropriate “green” concepts.

E. Final Development, Phasing and Budgeting

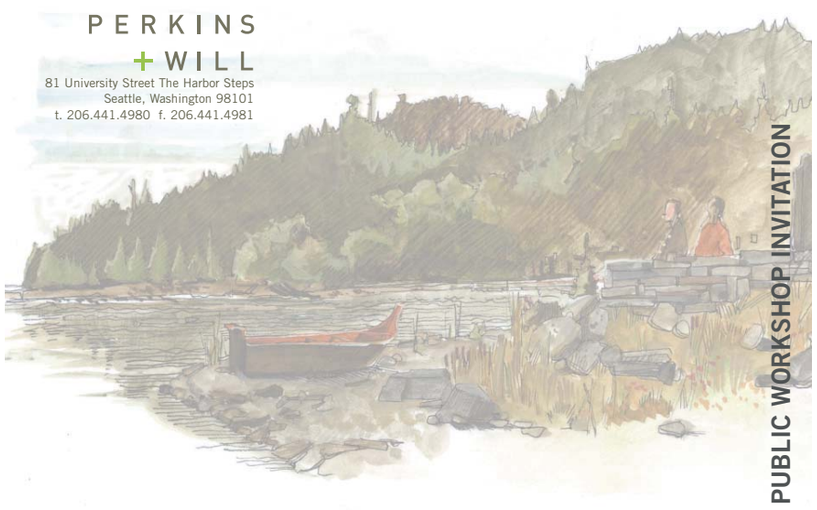
The approved Master Plan concept was confirmed at the project team meeting in December, 2005 following the second workshop. An initial phasing breakdown and component budget was presented for review. There is optimism about the potential for funding the project, with several potential sources. Three phases were identified to allow for incremental funding of site features.



WORKSHOP 1 ANNOUNCEMENT
10.13.05



WORKSHOP 2 ANNOUNCEMENT
12.12.05



Quotes from the Workshops:

"Capture the great views from the site—to the east and to the west"

"Don't distract from nature and the views. History buffs are drawn to this site for its pristine condition."

"Create an ambiance similar to Lewis and Clark... difficult to access...primal nature."

"Create places shielded from the highway, and a sound buffer."

"Local history is also important in the interpretive displays...ferry, railroad, and cannery operations."

Planning Summary

Following a full committee review of the results of the public workshop on October 13, 2005 the design team developed a basic theme for the design of the site, in which the intensity of development is graded from most active at the east entrance down to the least intensity at the west end of the site. The west end is designed with a natural trail system to remain virtually undeveloped, with native vegetation while preserving existing native and enhanced shrubs.

The final Master Plan that has developed from the planning process outlined above incorporates the basic concepts that have come from the public workshops, as well as the client goals and objectives. The project will function as an enhanced SRA under the operation of WSDOT, located in the new Lewis & Clark National Historical Park.

Important concepts include:

- Gateway to the National Park.
- East to West One-way Traffic Flow, for safety.
- Primary development or the Dismal Nitch Interpretive Feature at east end.
- Parking and waterfront trail through the middle of the site.
- Natural area, trails and viewpoint at west end.
- Building with aesthetic references to the historic Fort Columbia and Megler Ferry.
- Low impact, sustainable design: buildings, landscape and paving.

"... the wind verry high from the S.W. with most tremendious waves brakeing with great violence against the Shores, rain falling in torrents, we are all wet as usial and our Situation is truly a disagreeable one ..."

- Capt. William Clark, Nov. 11, 1805

3.1 OVERALL SITE DESIGN

The overall site design concept is to provide access to facilities and interpretive opportunities at a site that is more developed at the eastern end, becoming less developed as the visitor moves west.

The more developed portion of the SRA include traveler services such as, the Restroom/ Information Center building, bus drop-off, Dismal Nitch Interpretive Feature, and formal viewpoints. A majority of visitors to the SRA will use and enjoy the amenities provided in this portion of the site.

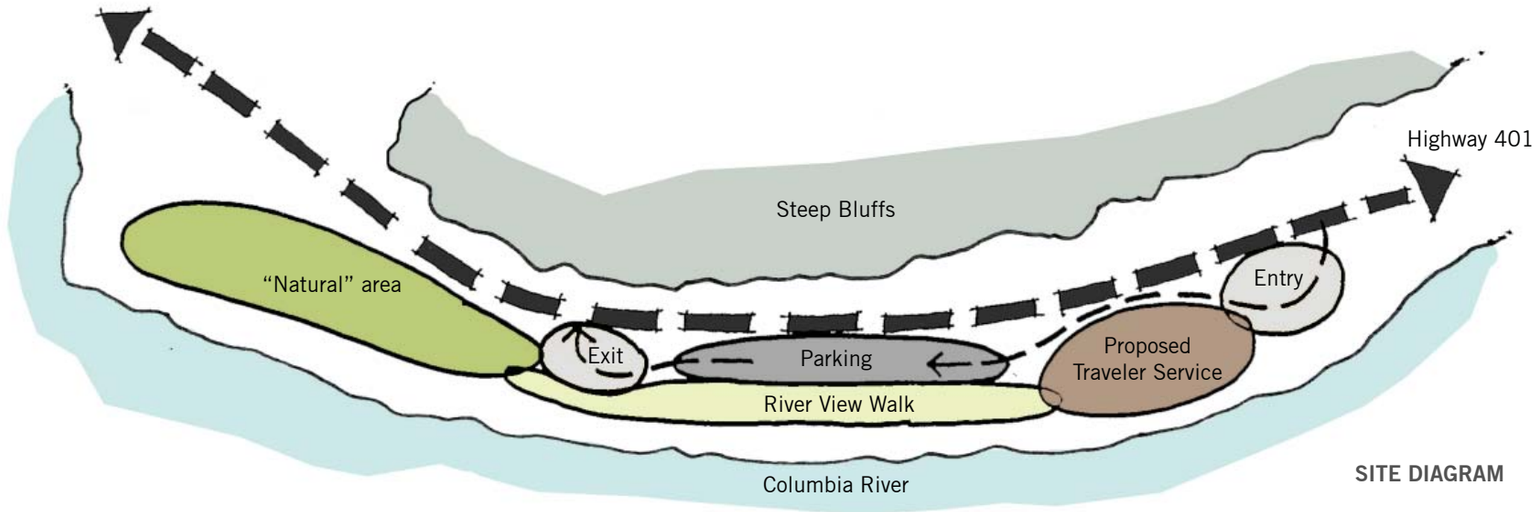
The parking is located in the central area of the site. This parking is fronted on the water side by a River View Walk that will link visitors by trails to the western portions of the site. Those who journey west will find that the site becomes more natural, and less formal. This concept allows the user to experience a more serene setting while at the same time protecting the natural resources of the western point.

FEATURES OF THE FINAL DESIGN

The Master Plan expands the area of the Dismal Nitch SRA and adds visitor features serving the needs of the SRA and the National Park. New features include:

Three Panoramic Viewpoints

The broad sweep of the Columbia River is viewed from the slightly elevated East, Central and Far West Viewpoints.



SITE DIAGRAM

Three New Trails

Three new trails along the river and linking the site features are planned: Trail to the East Viewpoint, the River View Walk, and the Western Interpretive Trail.

One Primary Feature, Re-Creation of the Dismal Nitch

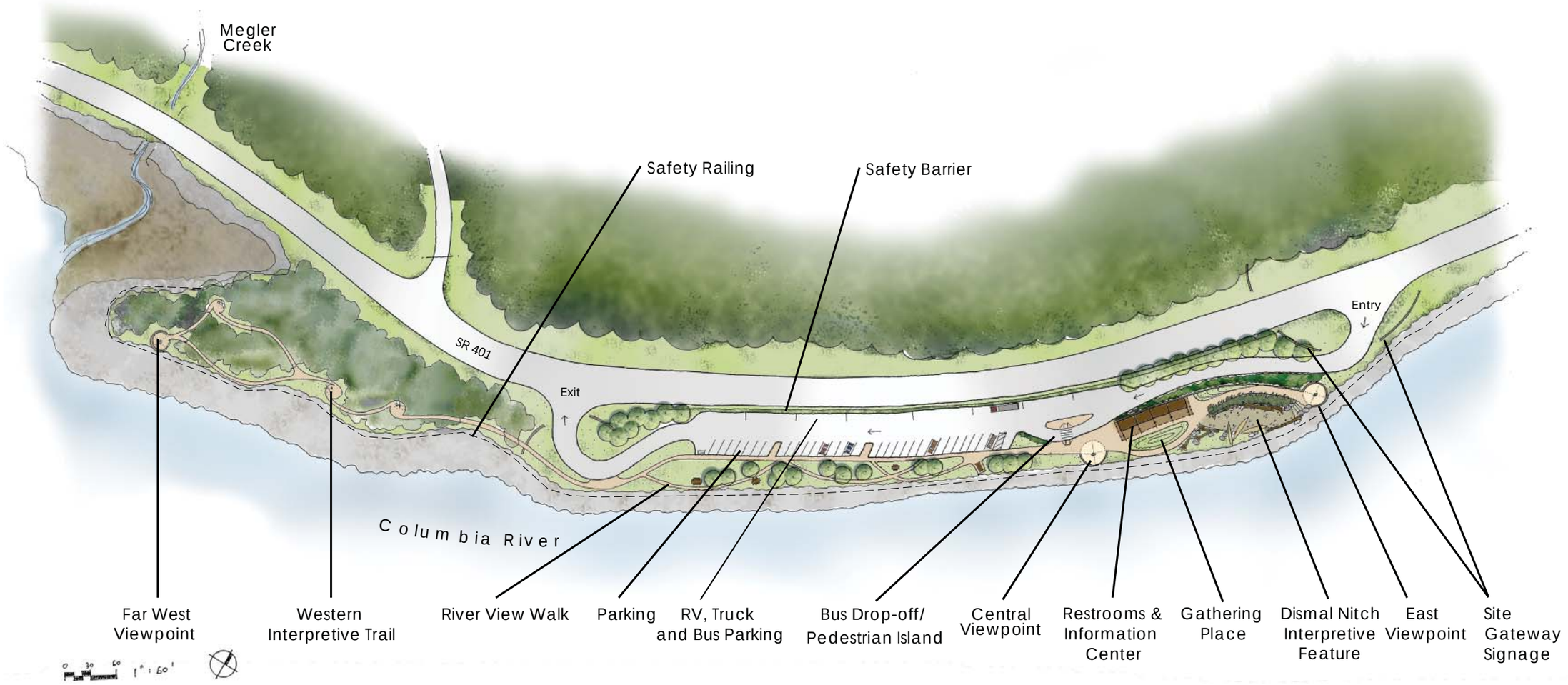
Presenting the Lewis & Clark experience at the Dismal Nitch site, accurately in scale with historic conditions, the re-creation will feature replicas of the members of the Corps of Discovery and their canoes.

One New Restroom/Information Center Building

Located conveniently by the entrance and the bus drop-off, the new building will welcome travelers and provide regional and national park information.

Improved Parking, Signage, Safety Features and Landscaping

Provided parking for cars, trucks, RV's and buses will meet current standards and ADA needs. A new entry sign is provided, along with interpretive and directional signage throughout. Safety fencing is incorporated into the design, and new landscaping will enhance the site with native plant materials.



OVERALL SITE PLAN

3.2 LANDSCAPE FEATURES

The following section describes the design intent of site landscape features such as the formal viewpoints, the Dismal Nitch Interpretive Feature and berm, gathering place, walkways and trails, stormwater management, view park, and western point. A specific description of the character of materials used for specific elements within the site follows in Section 4.2 (pg. 53).

Images that express the inspiration for the landscape features can be seen on pg. 30.

1. Designated Viewpoints

Three formal viewpoints have been designed as significant locations where visitors can gather and be oriented to amazing views of and across the river and their association with the Lewis & Clark story. The formality of their circular design is tempered with the use of materials, for example: colored concrete or crushed stone, a basalt column interpretive focal point, and low stone veneer walls. The interpretive purpose of each viewpoint, related to the story of Lewis and Clark, is described in more detail in Section 3.3 (pg. 33-38).

The East Viewpoint, which orients the visitor to the river landscape from which Lewis and Clark came, is the furthest east visitors can go within the SRA. The Central Viewpoint is located adjacent to the bus drop off area. It is the first interpretive site feature that visitors will encounter as they walk east towards the building and plaza from the parking area. These two viewpoints frame the rest of the developed area in between, which includes the building, gathering place, and Dismal Nitch Interpretive Feature.

The Far West Viewpoint is located over 1,000 feet away at the west end of the site in the more natural area. This viewpoint is accessed by the Western Interpretive Trail and is oriented down river to Lewis & Clark's next destination—Station Camp and the Pacific Ocean.

2. Dismal Nitch Interpretive Feature and Berm

The Dismal Nitch Interpretive Feature, located at the east end of the site and adjacent to the building, will provide significant interpretive and educational opportunities to visitors. Specific discussion regarding the Lewis and Clark story to be told within this feature and the use of elements within, such as the basalt columns, representative canoes, and signage can be found in Section 3.3 (pg. 33-38).

The design of this space, in general, attempts to create a sense of enclosure, create an area that is buffered from the noise of the adjacent highway so that visitors can focus on the site and nearby river, and to create a space roughly the same size as the Dismal Nitch as recorded in Clark's expedition journal.

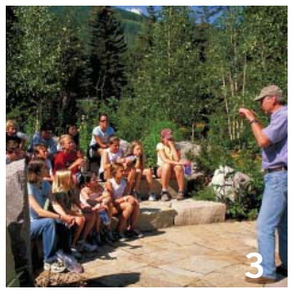
Enclosing and buffering the space is accomplished by raising the grade behind the Dismal Nitch feature and placing an elevated berm with plantings, including Shore pines, for example. This would be the first two layers of buffer. The second layer is a stone wall located between the walkway (from the East viewpoint and the building) and the entry drive. The berm will appear to be more than five feet tall from within the Dismal Nitch Interpretive Feature and be retained with the support of very large logs and root wads. On the walkway side, the berm will be retained by a low stone veneer wall. Large logs, boulders, canoes (material to be determined), and vegetation will create a low barrier between the Dismal Nitch Interpretive Feature and the rip-rap shoreline.

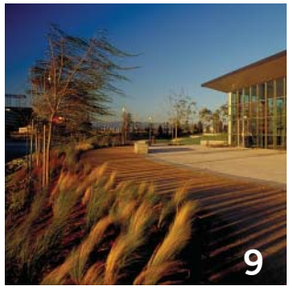
3. Gathering Place

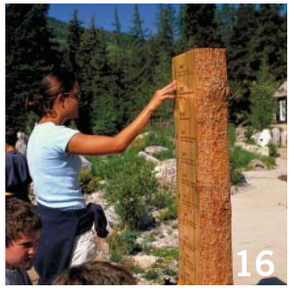
The Gathering Place is located in front of the building and provides a subtle vista out to the river. The high point of this subtle knoll should be no more than two feet above the elevation of the surrounding walkways. Planted with hardy clump grasses that can handle foot traffic. This area breaks up both the flatness and expanse of the surrounding plaza. Visitors should be allowed to walk up and over this area for better views of the river while waiting for family members or friends using the facilities.

4. Walkways and Trails

Primary, high-use walkways within the more developed east end of the site have been designed in such a way as to accommodate the differing needs of SRA users. A long sidewalk adjacent to the parking area will direct most visitors to the plaza area near the Central Viewpoint and bus drop-off area. From here, however, visitors will have a choice to go directly to the building (which is likely) or around the Gathering Place along a shoreline walkway. The two paths meet up again on the east side of the Gathering Place. At this point the visitor may be attracted to enter the Dismal Nitch Interpretive Feature. After winding their way through this area they can reach the East Viewpoint by climbing a set of rough stone stairs. After reaching the east terminus of the site, a more direct walkway allows visitors to walk back down to the building, plaza, and parking lot without entering the Dismal Nitch Interpretive Feature again. This circulation pattern will allow visitors to experience the site in various ways while providing for a more efficient flow of people.







SITE ELEMENTS
IDEAS
LEGEND

1. Rock walls, Brisbane, Australia
2. Decomposed granite walkway, San Francisco, CA
3. Interpretive water feature, Vail, CO
4. Rustic bench, Munakata, Japan
5. Split-rail fence, Santa Fe, NM
6. Walkway and guardrail, London, England
7. Interpretive paving with fish icon, Cherry Hills, CO
8. Paving/landscape feature, Cincinnati, OH
9. Arbor/canopy and walkway, Sydney, Australia
10. Decorative paving and boulders, Silver Springs, MD
11. Waterfront park art feature, Sydney, Australia
12. Interpretive viewpoint and sign, Sunnyvale, CA
13. Interpretive paving feature, Vail, CO
14. Decorative paving and vertical landscape feature, Cincinnati, OH
15. Interpretive sign and boulder wall, Seattle, WA
16. Rustic wayfinding sign, Vail, CO

Secondary, medium-use trails will be located between the parking lot sidewalk and the shoreline. These will allow visitors to access the edge of the rip-rap shoreline for spectacular views during their walk to or from the facilities located at the east end of the site. Additionally, low-use trails will be located at the western point and provide access for those adventurous visitors who journey to the Far Western Viewpoint. Alignment of the trail should be verified in the field during the design phase to ensure the protection of existing mature native vegetation and river viewing opportunities.

5. Stormwater Management

Rain gardens are landscape planting beds designed to accommodate stormwater run-off in order to filter pollutants and toxins from the water. Rain gardens, planted with native shrubs adapted to wet conditions, have been strategically placed adjacent to most parking areas and travel lanes in order to intercept rainwater having fallen on those impervious surfaces. A more specific discussion of these features can be found in Section 2.3 (pgs. 47-48).

6. River View Walk

The view park, a long linear stretch of turf and mature trees along the top of the rip-rap bank will continue to be an important component of the SRA as a spectacular view corridor. The width of this view corridor, averaging 20 feet or so, will become narrower to accommodate the integration of the rain garden which is four to five feet wide. Many of the mature trees that exist along this corridor have been preserved in the final plan. Looping gravel trails have been added to provide visitors visual access to the fenced upper edge of the rip-rap shoreline. Existing covered picnic table structures will be replaced and relocated, one of which will be located in close proximity to the ADA parking stalls and bus drop-off.

7. Western Point

Minimal development is proposed in this area at the far west end of the site. Small improvements are proposed for this area to accommodate the interpretive and educational needs of recreation users. Use of this point, which is currently not a functional component of the SRA, will help to link it to the rest of the site while protecting the natural resources of this area. Improvements include unpaved trails, interpretation, and a Far West Viewpoint and interpretive feature, which is discussed in more detail in Section 3.3 (pgs. 37-38). Removal of invasive species and enhancement of the natural environment through restoration will provide a natural wooded location adjacent to the river, providing visitors who walk to this more remote location a more serene experience than that of the SRA itself.

3.3 INTERPRETIVE FEATURES

Today, the Dismal Nitch SRA provides a place for remembrance of the amazing feats of the Corps of Discovery, and those desperate days that almost put an end to their journey only a short distance from the Pacific Ocean. This site remains a key element in the story of the Corps of Discovery. Now, as part of the Lewis and Clark National Historic Park, the Dismal Nitch SRA is poised to become a critical gateway element for historical tourism.

The site is part of a grouping of locations significant to the Corps of Discovery that comprise the Lewis & Clark National Historic Park. Each interpretive and recreational site have been designed to stand alone while providing a feel consistent throughout the Lewis & Clark National Park. The connection of the site to the Station Camp site, and to Cape Disappointment State Park, as well as to the Saltworks, Fort Clatsop, Natal Landing and other Lewis & Clark related sites needs to be made and reinforced in each location.

Situated as the first major site on the Washington side for those following the westward trek of the Corps of Discovery, this site has a place of great prominence and importance as an element of introduction to the park as a whole.

The site is arranged to present a core of visitor activity directly associated with the SRA building with secondary trails offering additional views and experiences to visitors. This approach provides for several desirable outcomes.

Firstly, the close proximity allows for effective orientation to the site, and to the Lewis & Clark National Historic Park as a broader entity. Secondly, it allows visitors to adjust time spent on site to weather conditions and larger time constraints. Thirdly, the location of the Dismal Nitch Interpretive Feature and amenities and architectural features creates a usage pattern that allows the site to provide areas of activity that are balanced against more contemplative experiences, allowing us to divide thematic content in a way in which the physical nature of the experience is matched to its interpretive content. Key information is placed in the most accessible portion of the site. Secondary interpretive opportunities fan out to utilize the full width of the available landscape, allowing visitors or guides to adjust presentation location and duration to their specific needs.

The less developed west point of the site allows an emphasis on stewardship and the natural environment that opens interpretive opportunities up to discussion of mitigation efforts, invasives, and the impacts of settlement and population on the landscape.

