Fort Stevens State Park Historic Fort Area - Site Development Plan

Prepared for
Oregon Parks & Recreation Department

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Note: Civil engineering Concept Report and Drawings for site utilities are available at OPRD main office in Salem.
Overview - Project Background

As the primary military installation in a three-fort harbor defense system at the mouth of the Columbia River, Fort Stevens provided one of the most important strategic military outposts in the Pacific Northwest. Dating back to the Civil War era, a series of military installations continuously occupied the site through World War II. In 1947, Fort Stevens was listed by the War Department of the U.S. Military as surplus.

In the mid-1950s, a portion of the fort site was included as a new Oregon State Park. A Fort Stevens State Park Master Plan for the entire park was prepared in 1976. The Master Plan was recently updated by Oregon State Parks staff. The plan includes input of a steering committee, members of the community, and public agency and local government representatives. In addition, the Friends of Old Fort Stevens, a volunteer group and park managers and staff provided input.

The purpose of the Master Plan update was to address both current and future management concerns and to identify the needs and opportunities for the property. A Heritage Assessment of the park was conducted which included natural and cultural resource inventories. The plan also provided development concept plans for key facility areas in the park. The table of contents for the current 2001 Master Plan is included in the appendix of this document.

The Historic Fort Area Site Development Plan focuses on improvements proposed for the old fort portion of the park. The scope of the Site Development Plan is limited to the portion of the site where most of the intense military development took place. The site plan takes the goals and objectives and concepts in the Master Plan to a more site-specific, detailed level.

Goals and Objectives
The State Park Master Plan goals that relate to the Site Development Plan include the following:

Goal I: Protect and enhance the outstanding natural, scenic and cultural resources of Fort Stevens State Park.

Goal II: Improve park maintenance.

Goal III: Enhance park visitation.

Goal IV: Provide for future recreation.

Goal V: Improve state park access.

Goal VI: Improve interpretation about the park.

Goal VII: (Consider relationships)

Chapter Eight of the Master Plan develops strategies for the historic fort area. It states, “The Fort concept involves protection and rehabilitation of historic cultural resource interpretation, improvement of access and circulation to the fort site. The concept also involves the visitor’s understanding of the exciting historic eras at that site.” The Master Plan places a high priority on interpretation about the fort area and its historic features and stories.
Overview – Brief History of Fort Stevens

Fort Stevens State Park is located on the northern end of the Clatsop Plains, an extensive oceanfront area that extends several miles east to the coast range and several miles south. The early 1860's Civil War era historic fort area was strategically located on Point Adams, an area of high ground where south shore of the Columbia River enters the Pacific Ocean. Prior to Euro-American settlement and the construction of the south jetty in the late 19th century, the point was an important location for the trading activities and settlement of Native American peoples. Point Adams was later used for the military's protection of the entrance to the Columbia by the United States.
Overview – Brief History of Fort Stevens (continue)

Civil War Era

There were significant national security concerns during the mid 1800's on the west coast of the continent and into the Civil War era. Concerns included the occupation by Maximilian in Mexico, Confederate cruisers attacking Union ships and the presence of potentially hostile British ships in Victoria, Canada. Point Adams was the key site to controlling the ship channel along the Columbia River's south bank. Fort Stevens was once utilized in combination with two other forts at Cape Disappointment and also at Chinook Point, both located near the mouth of the Columbia River in Washington. These three fort installations, the south bank of the Columbia could be covered by plotted arcs of cannon artillery range configured in a triple arrangement.
Overview — Brief History of Fort Stevens (continue)

The original installation at Fort Stevens, completed in 1885, consisted of high, closed earthwork slopes called glacis, held by wooden scarp walls. A dry moat was formed at the base which filled from the high water table. The earthwork was shaped like an arrowhead with the length of the slopes nearly 340 ft. long, pointing north, east and westward. "The work provided enough space for twenty-seven guns to bear on the channel ways and sixteen guns in the salient on faces and flanks of the bastion," states Hanft.

The Army's construction at Fort Stevens was particularly arduous due to the amount of dense tree cutting and brush removal. It was reported that it took more than a month just to clear the site of immense fallen and decayed trees. Lack of drainage and decay of timber structures were constant problems in this damp, rainy climate. Near the end of the century, Fort Stevens was in a state of disrepair and troops were transferred to Fort Canby in 1884.

The muzzle-loading Rodman cannons of the original weaponry were sold for scrap in 1906. The earthworks were removed during World War II to make way for a parade ground. Today, much of the earthwork form has been reconstructed in the original location. A complete reconstruction of the earthworks is planned for later phases of the site reconstruction.
Overview – Brief History of Fort Stevens (continue)

Spanish American War Era
By 1898, a greater level of military preparedness was needed at the onset of the Spanish American War. Construction of concrete gun batteries allowed modernization of military facilities at Fort Stevens. An extensive system of submarine mine tracking and plotting was key to the defense of the Columbia, while still allowing for safe navigation of friendly vessels. During the war, the main channel of the Columbia was controlled with mines through operations based at Fort Stevens. The technical challenges of mine plowing and tracking in the rough waters of the Columbia required extreme precision of mapping and communications. Physical development on site during this time included docks for mine planting ships, engineering offices and storage of mine materials.

