



US Army Corps  
of Engineers  
Seattle District



WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y

# Joint Public Notice

## Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

**US Army Corps of Engineers**  
Regulatory Branch  
Post Office Box 3755  
Seattle, WA 98124-3755  
Telephone: (206) 316-3156  
ATTN: Ms. Amanda Barbieri  
Project Manager

**WA Department of Ecology**  
SEA Program  
Post Office Box 47600  
Olympia, WA 98504-7600  
Telephone: (360) 407-6076  
ATTN: SEA Program,  
Federal Permit Coordinator

**Public Notice Date: March 6, 2020**  
**Expiration Date: April 5, 2020**

**Reference No.:** NWS-2019-1034  
**Name:** Washington Department of Fish  
and Wildlife (Hamilton Landing  
Development)

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Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated December 6, 2019.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

**APPLICANT:** Washington Department of Fish and Wildlife  
Attention: Anna Marie Sample  
600 Capitol Way North  
Olympia, Washington 98501  
Telephone: (360) 790-0868

**LOCATION:** The project is located in the Stillaguamish River and a wetland at Stanwood, Washington.

**WORK:** The applicant proposes to develop a recreational boat launch site and associated infrastructure. The applicant would excavate up to 318 cubic yards (CY) of sediment within 816 square feet (sf) of the Stillaguamish River. The applicant would place up to 18 CY of fill consisting of precast concrete planks (3.62 CY), precast articulated concrete mats (6.58 CY), and subgrade material (7.47 CY) in the Stillaguamish River.

The applicant would place up to 108 CY of crushed rock material and hot mix asphalt within 4,012 sf of a Category III wetland to construct a parking lot.

**PURPOSE:** The purpose of this project is to provide public recreational water access.

**DREDGED MATERIAL MANAGEMENT PROGRAM (DMMP):**

**Dredged Material Testing:** This project has been evaluated according to the guidelines specified by DMMP, a multi-agency program for the evaluation of dredged material proposed for disposal at open-water sites in

## **NWS-2019-1034, Washington Department of Fish and Wildlife**

Washington State. Given that the volume of sediment proposed for removal is small, the site has been involved in the Washington State Department of Ecology's Toxics Cleanup Program, sediment testing did not identify any soil concentrations in excess of DMMP screening levels, and all excavated materials would be taken to an approved upland disposal site, no testing by the DMMP is required.

### **ADDITIONAL INFORMATION:**

The site is a 2.01 acre parcel located along the east shoreline of the Stillaguamish River and Irvine Slough, which are tidally influenced. This site is approximately 1.6 river miles from Port Susan Bay and 2.3 river miles from Skagit Bay.

Excavators, dozers, and graders will be used to clear and grade the construction site. Spoil material will be hauled off-site to an approved disposal site. Clean fill and crushed rock will be brought on site for subgrade material.

The proposed new boat launch will be located at the south property line of the site, directly adjacent to the existing wooden wharf. The launch will be 44 feet in length, using 11 pre-cast concrete planks. Articulated concrete mats will be placed on both sides and the end of the launch planks to reduce scour from underneath the planks as well as providing additional substrate for launching to occur. The articulated concrete mats will add 8 feet to each side of the launch and 8 feet at the end. The planks and mats will be installed with an excavator.

The parking area will cover 4,012 SF of the existing wetland area. Grading and paving of the parking area will be completed with a grader, bulldozer, and paving machine. A sewage lift station will be installed next to the toilet building and will connect to a new force-main and existing sewer manhole, approximately 690 feet to the east, under 98th Ave. The toilet building will also connect to the existing water line, at the north end of the site. A painted pedestrian walkway will be designated from the toilet building to the top of the boat launch.

Storm water improvements include grass filter strips along the parking lot edge. Construction storm water will be controlled by use of wattle dams and silt fencing as needed. A turbidity curtain will be installed to surround the in-water work, including the excavation of the new boat launch grade and installation of planks and articulated concrete mats. Disturbed areas on site will be grass seeded or mulched.

The wetland boundaries and location of the high tide line shown on the project drawings have not yet been verified by the Corps. If the Corps determines the boundaries of the wetland/waters are substantially inaccurate, a new public notice may be published.

**MITIGATION:** The applicant has proposed the following mitigation to compensate for the project's adverse impacts to waters of the U.S.:

**Riparian Plantings:** An area consisting of 2,100 square feet along the shoreline of the Stillaguamish river, above the high tide line, would be planted at a 1:4 ratio as compensatory mitigation for the boat launch development. Salt tolerant, native species were selected as the tidally influenced river includes brackish sea-water that may influence more sensitive species.

**Wetland:** The Category III wetland will be impacted by the proposed parking area, which will cover 4,012 sq. ft. of the wetland with asphalt pavement. This impact will be offset by enhancing 4,725 sf of existing wetland and creating 11,323 sf of wetland on site.

## **NWS-2019-1034, Washington Department of Fish and Wildlife**

**Structure Removal:** Approximately 9 in-water pilings (some creosote) will be removed from shore, using an excavator and chain to pull them up. If necessary, the piles would be cut at 2 feet below grade. Additionally, wooden decking material and additional pilings would be removed from an existing overwater structure (approximately 2,100 sf).

**ENDANGERED SPECIES:** The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. After receipt of comments from this public notice, the Corps will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area. If the Corps determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps' final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

**CULTURAL RESOURCES:** The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

**EVALUATION – CORPS:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

## **NWS-2019-1034, Washington Department of Fish and Wildlife**

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

SOURCE OF FILL MATERIAL: The applicant has not yet identified the source of the fill material. Should a permit be issued, the Corps will evaluate the fill material source prior to the start of construction.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

CORPS COMMENTS: All e-mail comments should be sent to [amanda.barbieri@usace.army.mil](mailto:amanda.barbieri@usace.army.mil). Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Amanda Barbieri, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

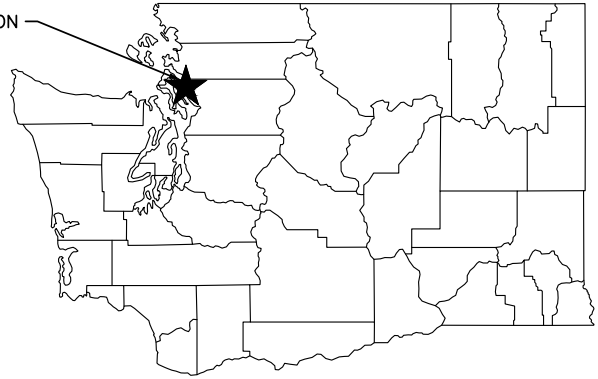
ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov).

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Washington Department of Fish and Wildlife; NWS-2019-1034

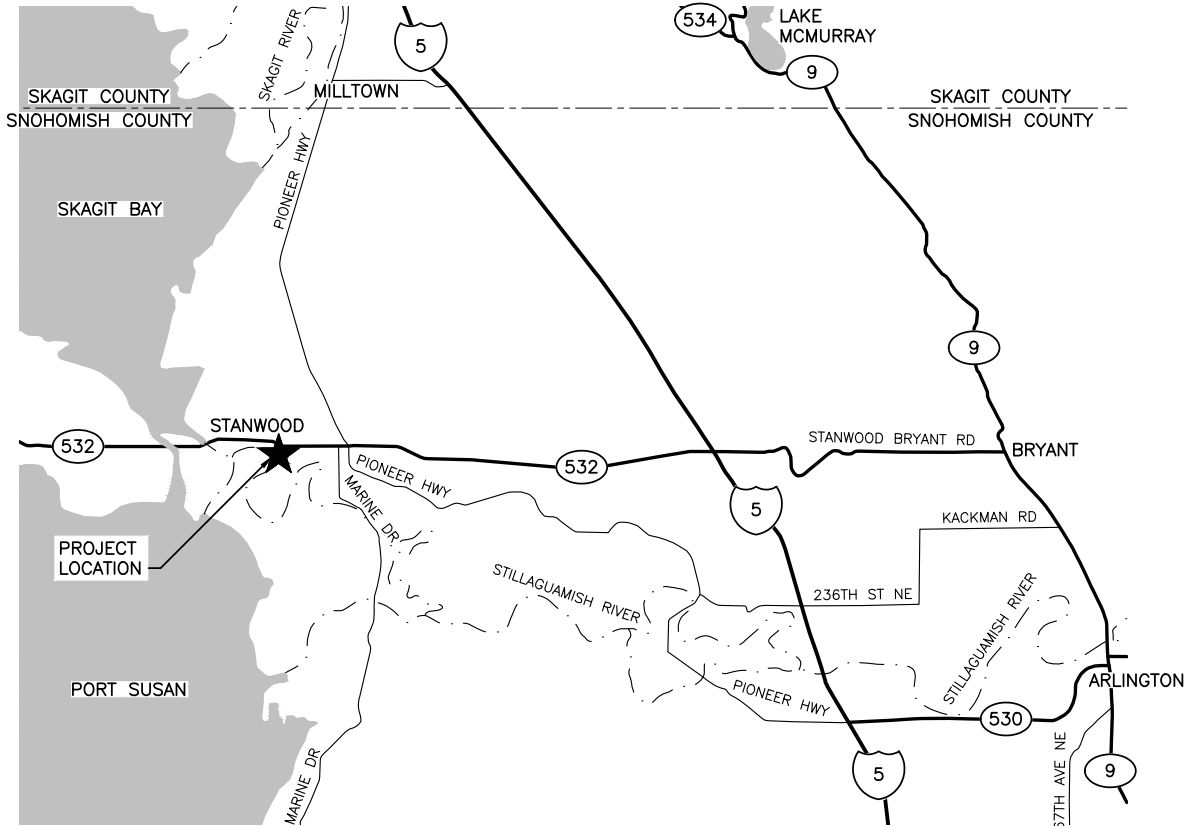
Encl: Figures (14)