The possible location of a sculptural element depicting a canoe at the Far Western Viewpoint should be considered. This will reinforce the themes of nature and the continued presence and influence of the native peoples on the land. (See Far West Viewpoint)

FAR WEST VIEWPOINT

INTERPRETIVE FEATURES SITE PLAN
FINAL PHASE

INTERPRETIVE ELEMENTS

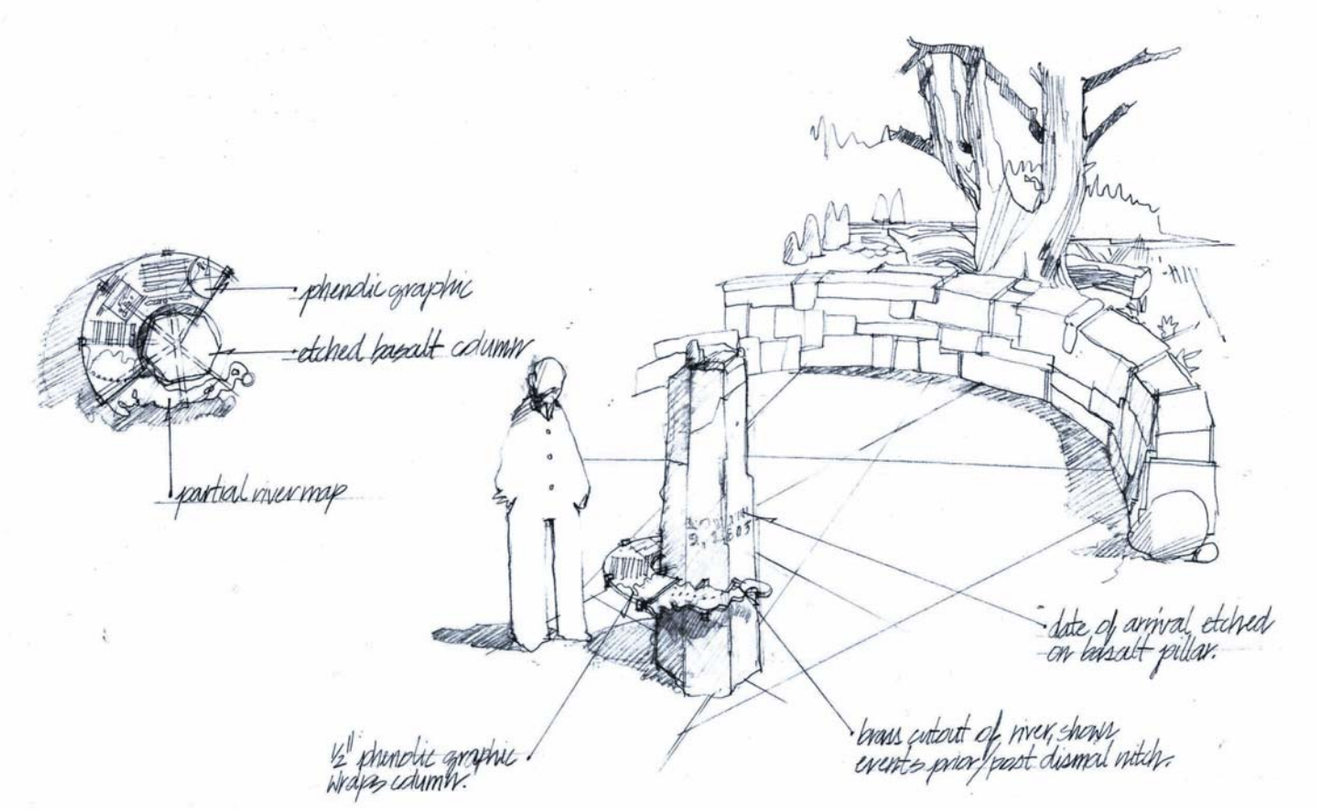
Based around a series of key elements, planning for the Dismal Nitch SRA easily incorporates visible physical elements placed to directly tie to both planned traffic flow as well as probable visitor behavioral patterns. A centrally located anchor feature provides an historical overview of the site, along with a basic list of site amenities. Designed to create a vertical element recognizable to visitors as a point of interpretation, this initial point of interpretation pairs with anchors located at the east and west end of the site. The central unit provides an opportunity to introduce the site and also offers a direct visual link to other key areas of interpretation on site.

Use of tactile elements within these components offer opportunities for low level interactions that can provide the basis for other guided activities intended to expand their interpretive potential.

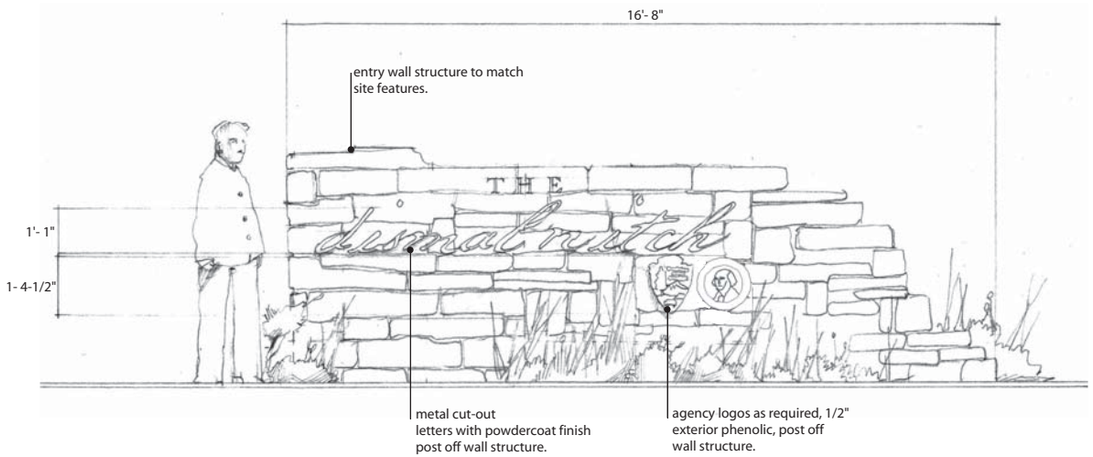
Secondary anchor units allow views up and down the river and provide a natural tie-in to the activities of the Corps of Discovery both before and after their experiences at Dismal Nitch. Cast elements show the shape of the river and provide tactile opportunities to trace its course. (See Anchor Feature) Symbols used by the Corps to show campsites and villages can be incorporated into this map element, with a simple key providing meanings and allowing for expansion of interpretation at both the east and west anchors to include other historical uses of the site and of the surrounding area. If desired, the river relief might be rendered in a way where rainwater can flow through the unit.

Additionally, the basalt used to create the vertical element shown in these units can also provide an opportunity to incorporate tactile features such as etched plant life or salmon, or it could serve as a place to incorporate artwork designed especially for the site by local artisans or tribal members.

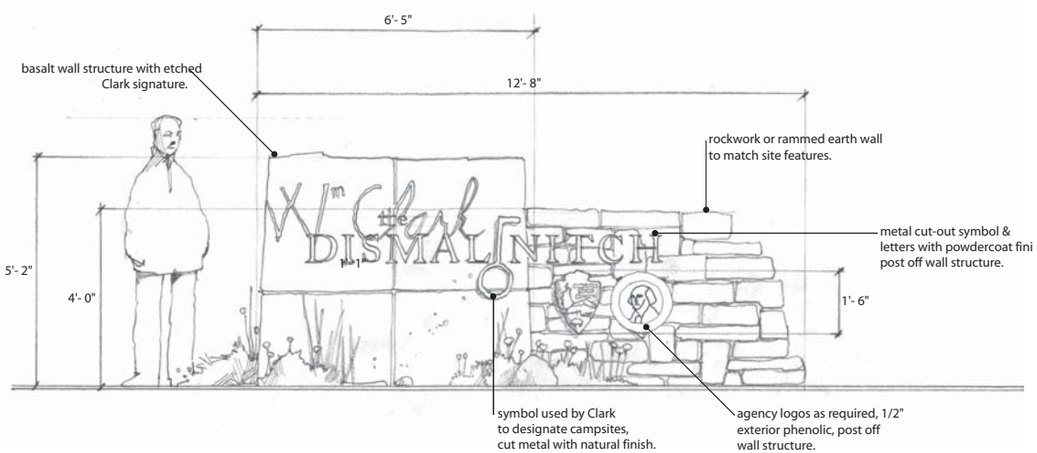
An entry sign that would incorporate the materials of the site would introduce the visitor to the park-like setting of the SRA (See following page).



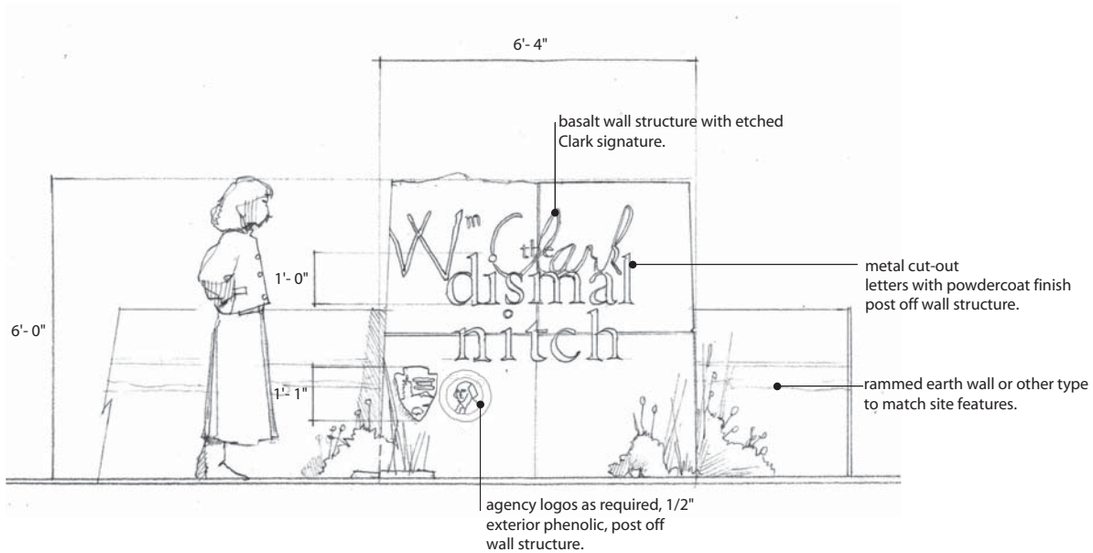
ANCHOR FEATURE



ENTRY SIGN- OPTION 1



ENTRY SIGN- OPTION 3

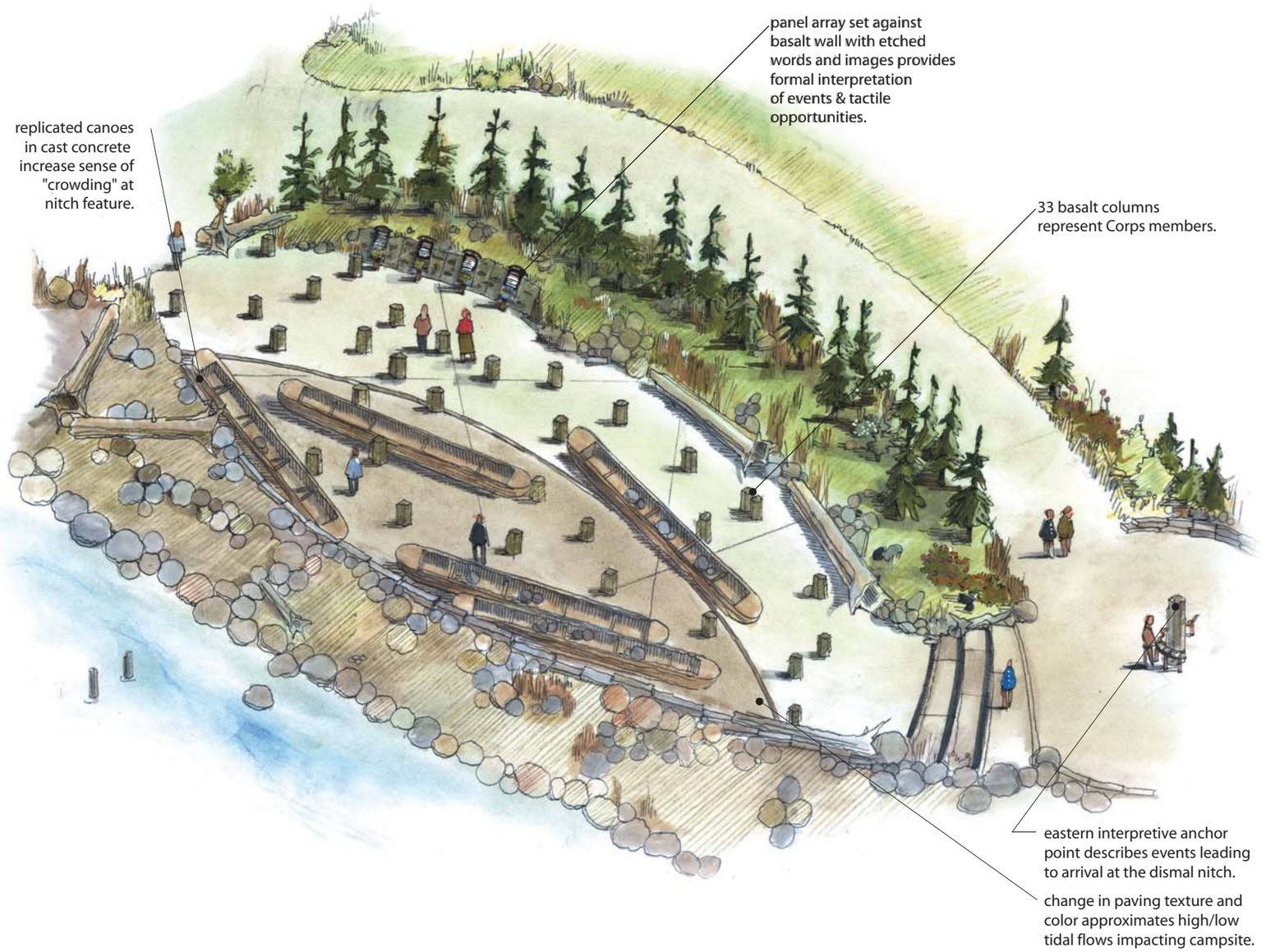


ENTRY SIGN- OPTION 2

The Dismal Nitch Interpretive Feature

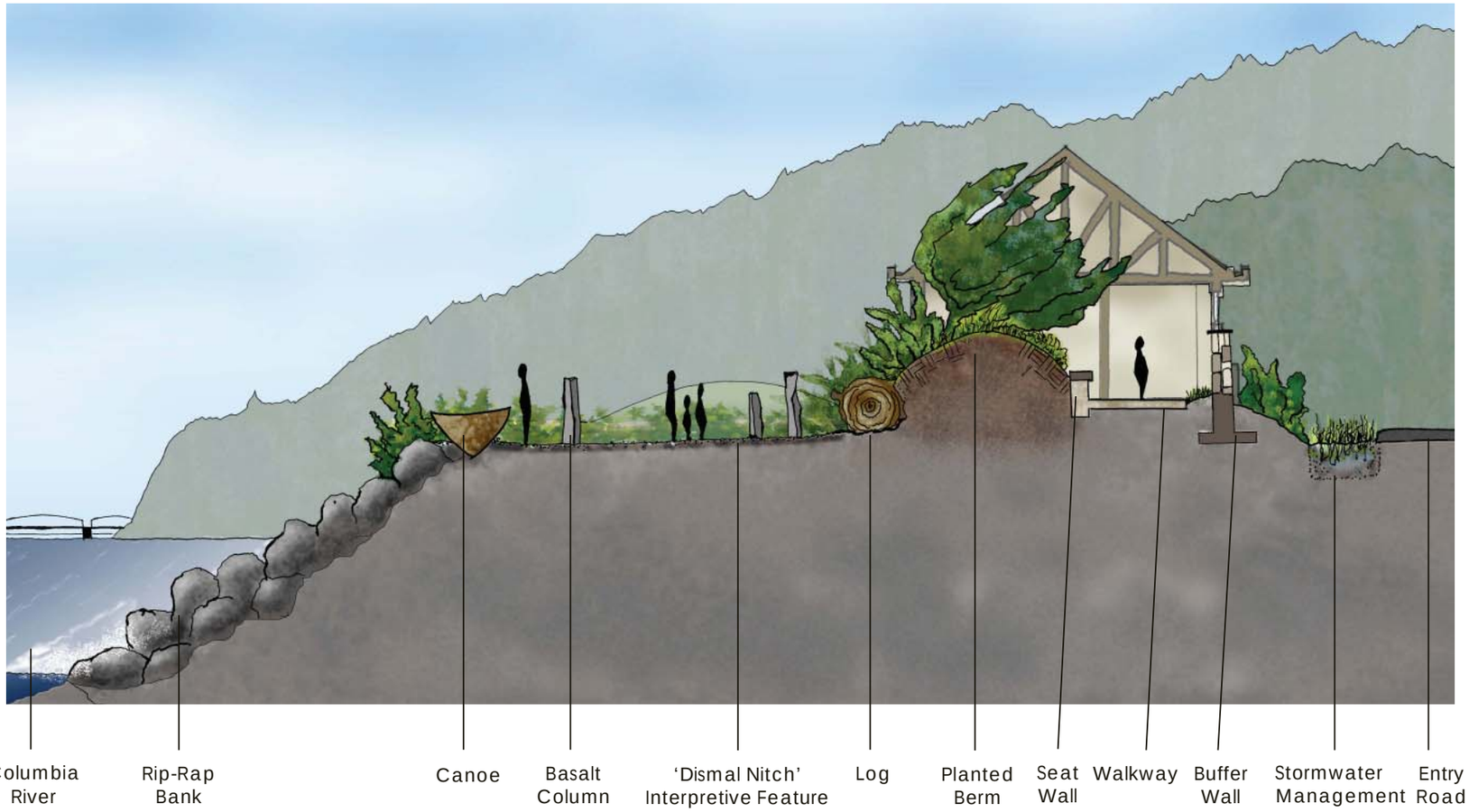
This feature is intended to evoke the tight quarters in which the Corps of Discovery was constrained in November of 1805. Columns representing the members of the Corps combine with sculptural pieces depicting the dugouts used by the Corps to navigate the Columbia. Changes in ground surface color and texture suggest how the Corps' temporary camp was impacted by the tides. An area dedicated to a more formal telling of the four days spent at this site provides an historical accounting of the events that took place here using the words of the Corps' itself, as well as text and images intended to provide a clear overview.

A backing component of basalt panels set into the berm provides an opportunity for showing plants associated with the site, some of which are referenced directly in the journals, as well as etched images of river species and key words describing the environment in the Chinookan language.



DISMAL NITCH INTERPRETIVE FEATURE

Detailed Cross Section Through Dismal Nitch Interpretive Feature



Other Elements

Consideration should also be given to the use of locally produced art elements as part of the interpretive program. These could take the form of a decorative screen or column wraps associated with the planned architecture. Another possibility would be to emphasize the "gateway" aspect of the site through a piece combining the work of several artisans to create a feature at the central hub that references the overarching themes found within the National Historical Park, possibly combining them into a structure similar to the Astoria column.

The approach to interpretation described above is intended to create a dynamic environment for discovery that will encourage exploration throughout the sites falling within the Lewis & Clark National Historic Park. By blending straight forward interpretation with evocative moments and opportunities for contemplation, the master plan goal is to create an environment rich with meaning and history that will serve visitors of all ages and backgrounds for years to come.

3.4 CONFIGURATION OF DISMAL NITCH

The final construction phase of the SRA Master Plan for Dismal Nitch develops the primary feature area at the east end of the site. Included in the feature area are the Restroom/Information Center building, the re-creation of the Dismal Nitch Interpretive Feature, the Eastern Viewpoint. In addition there is landscaping, paving, walls and fencing, as well as parking and a bus drop-off.

This feature area is planned for the east end of the site to maximize convenience and take advantage of high visibility. A curvilinear entry road is identified and marked by a gateway sign, from which the road partially circles the feature area to the parking beyond. This has the effect of naturally slowing the entrance traffic, and making visible both sides of the area to improve safety.

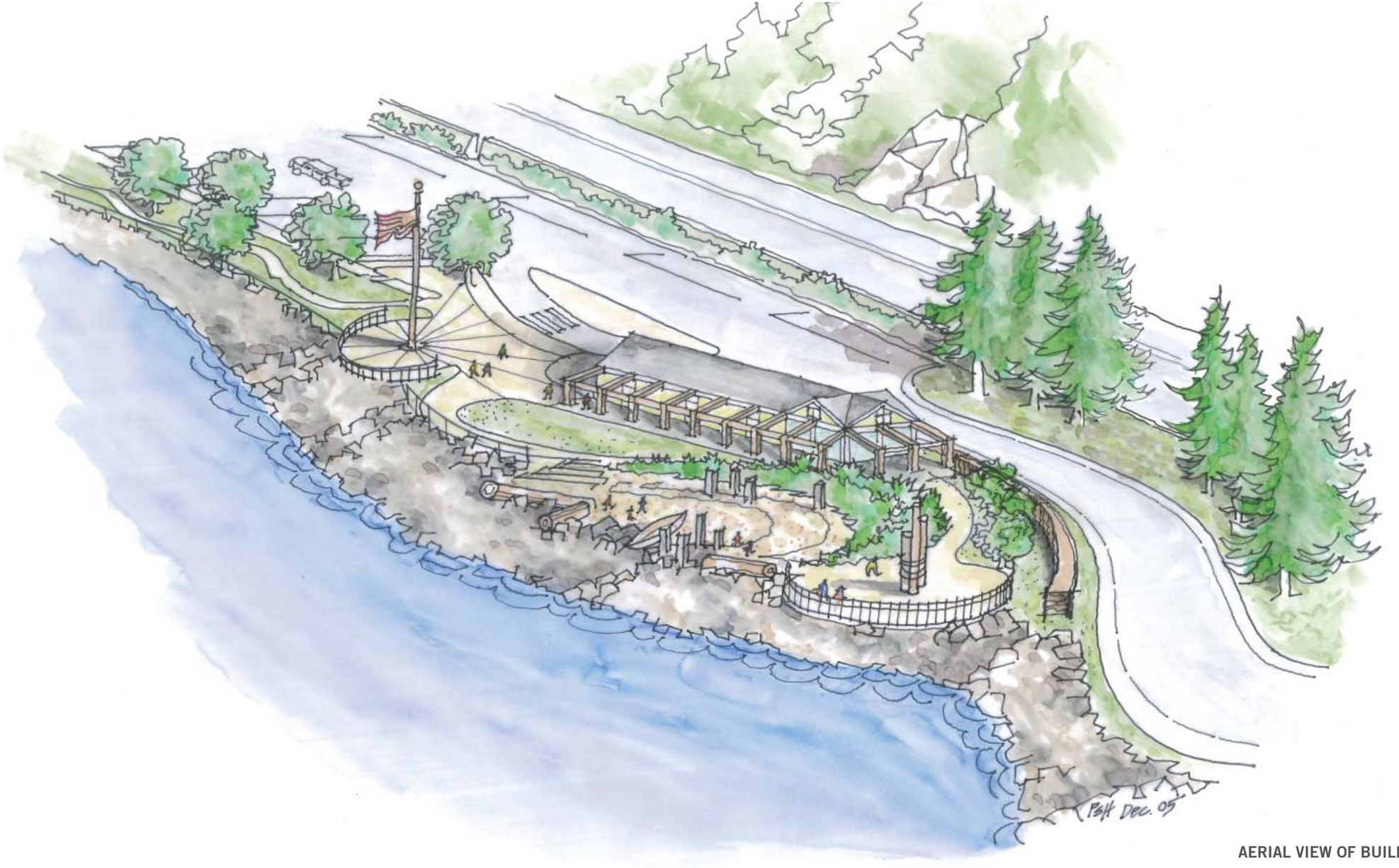
The site plan calls for a Restroom/Information Center that opens out to the magnificent view of the Columbia River, across the Gathering Place. The building backs up to the entry road, creating a sound wall that partly mitigates the highway noise from SR 401.