As the technology of weaponry and observation improved in range, the military batteries were developed in locations westward toward the Pacific Ocean. By 1902 the US Army Corps of Engineers had built three more concrete batteries extending west along the river at Fort Stevens. These west batteries, designed to function with disappearing guns, can still be seen today. At the end of the West Batteries, two were designed for "all around" (360 degree) fire. However, Battery Misclier had several operational defects that soon rendered it non-functional. Functionally, the issue with all other batteries, the main problem encountered was dampness and condensation on the walls due to leaks, cracks and a lack of ventilation and maintenance. With an average rainfall of 77 inches per year, drainage and waterproofing were constant issues.

Battery Russell, completed in 1904, was one of the last of the concrete emplacement built at Fort Stevens and was located south and west of the main fort. It was intended to supplement protection afforded by the other batteries with its greater range of firepower.

In 1899, two barracks, officers' quarters, an administration building, storehouse, stable and wagon room, bake house, guard house and workshop were constructed. Water and sewer systems were not built until considerably later. In 1901, there were a number of additional facilities constructed, including a hospital, more officers' quarters, barracks, mess halls and lavatories, and a water distributing system. Plank roadways were added as funds became available.

An enormous 36 ft. high earth form called the Parados was constructed in 1897. A French military designer, Vauban, developed the concept for the Parados. This embankment of earth at the base edge of the emplacements was to protect gun troops from rear attack. The Parados also protected the West Battery by limiting the area of fire from the Columbia River. In a period of attack, the gun crews could effectively operate in the area without fear of flying fragments from enemy ship bombardments.

In 1899 the command station in the west end of the Parados controlled all firing from the guns in the West Battery. The east bunker was used to sight enemy ships in the Columbia River and their proximity to sea mines, which were detonated from shore as the ship passed. The Parados, command station and east bunker all still exist and can be toured by park visitors.

World War I
Between wars, National Guard units were stationed at Fort Stevens, along with other units. According to Haft in his book, Fort Stevens, Oregon's Defender at the West, Fort Stevens functioned during World War I "as both a reception, staging and training center which training was given to new units." In addition, Fort Stevens saw more mine activity in the Columbia River.

Many additional temporary buildings were constructed in 1917 to accommodate the army at Fort Stevens. Electricity and water were added to the site during this construction phase. Some buildings were sold and remodeled after the war. Most of the temporary structures were gone by mid-1941.
Overview – Brief History of Fort Stevens (continue)

World War II

In the time between World Wars, Fort Stevens switched its focus from deactivating wartime efforts to maintaining the existing armament and permanent housing, and then restructuring for another war. Although it was felt that there was little threat to the west coast, the mobilization for World War II placed a heavy demand on the Northwest for training camps and ship building in the Portland/Vancouver area. As in World War I, the Coast Artillery mined the mouth of the Columbia to prevent entry of hostile ships. Fort Stevens controlled the actual blast machinery. Significant building again took place at Fort Stevens at the beginning of World War II.

However, most World War II structures had a short life in terms of the post as an active military installation. A few of the more durable buildings, such as the new mine store-room and the ammunition magazines, have remained relatively intact. Most of the foundations of those razed or moved have survived, but have been hidden in the vegetation which has sprung up and enclosed these ruins.

Incidentally, Fort Stevens was the only military installation to receive direct bombardment from an enemy in World War II.

Nine rounds of shells from a Japanese sub landed 300 yards from Battery Rose, but fire from Fort Stevens was ordered to stop and it was believed to be out of range. The commander did not want to renew the locations.

Above Photo: Historic wood barracks buildings

Historic aerial photograph of Fort Stevens, 1945.

Historic Fort Stevens WWII plan.
Overview – Relationship to the Columbia River

The South Jetty
The City of Portland, 108 miles inland, owes much of the existence of early commerce as a port city to the river protection offered by Fort Stevens construction of the South Jetty and river dredging by the USCOE. The South Jetty was constructed from 1894 to 1896 by the U.S. Army Corp of Engineers to improve the navigation channel for commerce. The jetty extends about 4.25 miles past the Fort Stevens site to the west, into the Pacific Ocean.

Over the past century, huge deposits accumulated south of the jetty, and the mouth of the Columbia River has moved westward. One interesting consideration is the considerable change in topography. The historic fort installation at Fort Stevens is now much farther from the ocean. For many decades, the site has lost much of its former character as part of the coastline. Portions of the site are now infilled with wetlands, dunes and various species of dense vegetation. While this change is dramatic, it is also a testament to the dynamic nature of coastal environments.
II Fort Conservation & Development – Overview & Objectives

Overview
In addressing the detail of a Site Plan for the historic fort site, it is important to recognize that a number of conservation issues will come into play. Early photographs and Fort Stevens development plans show a site cleared of vegetation, indicating land use that could be constructed and sights maintained. However, certain areas of the Old Fort development have evolved, and Woodlands have been left to mature. These areas have been overtaken with highway and wetlands have established along.