PROJECT LOCATION



**STATE MAP**  
NOT TO SCALE



**VICINITY MAP**  
NOT TO SCALE

**DIRECTIONS**  
FROM OLYMPIA, TAKE I-5 NORTH TO EXIT 212. TURN LEFT ONTO WA-532 WEST. STAY ON THIS ROAD FOR ABOUT 6 MILES TO THE CITY OF STANWOOD. BEFORE YOU DRIVE PAST THE HAMILTON SMOKESTACK, TAKE A LEFT ONTO 98TH AVE NW. THE DESTINATION WILL BE ON THE RIGHT.

ENG. PROJECT NO. SH:A696:18-1

PORTION OF: S25, T32N, R3E

DRAWN BY: N. BRUTZMAN

REFERENCE NUMBER:

APPLICANT:  
**WASHINGTON DEPT. of FISH & WILDLIFE**  
600 CAPITOL WAY N.  
OLYMPIA, WA 98501-1091

ADJACENT PROPERTY OWNER:  
1. CITY OF STANWOOD  
2. CLINTON STRONG

PROJECT LOCATION (ADDRESS):

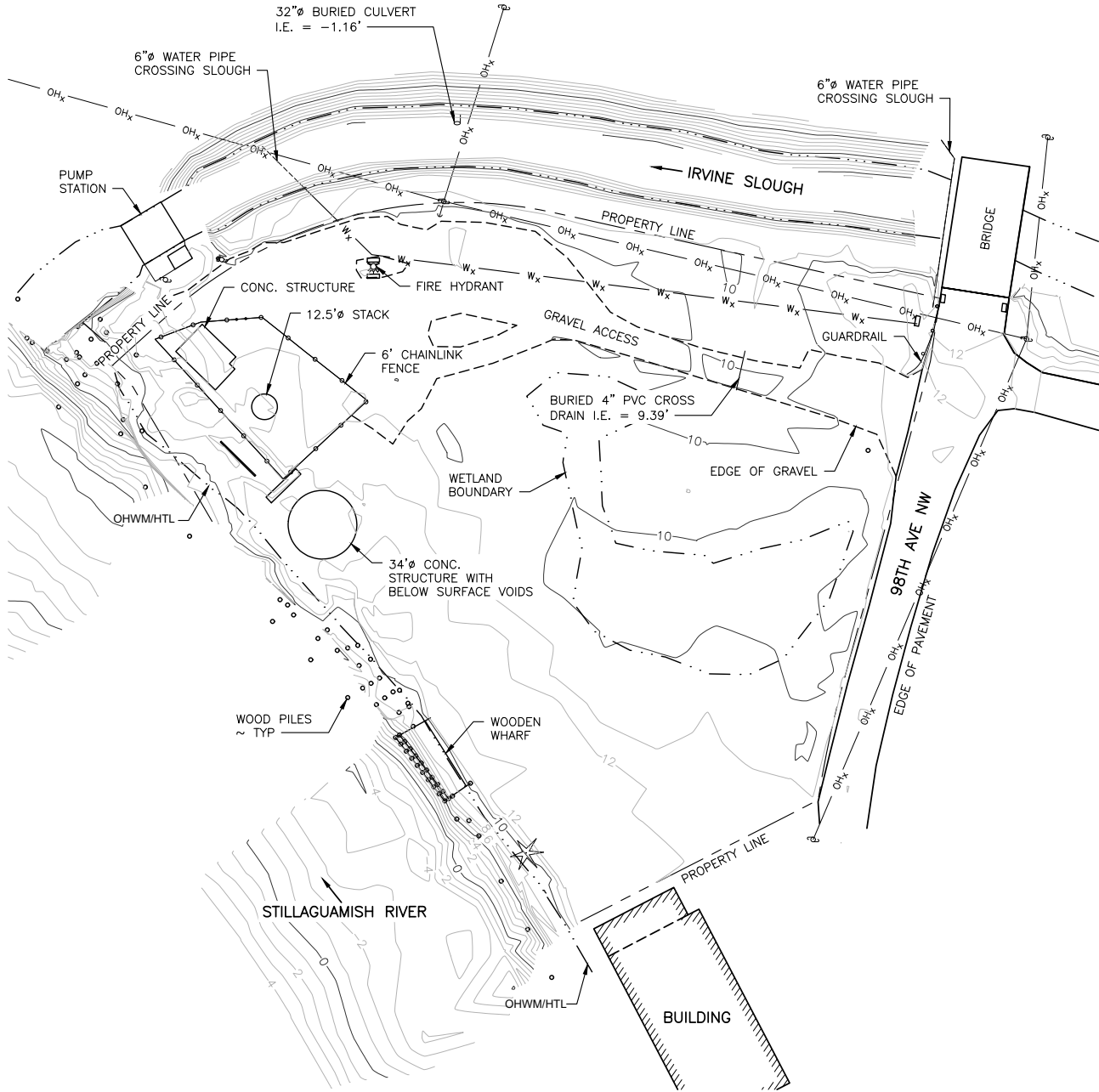
HAMILTON LANDING  
26810 98TH AVE NW  
STANWOOD, WA

LAT/LONG: N48.239221 / W122.366608  
DATUM: NAVD 88  
SHEET 1 OF 14 DATE: 12/6/2019

PROPOSED PROJECT:

**ACCESS DEVELOPMENT**  
SITE DEVELOPMENT

IN: STILLAGUAMISH RIVER  
NEAR/AT: STANWOOD  
COUNTY: SNOHOMISH  
STATE: WA

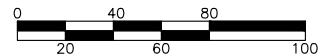


DATUM CONVERSION			
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MLLW	-5.77	0.00	-2.11
MLW	-4.97	0.80	-1.31
MHW	0.73	6.50	4.39
MHHW	1.63	7.40	5.29

TIDAL DATUM DERIVED FROM U.S. ARMY CORPS OF ENGINEERS DATA SHEET - SEATTLE DISTRICT, STATION 101 - STANWOOD. THIS TABLE ALSO AGREES WITH TABLE SHOWN ON WA. STATE DNR SURVEY OF GOV'T LOT 4 SEC. 25, T32N R3E, PREPARED IN 1965.