Beyond the building is the Dismal Nitch Interpretive Feature, a sculpted bowl of land and rocks, trees and sculpture. Like the Dismal Nitch itself, it is a confined outdoor space open to the view and open to the weather that tormented the Corps of Discovery.

Beyond the Dismal Nitch Interpretive Feature is the East Viewpoint, a circular plaza that captures the view upriver to Pillar Point. Raised up a few feet by a gradual ramping of the path, the viewpoint is perched over part of the river embankment to maximize the sense of looking out to the view. We imagine this place as a rallying point for tour groups, families, or individuals starting a tour of the site. They would visualize the points upriver from which the Corps of Discovery came in their canoes, and the tour group would move downriver to the west, following Lewis & Clark to the Pacific. Moving through the Dismal Nitch Interpretive Feature, the tour group would follow the River View Walk to the Western Interpretive Trail, a more natural area, and far west viewpoint, with the ocean almost in view.

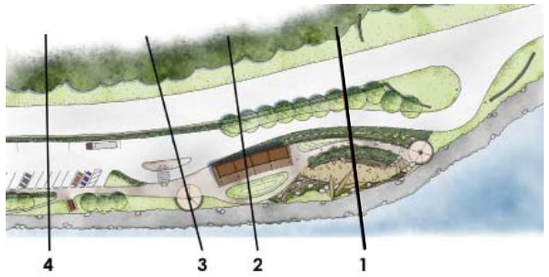
Rounding out the feature area is a bus drop-off and an entry plaza with a flag pole. Protected by a landscaped island, arriving bus passengers move safely into a circular entry plaza inscribed with the points of the compass in the pavement for orientation and a first big view of the river. Nearby is the restroom and information center building, with services and amenities for the traveling public.

BUILDING SITE PLAN

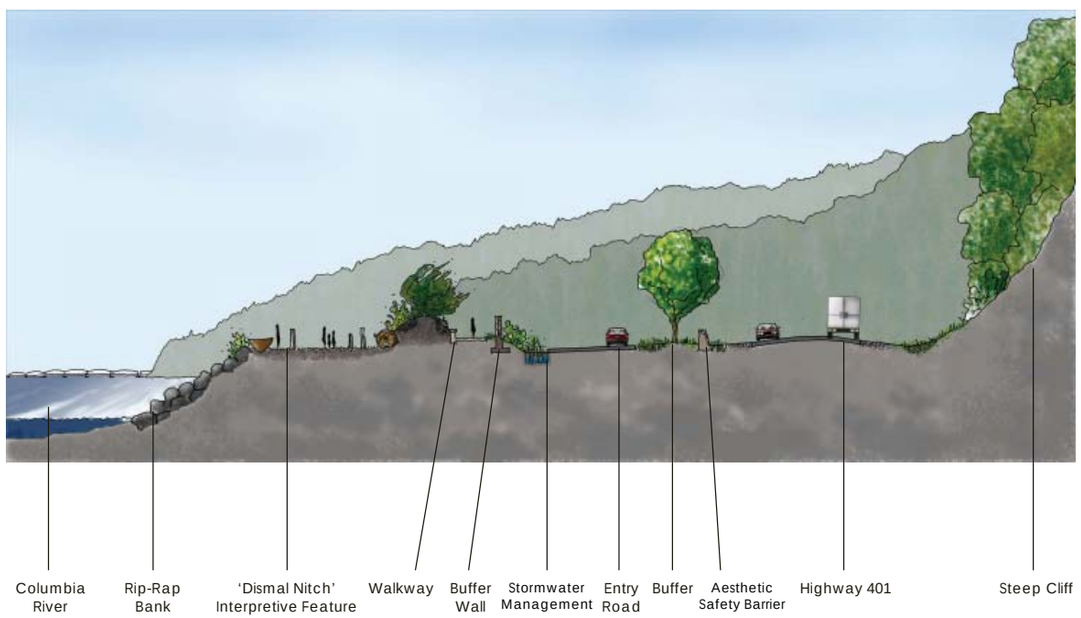


AERIAL VIEW OF BUILDING SITE

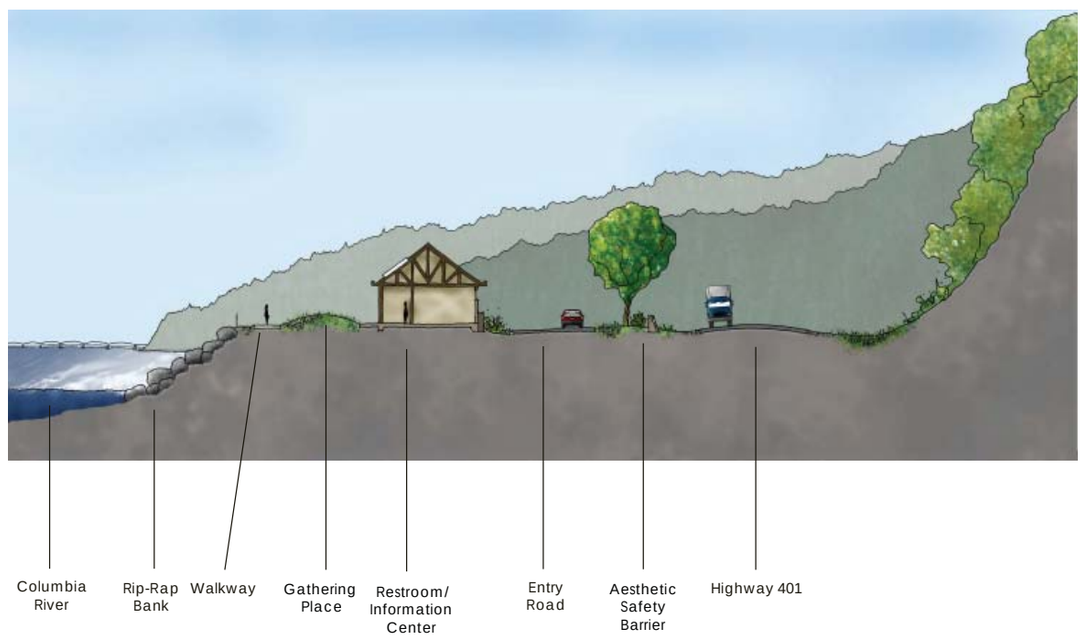
Site Sections
These sections illustrate the relationship between the shore, the site and the highway through various points in the central area. These are shown in the order in which the visitor experiences the site.



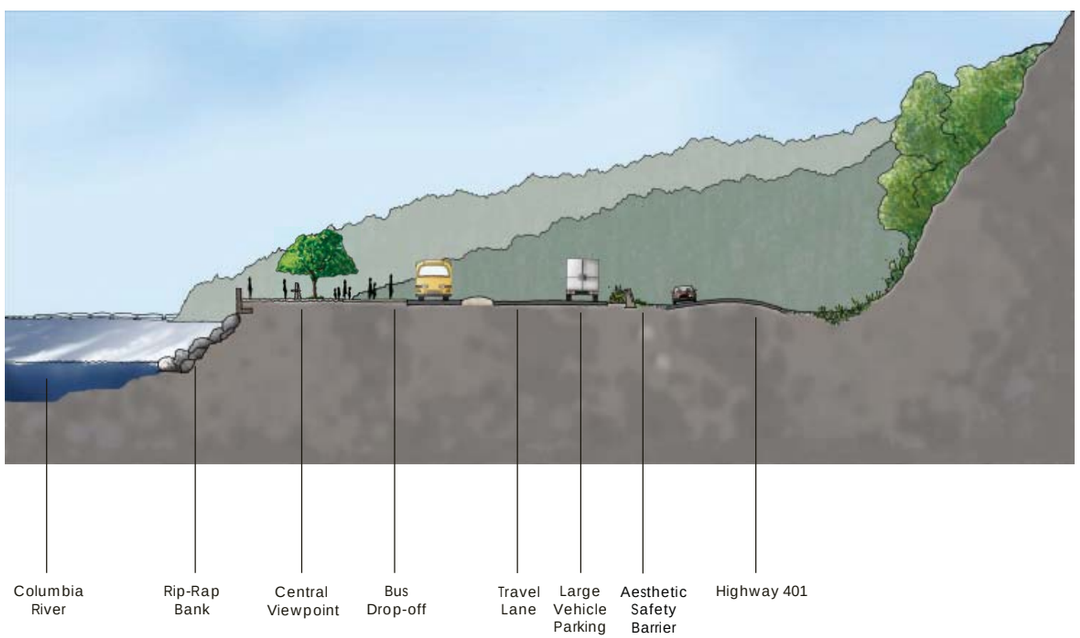
1 - Section Through Dismal Nitch Interpretive Feature



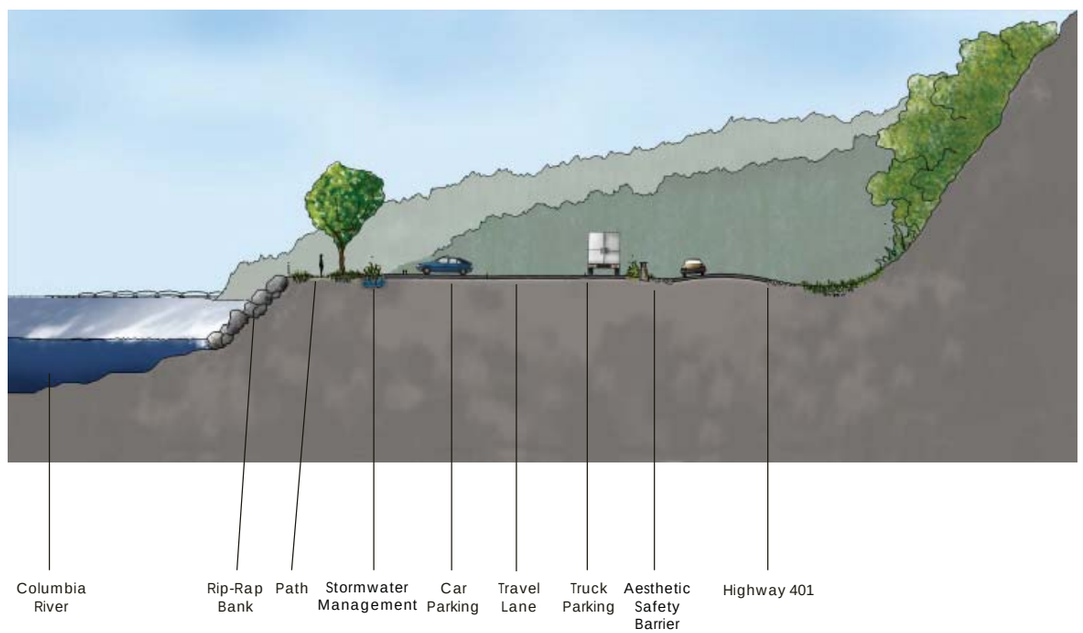
2 - Section Through Information Center



3 - Section Through Bus Drop-off & Central Viewpoint



4 - Section Through Parking Area



3.5 SAFETY REST AREA & RESTROOM/INFORMATION CENTER

Travelers arriving at the SRA will pass by the main feature area prior to parking. Walking past the entry plaza and arrival/basic information signage, visitors will find the restrooms conveniently located. Just beyond will be an information center for both the National Park and for Pacific County.

Information signage for the site, and mapping for the National Park will be displayed in an open roofed outdoor space (g). The Pacific County Information Center depends on brochures, and needs to be planned flexibly so that it can be manned when appropriate, or unmanned, or secured as needed and as funded by the county. An additional possible use for the area is a free coffee station operated by local volunteers, similar to those seen in other WSDOT Safety Rest Areas.

Because of the indeterminate nature of the program for the Information Center, it has been designed as a flexible multi-use space (f) with an ample roofed outdoor space connected to it. Some additional power and utilities will be provided to serve future unanticipated needs. The roofed outdoor space has a valuable function as a place of shelter in inclement weather for small tour groups and individuals.

Design standards and fixture counts have been provided by WSDOT as a recommendation for this phase of the project only, and as a standard for the purposes of budgeting. The planning meets ADA requirements. All of the restroom fixtures are backed up to wide service chases, providing ample access to the plumbing for maintenance, and fixtures will be “standard or equal”. In our design, the adjacent maintenance room (c) doubles as a service access zone.

Program Description

a. Men’s Restrooms — approx. 180 sf

Provide two stalls, one urinal, two sinks with hot and cold water, two hand dryers, two soap dispensers, two mirrors, floor drains, a lockable hose bib and a lockable electrical outlet. Partitions should be leather-grained stainless steel. Non-ADA stall width standard shall be 36 inches on center. ADA stall shall be full width of restroom. In addition, a wall-mounted baby changing station shall be provided and can be located within the ADA stall. Walls and floors should be finished with ceramic tile or other durable, nonporous material. The restroom shall be designed to meet the latest ADA guidelines.

b. Vending Area

A secured covered space for two vending machines, complete with power, recycling and trash receptacle should be incorporated into the building design.

c. Mechanical / Janitorial Service Area — approx. 150 sf

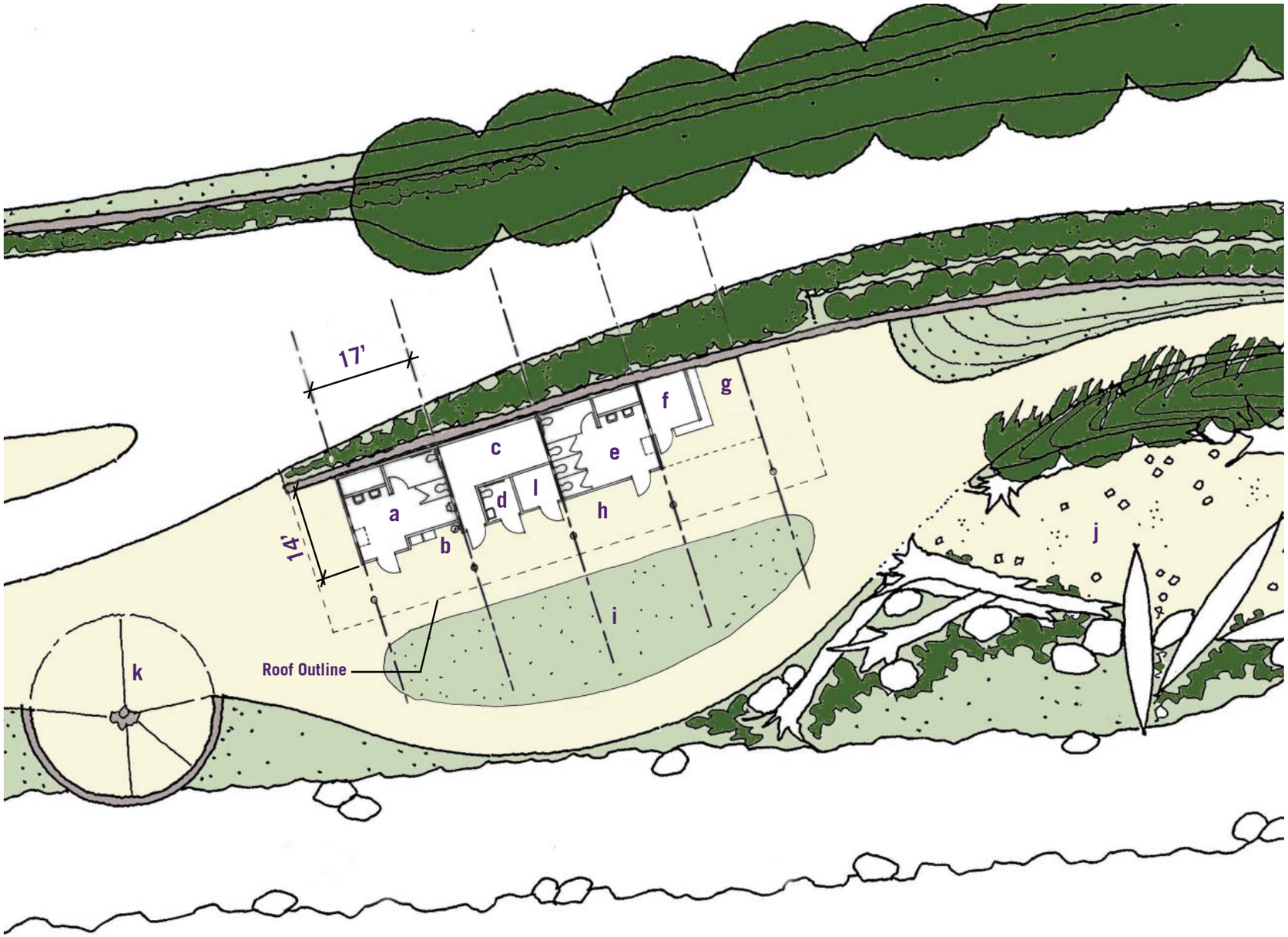
Janitorial is combined with mechanical room. Space shall contain a service sink with hot and cold water, a mop holder, a floor drain and a phone jack. Fifteen linear feet of 16” deep storage shelving shall be provided. Walls shall be painted CMU or other durable construction. Floors may be concrete. For mechanical, provide adequate space for the HVAC handlers, hot water heater, a telephone jack, irrigation controls, and electrical panels. Walls shall be painted CMU or other durable construction.

d. Assisted Use Restroom (unisex) — approx. 50 sf

This will contain one stall, one sink with hot and cold water, one hand dryer, one soap dispenser, one mirror, one sanitary napkin disposal receptacle, a floor drain, a lockable hose bib and a lockable electrical outlet. All hardware must be stainless steel. All fixtures shall be installed to meet the latest ADA Guidelines. In addition, a wall-mounted baby changing station shall be provided. Walls and floors should be finished with ceramic tile or other durable, nonporous material.

e. Women’s Restrooms — approx. 200 sf

Provide four stalls, two sinks with hot and cold water, two hand dryers, two soap dispensers, two mirrors, floor drains, a lockable hose bib and a lockable electrical outlet. A sanitary napkin disposal receptacle is required near each stall All hardware must be stainless steel. Partitions should be leather-grained stainless steel. Non-ADA stall width standard shall be 36 inches on center. ADA stall shall be full width of restroom. In addition, a wall-mounted baby changing station shall be provided and can be located within the ADA stall. Walls and floors should be finished with ceramic tile or other durable, nonporous material. The restroom shall be designed to meet the latest ADA guidelines.



f. Multi-Use Space / Information Center — approx. 200 sf

Includes power, lights, and potential storage for brochures and space for information assistance. Needs visibility to the site for security.

l. Crew Space — approx. 50 sf

Space shall contain a desk, phone and cable jack, electrical outlets, a bar sink and counter. Accommodate for storage. Visibility to site for security, specifically to restroom entries.

CONCEPTUAL BUILDING PLAN
ORGANIZATION
LEGEND

a. Men's Restroom
b. Vending / Drinking Fountains
c. Mechanical / Janitorial Service Area
d. Assisted Use Restroom
e. Women's Restroom
f. Multi-use Space/ Information Center
g. Outdoor Multi-use Space/ Information
h. Porch/ Covered Area
i. Gathering Area
j. Dismal Nitch Interpretive Feature
k. Central Viewpoint
l. Crew Space

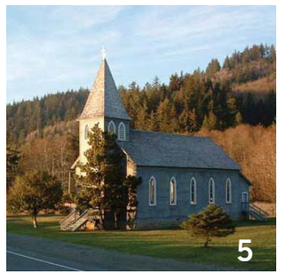
Architectural Character

The design of the buildings and the interpretive features at the Dismal Nitch SRA will grow out of the planning of the site, particularly the orientation of these facilities to sunlight and the expansive view of the river. The broad roofed area described previously is also planned for the south front of the buildings. This veranda is conceived as roofed and glazed, admitting sunlight for daytime brightness and warmth in a climate that is mostly cool.

Architectural style should be consistent with the image and character existing and/or planned for facilities within the new National Park (See examples on opposite page), which encompasses 11 sites in a 40 to 50 mile zone. Taking a cue from locally historic buildings at Fort Columbia plus images of the Megler Ferryboat Landing, the architecture will accommodate pitched and gable roofs, pilings and columns, and porches. Compatible with the imagery of wood frame construction, the buildings will be built in fire resistant materials or heavy timber. This is to achieve an insurable fire rating consistent with the site's distant proximity to the fire station in Chinook.

FORT COLUMBIA STATE PARK BARRACKS

MEGLER FERRY LANDING / RAILROAD DEPOT



NATIONAL PARK AND REST AREA EXAMPLES

ARCHITECTURAL STYLES

LEGEND

1. Fort Columbia State Park, WA.
2. Fort Columbia State Park, WA.
3. Fort Columbia State Park, WA.
4. Netul Landing, OR.
5. St Mary's Chapel, Station Camp, WA.
6. Mt Rainier National Park, Longmire, WA.
7. Bryant House, S. Mockbee, MS.
8. Washington Pass Rest Area, WA.
9. Washington Pass Rest Area, WA.
10. Washington Pass Rest Area, WA.
11. San Juan Island, Restroom, WA.
12. Bayview Corner Restroom, Whidbey Island
13. Hammonasset State Park, Pavillion, CT.
14. Hammonasset State Park, Restroom, CT.
15. Olympic National Park, Port Angeles, WA.
16. North Cascades National Park, Porch, WA.
17. Chitna Rest Area, AK.
18. Linn County Rest Area, OR.
19. Paris, Public Restroom
20. Zion National Park, UT.
21. Zion National Park, Solar Array, UT.
22. Zion National Park, UT.
23. Zion National Park, Interpretive Display, UT.
24. Solar Crest, Restroom

3.6 SUSTAINABILITY: GOALS & SYSTEMS

The State of Washington has a strong interest in site and architectural sustainability, as evidenced in recent legislation and Executive Orders from the Governor. This project and this site present a good opportunity to incorporate sustainable practices in the design of the site and its future structures.