Objectives
The Heritage Assessment Summary of the Master Plan provides a site-specific cultural resource inventories and assessments for the Master Plan. This Cultural Resource Assessment of the prehistoric and historic resources is found within the park along the perimeter of the Columbia River. This section presents several eras, presenting a framework for management and development. For a listing of the appropriate management for the natural and scenic resources, refer to chapter 1 of the 2001 Master Plan.

Cultural Resource Conservation
For the project site, cultural resource conservation is focused on both the Cowlitz and World War II era reconstructions and the

2001 Aerial Photograph of Ft. Stevens. The earthworks landscape can be seen in the upper central area of the fort.
Fort Conservation & Development — Overview & Objectives (continue)

other developmental areas. This focus is based on the preexistence of demolished facilities that were found within the fort area of the current park boundaries.

1. Preserve all intact historic site structures and landscapes, at a minimum, in a stabilized condition.
2. Preserve significant historic remains of buildings from each era, including the remnants of concrete and/or brick foundations.
3. Plan for relocation of heavily used visitor facilities, such as the museum and educational functions, from the historic war games building to the new reconstruction barracks building to reduce wear on the historic wood structure and provide more interpretive and visitor services.
4. Preserve the WWII era Merci 40+8 boxcar and provide a new storage shelter to house the boxcar during the months of harsh coastal weather and deterioration.
5. Work to repair, and where necessary, reconnect the existing utility system at the fort site to help prevent further erosion and provide better drainage of the central core area of the site. (Refer to separate civil report for more information.)
6. Restore/stabilize certain fort artifacts and existing buildings/structures to ward off further weathering and deterioration.
7. Rehabilitate War Games Building for use as staff/FOCFS office space, meeting hall and to meet current building codes.
8. Reconstruct certain historic fort elements, such as buildings, walks, roads, fences and site utilities for accommodation of new visitor facilities. The Site Development Plan identifies the approximate locations and types of these new facilities and site landscape elements. Prior to reconstruction, archaeological survey, detailed plans and specifications will need to be completed, that are based on an exact location which will be identified through further historic research.

II. Natural Resource Conservation

The following objectives are an abbreviated list of guidelines for the natural resource conservation of the fort site development area.

1. Conserve natural resources such as woodlands and wetlands to the greatest extent possible, while accommodating programmed activities and historic views.
2. Conserve existing wetland and woodland resources at the historic fort site perimeter. Where bike and pedestrian trails navigate the accessible areas of the site, provide opportunities to view the more vegetative areas without adversely impacting these established ecosystems. Where new pathways extend north out to the jetty for observation platforms that provide overlook views to the river and the distant shorelines, the pathways shall be elevated just above the marsh waterline to protect the delicate balance of the tidal areas. The materials and construction of the trails are to match existing park facilities where appropriate.
3. Conserve the existing site woodlands and individual stands of maturing trees within the primary core area of the fort. However, selective removal of understory vegetation will be necessary to increase visibility to some of the remaining fort architecture and artifacts and to open up historic views deemed necessary to the protection of the historic fort site.
4. Selective removal of key trees and understory vegetation along the north perimeter of the site is necessary to regain key cultural views important to the historic perspective of protecting the site. This selective clearing will also aid in the visitor's understanding of the Park's interpretive objectives and will strengthen visitor orientation by allowing off-site views to the city of Astoria and environs.
5. Limit access to areas where demonstration war games and events are staged so that adjacent natural areas are not impacted. Where additional trails are suggested, augment the existing pedestrian trail system so that impacts to landscape areas and wetlands will be minimized. Remove and eradicate exotic vegetation, such as Scotch broom, where manpower and cost will allow.

III. Civil War Era Reconstructions

1. Reconstruct four 2-story cupolas along the west perimeter that will outline the core area.
2. Reconstruct the historic G&T and Moosroom in keeping with restoration on the site and flanks of the re-established Civil War era fort.
3. Reconstruction of the early years shall continue to become available.

IV. WWII Era Reconstructions

1. Reconstruct WWII shop to the new park shop adjacent to the Games Building. See page 3.
2. Reconstruct another WWII building located west of the War Games Building used as an open air demonstration area and picnic structure.
3. Reconstruct three historic warehouses to house an enlarged museum, art collection, storage facilities and office space.
4. Construct compacted aggregate construction prints of no longer extant WWII buildings that could be used to show the historical footprints of buildings that stood in this park site during the WWII era.

Above Photo: Swash Lake at bike trail bridge
Columbia River...
Overview

According to the 2001 Fort Stevens State Park Master Plan, "...the interpretive and educational mission for OPRD, in conjunction with its cooperative associations, is to provide interpretive and educational services that can involve visitors in activities which connect them with the natural and cultural heritage found on OPRD’s parks and other properties. OPRD’s main interpretive purpose, as a department, is to heighten and spread public understanding, appreciation and enjoyment of the natural and cultural resources of the OPRD system and to better understand the department’s role in providing these opportunities to the public."

The following text can be found in chapter eleven of the 2001 Master Plan.

Fort Stevens State Park Interpretive Themes

The following themes and subthemes have been identified for implementation in the Fort Stevens State Park interpretive program and facilities.

Central Theme for the Park: The Confluence of the Columbia and the Pacific Ocean. The confluence of the Columbia River, the Great River of the West, and the Pacific Ocean has shaped both the natural history and human history of the area, and of the Fort Stevens State Park itself. People through time have been driven to enter the treacherous waters of the river to unlock the riches of a continent.