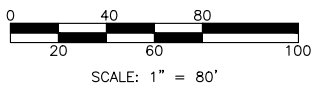
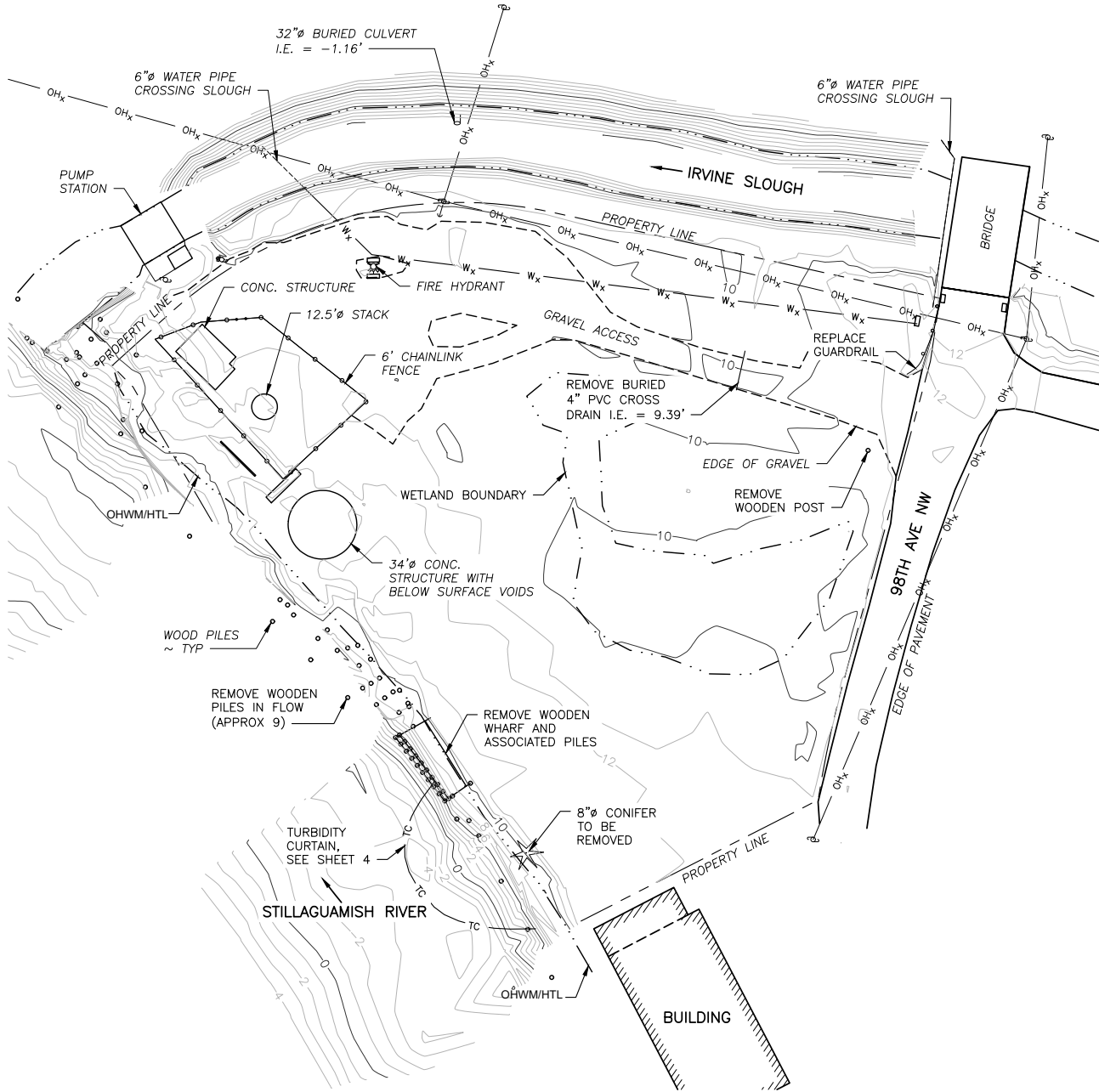
**EXISTING SITE**

SCALE: 1" = 80'



SCALE: 1" = 80'

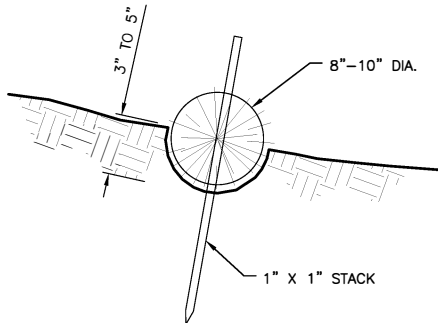
REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 2 OF 14 DATE: 12/6/2019



**EROSION CONTROL &  
DEMOLITION PLAN**

SCALE: 1" = 80'

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 3 OF 14 DATE: 12/6/2019

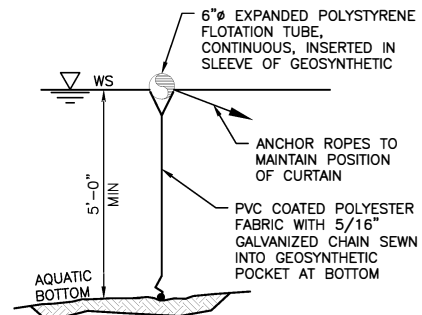


**STRAW WATTLE DETAIL**

NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS:**

1. PREPARE THE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED.
2. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
3. DIG SMALL TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE.
4. IT IS CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
5. START BUILDING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
6. CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3-12 FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES. 1:1=10' 2:1=20' 3:1=30' 4:1=40'
7. LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.
8. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES.
9. DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY 1 OR 2 INCHES OF STAKE EXPOSED ABOVE ROLL.
10. IF USING WILLOW STAKES REFER TO LIVE STAKING BEST MANAGEMENT PRACTICES.
11. INSTALL STAKES AT LEAST EVERY 4 FEET APART THROUGH THE WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY EROSION OR VERY STEEP SLOPES.
12. INSPECT THE STRAW ROLLS AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE ROLLS ARE IN CONTACT WITH THE SOIL.
13. REPAIR ANY RILLS OR GULLYS PROMPTLY.
14. RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED.



**TURBIDITY CURTAIN**

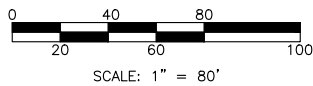
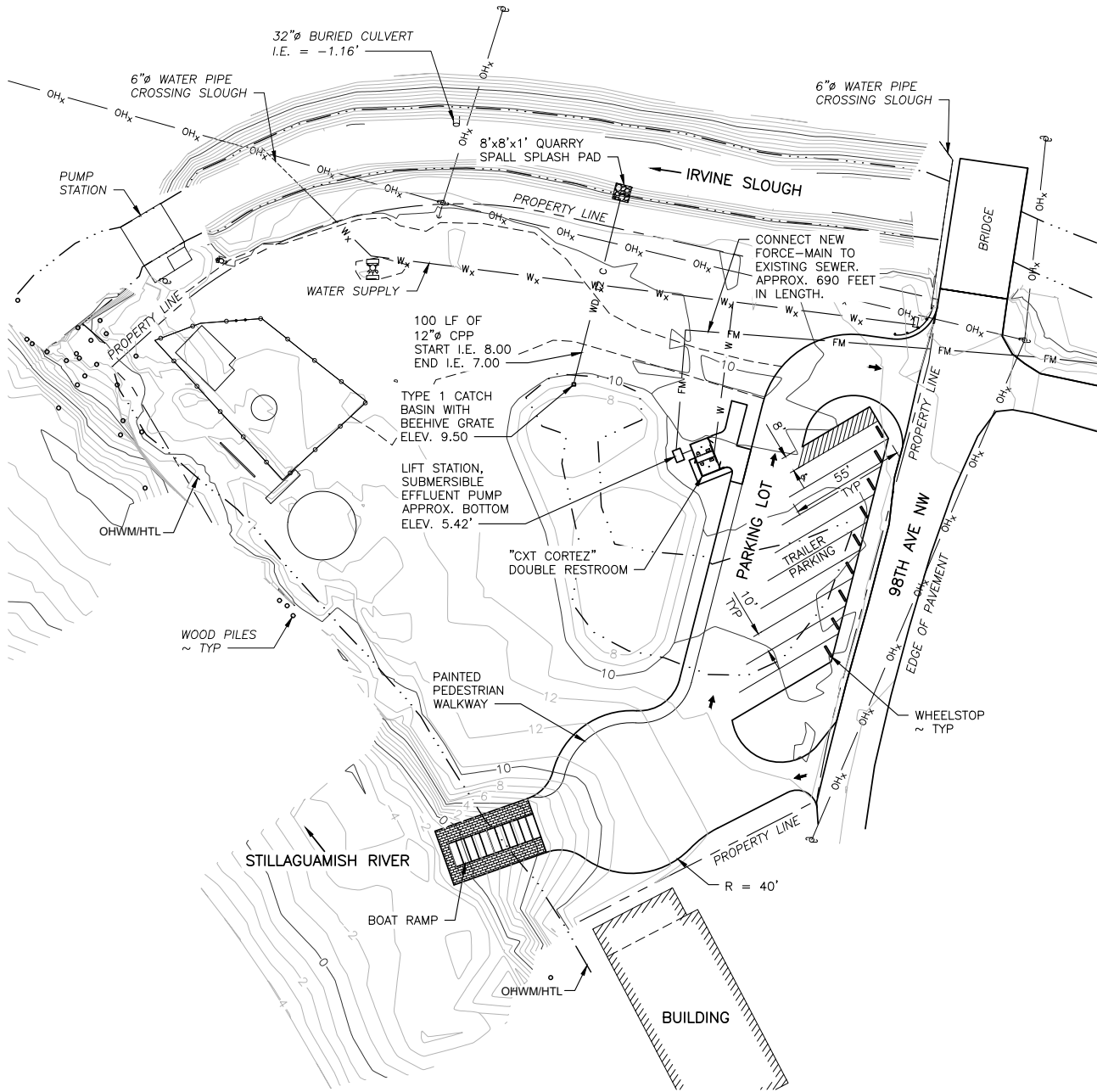
NOT TO SCALE