Also, it was evident during public involvement that there is support for the State's program of sustainable practices for the Dismal Nitch SRA improvements.

The governing rating system for sustainable site and building development is LEED (Leadership in Energy and Environmental Design). This rating system was developed by U.S. Green Building Council (USGBC) to "certify" buildings that achieve a certain level of sustainability. This project has the potential for this certification with the proper sustainable approach.
As is stated in the LEED Reference Guide, this approach:

> "...strives to balance environmental responsibility, resource efficiency, occupant comfort and well-being, and community sensitivity..."

Options for sustainable practices include photo-voltaic (PV) panels. They could supply a portion of the site's electrical needs, but would need to be supplemented with other sources of power during various times of the year. Investments in sustainable elements, like PV panels, will be considered in the final design phase, as these technologies are constantly evolving in efficiency and cost-effectiveness.

In this Master Plan we would be premature in determining a specific sustainability program for the site and the buildings, but the agency partners can recommend some general principles.

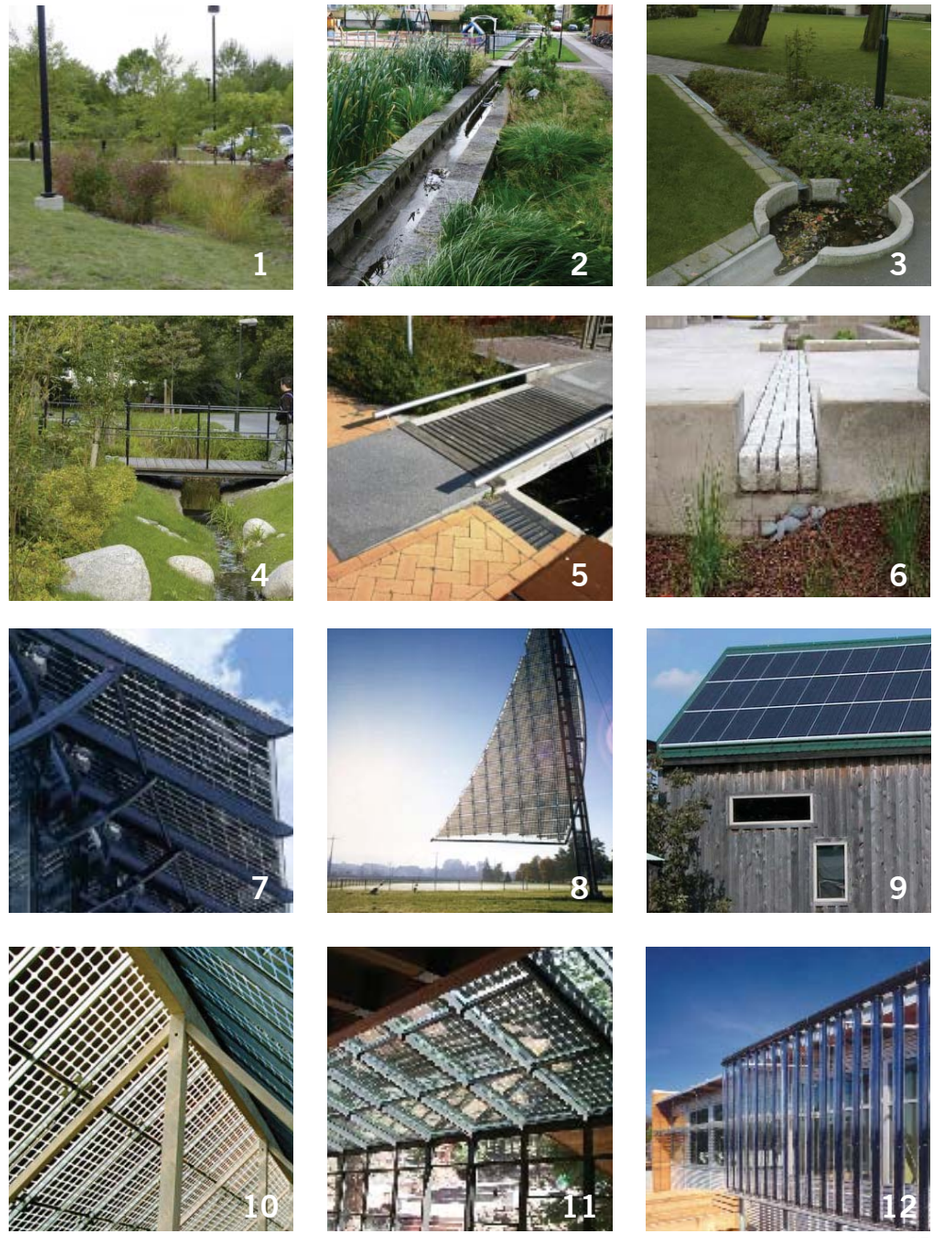
Site Sustainability

Minimize impervious surfaces

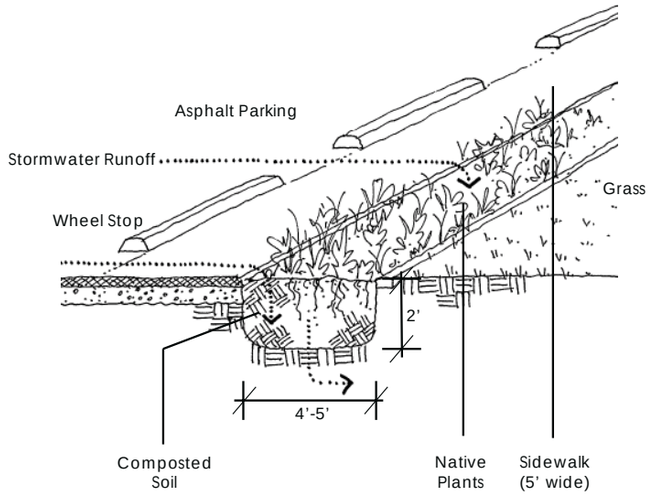
The asphalt parking lot, travel lanes, and entry/exits at the SRA have been re-designed and engineered to reduce their footprint by over 20 percent. This allows the stormwater to filter through vegetation and infiltrate through soil instead of picking up parking lot pollutants and draining directly into the Columbia River.

Minimize disturbance of natural areas

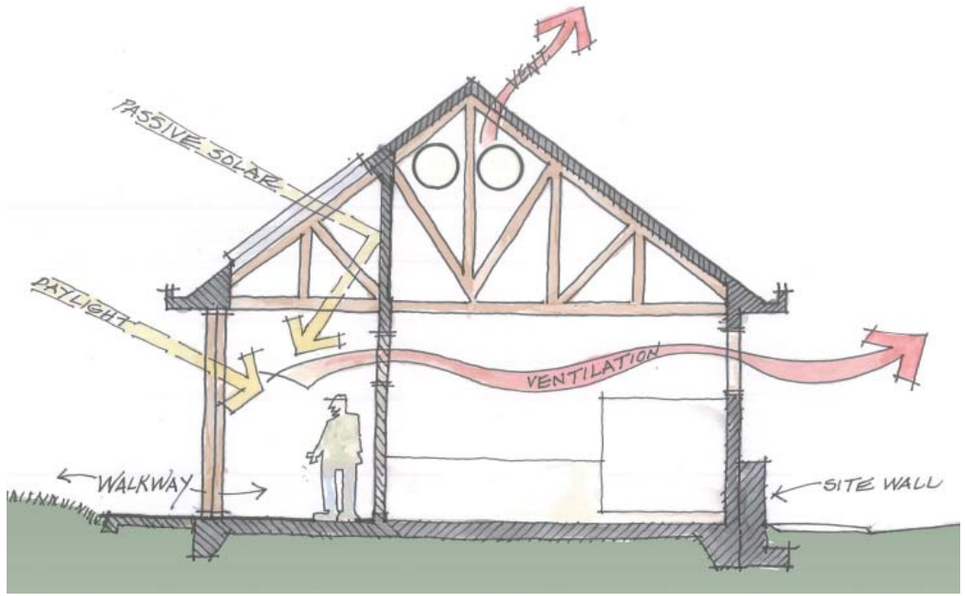
The western point is currently undeveloped as part of the SRA. Minimal development in this area includes improvements to accommodate recreation users. These improvements include unpaved trails, interpretation, and a viewpoint. No parking or structures are proposed for this area. Removal of invasive species and restoration plantings will enhance this area as well.



SUSTAINABLE DESIGN
FEATURES
LEGEND
1 through 6: Stormwater Site Design Images, 7 through 12: Solar / Photovoltaic Building Integration Images



STORMWATER MANAGEMENT DIAGRAM



BUILDING SECTION

Treat stormwater run-off

Landscape planting beds are designed to accommodate stormwater run-off in order to filter pollutants and toxins from the water, resulting in better water. (See Stormwater Management Diagram) They contain composted soil and specific plants that meet the requirements of the soil moisture conditions, which range from seasonally saturated to mostly dry. Rainwater falling on the impervious paving of the parking lot will flow to the stormwater treatment area (adjacent to the parking area) instead of the catch basins, which have been conveying stormwater from the parking lot directly to the Columbia River by pipe. Stormwater treatment design will be in accordance with the 2004 Highway Runoff Manual and Ecology's Stormwater Manual.

Use native plant species

Native plants are those that occur naturally in a given region. There are a number of reasons to use native plants at this site. Native plants are adapted to growing in the region's soils and climate requiring less maintenance and irrigation than do non-natives species. Native plants often attract a wider variety of native animals, such as birds and insects, than do exotic plants. There is also an educational and interpretive opportunity- native plants are the species that Lewis and Clark encountered and used during their expedition in this area.

Use local stone, gravel, and natural landscape materials

These materials should be obtained from local sources and quarries to limit delivery costs and limit the energy expended to haul materials to the site. Aesthetic consistency between the site and surrounding landscape is often achieved by using local natural materials.

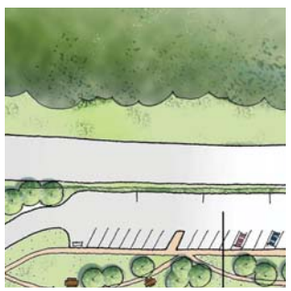
Use sustainable materials in site furnishings

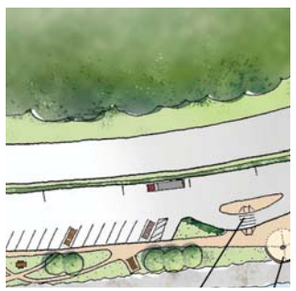
Whenever possible, site furnishings should be manufactured with recycled materials or be of the quality that the usable life-term of these amenities is significant, minimizing frequent maintenance and replacement. Regionally produced materials and rapidly renewable materials should also be given consideration.

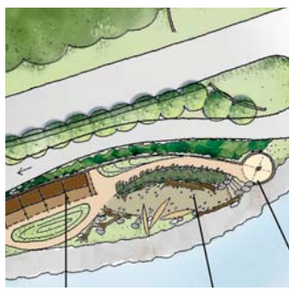
Building Sustainability

Natural Ventilation

The restroom and information center lends itself to natural ventilation, and the site is positioned to receive breezes from the river. (See Building Section to the left)







“About 3 oClock the wind lulled, and the river became calm, I had the canoes loaded in great haste and Set Out, from this dismal nitch where we have been confined for 6 days passed, without the possibility of proceeding on, returning to a better Situation, or get out to hunt, Scerce of Provisions, and torents of rain poreing on us all the time.”

- Capt. William Clark, Nov. 15, 1805

4.1 PHASING PLAN

The purpose of the phasing plan is to stage the funding and construction of this project in affordable increments. It could potentially take 10 years to develop the completed Master Plan including all site development, buildings and interpretive features as specified in this document. Nevertheless this is a small project by many standards, taking full advantage of an existing site and developed landscape. The anticipated phases can be identified as follows:

Phase I, Water System Replacement, Master Plan Design, Land Protection Acquisition

Phase I incorporates current activities to prepare the project for development, including the acquisition of land, creation of this Master Plan and the provision of a year-round reliable water supply system for the current and future safety rest area.

Phase II, Western Interpretive Trail and Fencing, Entry Sign

Phase II will construct the Western Interpretive Trail to the Far Western Viewpoint, opening a new and attractive natural area of the site for visitation. A new entrance gateway sign to stimulate local public interest and a sense of something coming in the future, related to the National Park as well as the SRA.
(See Site plan, pg. 52)

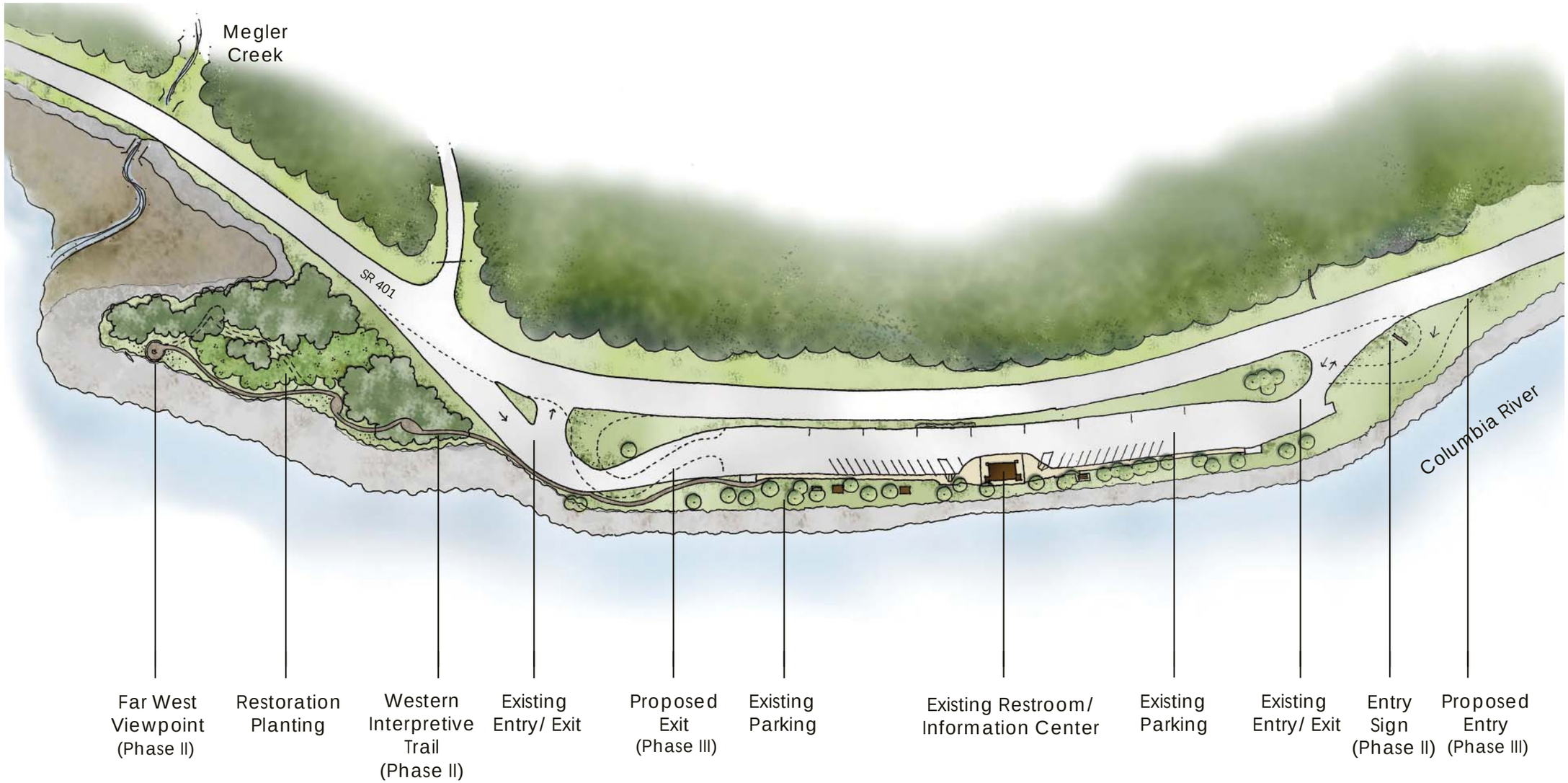
Phase III, Roads, Parking, Landscaping, Fencing, Sewer

Phase III will develop the basic bones of the site with parking, entry, safety and landscape improvements to gain the most value and impact within a very limited budget. Relocate entry and exit roads, reconfigure parking layout, implement final storm water management strategies, trails, and relocate sewer septic system.

Phase IV: Restroom / Information Building and Dismal Nitch Feature

By developing the Restroom / Information Building and the Dismal Nitch Feature together, the final construction activities that complete the project occur together at the east end of the site. This may allow portions of the remainder of the SRA to function if needed during construction.

(Refer to Section 4.3 for Project Budget)



SITE PLAN
PHASE II: Western Interpretive Trail and Fencing, Entry Sign

National Park-Like Aesthetic

This chapter of the Master Plan is meant to define an acceptable level of quality for the construction of the architectural and landscape components in the Dismal Nitch rest area. These design standard recommendations will guide the budgeting for construction to an acceptable level of quality, but these standards are not meant to be comprehensive and do not cover every element of the project.

Agency Collaboration

All the partnership agencies are committed to creating a park-like setting at this SRA. WSDOT and NPS will work closely together to achieve both the NPS design guidelines and the safety issues of a SRA.

An example of a successful collaboration is the Fort to Sea pedestrian underpass to Hwy 101. Oregon Department of Transportation (ODOT) and NPS worked together to turn the utilitarian underpass into a more park-like feature. This was achieved by ramping the approaches up to keep views of greenery on both sides, stone-like veneer on the walls and adding a site sign to the concrete header. This underpass is a backdrop to many photos taken at the site (See Underpass photo).

Building

Systems Aesthetics

Materials are proposed that create a National Park-like setting as well as the performance standards while meeting SRA design standards. We interpret this to mean the use of natural materials like stone and timber, as well as the previously described design goals described in “Architectural Character”. The desired character also will be reinforced by appropriate detailing, color and texture of the materials selected.

Systems Performance / Quality

The Dismal Nitch SRA is exposed to harsh weather including wind driven rain, salt spray, and occasional high winds. Lewis & Clark experienced all of this and more, including hail. High winds and high tides can cause localized flooding, from the salty water of the Columbia River estuary.

The buildings are public and subject to vandalism. Materials systems, toilet partitions, restroom finishes and fixtures, electrical outlets, switches and light fixtures, doors and hardware and window systems all need to be designed for durability and reliable performance, low maintenance, and resistance to salt water, high humidity and bugs. Design should emphasize simplicity of systems and elimination of electronic or motorized devices or controls in favor of natural ventilation and passive systems.

Graffiti resistance and scratch or impact resistance needs to be considered in the materials selection. This can mean durable, cementitious materials, and/or painted systems that can be repainted to cover graffiti.

As mentioned earlier, the buildings should be constructed of fire resistive materials.

Example of Aesthetic Treatment of Transportation Structure

FORT TO SEA TRAIL UNDERPASS-LOCATED NEAR ASTORIA, OREGON. THIS TRAIL CONNECTS FORT CLATSOP MEMORIAL TO SUNSET BEACH.

Materials Guidelines for the buildings:

Building structure and roof deck

Heavy timber construction

Roofing

Standing seam metal roof with compatible trim and gutters.

Wall systems Alternate 1

Metal stud and 5/8 gypsumboard both sides, insulated, with cement plaster exterior finish, painted. Concrete base finished with stone veneer on the exterior will be used in selected areas.

Wall systems Alternate 2

Concrete tilt-up walls with textured exterior finish to match texture of wood siding, painted, insulated, with interior gypsumboard on furring channels. Stone veneer on concrete exterior walls may be used in selected areas.

Windows, Doors and Frames

Galvanized hollow metal frames, doors, fixed windows and louvers. Products to be manufacturers standard, suitable for marine environments.

Restroom finishes

Ceramic tile floors & walls per the attached guidelines. Epoxy paint wall finish to be used above 6'-0". Fixtures per the attached guidelines.

Site/ Landscape

1. Vegetation

There are four categories of vegetation proposed for the site including restoration planting, native plant beds, trees, and turf.

Invasive plant species that exist on the western point, such as blackberry, should be removed and the area restored with plant species native to the area. Rain gardens contain composted soil and specific plants that meet the requirements of the soil moisture conditions, which range from seasonally saturated to mostly dry. Species well suited to rain garden moisture regimes include Red-twig dogwood (Cornus stolenifera), Twinberry (Lonicera involucrata), Nootka rose (Rosa nutkana), Slough sedge (Carex obnupta), and Common camas (Camassia quamash).

All planting beds besides the raingardens, such as those surrounding the information center and plaza area, should consist of native plant species. The benefits of using native plant species from a sustainable and educational perspective are discussed in more detail later in the report.

The preferred site concept proposes the addition of large deciduous trees to provide buffer between the highway and entry road. Additional trees are recommended to infill those along the shoreline view area that may be impacted during construction. These trees will provide a sense of shelter but should be placed in a way that does not obstruct views of the river from key viewpoint locations or restrict site visibility for security reasons. The use of conifer trees should be limited so that vehicle sight distances do not become obstructed. Conifers, such as Shore pine, are recommended on the berm adjacent to the Dismal Nitch interpretive feature to create a buffer with some height.

A significant area of the site, primarily adjacent to the entry and exit and along the shoreline, will remain as turf to accommodate pedestrian use and keep views of the river environment open. It is recommended that the 30 to 40 mature ornamental trees (most located along the stretch of land between the parking lot and shoreline) be surveyed by an arborist during the design phase to determine their health and the appropriate protection measures to be taken in order to preserve as many as possible.