The central theme provides a starting point in presenting Fort Stevens as a gateway to the northwest. The gateway opens the door for closer examination of the biological and geological diversity of the area, and of human exploitation of the gateway and the role of Point Adams/Fort Stevens as guardian and protector of the gateway. It also provides the basis for understanding the "creative" effort of much of the parkland due to sand accretion from the jetty and from dune stabilization efforts. The state park landscape has been dramatically altered by the wilderness of the river and ocean, and by human attempts to control them.

The Columbia River Empties a Continent and Opens a Region: The Columbia River has carried and deposited huge amounts of eroded material from deep within the North American continent, which has been deposited in an ever-growing spit and beach complex, and a very dangerous bar at the mouth.

Pre-Jetty sand movement and deposition.

Destruction of the pre-settlement beachside grasslands by grazing and trails.

The beachside sand stabilization effort.

Treacherous Waters

The Point Adams historic lighthouse and shipping traffic.

Shipwrecks.

South Jetty Construction Attempts to Tame the Bar: the jetty was constructed by the Army Corp of Engineers in the late 1800's in an attempt to tame the river for safer shipping traffic. This is an effort that continues today.

Point Adams- Strategic Location: Point Adams was settled by Native Americans and was developed by the US military because of its strategic importance at the mouth of the Columbia River. Clatsop Indian Presence, Trading and Culture

Fort Stevens: The fort was an important element in our nation's coastal defense system until the development of guided missiles and advanced air power made coastal artillery systems obsolete. The fort continued to upgrade fortifications and fire power and was both a social and economic center for the local community.

-Old Fort Stevens / Civil War

-Old Fort Stevens Garrison Life

-Army Corp of Engineers’ role

-Height of Fort Construction

-Spanish American War Era and Underwater Mining

-World War I Era Fort and Armory

-World War II Era Fort and Armory

-Fort Closure and Reuse

The Natural resources of the dunes and coastal ecosystems within the park are increasing and becoming more visible and accessible.

-Upland Sitka spruce forest, spruce-fir, and dunal lakes, the bay, the ocean.
Fort Conservation & Development – Conceptual Site Analysis Diagram

This schematic level diagram begins to evaluate and identify some of the primary issues to be considered during the site design development process.
Overview

Through several meetings with OPRD representatives and park staff, the fort reconstruction program proposed in the 2001 Fort Stevens State Park Master Plan was evaluated and utilized to provide guidelines for further development and reconstruction. Chapter eight, Development Concepts, of the Master Plan describes the facility development proposals for Fort Stevens State Park. These Master Plan proposals are based on the Goals and Suitability Assessments identified in chapters five and eight of the Master Plan. For ease of reference, the Master Plan Development Concepts section is reprinted in the Appendix section of this document.

Visitor improvements cited in the Master Plan include new day-use parking areas, historically located pathways within the fort area, improved connections to other parts of the state park, location of a new volunteer camp, and preservation of existing historic structures. In addition, the reconstruction of select historic barracks structures is proposed in the Master Plan. These reconstructed buildings will house the new museum, visitor orientation and interpretation and public meeting space and will offer limited overnight use for park visitors.

A critical component to the future development of the site is to evaluate and upgrade the existing utility infrastructure to meet all state and local compliance issues for the proposed development. A separate civil engineers report and support concept drawings were prepared in conjunction with this Site Development Plan. Copies of the report and drawings are available at the OPRD Headquarters Office in Salem.

The following pages define and illustrate the physical improvements proposed in the Site Development Plan for the historic area of Fort Stevens State Park. For purposes of discussion, most of the proposed activities and reconstructed facilities are located in the center of the site. The balance of the site contains recreational improvements such as trails and permanently located voter.
Site Development Program – Overview (continue)

In keeping with the stated goals, the more specific objectives of the Site Development Plan are as follows:

1. Orient site features to improve way finding through the historic fort area. These objectives will be met through entry signage and roadway improvements, reduction of visual distractions, reinforcement of key views through vegetation management, location of an entry and information kiosk, and improved directional signage within the site.

2. Screen new visitor parking so that visual impacts are reduced where they are adjacent to neighboring private properties. Further, the location and construction of new parking areas must not impact important natural resources, historic ruins or foundations of historic buildings.

3. Through site improvements, reinforce the interpretive and educational opportunities of this area of the park. Designate the different war eras so visitors can begin to understand the physical evolution of the site over time. Visitors will have a greater understanding of how this site exhibits layers of history that relate to distinct levels of military preparedness and technological capabilities of each era.

4. Improve the relationship of the historic fort area within the park to off-site extant structures that are now incorporated within the town of Hammond and Warrenton. This includes creation of a pedestrian walkway with a more significant gateway where park visitors enter and explore the town on foot.

5. Provide for limited passive recreation of the park. Recreation areas will include picnic areas and trails for biking and walking, historic areas for exploration and areas for viewing.

6. Anticipate and provide for more designated parking areas and appropriate locations. In addition, provide and support facilities for volunteers and visitors for the park.