**NOTES:**

1. FABRIC IS 22 OZ/YD<sup>2</sup>.

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 4 OF 14 DATE: 12/6/2019

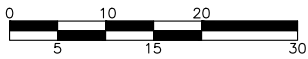
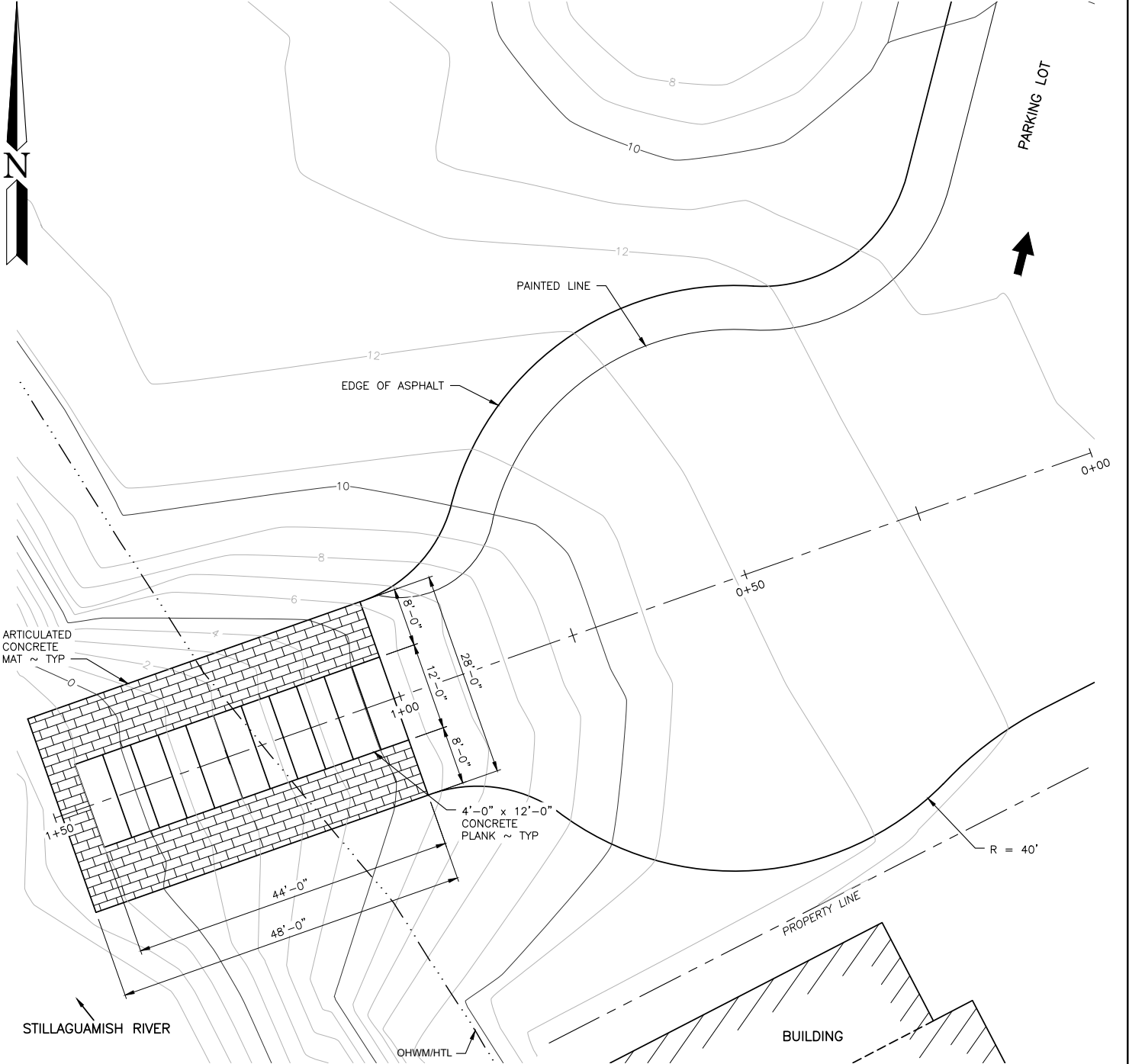




**SITE PLAN**  
SCALE: 1" = 80'

IMPERVIOUS SURFACE	
EXISTING IMPERVIOUS SURFACE TOTAL:	19,734 SQ.FT.
PROPOSED NEW IMPERVIOUS SURFACE TOTAL:	24,840 SQ.FT.

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 5 OF 14 DATE: 12/6/2019

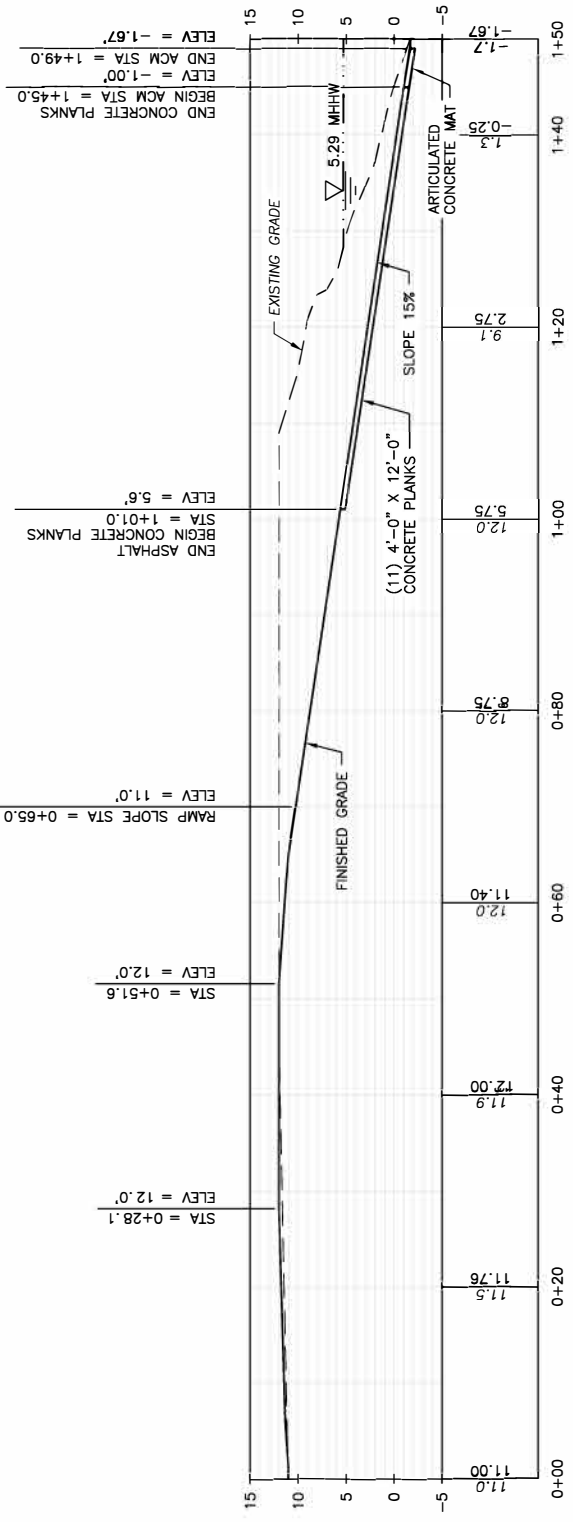


SCALE: 1" = 20'