2. Site Furnishings

The 1960's-era covered picnic tables should be replaced in like number with covered ADA picnic structures that match the architectural style of the proposed restroom and information center building. Likewise, the character of site elements, such as benches and trash receptacles, should be simple but robust. The design material, and color of site furnishings should be consistent. Site signage, including rules and regulations, could be condensed to minimize clutter.

3. Lighting

It is recommended that the two streetlights on either side of the current restroom building be replaced with a style of light consistent with the look of typical National Park features in the region (See Light Fixture Examples). Site lighting for the parking area, entry, and exit should meet current WSDOT safety standards for lighting without providing any more than is necessary in order to minimize light pollution from this relatively rural location. Illumination at or from the restroom and information building illuminates the surrounding plaza and interpretive viewpoint features adequately so as not to require additional walkway lighting. It is recommended that the western interpretive trail and far west viewpoint not be illuminated.

4. Rails, Fences and Safety Barriers

As stated earlier, WSDOT and NPS will work closely to develop barrier elements that will create both a secure SRA and preserve a park-like setting.

The parking lot is currently enclosed with chain link (3 foot height) fencing which is unsightly and in need of replacement. It is recommended that a barrier system other than chain link be used along the shoreline's rip-rap bank because of the visual focus from the SRA towards the river.

A more decorative barrier rail, such as pipe rail, is recommended (See Railing Example). Pipe rail is a durable, aesthetically pleasing option, frequently used in maritime locations, that can withstand the extreme environmental conditions at the site.

A black, vinyl-coated chain link fencing may be used on the less populated areas of the site (west of the River View Walk and east of the Central Area), which will reduce the cost of a lengthy shoreline barrier. This fencing should be concealed as much as possible with landscaping and other natural elements in these areas.

An existing chain link fencing is used as a barrier between Highway 401 and the SRA parking lot. It is recommended that this fencing be removed and replaced with a custom decorative concrete jersey barrier that meets WSDOT standards.

5. Walkways

We are proposing two types of walkway surface material corresponding to the use-level for that walkway. These materials include asphalt and concrete (for high use), and crushed stone (for medium and low use) (See next page).

High-use sidewalks should either be standard asphalt or specialty concrete. Sidewalks adjacent to the parking area would likely be a continuation of the asphalt parking lot, defined by wheel stops on one side and the rain garden planter on the other. Specialty concrete is proposed for the plaza area starting at the bus drop-off area and extending east around the building to the East Viewpoint. Concrete should be colored slightly to provide warmer, more natural tones consistent with the native rock and soil of the area.

Concrete surfaces within the east and west viewpoint features should be a slightly different tone of the same color used in the plaza area in order to differentiate the significance of these features and to set the ground plane apart from the reset of the plaza. It is recommended that plaza score and expansion joints be placed in a random and criss-cross manner to alleviate the formality of the expanse of hard surface in this area. Inlays and pressed forms (such as vegetation or fish) can provide texture as well as interpretive meaning to the concrete ground plane as well.

Medium and low-use trails and the Dismal Nitch Interpretive Feature should have a hardened surface of finely crushed stone, likely basalt, which is native to the area. The low-use trails will be located on the western point.

These trails will meet current ADA accessibility guidelines with regards to width, hardness, and cross slope. These 'looping' trails provide access from the parking lot sidewalk to the edge of the rip-rap shoreline.

LIGHT FIXTURE EXAMPLE

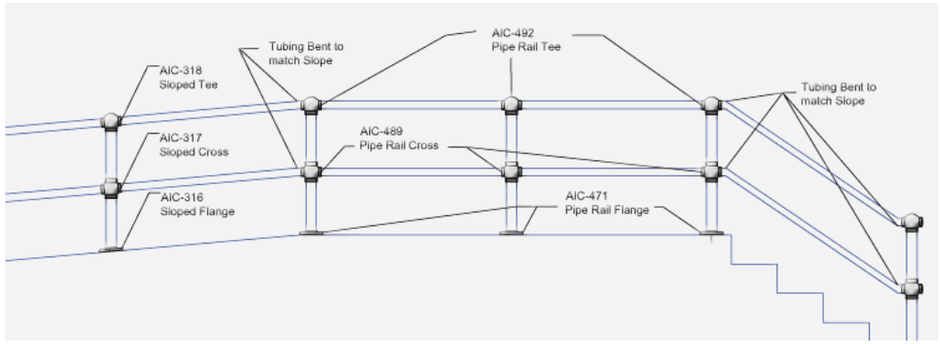
CRUSHED STONE TRAIL

CONCRETE PAVING EXAMPLE (WITH INSCRIBED DESIGN)

LIGHT FIXTURE EXAMPLE

RAILING EXAMPLE

SEATING EXAMPLE



RAILING ELEVATION

4.3 CONSTRUCTION COST BUDGETING

Construction cost ranges for the primary planning components have been developed in a spreadsheet format. The costs are developed for the components as described in the master plan as construction costs only. Costs are then summarized as construction costs in 2006 dollars. The scope of work in Phase 2 is still under review due to budgetary constraints.

Definition of work by phase:

Phase I: Master Plan Design, Waster system replacement, Land protection Acquisition (funded)

Phase II: Western Interpretive Trail and Fencing, Entry sign (funded)

Phase III: Roads, Parking, Landscaping, Fencing, Sewer (unfunded)

Phase IV: Restroom/Info. Building, Dismal Nitch Feature (unfunded)

NOTE: The project phases will be built as funds become available.

Estimated Total Project Cost 2006 Dollars

Phase 1 - Water System Replacement/ Master Plan Design (funded)	
Master Plan	$325,000
Water System Replacement	$265,000
Land Protection Acquisition	$845,000
Phase 1 Total	$1,435,000
Phase 2 - Western Interppretive Trail and Fencing, Entry Sign (funded)	
Design (18%)	$21,850
Construction	
Max. Allowable Construction Costs (MACC)	$121,550
Washington State Sales Tax (WSST) 8%	
+ Construction Engineering (CE) 14%	$26,750
+ Contingencies (4%)	$4,850
Total Construction	$153,150
Phase 2 Total	$175,000
Phase 3 - Roads, Parking, Lanscsaping, fencing, sewer (unfunded)	
Design (18%)	$93,000
Construction	
MACC	$519,000
WSST (8%) + CE (14%))	$135,000
30% Risk	$161,000
Inflation/Materials Escalation	$84,000
Total Construction	$899,000
Phase 3 Total	$992,000
Phase 4 - Restroom/Info. Center, Dismal Nitch Interpretive Feature (unfunded)	
Design (14%)	$131,000
MACC	$935,000
WSST (8%) + CE (14%) + Contingencies (4%)	$243,000
30% Risk	$283,000
Inflation/materials Escalation	$147,000
Total Construction	$1,608,000
Phase 4 Total	$1,739,000
Total Project Costs	**$4,341,000**

*(Total Construction Costs x 1.44)
**Unit price from SEWER REHABILITATION CONCEPT REPORT August 24th, 2005.

4.4 ENVIRONMENTAL PLANNING

Investigation, consultation, and documentation required for a NEPA Documented Categorical Exclusion (DCE) was performed by the consultant team concurrent with the Master Planning process for the Area of Potential Effect (APE).

The APE for the project was defined as those areas in which construction impacts may occur. These areas include the SRA, the proposed septic drain field location, and the proposed well and water line locations. The DCE is a WSDOT and Federal Highway Administration (FHWA) document.

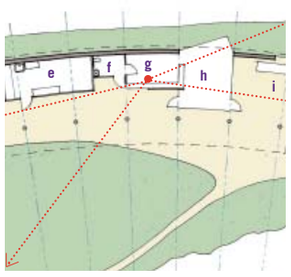
The scope of the improvements proposed for the Dismal Nitch site was such that the threshold for requiring more in-depth documentation, specifically and Environmental Assessment, was not required.

All standard categories of investigation were completed to the level necessary to achieve the categorical exclusion, with the exception of the cultural resources investigation, which was submitted as a separate report to WSDOT for their submittal to SHPO for review and concurrence. Based on the investigation of standard categories, including environmental and biological resources (in addition to the cultural resources already mentioned), the Local Agency Environmental Classification Summary form was completed, which is included in Appendix 6.1. This documentation was submitted to WSDOT for review and acceptance in December, 2005. Archaeological Investigations Northwest (AINW) performed the cultural resource study in October, 2005.

The findings of this report were incorporated into the NEPA DCE. The cultural resource study included literature review, a pedestrian archaeological survey, and subsurface shovel testing within the APE.

AINW's work was done in compliance with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800), and according to the requirements of the Secretary of Interior's Standards and Guidelines for archaeology and historic preservation. WSDOT acted as the Cultural Resources Liaison, contacting the appropriate tribes for comment in compliance with Section 106 as well. AINW completed the Cultural Resource Survey report in December, 2005 for submittal to WSDOT for SHPO review.

A determination of "no historic properties affected" was recommended in the Cultural Resource Survey report, which SHPO concurred with after final review and acceptance. It is recommended that if unanticipated archaeological or historical resources be encountered during project construction, all ground-disturbing activity in the vicinity of the find should be halted and the WSDOT and the SHPO should be promptly notified to assure compliance with relevant state and federal laws and regulations.

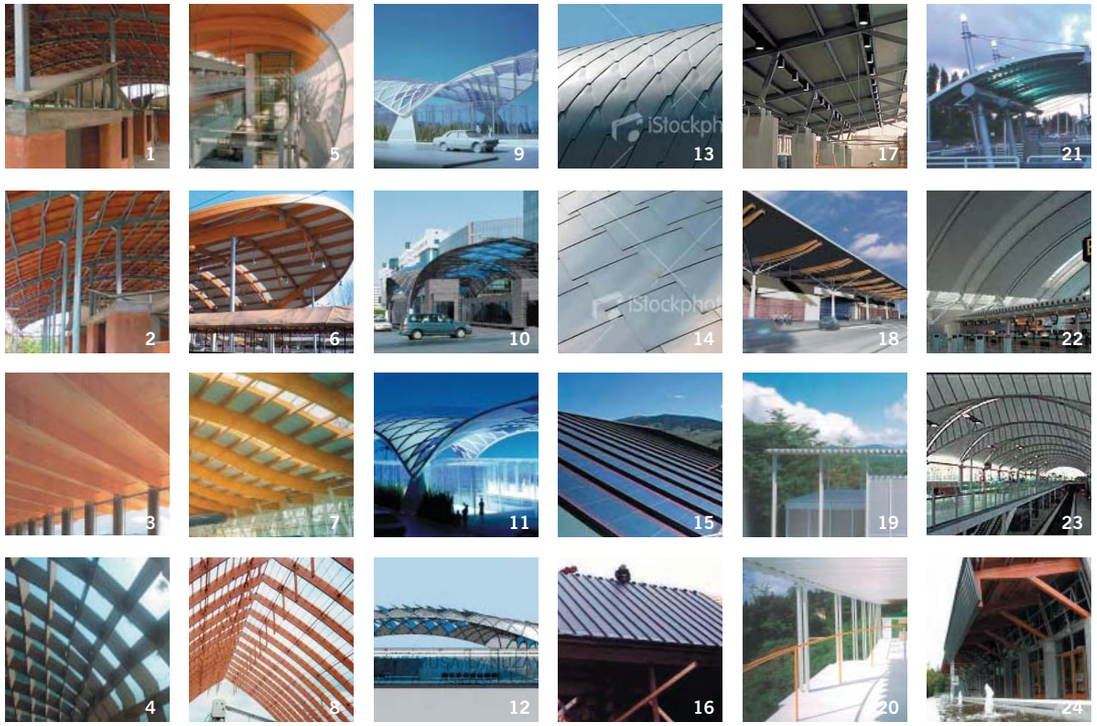


"About 3 oClock the wind lulled, and the river became calm, I had the canoes loaded in great haste and Set Out, from this dismal nitch where we have been confined for 6 days passed, without the possibility of proceeding on, returning to a better Situation, or get out to hunt..."

- Capt. William Clark, Nov. 15, 1805

DESIGN PROCESS BOARDS

In this Appendix we present a visual record of the alternate design schemes presented to the community and the client committee. It is important to note that these were exploratory ideas, and the final design approach is incorporated into the main body of the Master Plan document.



1 Through 2:
Pavilion Roof Above Program Structures

3:
Composite Steel/Wood Beams

4 Through 8:
Curved Glulam Beams

9 Through 12:
Riyadh Station Canopy

13 Through 16:
Roofing Patterns

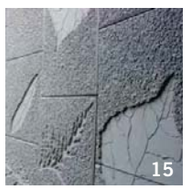
17 Through 24:
Metal Roof Canopies

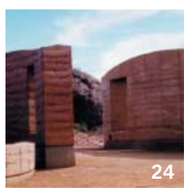
***PAVILION CANOPY** STRUCTURE*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
PAVILION CANOPY,
STRUCTURE

MEETING 11.30.05





1 Through 8 :
Rock Wall Faces

9 :
"Geology" Wall, Winona State University

10 :
Textured Concrete Wall in Natural Setting

11 Through 12 :
Crumbling/Bush Hammered Concrete Walls

13 Through 16 :
Nature Imprints in Concrete Walls

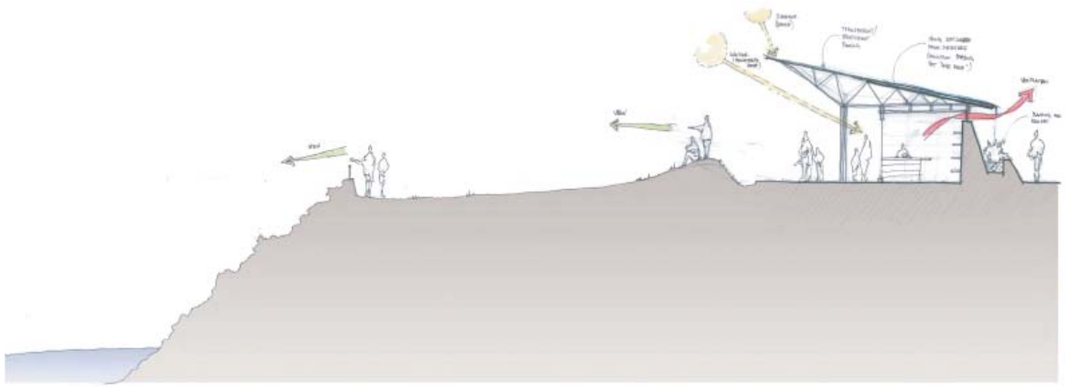
17 Through 24 :
Rammed Earth Walls

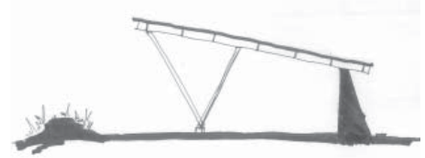
SITE WALL *TEXTURE*

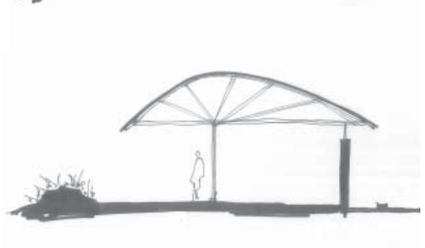
Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

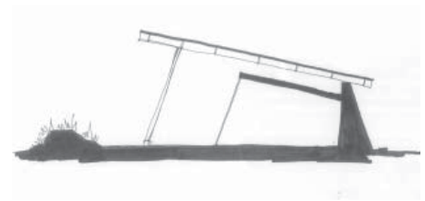
PRESENTATION BOARD
SITE WALL, TEXTURE

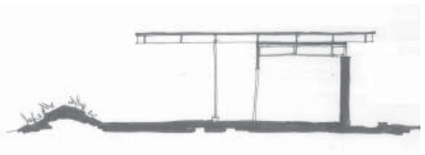
MEETING 11.30.05

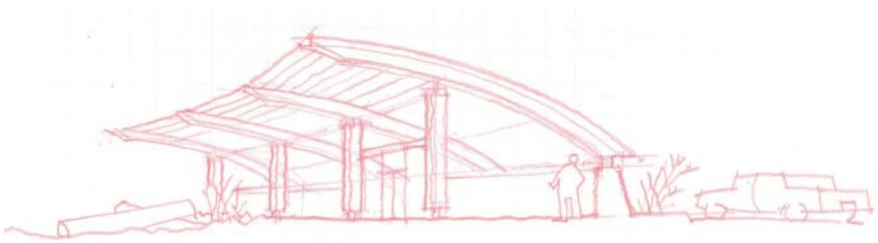










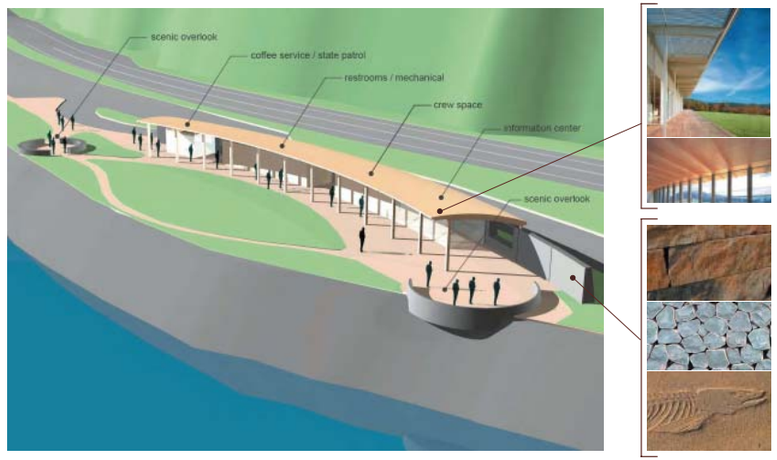


BUILDING SECTION *STUDIES*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
BUILDING SECTION,
STUDIES

MEETING 11.30.05



AERIAL VIEW *MASSING*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
AERIAL VIEW, MASSING

MEETING 11.30.05

PRESENTATION BOARD
BUILDING SITE PLAN
OPTION 1

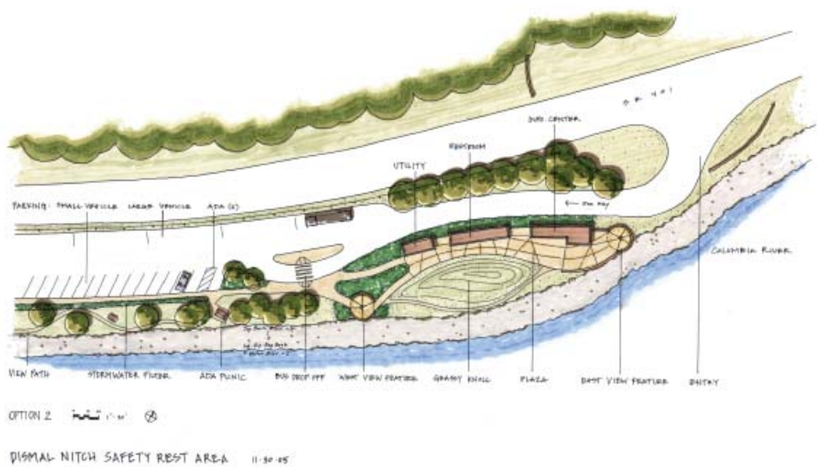
MEETING 11.30.05

BUILDING PERSPECTIVES *EXPERIENTIAL*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

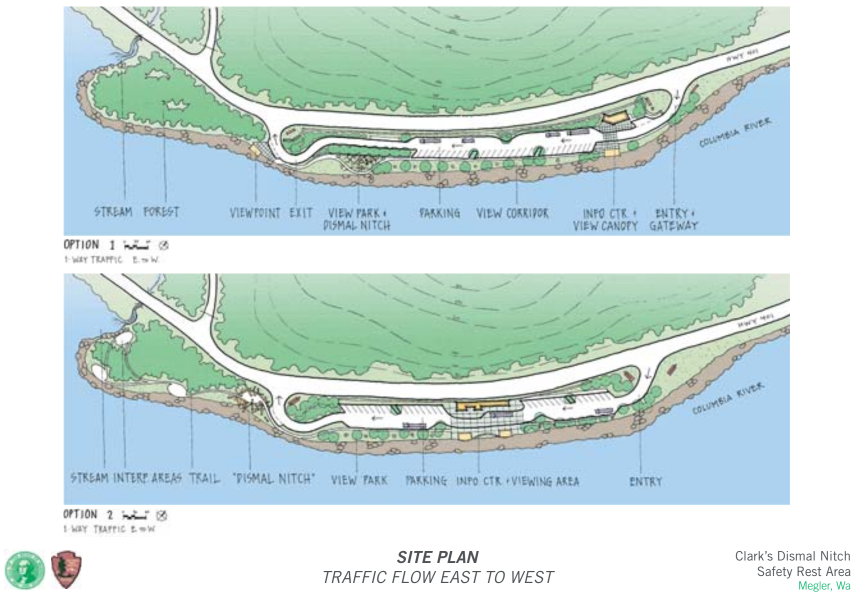
PRESENTATION BOARD
BUILDING PLAN

MEETING 11.30.05



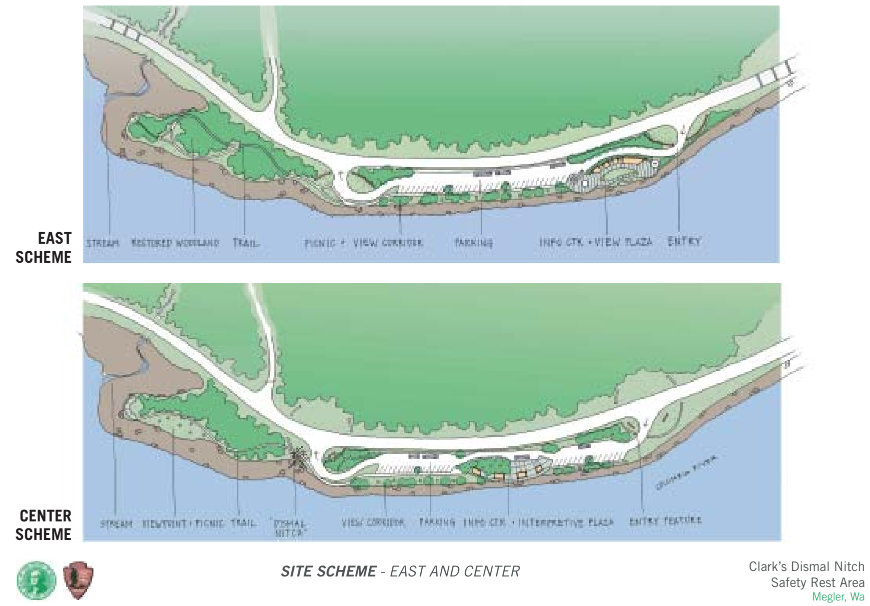
PRESENTATION BOARD
BUILDING SITE PLAN
OPTION 2

MEETING 11.30.05


HWY 401
COLUMBIA RIVER
STREAM FOREST VIEWPOINT EXIT VIEW PARK + DISMAL NITCH PARKING VIEW CORRIDOR INFO CTR + VIEW CANOPY ENTRY + GATEWAY
OPTION 1
1-WAY TRAFFIC E→W
STREAM INTERP AREAS TRAIL "DISMAL NITCH" VIEW PARK PARKING INFO CTR + VIEWING AREA ENTRY
OPTION 2
1-WAY TRAFFIC E→W
SITE PLAN
TRAFFIC FLOW EAST TO WEST
Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