7. Manage vegetation so that key views are maintained.
Site Development Program – Site Development Plan Trail System
Site Development Program — Site Development Plan Vehicular Circulation System

Legend:
- State Park
- Private Use

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Fort Stevens State Park - Historic
Site Development Program
Site Development Program - Entry Drive Improvements

A. Pull back existing curbs as shown and stripe at east end of island. Adjust stop signs as required.

B. Relocate (1) existing concrete fort miers from along entry drive to this new location. Move existing wooden fort sign from island to new entry booth location (see plan drawing next page).

C. Clear out understory vegetation to improve visibility to park entry approach (appx. 15’W).

D. Relocate standard OPBD park sign to the east end of the Pacific Dr. curve. Add text “park entrance next right.”
Site Development Program – Entry Booth and Ranger Station for Visitor Orientation

- Stripe existing 2-way road
- Straighten end of asphalt road and narrow radius at intersection, both sides
- Increase corner radius at turn to new visitor parking lot
- New traffic island with entry booth and park information/orientation signage
- Widen existing 2-way entry drive (asphalt) and stripe
- Traffic control sign: "Staff vehicles only"
- Civil war wood picket fence reconstruction, with gates at road crossing
- Historic Civil War gun mounted onto raised concrete base
- Traffic control sign: "Staff vehicles only" and registered overnight guests
- Rollards with concrete paving band
- Resurface existing asphalt road to new overnight parking lot
- New asphalt road to Hammond boat basin

Above Photo: View looking northwest to visitor building, beyond trees.

Existing park entry road looking northwest to east.

Southeast corner of sunworks.
Site Development Program – Civil War Era Historic Reconstruction Area

Historic Fort Stevens Park Civil War photo. View looking northwest along row of officer's quarters.

Plan view of proposed Civil War Officer's Quarter's reconstruction.

Illustration of Civil War officer's quarters reconstruction. View looking south from porch of Company Quarters and Mess Hall.
Site Development Program – Civil War Era Historic Reconstruction Area

NOTE

TO WWII RECONSTRUCTION AREA
RECONSTRUCT OFFICERS QUARTERS (4)
BUILDING A
REINFORCED TURF
REMEMBER BATTERY CLARK COMMANDER’S STATION
RECONSTRUCT WOOD PICKET FENCE
AGGREGATE ROAD ERSED (12’W) HISTORIC ALIGNMENT - TYP.
EXISTING WWII BARRACKS FOUNDATIONS TO REMAIN
RECONSTRUCT WOOD ROAD (12’W)
ASPHALT ROAD (EXISTING)
ENTRY BOOTH SEE SEPARATE DRAWING DETAIL

REALIGN TRAIL
RECONSTRUCT SLOPE
RECONSTRUCTED EARTHWORKS (FOR DIAGRAMMATIC PURPOSES ONLY)
AGGREGATE PATH (8’W)
LAWN (TYP.)
GATE
TRAFFIC CONTROL SIGN
HISTORIC CIVIL WAR QUIN
EXISTING TRAIL

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Fort Stevens State Park - Historic Site Development Program
Site Development Program – *Historic WWII Reconstruction Area*

**Historic WWII photo at Fort Stevens barracks.**

**Illustration of WWII Barracks reconstruction.**

**Fort Stevens: Duce & a Half vehicle.**

**Aerial view looking north towards West Batteries. Proposed WWII reconstruction area seen above visitor parking lot at proposed museum complex.**
Site Development Program – WWII Historic Barracks Reconstruction at New Museum Complex
Site Development Program – WWII Historic Barracks Reconstruction at New Museum Complex

View looking southwest towards existing park boundary and area proposed for new visitor parking lot.

Aerial view looking north directly over proposed visitor parking lot and elevated, planted sound barrier.

Section at Proposed Visitor Parking Lot

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Site Development Program – WWII Reconstruction at Existing War Games Building

- Realigned asphalt bike path and service road
- Building layout and concrete walks to reflect historic placement of WWII building
- Existing concrete foundation
- Existing trees to remain
- Existing parking lot removed to reconstruct historic layout of WWII building footprints and concrete walkways
- New asphalt road in historic WWII location
- Memorial rose garden
- Shop
- Picnic shelter interpretive pavilion
- Staff parking with planting islands (15 stalls)

Improvements include:
- Improved hardpack road with parking for 45 cars
- Clearing all understory vegetation and embankment to expose trees surrounding existing tower
- Concrete stairs and ramp with wood handrails
- Existing War Games building to become staff offices

Mayer/Reed
IV Design Detail Guidelines – Entry Gate Reconstruction

GENERAL NOTES:
1. ALL DETAILS SHOWN ARE TO BE USED FOR DRASTIC FOR PURPOSES.

NOTES:
GATE-
1. DETAIL REPRESENTS HALF OF FULL GATE, FENCE AND PIERS, DUPLICATE ALL COMPONENTS FOR RIGHT SIDE OF GATE NOT SHOWN.
2. THE MATERIAL AND SCALE DETAILS OF THE NEW ENTRY GATES SHALL USE THE EXISTING PIERS, IRON GATES, AND FENCES AT THE MAIN ENTRY ROAD AS THE TEMPLATE FOR DESIGN. TWO NEW GATES ARE REQUIRED FOR LOCATIONS SHOWN ON SITE DEVELOPMENT PLANS.