**BOAT RAMP**

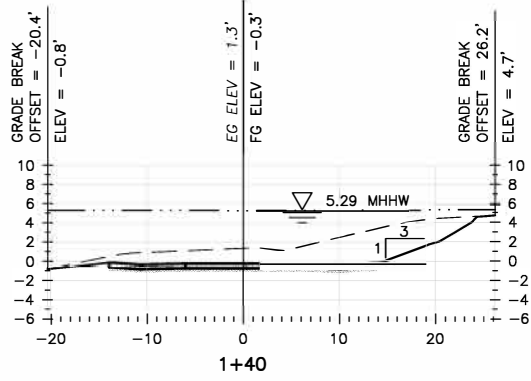
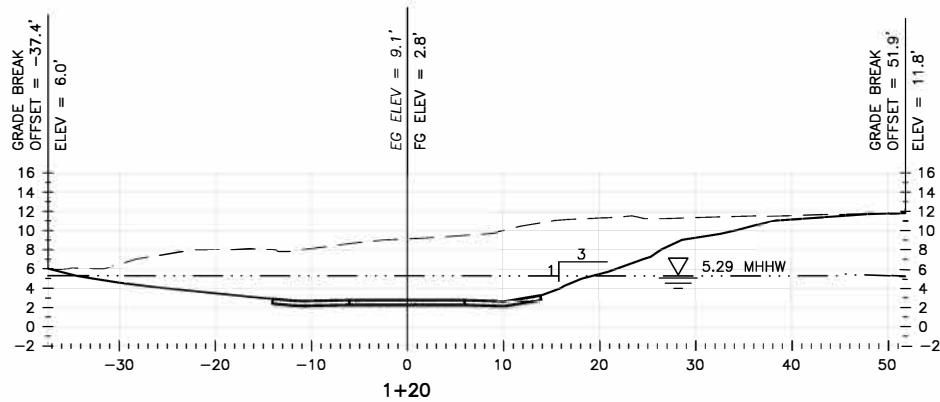
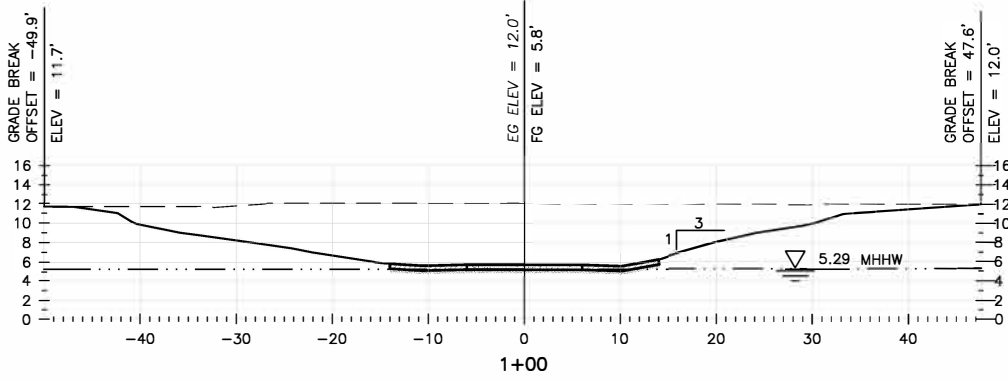
SCALE: 1" = 20'