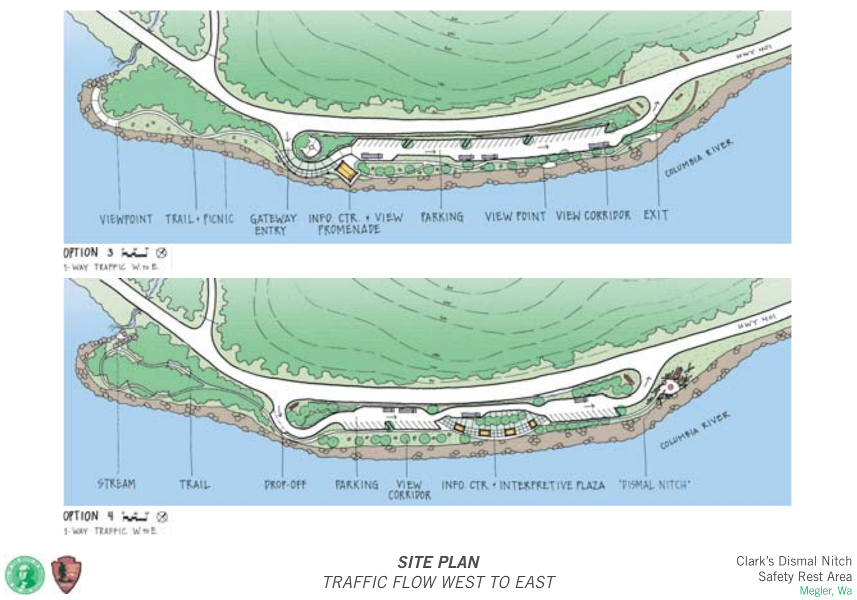
PRESENTATION BOARD
SITE PLAN- TRAFFIC FLOW EAST TO WEST

WORKSHOP 10.13.05


EAST SCHEME
STREAM RESTORED WOODLAND TRAIL PICNIC + VIEW CORRIDOR PARKING INFO CTR + VIEW PLAZA ENTRY
CENTER SCHEME
COLUMBIA RIVER
STREAM VIEWPOINT + PICNIC TRAIL "DISMAL NITCH" VIEW CORRIDOR PARKING INFO CTR + INTERPRETIVE PLAZA ENTRY FEATURE
SITE SCHEME - EAST AND CENTER
Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

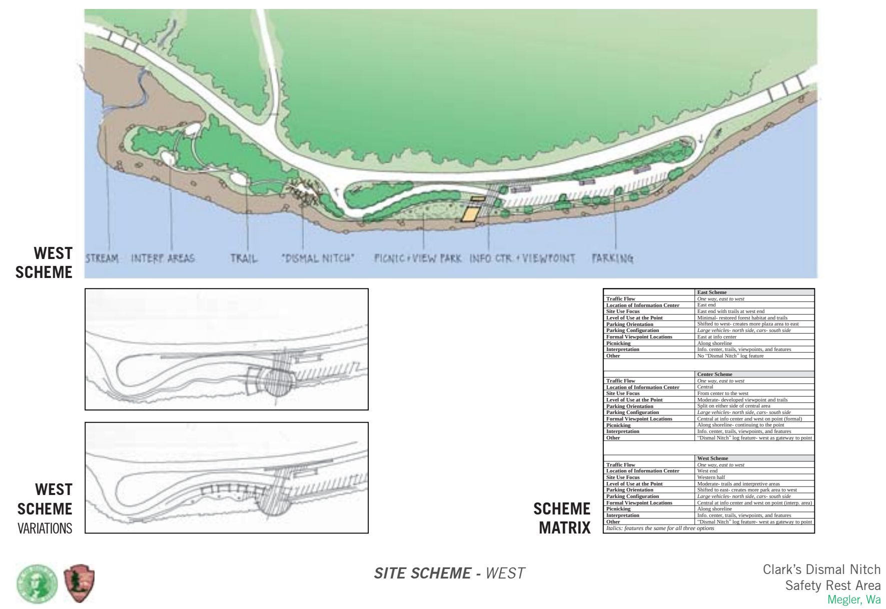
PRESENTATION BOARD
SITE SCHEME- EAST AND CENTER

MEETING 10.25.05


HWY 401
COLUMBIA RIVER
VIEWPOINT TRAIL + PICNIC GATEWAY ENTRY INFO CTR + VIEW PROMENADE PARKING VIEW POINT VIEW CORRIDOR EXIT
OPTION 3
1-WAY TRAFFIC W→E
STREAM TRAIL DROP-OFF PARKING VIEW CORRIDOR INFO CTR + INTERPRETIVE PLAZA "DISMAL NITCH"
OPTION 4
1-WAY TRAFFIC W→E
SITE PLAN
TRAFFIC FLOW WEST TO EAST
Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
SITE PLAN- TRAFFIC FLOW WEST TO EAST

WORKSHOP 10.13.05



PRESENTATION BOARD
SITE SCHEME- WEST

MEETING 10.25.05

PHASE 1 *BUILT OPTIONS DASHED IN*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
PHASE 1: BUILT
OPTIONS DASHED IN

MEETING 11.30.05

PHASE 2 *OPTIONS 1+2*

Clark's Dismal Nitch
Safety Rest Area
Megler, Wa

PRESENTATION BOARD
PHASE 2: OPTIONS 1+2

MEETING 11.30.05

COMMUNITY WORKSHOPS

During the programming and design phases of the master planning for the Dismal Nitch Safety Rest Area, the design team developed an analysis of the site and a program for the needs of the client agencies at this site. Of equal importance was to work with the local community in Pacific County, to understand local interests in the site, and interest in programs of historical interpretation, recreation, habitat restoration, etc.

Our design method for Master Planning is to develop Alternate Concepts, as a problem-solving method. By exploring the options for a particular problem, we can find the best and most appropriate solution, working with our clients and with the public.

For the Dismal Nitch Master Planning, the Community Workshops were an important forum for the design team, in hearing from diverse members of the public, and in evaluating the alternate concepts.

COMMUNITY WORKSHOP COMMENTS
ILWACO HERITAGE MUSEUM
OCTOBER 13, 2005

Attendance: 25 people
(13 from the community, 12 from agencies/ consultants)
Sign in: Una Boyle (LBPVB); Kathleen Sayce; Patty Rolfe (Willapa Bay); Nancey Olson (Willapa Bay);Rodney Williams (Willapa Bay); Todd Scott (Astoria); Scott Stonum (NPS); Rick Wagner (NPS); Peter Hockaday (P+W); Gingi Cabot (P+W); Devin Kleiner (P+W); Jeff Bouma (EDAW); Diori Kreske (EDAW); Jim Sayce (WSHS); Bob Dixon (DEAS); Penny Haeger (WSDOT); Tip Wilson (1+2 Inc.); 8 others did not sign in

Presentation Display: 11 boards
Design Team – Coordination; Site Maps – Location; Traffic Flow – Analysis; Site Elements – Details; Cultural History – Habitation; Natural History – Environment; National Parks – Context;Program Features – Examples; Existing Conditions – Site; Site Plan – Traffic Flow East to West; Site Plan – Traffic Flow West to East

SAFETY
- [Una Boyle] Vandalism and safety is a concern. *Will the rest area be staffed?*
- [Scott Stonum-NPS] The site is currently not designated as a staffed rest area
- [Peter Hockaday] Design to accommodate a safe, staffed information station, whether used initially or not. Master plan can be flexible for future changes to staffing policy
- [Una Boyle] For visitors there needs to be *controlled phone area* for 911 calls (cell phone coverage is not good)
- [Una Boyle] During periods when the info center is not staffed, the info center needs to have safe, secure area
- [General] Should provide a *state patrol station*
- [General] Should provide opportunity for a *free coffee station*
- [Una Boyle] Should provide *directional information* for visitors including *emergency locations*

KAYAK LAUNCH
- [Jim Sayce] Make shoreline *difficult to access. No advertisement.*
- [General] If we provide any access to shore, it will be used
- [General] Currents are dangerous, but experienced boaters can handle it
- [General] There should be *no designated boater access path and launch*

VEHICULAR ACCESS
- Get accurate *analysis of traffic flow* (more cars coming from east or west?)
- Current traffic flow could change as our site joins series of L & C destinations
- *Turning lane* on highway? *Speed up lane* when leaving site?

SITE PLANNING
- *Condense parking* to one side of site, open up other side for programming and nature
- *Great views East and West* (two lookouts, one on each side of site?)
    - Bird watching, Pillar Rock, Tongue Pt., Pelican Pt. Young's Bay, Pt. Ellis
- Should "tell story" after car is parked – focus on pedestrian experience of site
- Create a *sound buffer* from highway
- Create *a refuge* on beach near water
- General agreement, existing *beach is beautiful and should be integrated* into design
    - it is only undeveloped beach for miles along north shore
    - historical relevance of shoreline interface – Chinook, L&C, ferrys…
- Advertised as both a rest area and historical site, consider *length of stay* and *amount of parking*
- Log feature near water, more authentic
- Segregate site and program for L&C interpretation from rest area, avoid conflict
- *Covered picnic benches*
- Regardless of car/ people segregation, important to make easy access as a rest area (restrooms, viewpoint)
- Scheme 3 provides better features for locals to use on regular basis (picnic tables with views shielded from highway); access from west; larger open area adjacent to building(s), good access to nice viewpoint
- New building/ large vehicles toward hillside – open waterside to view

ACCESS TO NORTH SIDE OF HIGHWAY
- Historic L&C Dismal Nitch campsite is located on north side of highway, people will continue to cross whether or not a crosswalk is created
- +/- 175 acres for trails, develop later?
- DOT and others discourage idea of crossing over highway

AESTHETIC
- *Informal / "less is more"* = NPS
- History buffs are drawn to this site for its *pristine* conditions
- Same trees/ atmosphere as 200 years ago (unlike other L & C sites.)
- Create similar ambience as L & C – *difficult to access and exposed* to elements
    - *Primal nature, treacherous.* Shore ravaged by storms, logs, and snags
- Tendency is to over-build. *Avoid heavy architecture.*
- Interpretive displays should not be so large and dominant as to distract from nature and views
- Unit of bigger park – include elements from other sites (eg. Fort Columbia rock work, and flow through site)
- Maintain *open character of site*
- Don't imitate heavy timber of Fort Clatsup
- Dedicate more research on geology of the site as a possible interpretive display
- *Fossils* on hillside (marine basalt, seafloor sediment), specific to this site – integrate into design aesthetic

SALMON PASSAGE
- Culvert currently a barrier for salmon?
- NPS plans to take inventory of salmon Spring '06
- Consider updating salmon passage in master plan

PLANTS/ NATURAL HISTORY
- To review plant materials talk to Kathleen Sayce kas@sbpac.com (avoid wrong plant choices)
- Good bird watching exists at this site

STORIES TO TELL AT SITE IN ADDITION TO LEWIS & CLARK
(These stories came out of the workshop as additional ideas)
- Glacial lake Missoula floods
- Geology: fossilized marine sediments & seafloor basalt
- River ecology, stream ecology, rainforest ecology
- River as trading route
- Evolution of site's history – Chinook; explorers; Lewis & Clark; settlers & canneries; train and ferry transportation; present day commerce

COMMUNITY WORKSHOP COMMENTS
FORT COLUMBIA STATE PARK
ILWACO, WA
DECEMBER 12, 2005

Attendance: 22 people
(14 from the community, 8 from agencies/ consultants)
Sign in: Tom Bell (Knappton Quarantine Station); Nancy Anderson (Knappton Quarantine Station); Wes Moehnke (Peninsula Arts Assoc.); Ron Saalborn; Gary Johnson (Chinook Tribe); Christy Johnson (Chinook Tribe); Nancy Butterfield (Chinook Observer); Rodney Williams (Long Beach); Chris Goodwin (Peninsula Arts Assoc.); Faith Penttila (Naselle); Jill Grey (Long Beach Visitor's Bureau); Jan Mitchell (Destination the Pacific); Carolyn Glenn (Pacific County Friends of L+C); Peter Hockaday (P+W); Gingi Cabot (P+W); Devin Kleiner (P+W); Jeff Bouma (EDAW);Jim Sayce (WSHS); Penny Haeger (WSDOT); Gene Dotson (WSDOT); Tim Smith (1+2 Inc.); 1 other person did not sign in

Presentation Display: 13 boards
Mid October Public Meeting – Four Options; Early November Partner Meeting – Three Options;
Late November Partner Meeting – Two Site Options; Late November Partner Meeting – Two Plaza Options;
Site Plan – Scale 1:60; Plaza Site Plan – Scale 1:20;
Late November Partner Meeting – Interpretive Features; Building Plan – Organization;
National Park and Rest Area – Architectural Styles;
Lower Columbia River – Historic Architecture; Plaza Sketch – Architectural Nature;
Sustainable Design – Features; Site Wall - Texture

INTERPRETIVE FEATURES

- Project interpretive features are critical in orienting visitors to the other National Park sites in the area. Use NPS posters/artwork, Lewis & Clark journal entries, and a similar/cohesive set of colors and materials to introduce linkages between Dismal Nitch and *other L&C area destinations.*
- The *history of the local ferry, railroad, and cannery operations* is important to relate in the interpretive displays (fishing lures made, ice cream sold, community members).

SUSTAINABLILITY FEATURES

- Will there be *stormwater separation basins* used on the project? How will the *rain garden design* mitigate the stormwater flows on the site?
- Fresh water is a precious commodity in the area, have alternative *non-water sewage options* such as composting toilets been considered instead of conventional flush systems?
- *Sustainable design features* such as photovoltaic arrays, rain gardens, material selection, daylighting and passive ventilation are really important to integrate into the project. They represent significant opportunities to educate visitors about sustainable design and could save the project on operational costs.

USER GROUPS

- Who will be the *primary users* of the project?
- Is it anticipated that the project/site will be marketed as a destination for *national tour operators*?

SITE DESIGN

- *Protect site occupants from vehicular accidents along Highway 401* with adequate set back and sturdy barrier design at northern boundary of rest area.
- Is the amount of *vehicular parking provided* to be more, less, or identical to the current number of parking spaces?
- Parking should be located as close to restrooms as possible for visitor convenience.
- *Separation of developed/interpretive uses* from natural areas is a good idea.
- Where will the future *well site* be located? What is the *water source and anticipated flow?*
- Who will own the old *caretaker property* located immediately north of the highway? What is the *intended use* of that property?
- What type of *fencing* is envisioned along the perimeter of the site?

ADJACENT NPS PROPERTY

- How is the property to the north of the project site *associated with the rest area* property?
- *What is the purpose of purchasing* the land to the north of the project site? What is the *intended use* for that property?

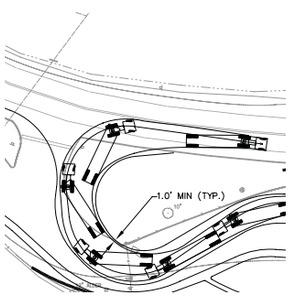
BUILDING DESIGN

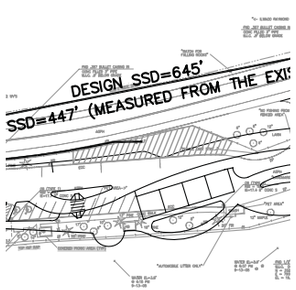
- *Fire safety* should be considered during project design and material selection. Fire Department truck is 6 miles west of site.
- *Direction of architectural character* is in keeping with other National Park sites and rest area designs.

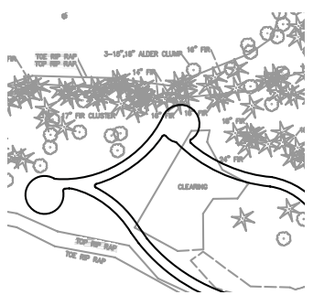
PROJECT MAINTENANCE

- Who will be responsible for the *maintenance* of the project?

In general, the workshop comments were supportive of the planning approach, architectural direction and interpretive display themes. Gary Johnson of the Chinook Tribe and Carolyn Glenn of the Pacific County Friends of Lewis & Clark both made very positive comments about the program informally, after the meeting.







"The storm continued & hard rain during the last night, and this morning rainey disagreeable weather. Our buffalo robes are getting rotten, and the most of our baggage were wet. We have a very disagreeable time of it, the most oart of our Men having slept in the rain, ever since this storm began, & are continually wet"

- Sgt. Joseph Whitehouse,
Nov. 13, 1805

6.0 APPENDIX

6.1 RESOLUTION FOR RE-NAMING OF SITE

This resolution officially renames the site from the Mengler Safety Rest Area to Dismal Nitch Safety Rest Area.

RESOLUTION NO. 673

WHEREAS, *in 1803 Thomas Jefferson said to Meriwether Lewis "The object of your mission is to explore the Missouri river & such principal stream of it, as, by it's course and communication with the waters of the Pacific ocean... may offer the most direct & practicable water communication across this continent for the purposes of commerce."*

WHEREAS, *in 1804 the Corps. Of Discovery was formed and began its journey west, led by Captains Meriwether Lewis and William Clark;*

WHEREAS, *on November 15, 1805 while the Corps. Of Discovery was pinned down for several days very near to the present day Megler Safety Rest Area, trying to shelter themselves from the wind, waves and rain, William Clark wrote: "this dismal nitch where we have been confined for 6 days past, without the possibility of proceeding on, returning to a better Situation, or get out to hunt, Scerce of Provisions, and torrents of rain poreing on us all the time..."*

WHEREAS, *RCW 27.34.342 created the sixteen member Lewis and Clark Bicentennial Advisory Committee, including the Secretary of the Washington State Department of Transportation;*

WHEREAS, *RCW 27.34.344 states the role of the Lewis and Clark Bicentennial Advisory Committee is to coordinate and provide guidance to Washington's observance of the bicentennial of the Lewis and Clark expedition.*

WHEREAS, *a scenic byway corridor management plan was completed for the Lewis and Clark Trail in Washington identifying Clark's Dismal Nitch as a priority site for improving interpretation;*

WHEREAS, *in August 2002 public law 105-391 directed the National Park Service to conduct a study of the possible expansion of Fort Clatsop National Memorial (this included the Megler safety rest area) this study was completed in September 2003;*

WHEREAS, *on October 30, 2004 congressional and presidential action resulted in public law 108-387 expanding the Fort Clatsop National Memorial as part of the bi-state Lewis and Clark National Historical Park; designating the Megler safety rest area as an in-holding to the Dismal Nitch park unit*

WHEREAS, *the Washington State Department of Transportation has received requests from the Lewis and Clark Bicentennial Advisory Committee, the Pacific County friends of Lewis and Clark, the Pacific County Commissioners, and the National Park Service to rename the Megler safety rest area Dismal Nitch*

WHEREAS, *the Washington State Transportation Commission deems it appropriate to commemorate the Lewis and Clark Bicentennial;*

NOW, THEREFORE, BE IT RESOLVED, *that the Washington State Transportation Commission does hereby rename the Megler safety rest area "Dismal Nitch."*

BE IT FURTHER RESOLVED, *that the Department of Transportation shall implement this name change, including the development of appropriate interpretation of Joseph G. Megler at the Dismal Nitch site.*

ADOPTED *this 19th day of October 2005.*

WASHINGTON STATE TRANSPORTATION COMMISSION

DAN O'NEAL, Chair

RICHARD FORD, Vice-Chair

ED BARNES, Member

ELMIRA FORNER, Member

ROBERT S. DISTLER, Member

DALE STEDMAN, Member

DOUGLAS B. MACDONALD
Ex-Officio Member
Secretary of Transportation

ATTEST:

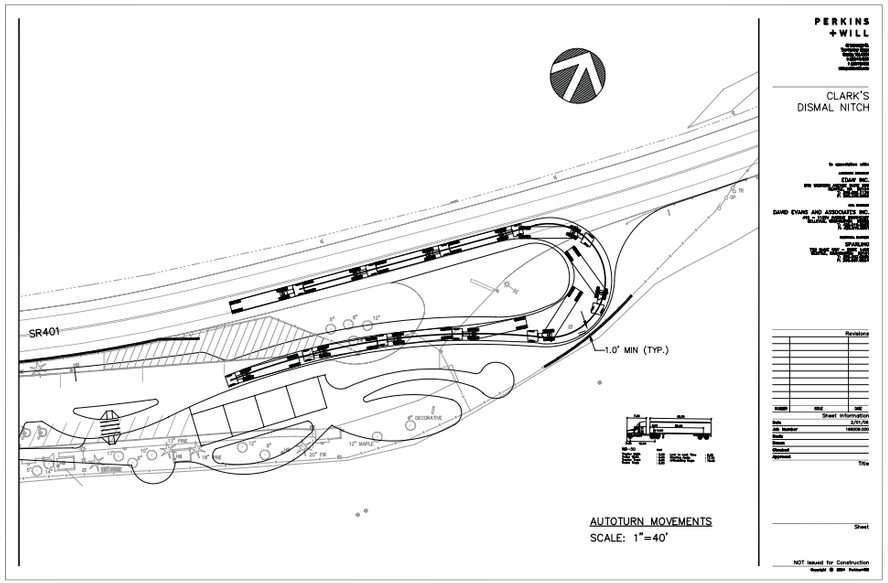
REEMA GRIFFITH, Administrator

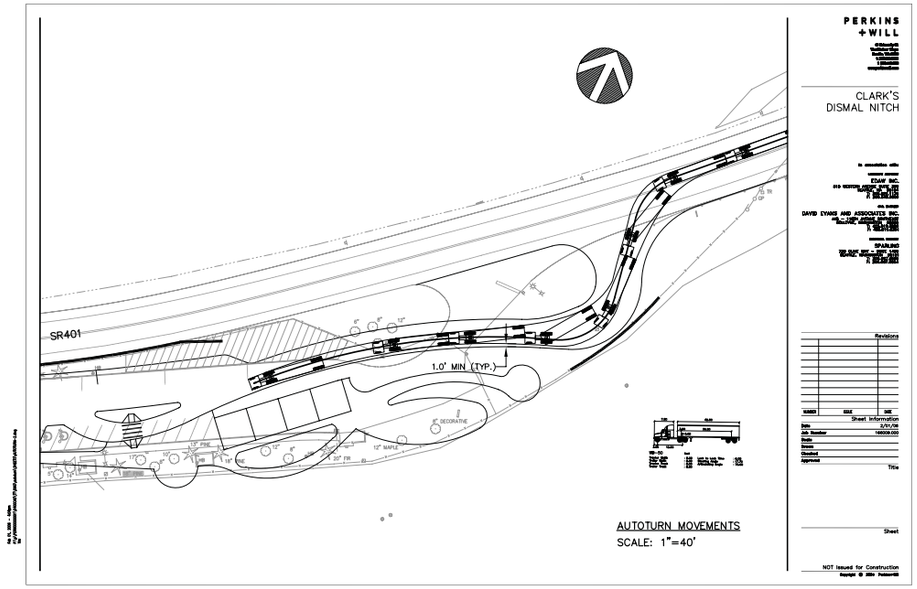
APPROVED AS TO FORM:

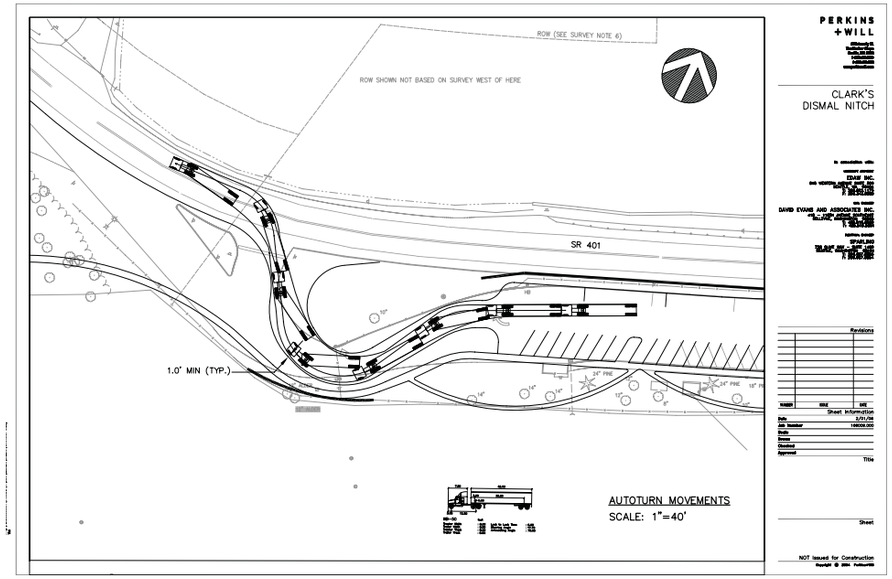
Assistant Attorney General

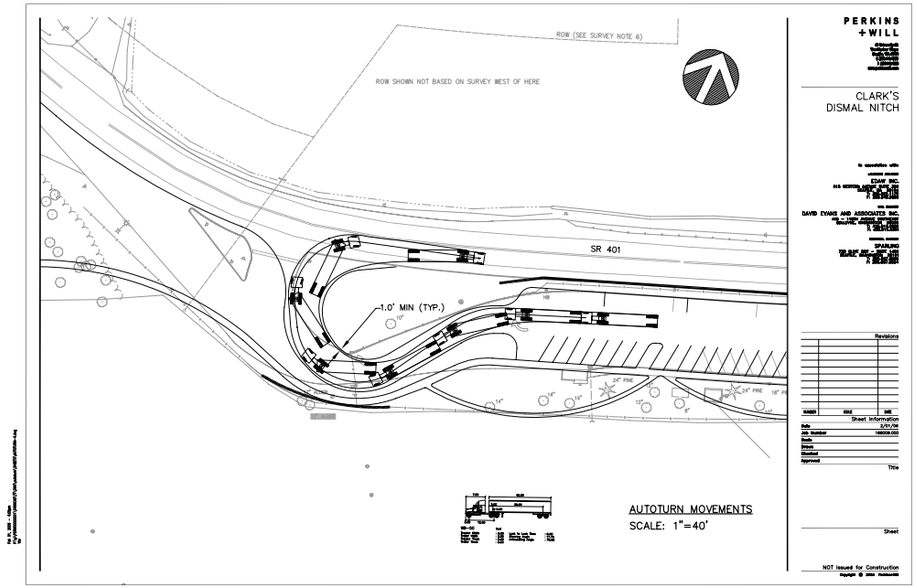
6.2 AUTO TURN STUDIES

These drawings illustrate the vehicular access requirements for the site.



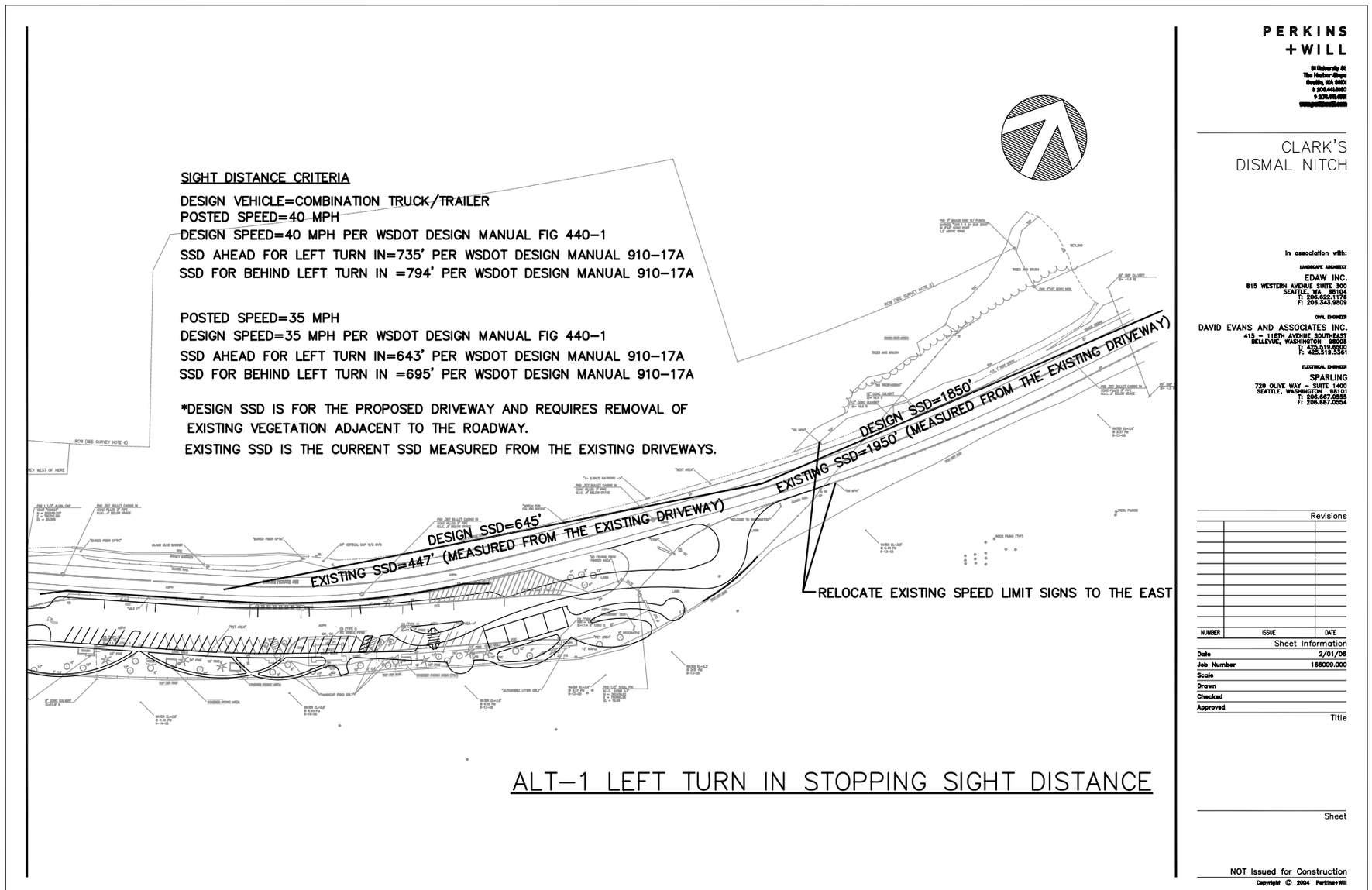




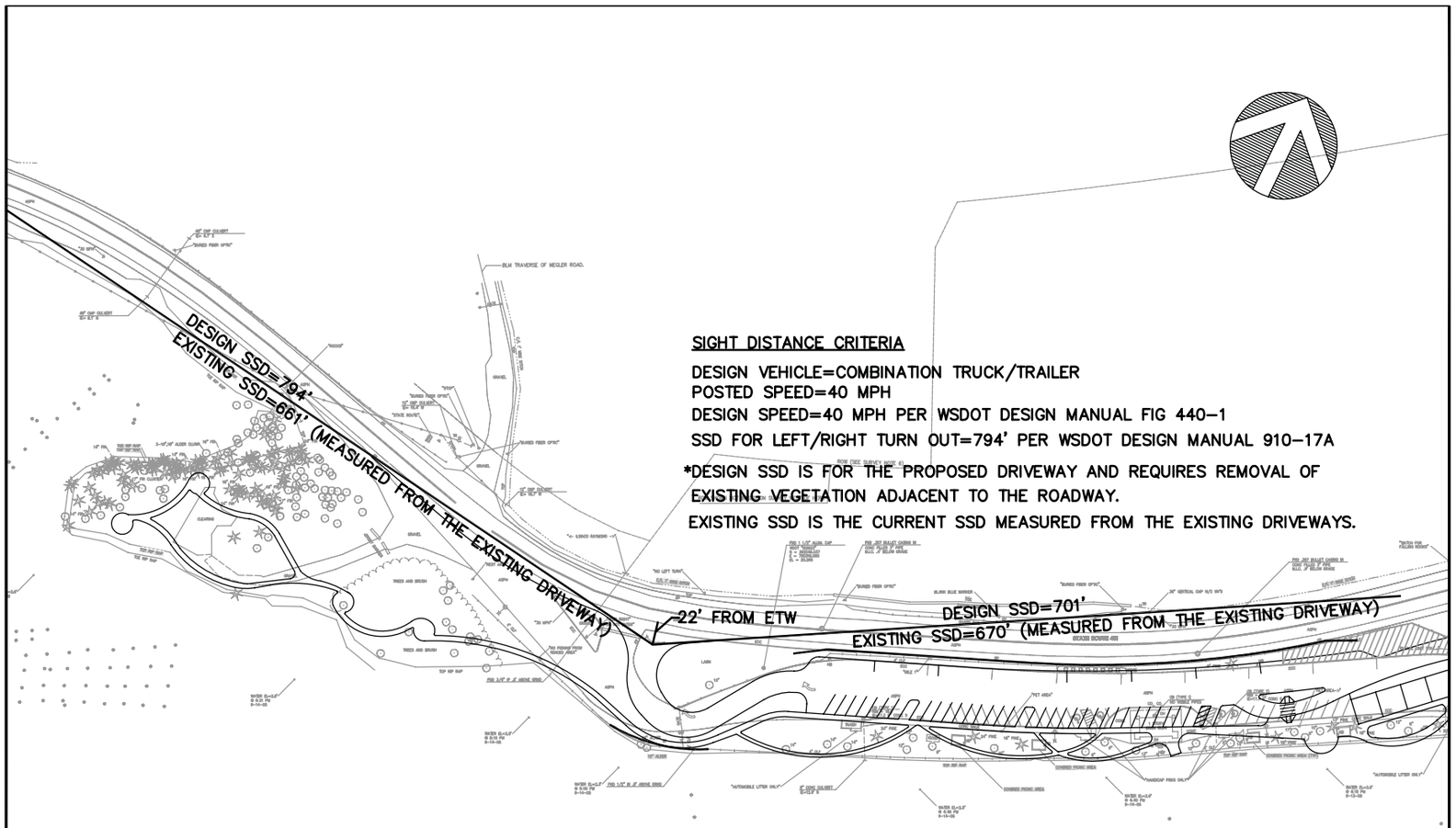


6.3 SITE DISTANCE CALCULATIONS

These drawings illustrate the WSDOT requirements for vehicular signage and entry drive visibility..



6.3 SITE DISTANCE CALCULATIONS



ALT-1 LEFT/RIGHT TURN OUT STOPPING SIGHT DISTANCE

Feb 01, 2006 - 4:07pm
P:\jb\PERK\000000001\(400CAD\TI\DWG\figures\sightdistance\sight-dist-alt-1\sight-ti-out.dwg
kai

PERKINS +WILL

41 University St.
The Harbor Steps
Seattle, WA 98101
t: 206.443.4980
f: 206.443.4981
www.perkinswill.com

CLARK'S
DISMAL NITCH

In association with:

LANDSCAPE ARCHITECT
EDAW INC.
815 WESTERN AVENUE SUITE 300
SEATTLE, WA 98104
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F: 206.343.9809

CIVIL ENGINEER
DAVID EVANS AND ASSOCIATES INC.
415 - 118TH AVENUE SOUTHEAST
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Revisions

NUMBER	ISSUE	DATE

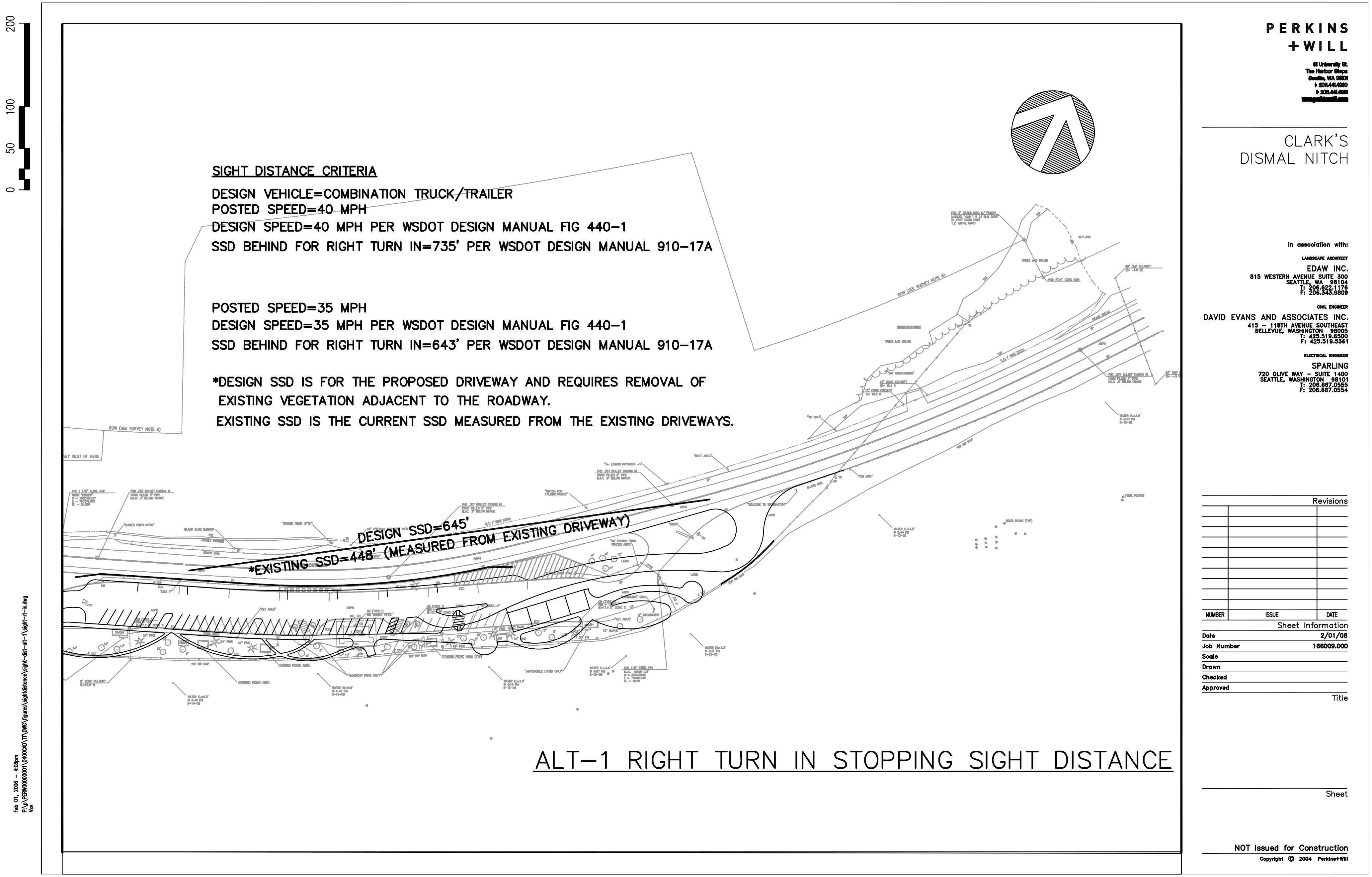
Sheet Information

Date	2/01/06
Job Number	166009.000
Scale	
Drawn	
Checked	
Approved	

Title

Sheet

NOT Issued for Construction


SIGHT DISTANCE CRITERIA
DESIGN VEHICLE=COMBINATION TRUCK/TRAILER
POSTED SPEED=40 MPH
DESIGN SPEED=40 MPH PER WSDOT DESIGN MANUAL FIG 440-1
SSD BEHIND FOR RIGHT TURN IN=735' PER WSDOT DESIGN MANUAL 910-17A
POSTED SPEED=35 MPH
DESIGN SPEED=35 MPH PER WSDOT DESIGN MANUAL FIG 440-1
SSD BEHIND FOR RIGHT TURN IN=643' PER WSDOT DESIGN MANUAL 910-17A
*DESIGN SSD IS FOR THE PROPOSED DRIVEWAY AND REQUIRES REMOVAL OF EXISTING VEGETATION ADJACENT TO THE ROADWAY.
EXISTING SSD IS THE CURRENT SSD MEASURED FROM THE EXISTING DRIVEWAYS.
DESIGN SSD=645'
*EXISTING SSD=448' (MEASURED FROM EXISTING DRIVEWAY)
ALT-1 RIGHT TURN IN STOPPING SIGHT DISTANCE
0
50
100
200
PERKINS +WILL
CLARK'S DISMAL NITCH
In association with:
LANDSCAPE ARCHITECT
EDAW INC.
815 WESTERN AVENUE SUITE 300
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720 OLIVE WAY - SUITE 1400
SEATTLE, WASHINGTON 98101
T: 206.667.0555
F: 206.667.0554
Revisions
NUMBER
ISSUE
DATE
Sheet Information
Date 2/01/06
Job Number 166009.000
Scale
Drawn
Checked
Approved
Title
Sheet
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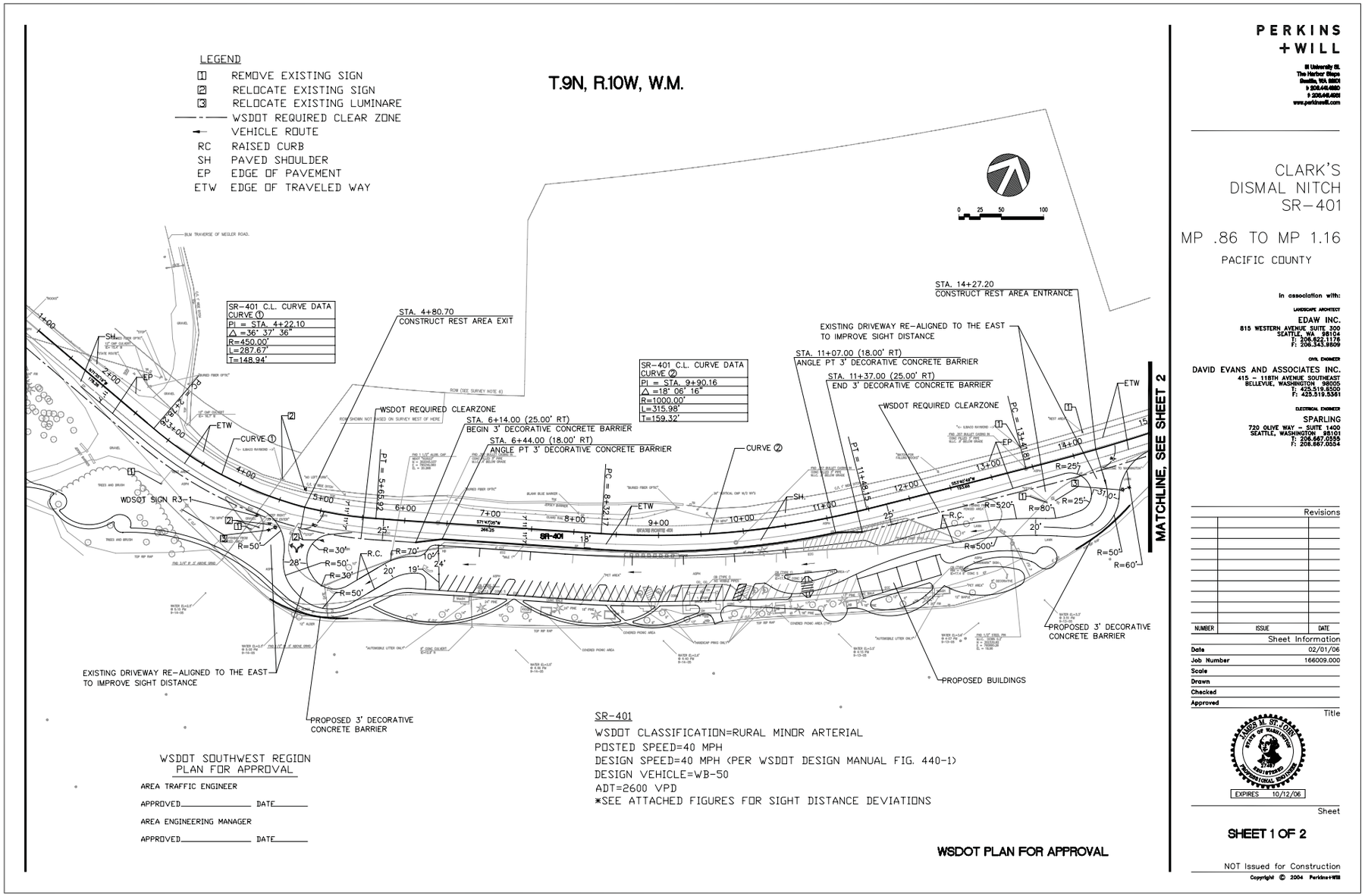
6.4 CONCEPT PLANS