PRECAST CONCRETE POST:
11'-0" Top of Main Pier
7'-4" Top of Post
3'-0"

IRON FENCE PANEL
10'-4"

PEDESTRIAN GATE ONE SIDE ONLY
5'-0"

PRECAST CONCRETE PIER
4'-0" SQ.

IRON GATE, 1/2 SHOWN
11'-0"
SIZE TO FIT 1/2 OF WIDTH

ROADWAY
(EXTEND TO EACH END OF CONCRETE PIERS)

PARK SHIELD
TEXT STYLE, SIZE, AND LOCATION TO MATCH EXISTING AT MAIN PARK ENTRANCE

SQUARE STEEL RODS MATCH EXISTING

EXISTING PARK GATES, PIERS AND FENCE TO BE Duplicated for use at park entry.
Site Development Plan. Above photo: Entry to Hammond boat basin to be up of entry gate and fences.

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Fort Stevens State Park - Hill
Design Detail Guidelines
Design Detail Guidelines – Walkway and Bollards

1. Light Pole at Parking Lots

2. Wood Road - Civil War

3. Aggregate Path (edged)

4. Traffic Control Paving Band

5. Traffic Exits

Mayer/Reed
The Site Development Plan for the historic fort area is a culmination and synthesis of ideas and goals set forth in the OPRD 2001 Fort Stevens State Park Master Plan. The design intent of this plan is to further define the specific restoration and development program of the historic fort area within the current park boundaries. The opportunities associated with the development and management of this uniquely historic coastal environment presented many challenges to the design team. While it is essential to protect and enhance the extensive natural, historic and scenic qualities of the site, programming for future development is necessary to facilitate the education, interpretation and outdoor recreation for the park visitors.

The established OPRD Master Plan goals pertaining to the fort area of the park have been used to guide our development study and proposal. The Site Development Plan specifies some major components essential to park development and maintenance that further the specific long-term goals of the Master Plan.

In addition, more thought and focus must be given to the phasing for the varied improvements identified in this document. The outline information compiled in the Estimate of Probable Cost, located in the Appendix of this plan, offers a tool that can be used to evaluate and select the primary elements designed into each of the specific historic reconstruction areas. A critical component to be considered in evaluating a phasing plan is to salvage and improve the current site infrastructure. Preliminary site utility studies were performed and as-built utility documents were researched and, where possible, field verified, we suggest the inclusion of additional field verification and documentation for each of the proposed reconstruction areas.

The images, plans and details illustrated in this document are to serve as a way to provide an enhanced visitor experience to the richly diverse natural, cultural and scenic qualities of the site.
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Appendix B: Documentation of Land Use Approval
Appendix – 2001 OPRD Master Plan Development Concepts

The following excerpt is taken from Chapter Eight of the 2001 Fort Stevens State Park Master Plan prepared by Oregon Parks and Recreation Department. The referenced text (pages 57-62 of the Master Plan) is provided for the Fort Concept Development Area.

Fort Concept

The Fort concept involves the reconstruction and rehabilitation of historic structures for cultural resource interpretation, and the improvement of access and circulation to and within the fort site. The concept also involves improving the visitors understanding of the existence of several historic eras at that site. Interpretation and education are major objectives for the site and are proposed in simple and intensive ways. In addition to the interpretive objectives, proposals include meeting space and overnight accommodations in the historic area and setting.

For purposes of Master Plan approval by the affected local governments, the Fort Concept proposals apply only to lands within the main park boundary, and do not include proposals for the two OPRD-owned parcels outside of the park boundary, which are located in the adjacent residential/industrial neighborhood that was once a part of the historic fort.

Changes in Visitor Capacity and Peak Visitation that will Result from the Fort Development Actual numbers of vehicles counted in the Fort site over the last six years, for the peak season of July through September, has ranged from 345 to about 2800. However, the larger number has occurred only a couple of days over the last six years during the Labor Day weekend re-enactment. Without the additional re-enactment visitation the average daily peak number of vehicles over the same time period has been about 413. Averaging the additional traffic from the re-enactment, the average daily peak vehicle count grows to about 440 per day. The small difference between the average with the re-enactment numbers and without them is due to generally lower visitation during the rest of September.

The larger number of vehicles entering the park is generally confined to July and August, with Labor Day weekend adding a final surge and then dropping off significantly during the remainder of September. Good weather in September can add 2 or 3 more weekends of traffic similar to that experienced in August.

During the rest of the year visitation at the Fort site drops dramatically. Very little traffic enters the Fort area during October through June except for staff and volunteers. A few sunny weekends bring visitors in low to moderate numbers.

The development concept for the Fort proposes construction of enough designated parking to accommodate the non-event, non-Labor Day, peak use of about 413 cars a day. The concept includes two day use parking lots totaling up to 96 parking spaces, 50 overnight parking spaces, 15 staff parking spaces (existing), and 10 camping spaces for staff and volunteers. With 2-3 turnovers a day at the day use lots and one turnover a day at the overnight lots, this amount of parking would accommodate about 413 cars a day. Up to 50 cars would remain overnight at the Fort, which is longer than the current stay at the Fort. Additional cars would find no parking available except during special events, which are the only times that undesignated parking is allowed in grassy areas.