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 6 OF 14 DATE: 12/6/2019

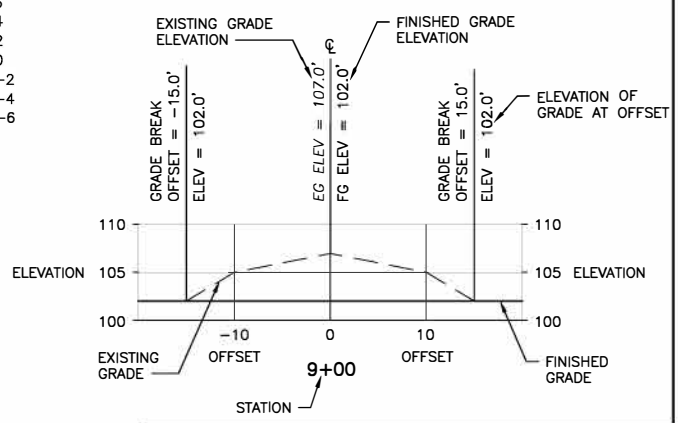


**BOAT RAMP PROFILE**  
SCALE: 1" = 20'

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 7 OF 14 DATE: 12/6/2019

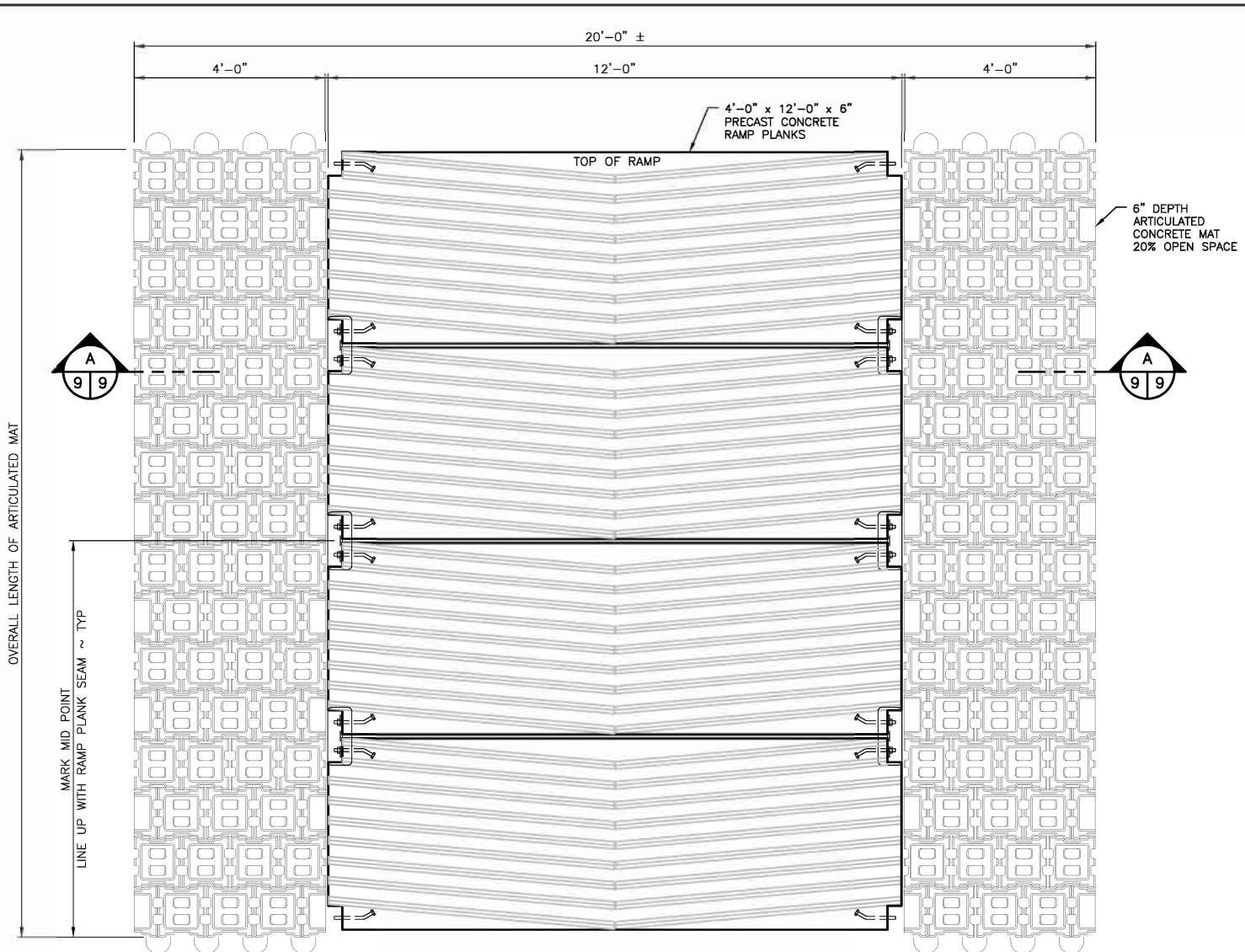


**LEGEND**

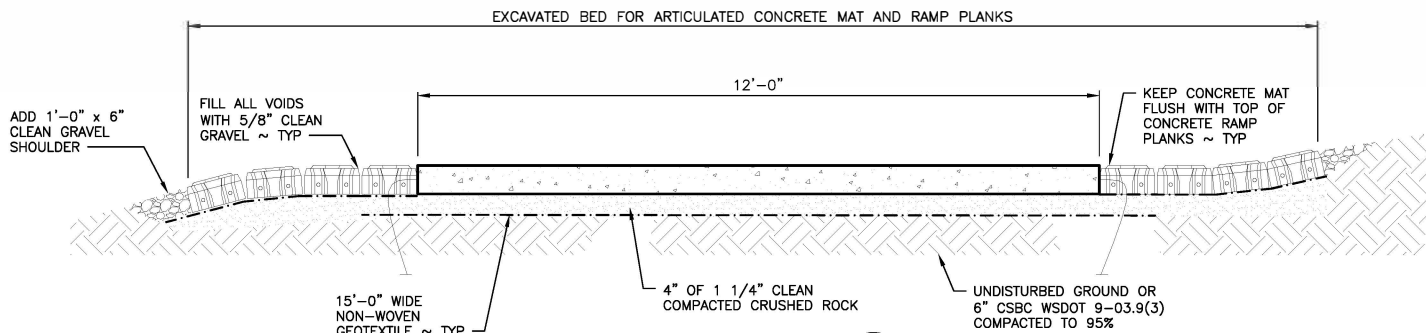


**BOAT RAMP SECTIONS**  
SCALE: 1" = 20'

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 8 OF 14 DATE: 12/6/2019



**TYPICAL RAMP PLANK PLAN**  
SCALE: 1" = 1'-0"

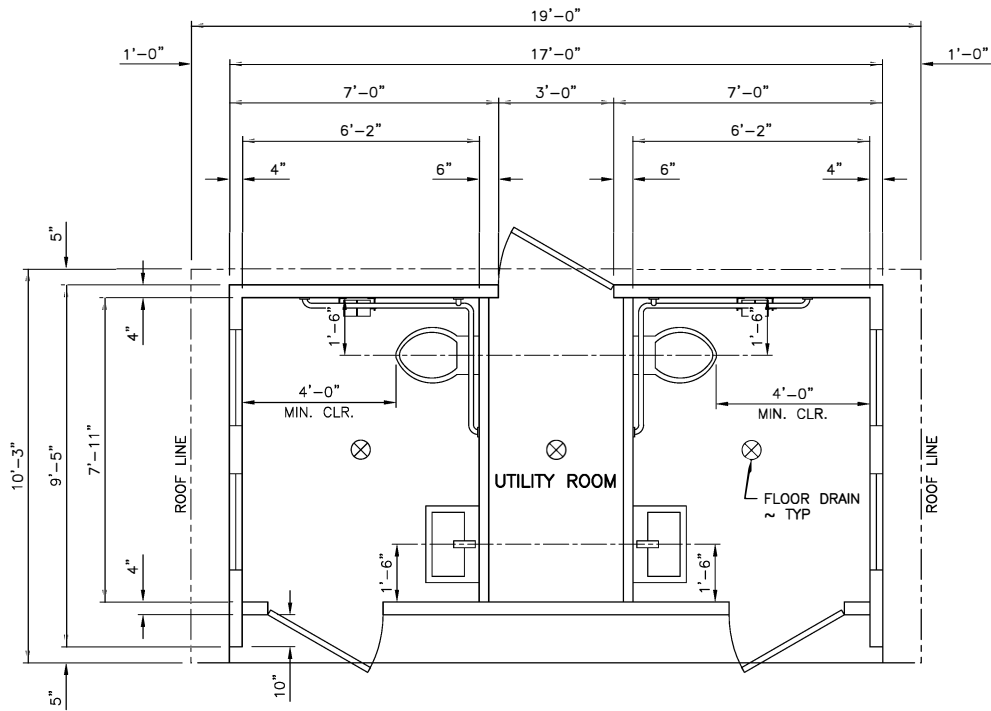


**RAMP PLANK**  
NOT TO SCALE

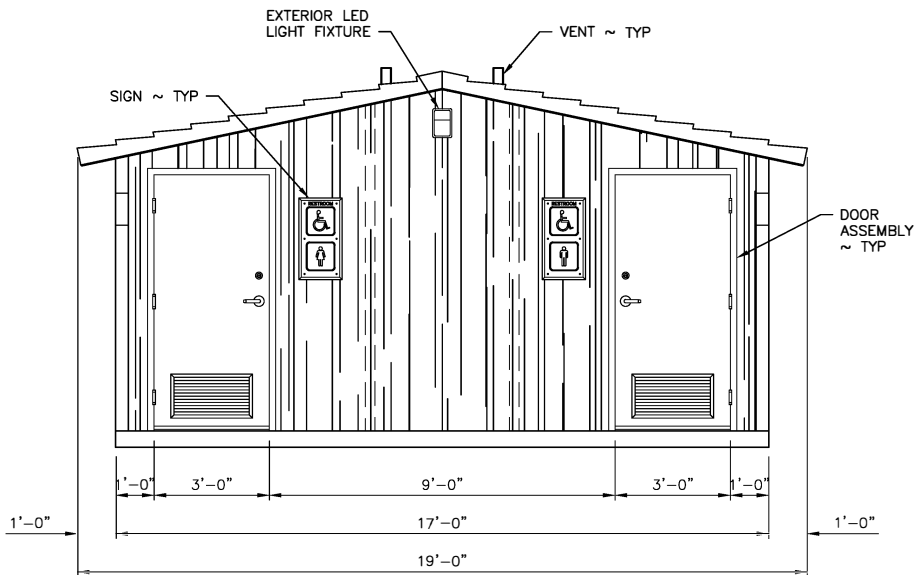
**NOTE:**

SEE SITE PLAN FOR SIZE AND LAYOUT OF ARTICULATED CONCRETE MATS

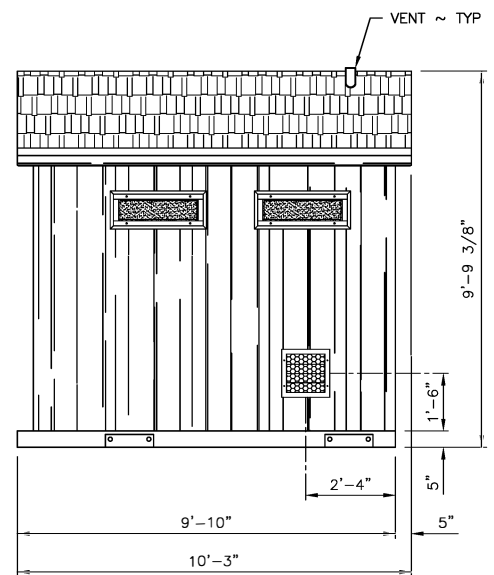
REFERENCE NUMBER:  
 APPLICANT NAME:  
**WASHINGTON DEPT. of FISH & WILDLIFE**  
 PROPOSED PROJECT:  
**ACCESS DEVELOPMENT**  
 LOCATION: **HAMILTON LANDING**  
 SHEET 9 OF 14 DATE: 12/6/2019



TOP VIEW



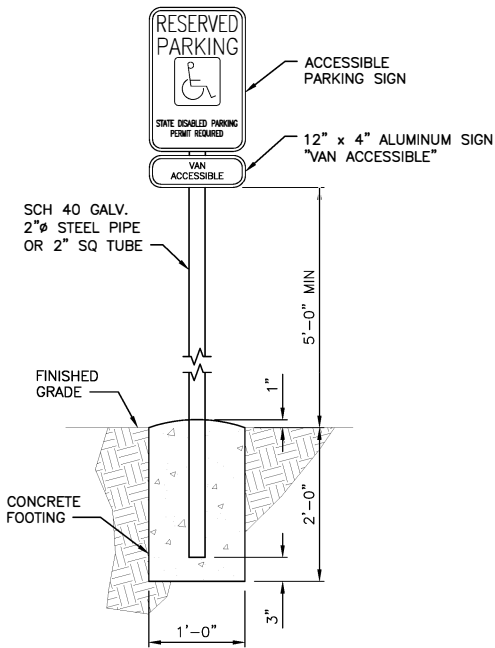
FRONT VIEW



RIGHT VIEW

**DOUBLE "CXT"  
CORTEZ FLUSH TOILET**  
SCALE: 1" = 5'

REFERENCE NUMBER:  
 APPLICANT NAME:  
**WASHINGTON DEPT. of FISH & WILDLIFE**  
 PROPOSED PROJECT:  
**ACCESS DEVELOPMENT**  
 LOCATION: HAMILTON LANDING  
 SHEET 10 OF 14 DATE: 12/6/2019