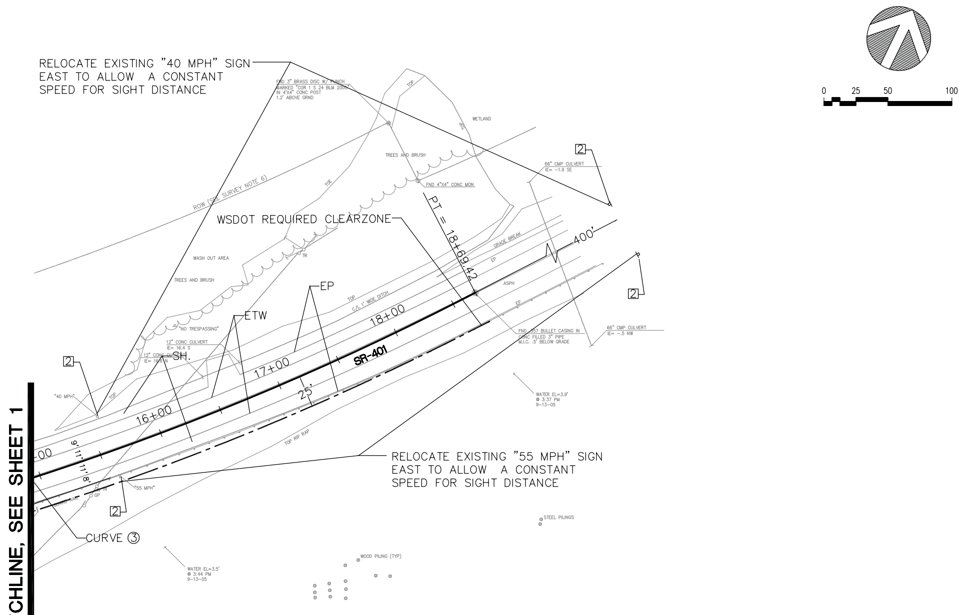
These drawings illustrate the conceptual civil drawings for the development of the entry/exit drives and roadways .



LEGEND

1 (boxed)	REMOVE EXISTING SIGN
2 (boxed)	RELOCATE EXISTING SIGN
3 (boxed)	RELOCATE EXISTING LUMINARE
—— - ——	WSDOT REQUIRED CLEAR ZONE
◄—	VEHICLE ROUTE
RC	RAISED CURB
SH	PAVED SHOULDER
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY

T.9N, R.10W, W.M.



SR-401 C.L. CURVE DATA
CURVE 3
PI = STA. 16+05.62
Δ =13° 26' 07"
R=2250.00
L=527.61'
T=265.02'

SR-401

WSDOT CLASSIFICATION=RURAL MINOR ARTERIAL
POSTED SPEED=40 MPH
DESIGN SPEED=40 MPH (PER WSDOT DESIGN MANUAL FIG. 440-1)
DESIGN VEHICLE=WB-50
ADT=2600 VPD
*SEE ATTACHED FIGURES FOR SIGHT DISTANCE DEVIATIONS

WSDOT SOUTHWEST REGION
PLAN FOR APPROVAL

AREA TRAFFIC ENGINEER

APPROVED______________ DATE________

AREA ENGINEERING MANAGER

APPROVED______________ DATE________

WSDOT PLAN FOR APPROVAL

Feb 01, 2006 - 4:02pm
P:\p\PERW00000011\0400CAD\TT\DWG\WSDOT-INTPLAN-2.dwg
Vxv

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CLARK'S
DISMAL NITCH
SR-401

MP .86 TO MP 1.16

PACIFIC COUNTY

in association with:

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Revisions

NUMBER	ISSUE	DATE

Sheet Information

Date	02/01/06
Job Number	166009.000
Scale	
Drawn	
Checked	
Approved	

Title

JAMES M. ST. JOHN
STATE OF WASHINGTON
27497
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 10/12/06

Sheet

SHEET 2 OF 2

NOT Issued for Construction

6.5 ENVIRONMENTAL CLASSIFICATION SUMMARY

This summary documents the environmental and biological impacts of the project. It concludes that it will have "no effect" on federally listed species or critical habitats.

Washington State Department of Transportation

Local Agency Environmental Classification Summary

Part 1 Project Description

Federal Aid Project Number	Route	Date Created	Local Agency Project Number
	State Route 401	12/1/2005	

Agency: Washington State Historical Society

Federal Program Title: ☒ 20.205 ☐ 20.209 ☐ Other

Project Title: Dismal Nitch (Megler) Safety Rest Area Improvements

Begin	End		
MP .92	MP 1.11	Miles 0.19	Townships 9 North
KP	KP	KM	Ranges 10 West
			Sections 24

County	Water Resource Inventory Area (WRIA) No. & Name	Within Puget Sound Basin?
Pacific County	24 Willapa	☐ Yes ☒ No

Project Description:
The proposed project includes the redesign and renovation of facilities and landscaping at the Dismal Nitch (Megler) Safety Rest Area located along the Columbia River on State Route 401. Water and septic system improvements are proposed. All work will be performed above the existing rip rap; therefore, no in-water construction is proposed.

Part 2 Environmental Classification

NEPA	SEPA
☐ Class I - Environmental Impact Statement (EIS)	☒ Categorically exempt per WAC 197-11-800
☒ Class II - Categorically Excluded (CE)	CE Type (from SEPA Checklist) (3)
CE Type (from 23 CFR 771.117) (12)	☐ Determination of Non-Significance (DNS)
☒ Projects Requiring Documentation (Documented CE) (LAG 24.22)	☐ Environmental Impact Statement (EIS)
☐ Class III - Environmental Assessment (EA)	☐ Adoption
	☐ Addendum
	☐ Supplemental

NEPA Approval Signatures

Local Agency Approving Authority — Date

Regional Local Programs Engineer / Assistant Secretary — Date

Federal Highway Administration — Date

Completed By (Print Official's Name)	Telephone *(include area code)*	Fax *(include area code)*
K. Prindle, Biologist; N. Bird, AICP.	206-622-1176	206-343-9809

DOT Form 140-100 EF
Revised 8/02

Page 1 of 7

Part 3 Permits and Approvals Required

Yes	No	Permit or Approval
☐	☒	Corps of Engineers ☐ Sec. 10 ☐ Sec. 404
	☐	Nationwide Type _____
	☐	Individual Permit No. _____
☐	☒	Coast Guard Permit
☐	☒	Coastal Zone Management Certification
☐	☒	Critical Area Ordinance (CAO) Permit
☐	☒	ESA and EFH Compliance (See Part 5)
☐	☒	Flood Plain Development Permit
☐	☒	Forest Practice Act Permit
☐	☒	Hydraulic Project Approval
☒	☐	Local Building or Site Development Permits
☐	☒	Local Clearing and Grading Permit
☒	☐	Natl. Historic Preservation Act - Section 106
☒	☐	National Pollutant Discharge Elimination System (NPDES) Baseline General for Construction
☐	☒	ROW Acquisition Required

Yes	No	Permit or Approval
☒	☐	Shoreline Permit
☐	☒	State Waste Discharge Permit
☐	☒	Section 4(f)/6(f): Wildlife Refuges, Recreation Areas, Historic Properties
☐	☒	SSP and TESC Plans Completed
☐	☒	Water Rights Permit
☐	☒	Water Quality Certification - Sec. 401 Issued by _____
☐	☒	Tribal Permit(s), (If any) _____ _____ _____
☐	☒	Other Permits, including GMA (List): _____ _____ _____ _____

Part 4 Environmental Considerations

Will the project involve work in or affect any of the following? Identify proposed mitigation. Attach additional pages or supplemental information if necessary.

1. Air Quality - Identify any anticipated air quality issues.

Is the project included in the Metropolitan Transportation Plan? ☐ Yes ☒ No

If Yes, date Metropolitan Transportation Plan was adopted. _____

Is the project located in an Air Quality Non-Attainment Area or Maintenance Area (for carbon monoxide, ozone, or PM10)? ☐ Yes ☒ No

Is the project exempt from Air Quality conformity requirements? ☐ Yes ☒ No (If Yes, identify exemption below.)

2. Critical/Sensitive Areas - Identify any known Critical or Sensitive Areas as designated by local Growth Management Act ordinances.

a. Aquifer Recharge Area, Wellhead Protection Area, or Sole Source Aquifer. If located within a sole source aquifer, is project exempt from EPA approval? ☐ Yes ☐ No

No Aquifer Recharge or Wellhead Protection Areas exist in the project area.

b. Geologically Hazardous Area

No geologically hazardous areas are in the project area. Slopes of greater than 40% incline located across SR 401 from the project site, but not affected by the project, may meet Pacific County CARL criteria for Landslide Hazard Areas.

c. Habitat. List known fish and wildlife species present and describe general habitat.

As a "water of the state" the Columbia River is defined under Pacific County's CARL as a Fish and Wildlife Habitat Conservation Area. However, no native habitat areas exist in the safety rest area. Second growth forest exists across SR 401. The forest provides suitable habitat for common wildlife species.

d. Are wetlands present within the project area? ☐ Yes ☒ No If Yes, estimated area of impact in acre(s): _____

No wetlands exist in the project area. A wetland - likely Category I - exists approximately 200 ft east of the proposed project drainfield site.

Part 4 Environmental Considerations - Continued

3. Cultural Resources/Historic Structures - Identify any historic, archaeological, or cultural resources present with the project's area of potential effects.

Does the project fit into any of the exempt types of projects listed in Sect. 24.82(a) of the LAG Manual? ☐ Yes ☒ No

If **Yes**, note exemption below.

If **No**: Date of OAHP consultation _____

Date of Tribal consultation(s) (if applicable) _____

Adverse affects on cultural/historic resources? ☐ Yes ☒ No

If Yes, date of approved Section 106 MOA _____

A cultural resource survey was prepared in November 2005. The report recommended a determination of "no historic properties affected."

4. Flood Plains or Ways

Is the project located in a 100-year flood plain? ☐ Yes ☒ No

If yes, is the project located in a 100-year floodway? ☐ Yes ☒ No

Will the project impact a 100-year flood plain? ☐ Yes ☒ No (If Yes, describe impacts and analysis conducted.)

Although the project site is located along the Columbia River, site elevations confirm that it lies wholly outside of the FEMA-defined 100-year floodplain.

5. Hazardous and Problem Waste - Identify potential sources and type.

Is the project likely to involve site clean-up? ☐ Yes ☒ No

Site clean-up operations will be limited to those typically associated with small-scale construction activities.

Will the project create any hazardous waste? ☐ Yes ☒ No (If Yes, describe waste handling and disposal.)

The project will not create hazardous waste. In the event hazardous waste such as asbestos or lead are encountered, they will be handled in accordance with current WSDOT practices.

6. Noise - Identify potential sensitive receptors or previous mitigation commitments. Briefly describe your impacts to the sensitive receptor, if present.

No sensitive noise receptors are located proximate to the project site. No impacts anticipated.

7. Parks, Recreation Areas, Wildlife Refuges, Historic Properties, or Scenic Rivers/Byways, 4(f)/6(f) Lands - Identify any properties within the project limits and, if any are present, describe impacts to properties present.

The site is a WSDOT safety rest area. No wildlife refuges, scenic rivers/byways, or 4(f)/6(f) lands are present. No known historic properties are located on the site, although pilings from a previously removed historic fish station may or may not exist under fill within the site. A report by AINW determined that no adverse impacts to historic properties would result, and any pilings that may be under the existing site fill would not be eligible for listing.

Part 4 Environmental Considerations - Continued

8. Resource Lands - Identify any of the following resource lands within 300 feet of the project limits and those otherwise impacted by the project. Describe any impacts to any resource lands identified.

a. Agricultural

No agricultural lands are located within 300 feet of the project.

If present, is resource considered to be prime and unique farmland? ☐ Yes ☐ No

If Yes, date of approval from US Forest Service, Dept. of Agriculture. _____

b. Forest/Timber

No managed forest or timber lands are located within 300 feet of the project.

c. Mineral

No mineral lands or extraction operations are located within 300 feet of the project.

9. Rivers, Streams (Continuous, Intermittent), or Tidal Waters

a. Identify all waterbodies within 300 feet of the project limits or that will otherwise be impacted.

Fisheries WA Stream No. WA-CR-1010 Ecology 303d Report No. Final 1998

Reason for 303d listing Fecal Coliform, PCB-1254(t),

Date of Report 1/1/98

Waterbodies within 300 feet of the project limits include the Columbia River (Stream No. WA-CR-1010) and Megler Creek (LLID No. 1238529461938). The Columbia River in the project vicinity is 303d listed for fecal coliform, PCB-1254(t), dioxin, and total dissolved gas.

b. Identify stream crossing structures by type.

SR 401 crosses Megler Creek over a culvert located off-site, west of the safety rest area project site.

10. Tribal Lands - Identify.

No tribal lands are located within the project site.

11. Visual Quality

Will the project impact roadside classification or visual aspects? ☒ Yes ☐ No (If Yes, identify the impacts.)

Roadside classification will not change. However, the project will improve the roadway line-of-site and safety rest area aesthetics. Restroom facilities, information center, artwork, and trails will be designed in context of Lewis and Clark's historic journey and their experiences at this "dismal nitch."

Part 4 Environmental Considerations - Continued

12. Water Quality/Storm Water

Has NPDES municipal general permit been issued for this WRIA? ☐ Yes ☒ No

Amount of existing impervious surface within project limits: 58,400 sf

Net new impervious surface to be created as a result of project: 0

Existing water quality/quantity treatment for existing impervious surface? ☐ Yes ☒ No

Describe proposed water quality/quantity treatment for new and any existing impervious surface upon completion of project.

Currently, all of the stormwater drains into the Columbia River via sheet flow or through three existing catch basins, which are piped directly into the river. The project proposes to treat water quality for new, replaced, and existing impervious areas. The preferred design is to allow runoff to sheet flow and infiltrate into raingardens, which are long narrow bioengineered strips containing soil and plants (not just grass). Catch basins will also be redirected to the raingardens. Stormwater treatment design will be in accordance with the 2004 Highway Runoff Manual and Ecology's Stormwater Manual.

13. Previous Environmental Commitments

Have previous environmental commitments been made in the project area? ☐ Yes ☒ No

Describe commitments. If commitments are a result of permit conditions, identify issuing agency, permit number and date, and how commitments will be met.

No previous environmental committments have been made in the project area.

14. Long-Term Maintenance Commitments

Are long-term maintenance commitments necessary for this project? ☒ Yes ☐ No
Identify.

The safety rest area will continue to be maintained by WSDOT.

15. Environmental Justice

Are minority and/or low income communities impacted by the project? ☐ Yes ☒ No (If Yes, identify the impacts.)

Part 5 Biological Assessment and EFH Evaluations

Answer **ALL** questions. Refer to the Part 5 Biological Assessment Checklist Instructions before completing this section.

Permits

1. Are any of the following environmental permits, as indicated in Part 2, required: HPA, 404 wetlands, or local clearing and grading, shorelines, or permits related to critical or sensitive areas ordinances? ☒ Yes ☐ No

Location

	2. Will any construction work occur within 0.5 miles of any of the following:	3. Does the project involve blasting, pile driving, concrete sawing, rock drilling, or rock scaling activities within 1 mile of any of the following?
Bald eagle nesting territories, winter concentration areas, or bald eagle communal roosts?	☒ Yes ☐ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Spotted owl management circles or designated critical habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Marbled murrelet nest or occupied stand, or designated critical habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Western snowy plover designated critical habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Federal threatened, endangered, proposed, or candidate plant species locations or documented habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Canada lynx habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Gray wolf habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Grizzly bear habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Brown pelican night roosts?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
Woodland caribou habitat?	☐ Yes ☒ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know
A mature coniferous or mixed fixed forest stand?	☒ Yes ☐ No ☐ Don't Know	☐ Yes ☒ No ☐ Don't Know

4. Will any construction work occur within 300 feet of Puget Sound, Strait of Juan de Fuca, or the Pacific Ocean? ☐ Yes ☒ No
5. Will any construction work occur within 300 feet of any permanent or intermittent waterbody, **which supports or drains into a listed fish supporting** waterbody? ☒ Yes ☐ No ☐ Don't Know
6. Will any construction work occur within 300 feet of any wetland, pond, or lake that is connected to **any** permanent or intermittent waterbody? ☒ Yes ☐ No ☐ Don't Know
7. Does the action have the potential to directly or indirectly impact designated critical habitat for salmonids (including adjacent riparian zones)? ☒ Yes ☐ No ☐ Don't Know

Stormwater

8. Does the project create **any** new impervious surface area? If yes, go to 8a. ☒ Yes ☐ No
8a. Will post-project stormwater treatment infiltrate, with pretreatment, all new impervious surface area; OR will stormwater treatment facility treat 140% times the area of new impervious surface area? ☒ Yes ☐ No ☐ Don't Know

Construction Activities

9. Will any construction waste materials (e.g., asphalt or concrete grindings or byproducts, construction-related chemicals, fill materials, or excavated materials) from the project be disposed of at a location other than a permitted disposal site? ☐ Yes ☒ No ☐ Don't Know
10. Will the project involve any in-water work? ☐ Yes ☒ No ☐ Don't Know
11. Will the project effect the water regime of, or utilize any water from a waterbody, which supports or drains into a listed fish supporting waterbody; or any wetland, pond, or lake? ☐ Yes ☒ No ☐ Don't Know
12. Will construction work occur outside the existing pavement? If Yes, go to 12a. ☒ Yes ☐ No
12a. Will construction activities occurring outside the existing pavement involve clearing, grading, filling, or modifications of vegetation or tree cutting? ☒ Yes ☐ No

Determination

If all the above questions were marked No (with the exception of Question 8a.), or if any of the above items were checked Yes or Don't know, but an adequate justification has been provided to support a no effect determination, then check **No Effect.** If any of the above items were checked Yes or Don't Know (with the exception of Question 8a.), a biologist is required to conduct a review and evaluate the project; complete the section 7 consultation process per section 24.7 of the LAG manual. Note: If a biologist is required to conduct a review and evaluate the project, this does not preclude a no effect determination.

☒ **No Effect** (The proposed project will have no effect on Federally listed or proposed species, and the proposed project will not result in the destruction or adverse modification of designated or proposed critical habitat).

	NMFS	USFWS
☐ NLTAA Date of Concurrence		
☐ LTAA Date BO Issued		
Date of First 6 Mo. Update		

Essential Fish Habitat Determination:

☒ No Effect

☐ Adverse Effect. Date of NMFS Concurrence _____

Analysis for No Effects Determination (Required if any item in Section 5 was checked Yes).

The project will not involve in-water work, disturbance to shoreline, or substantial construction disturbance. Work will take place in phases; thus, the entire site would not be disturbed at once. Site alterations will not impact Essential Fish Habitat or ESA-listed species; therefore, a no effect determination for the safety rest area renovation is warranted.

Direct effects to listed fish species and aquatic habitat are precluded by avoidance of in-water work and TESP and SPP measures during construction. Future on-site stormwater treatment, in accordance with the 2004 Highway Runoff Manual and Ecology's Stormwater Manual, represents substantial improvement over existing conditions by treating runoff currently discharged directly to the river.

WDFW data document historic bald eagle nests located within 0.5 miles of the project. However, WDFW monitoring data indicate that the last documented use by bald eagles was in 1998. A peregrine falcon used a bald eagle nest in 2004. The nest trees are above and set back 1/4 mile from the 550-foot cliff across SR 401 from the project and not within line of sight. Disruption of eagle and falcon activity and/or use of vicinity habitat is typically associated with high-disturbance construction activities such as blasting, pile driving, etc. None of these activities are proposed and no effect to bald eagle, peregrine falcon, or any listed species is anticipated.

Part 6 FHWA Comments

Use Supplement Sheet if additional space is required to complete this section.

"the natives...made their canoes remarkably neat, light, and well adapted for riding high waves. Some are...waxed, painted and ornamented with curious images. ...they are neater made than any I have ever seen and calculated to ride the waves and carry emence burthens"

- Capt. William Clark, Nov. 11, 1805