In summary, the development concepts for the Fort will not increase peak visitation during non-event peak visitation periods because parking at the Fort, which determines peak visitor capacity, will be limited to an amount that accommodates the current level of visitation only.

Circulation and Parking in the Fort Area

Reconfigure vehicular circulation within the Fort site. Vehicular travel between the Fort and the other areas of the park will continue via the Ridge Road, located outside of the park boundary. The Fort access road, which extends from Pacific Avenue, will connect with the proposed new central parking lot. The Fort access and parking proposals in the Fort Concept are intended to direct visitors along a circulation route to interpretive facilities that represent the historic eras of the Fort site. Existing streets within the Fort site other than the main access route will be retained, but will be closed to public vehicular use and used as bicycle and pedestrian paths, tour vehicle routes and service accesses. Several proposed parking lots for the Fort development are discussed below.

Conditions of Approval for the Fort Roads and Parking, in General

- OPRD will develop a management plan for the Fort. The management plan will include appropriate measures to prevent development in this area due to the flooding problems on the low-lying lands outside of the park. The area is the south. (The core area of the park is east of the batteries and includes earthworks, west of the batteries, the access road, and north of the future home development)

- The stormwater management plan will be submitted to Clatsop County for review and approval prior to the construction of any new roads or the reconstruction of buildings within the area.

- All access roads and parking lots at the Fort will meet the minimum construction standards of Clatsop County, except that reduced from such standards as the discretion of OPRD.

- Plans and specs for the Fort parking lots at the Fort will be submitted to Clatsop County for review prior to construction.

- Construct a new central parking area, additional parking locations, and new entrance roads, in the face of the Fort for public use parking only. Design
Appendix – 2001 OPRD Master Plan Development Concepts (continue)

and 20 RV-length parking spaces, maximum. Buffer the parking lot from the neighboring private lands to the south. Buffering will be accomplished using distance, a constructed berm along the south edge of the lot, and planting of native vegetation between the lot and the park boundary.

Conditions of Approval for the Central Parking Lot

- The minimum requirements of the parking buffer cannot be reduced through application of the minor variation provisions of OAR 736-018-0040.
- The parking lot will be located a minimum distance of 140 feet from the park boundary to the southwest.
- The berm will be constructed along the south edge of the lot and extend beyond each end of the lot, with a minimum height of eight feet above existing grade.
- Native and predominantly evergreen trees and shrubs will be planted on the berm and within additional area between the parking lot, the park boundary, and the existing tree cover to the west. The intent is to create a dense vegetative screen between the parking lot and access road and the adjacent private lands to abate noise and visual impacts. The vegetation will be planted prior to the construction of the parking lot and fort access road to allow the establishment of the screen. The vegetation in the buffer area will be maintained and replanted as needed to preserve a screening effect.

- The parking lot will meet the minimum applicable construction standards used by Clatsop County.
- Prior to Clatsop County's approval of the plans and specs for the central parking lot, OPRD will construct and plant the berm and the area between the berm and the private lands.
- Retain up to 15 spaces of existing parking at War Games Building for staff and volunteer parking.
- Construct a second day use parking lot at the east central edge of Fort site. Design for 36 car spaces maximum.
- Construct parking lots along access road in the northeast corner of the site. Design for a total of 50 car spaces. These lots are for overnight accommodations only.
- Reserve areas along internal circulation roads for overflow parking on the grass.
- Direct re-enactment events to the battles and earthworks and areas north and west of them.
- Construct docks on Columbia River in the approximate location of the historic docks, for courtesy day use docking. Docks should be designed to accommodate small tour boats as well as private boats. The docks will be designed with a maximum of 600 linear feet of moorage space.

Conditions of Approval for Docks on the Columbia River

- The following requirements will be applied in addition to DSL and USACE permitting requirements for dock construction and related mitigation, provided these requirements do not conflict with DSL or USACE requirements.
- The docks will be designed in consultation with CREST, ODFW, DSL, USACE and the OSU Department of Marine Sciences.
- Professionally accepted methods will be employed to contain excavated materials and control erosion, sedimentation and turbidity during construction.
- Disturbance of riparian vegetation will be kept to a minimum. Riparian areas disturbed during construction will be rehabilitated using native riparian vegetation within one year following construction. Rehabilitated areas will be monitored and maintained for a period of three years following planting to ensure that vegetation is adequately established, and will be replanted as needed.
- Mitigation requirements will be accomplished through wetland creation, replacement and restoration, provided that these requirements do not conflict with Clatsop County's approval of the plans and specs for the central parking lot.
- Prior to construction of the detailed plans and specification, OPRD will consult with Clatsop County for permitting purposes.
- Prior to Clatsop County's approval of the plans and specs, OPRD will consult with the project from DSL and USACE. Concurrently with the permitting process, OPRD will consult with ODFW and CREST.

Fort Foot and Bike Circulation

- Use routes shown on 10 mile loop map. They represent some of the options available and some routes to be completed.