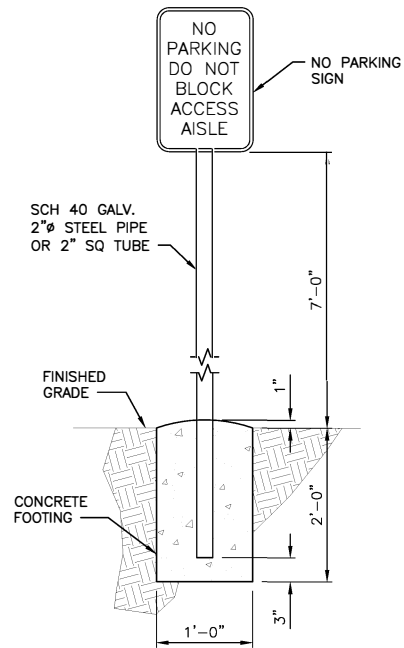


**ACCESSIBLE PARKING SIGN**

NOT TO SCALE

**NOTE:**

USE TAMPER RESISTANT NUTS TO ATTACH SIGNS TO POST

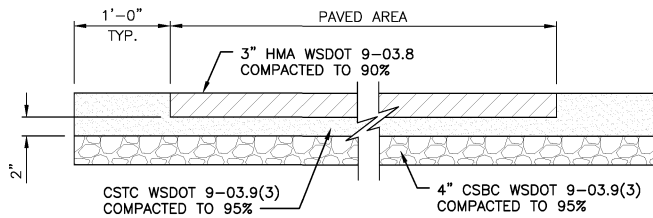


**NO PARKING SIGN**

NOT TO SCALE

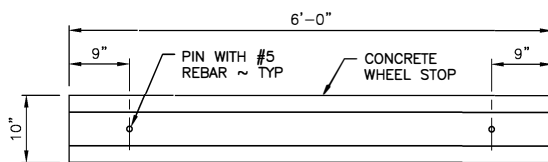
**NOTE:**

USE TAMPER RESISTANT NUTS TO ATTACH SIGNS TO POST



**HMA DETAIL**

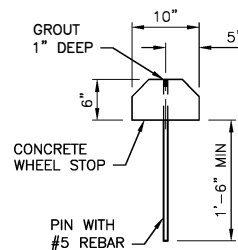
NOT TO SCALE



**PLAN**

**CONCRETE WHEEL STOP**

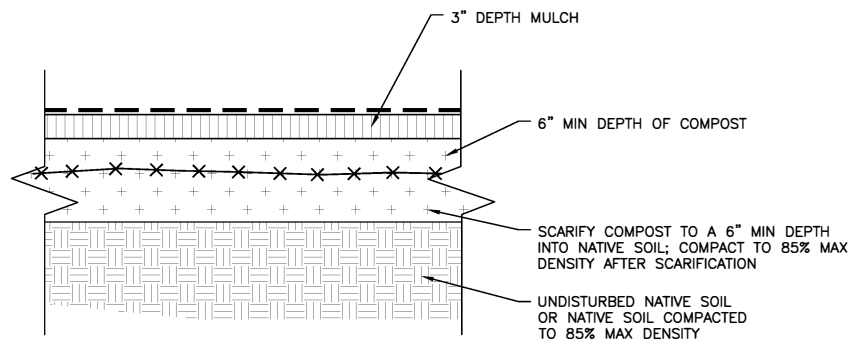
NOT TO SCALE



**SECTION**

REFERENCE NUMBER:  
 APPLICANT NAME:  
**WASHINGTON DEPT. of FISH & WILDLIFE**  
 PROPOSED PROJECT:  
**ACCESS DEVELOPMENT**  
 LOCATION: HAMILTON LANDING  
 SHEET 11 OF 14 DATE: 12/6/2019

OVERALL CUT AND FILL DATA CY.						
MATERIAL	ABOVE MHHW		BELOW MHHW		SQ.FT. OF IMPACT	
	CUT	FILL	CUT	FILL	ABOVE MHHW	BELOW MHHW
ARTICULATED MAT	0.00	8.57	0.00	6.58	462.89	355.08
COMPOST	0.00	303.60	0.00	0.00	16,410.00	0.00
CONCRETE	0.00	48.40	0.00	0.00	3,920.60	0.00
CONCRETE PLANKS	0.00	6.19	0.00	3.62	334.00	195.32
CRUSHED BASE	0.00	262.35	0.00	0.00	21,250.11	0.00
CRUSHED TOP	0.00	131.17	0.00	0.00	21,250.11	0.00
CRUSHED ROCK	0.00	9.50	0.00	6.79	769.89	550.40
FLOW SPREADER	0.00	16.48	0.00	0.00	890.00	0.00
GRAVEL	0.00	1.10	0.00	0.68	59.41	36.83
HOT MIX ASPHALT	0.00	181.14	0.00	0.00	19,562.62	0.00
MULCH	0.00	151.95	0.00	0.00	16,410.00	0.00
NATIVE SOIL	1,582.70	38.19	317.97	1.09	40,389.00	1,127.15
TOTAL	424.06 CUT		299.21 CUT		141,707.74	2,264.78

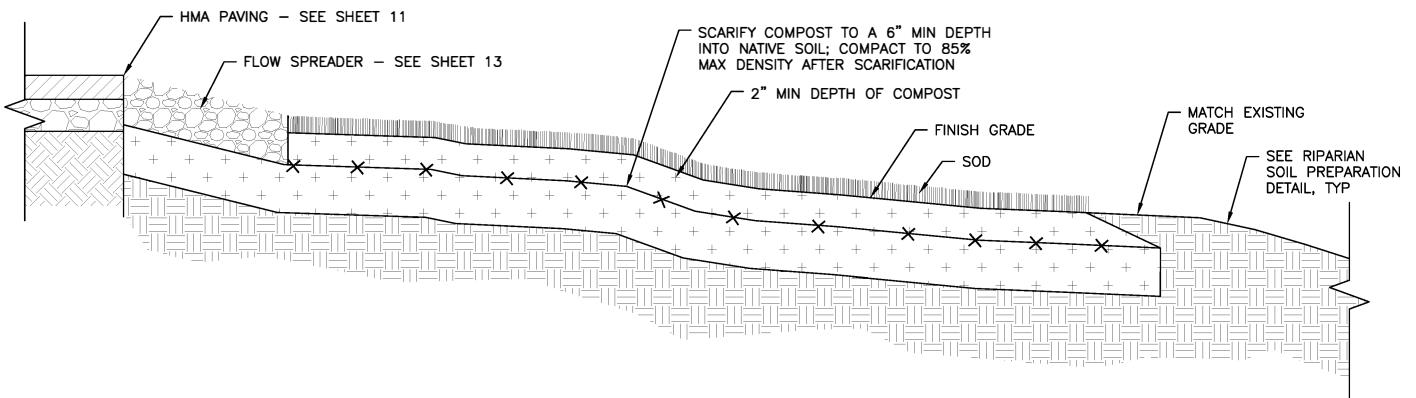


### WETLAND SOIL PREPARATION

NOT TO SCALE

**NOTE:**

ALL WETLAND PLANTING AREAS TO RECEIVE SOIL PREPARATION.