Volunteer Camp

- Construct up to 10 parking spaces to east of firing range. These spaces are to be 30 feet wide. Parking spaces need to wait until a parking lot and access road can be constructed.
- Design to remain screened from areas.
Appendix – 2001 OPRD Master Plan Development Concepts (continue)

Conditions of Approval for the Volunteer Camp

- Prior to construction of the volunteer camp, OPRD will obtain approval from the City of Warrenton for the extension of sewer and water services to serve the development. (Upon the approval of this master plan by the City and County, an exception to statewide Goal 11 is being adopted to allow the future extension of these services. However, in order for the service connections to be approved, the City must find that the capacity of the City’s sewer system is sufficient to serve existing and future uses in the UGB as well as the uses in the park.)

- Prior to site construction, OPRD will submit plans and specs for the volunteer camp to Clatsop County for review and approval.

Historic Preservation of OPRD-Owned Structures

- Stabilize and restore buildings labeled as such on Fort Concept map and per detailed instructions in the Cultural Resource Management chapter of this master plan, and as determined by consultation with the State Historic Preservation Office. Most of these buildings will be used for interpretation only. The War Games building will continue to be used as an interim museum and staff volunteer offices until new museum buildings can be constructed.
- The Officer’s Row Bed and Breakfast will continue in its present use. The staff residence on the parade grounds will continue as such; the use of this building may be expanded in the future to include meeting space and/or another bed and breakfast. However, any land use approvals needed for future uses of either of these two properties will not be granted through the approval of this Master Plan, but will require separate land use actions by the City of Warrenton.
- Reconstruct certain, no longer extant, Historic structures for museum, orientation, meeting space and overnight use. The buildings recommended for reconstruction are labeled as such on the Fort Concept Map. Recommended reconstructions include buildings from several eras of fort history such as “turn of the century”, “WW1” and “WW2”. The center of the fort area, currently filled with the foundations of previously existing barracks, should remain mostly undeveloped, except for the recommended reconstructions shown in the concept plan. This will provide an open space which will help to keep separate the various restoration and reconstruction areas surrounding it, and to provide space for staging events.

- Barracks reconstruction could be used for one or more of the following purposes:
  - Fort Orientation and Interpretive Center
  - museum display areas
  - storage space
  - staff and volunteer offices and break rooms
  - public restrooms
  - museum store
  - museum cafe
  - retreat facility public meeting spaces and/or classrooms.
  - retreat facility overnight accommodations including an associated dining hall.
  - Overnight accommodations in the Fort Area will not exceed 60 double-occupancy rooms.

Conditions of Approval for Reconstruction of Historic Buildings

- Design of the reconstructed historic structures, including square footage and exterior and interior appearance, will preserve the integrity of the National Register District and its contributing elements. Compliance with this requirement will be determined through the review and approval of detailed designs by the State Historic Preservation Office.

- Prior to the reconstruction of historic buildings at the Fort, OPRD will work with the Department of Geology and Mineral Industries and local emergency service providers to complete a tsunami warning and evacuation plan for the park, and will provide any needed signage, materials or other improvements as necessary to implement the parkwide plan. (See the discussion under Chapter 7, Goal 2, on the tsunami warning and evacuation plan.) Note to Henry: this plan does not exist in Goal 2.

- Prior to reconstructions that require sewer or water connections, OPRD will obtain approval from the City of Warrenton for the extensions of sewer and water services to serve the development. (Upon the approval of this master plan by the City and County, an exception to statewide Goal 11 is being adopted to allow the future extension of these services. However, in order for the service connections to be approved, the City must find that the capacity of the City’s sewer system is sufficient to serve existing and future uses in the UGB as well as the uses in the park.)

- Detailed plans and specifications for the reconstructions will be submitted to Clatsop County for review and approval prior to construction.
## Appendix – Estimate of Probable Cost

### Description

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**BUILDINGS**

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</tr>
<tr>
<td>Traffic Roundup (2-w. 40' concrete)</td>
<td>2</td>
<td>EA</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Benches (6)</td>
<td>6</td>
<td>EA</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>Gazebo (GR Horse Aluminum)</td>
<td>1</td>
<td>EA</td>
<td>$1,000.00</td>
</tr>
</tbody>
</table>

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**Fort Stevens State Park**

**Appendix - Estimate of Construction Costs**
Appendix – Project Resources

Publications

Fort Stevens - Oregon’s Defender at the River of the West, Marshall Harft, Friends of the Old Fort Stevens, Inc., 1990


Army Engineers & The Development of Oregon, William F. Willingham, Portland, OR: The District 1963

Fort Stevens State Park Master Plan, Oregon Parks and Recreation Department, 2001

Photography & Illustration

Aerial & Historic Photography: Courtesy of Fort Stevens Historical Area Museum, Fort Stevens State Park, Warrenton, OR

Watercolor Illustrations: Martin Kyle-Milward, Portland, Oregon, November 2001

Survey Data

Portland, Oregon, July 2001

Civil Engineering & Electrical Data

Pertovich, Nottingham & Oranje, Inc.
Astoria, Oregon, December 2001
Site Utilities and Electrical Concept Plans
Site Utilities Report / Cost Estimate

Earthworks Reconstruction Documents

Zalk / Miller / Dibenedetto Architects

Mayer/Reed