### FILTER STRIP SOIL PREPARATION

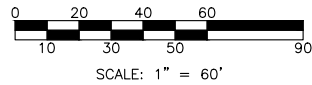
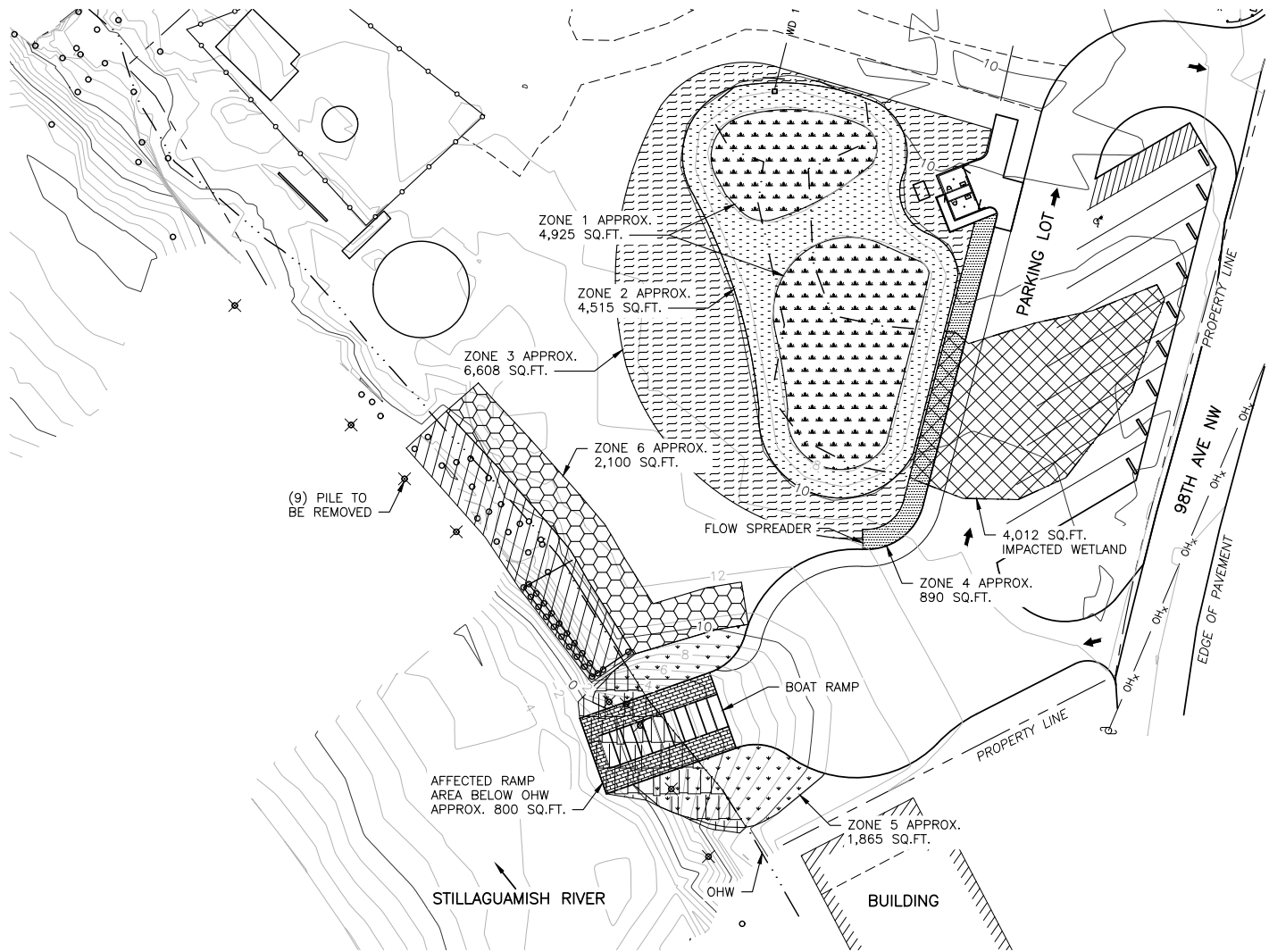
NOT TO SCALE

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 12 OF 14 DATE: 12/6/2019





WETLAND CUT AND FILL DATA CY.						
MATERIAL	DELINEATED WETLAND IMPACTED		DELINEATED WETLAND ENHANCED		NON-DELINEATED WETLAND ENHANCED	
	CUT	FILL	CUT	FILL	CUT	FILL
COMPOST	0.00	0.00	0.00	87.50	0.00	216.10
CRUSHED BASE	0.00	44.95	0.00	0.00	0.00	0.00
CRUSHED TOP	0.00	22.48	0.00	0.00	0.00	0.00
FLOW SPREADER	0.00	6.87	0.00	0.00	0.00	0.00
HOT MIX ASPHALT	0.00	33.71	0.00	0.00	0.00	0.00
MULCH	0.00	0.00	0.00	43.75	0.00	108.20
NATIVE SOIL	0.00	0.00	442.08	0.00	624.30	0.00
TOTAL	108.01 FILL		310.83 CUT		300.00 CUT	
AREA (SQ.FT.)	4,012		4,725		11,323	



**PLANTING PLAN**  
SCALE: 1" = 60'

**NOTES:**

1. FOR PLANTING SCHEDULE, SEE PAGE 14.
2. WETLAND CUT AND FILL QUANTITIES SHOWN HERE ARE REPRESENTED WITHIN THE "OVERALL CUT AND FILL DATA" TABLE ON PAGE 12.

- ✕ PILE IN CHANNEL TO BE REMOVED (9 PILES)
- REMOVE WHARF AND ASSOCIATED PILING 2,100 SQ.FT.
- CUT BELOW OHW 1,580 SQ.FT.

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 13 OF 14 DATE: 12/6/2019

### PLANTING SCHEDULE

	AREA	# PLANTS	COMMON NAME	SPACING	SIZE
ZONE 1	4,925	700	SLOUGH SEDGE (CAREX OBNUPTA)	1' OC	6" PLUG
			DAGGER-LEAF RUSH (JUNCUS ENSIFOLIUS)	1' OC	6" PLUG
			LYNGBY SEDGE (CAREX LYNGBYEI)	1' OC	6" PLUG
			SMALL-FRUITED BULRUSH (SCIRPUS MICROCARPUS)	1' OC	6" PLUG
		500	RED-OSIER DOGWOOD (CORNUS SERICEA)	3' OC	1 GALLON
			PACIFIC NINEBARK (PHYSOCARPUS CAPITATUS)	3' OC	1 GALLON
ZONE 2	4,515	500	RED-OSIER DOGWOOD (CORNUS SERICEA)	3' OC	1 GALLON
			SNOWBERRY (SYMPHORICARPOS ALBUS)	3' OC	1 GALLON
			TALL OREGON GRAPE (MAHONIA AQUIFOLIUM)	3' OC	1 GALLON
			THIMBLEBERRY (RUBUS PARVIFLORUS)	3' OC	1 GALLON
			NOOTKA ROSE (ROSA NUTKANA)	3' OC	1 GALLON
ZONE 3	6,608	700	WILLOW SP. HOOKER OR SCOULER (SALIX SPP.)	3' OC	LIVE STAKES
			OCEANSPRAY (HOLODISCUS DISCOLOR)	3' OC	1 GALLON
			RED-FLOWERING CURRANT (RIBES SANGUINEUM)	3' OC	1 GALLON
			SNOWBERRY (SYMPHORICARPOS ALBUS)	3' OC	1 GALLON
			TALL OREGON GRAPE (MAHONIA AQUIFOLIUM)	3' OC	1 GALLON
ZONE 4	890		GRASS SOD		
ZONE 5	1,865		NATIVE GRASS SEED AND COIR MAT		
ZONE 6	2,100	240	NOOTKA ROSE (ROSA NUTKANA)	3' OC	1 GALLON
			OCEANSPRAY (HOLODISCUS DISCOLOR)	3' OC	1 GALLON
			RED-FLOWERING CURRANT (RIBES SANGUINEUM)	3' OC	1 GALLON
			SNOWBERRY (SYMPHORICARPOS ALBUS)	3' OC	1 GALLON
			RED ELDERBERRY (SAMBUCUS RACEMOSA)	3' OC	1 GALLON
TOTAL	20,903				

**WETLAND MITIGATION RATIOS:**

AFFECTED WETLAND 4,012 SF  
 ENHANCED WETLAND 4,725 SF  
 CREATED WETLAND 11,323 SF  
 OVERALL RATIO 4,012:16,048 (1:4)

**BOAT RAMP MITIGATION RATIOS:**

AFFECTED RAMP AREA BELOW OHW 810 SF  
 AFFECTED CUT SLOPE BELOW OHW 760 SF  
 TOTAL AFFECTED AREA BELOW OHW 1,570 SF

ZONE 5 PLANTING AREA 1,865 SF  
 ZONE 6 PLANTING AREA 2,100 SF  
 WHARF REMOVAL 2,100 SF  
 WOOD PILES (13 @ 28SF) 252 SF  
 TOTAL MITIGATION AREA 6,317 SF  
 OVERALL RATIO 1,570:6,317 (1:4)

REFERENCE NUMBER:  
 APPLICANT NAME:  
 WASHINGTON DEPT. of FISH & WILDLIFE  
 PROPOSED PROJECT:  
 ACCESS DEVELOPMENT  
 LOCATION: HAMILTON LANDING  
 SHEET 14 OF 14 DATE: 12/6/2019