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US Army Corps of Engineers
Seattle District

Joint Public Notice

Washington State
Department of Ecology

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) 76x-xxxx
Attn: Olivia Romano, Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone (360) 407-6068
Attn: SEA Program, Federal Permit Coordinator

Public Notice Date: 28 August 2008
Expiration Date: 27 September 2008

Reference No.: NWS-2007-00732-SO
Name: North Forty Lodging, LLC

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 United States as described below and shown on the enclosed drawings

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: North Forty Lodging, LLC
22526 SE 64th Place, Suite 210
Issaquah, Washington 98027
ATTN: Brian McGinnis
Telephone: (425) 369-9290

ENTERED

AGENT: Sea-Run Consulting
6531 10th Ave NW
Seattle, Washington 09117-5208
ATTN: Allison Reak
Telephone: (206) 718-3285

LOCATION: In Hood Canal, at the Alderbrook Resort and Spa, near Union, in Mason County, Washington

WORK: Replacement and extension of two existing stormwater outfalls and the removal and replacement of a portion of the existing floating dock and support piling. The outfalls will be extended from the existing seawall to an elevation of between -3 feet and -3.5 feet Mean Lower Low Water (MLLW). The majority of the length of the outfalls will be buried below the grade. A 3 to 6-foot deep trench will be excavated for each outfall pipe. A 6-inch layer of crushed gravel or similar bedding material, about 45 cubic yards, will be placed in bottom of the trench and along the sides of the pipe. Small gravel and/or side-cast native material will be used to backfill the upper half of the pipe trench. Native material or habitat mix will be used to for final backfill and grade. The portions of the pipes not buried will be elevated about 4 feet above graded. All pipes will be installed with pre-cast concrete anchors to counter the pipe's natural buoyancy. A 25-foot wide construction corridor will be used to install each outfall pipe. All poured-in-placed concrete will be done during low tide and in the dry.

The eastern outfall will be 590 feet long, extending about 10 feet from the existing bulkhead and then turning 90 degrees to pass under an existing sewer line. About 0.25 cubic yard of poured-in-place concrete separator will be constructed between the stormwater pipe and the existing sewer line. The eastern outfall will run about 268 feet parallel with the bulkhead and 322 feet will be installed under the existing floating dock, requiring removal of a 384-foot section of the existing floating dock and 21 existing creosote-treated piling. Any piles that break during removal will be cut below the mudline and covered with clean sand or gravel. The replacement dock will be 8 feet wide and 384 feet long, consisting of eight floats each 8 feet by 48 feet. About 52% of the surface area of the replacement dock will be grated. To prevent the floats from grounding, a support system consisting of 48 – 8-inch diameter steel piling and 8 ACZA-treated crossbeams will be installed to keep the floats elevated above the substrate at low tide. Piling will be installed using vibratory method. A section of the eastern outfall pipe will be suspended at least four inches above graded on 19 concrete anchors to minimize the impacts to the littoral sediment drift by the pipeline and reduce horizontal drag forces on the side of the pipeline from the currents. The concrete anchors will be partially buried to a depth of 6-inches, displacing less than one cubic foot of substrate. The proposed construction of the eastern outfall will avoid the existing oyster beds.

The western outfall will be 330 feet long, connecting to the existing outfall at the bulkhead. This connection will consist of a cast-in-place concrete drop (5.5 cubic yards of concrete) structure attached to the existing bulkhead. About 270 foot section of the pipe will be buried and a 60 foot section will be partially to fully expose. The proposed construction of the western outfall will occur within the existing oyster beds.

About 0.14 acres of intertidal area that has been eroded by the existing outfalls will be restored by removing debris (e.g., abandoned pipe, concrete, and rock), filling eroding channels with quarry spalls (up to 27 cubic yards) and topped with a 6-inch layer of native material or habitat mix (up to 31 cubic yards).

PURPOSE: To provide non-eroding stormwater outfalls for the resort.

ADDITIONAL INFORMATION –Copies of this public notice which has been mailed or otherwise physically distributed feature project drawings in black and white. The electronic version features those drawings in color, which we think more accurately communicates the scope of project impacts. To access the electronic version of this public notice, go to the Seattle District's web page at <http://www.nws.usace.army.mil/> and scroll down the alphabetical listing of District elements, and click on "Regulatory" and then "Regulatory – Permits" for the Seattle District's Regulatory homepage. Select the prominently displayed "Public Notices" heading and a list of recently-issued public notices will appear, in chronological order of the date of issuance. Select and view the listing for this project.

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 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. The U.S. Army Corps of Engineers (Corps) has initiated consultation with NMFS and USFWS as required under Section 7 of the ESA. The Corps has determined that the project may affect, not likely to adversely affect 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. The U.S. Army Corps of Engineers (Corps) has determined that the proposed action will not adversely affect designated EFH for federally managed fisheries in Washington waters. No further EFH consultation is necessary.

CULTURAL RESOURCES: The District Engineer has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible and other sources of information. There are no

recorded historic properties within the permit area. The permit area has been so extensively modified by modern development that little likelihood exists for the proposed project to impinge upon an undisturbed historic property. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns with historic properties in the area. This public notice initiates consultation under Section 106 of the National Historic Preservation Act with any Tribe that has information or concerns with historic properties in the proposed permit area.

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.

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 alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

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.

ADDITIONAL EVALUATION:

This proposal is the subject of Shorelines Substantial Development Permit issued by Mason County, SHR2008-00010 on June 25, 2008.

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 it would be in the public interest to authorize this proposal. 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 commentor'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

NWS-2007-00732-SO

ensure consideration.

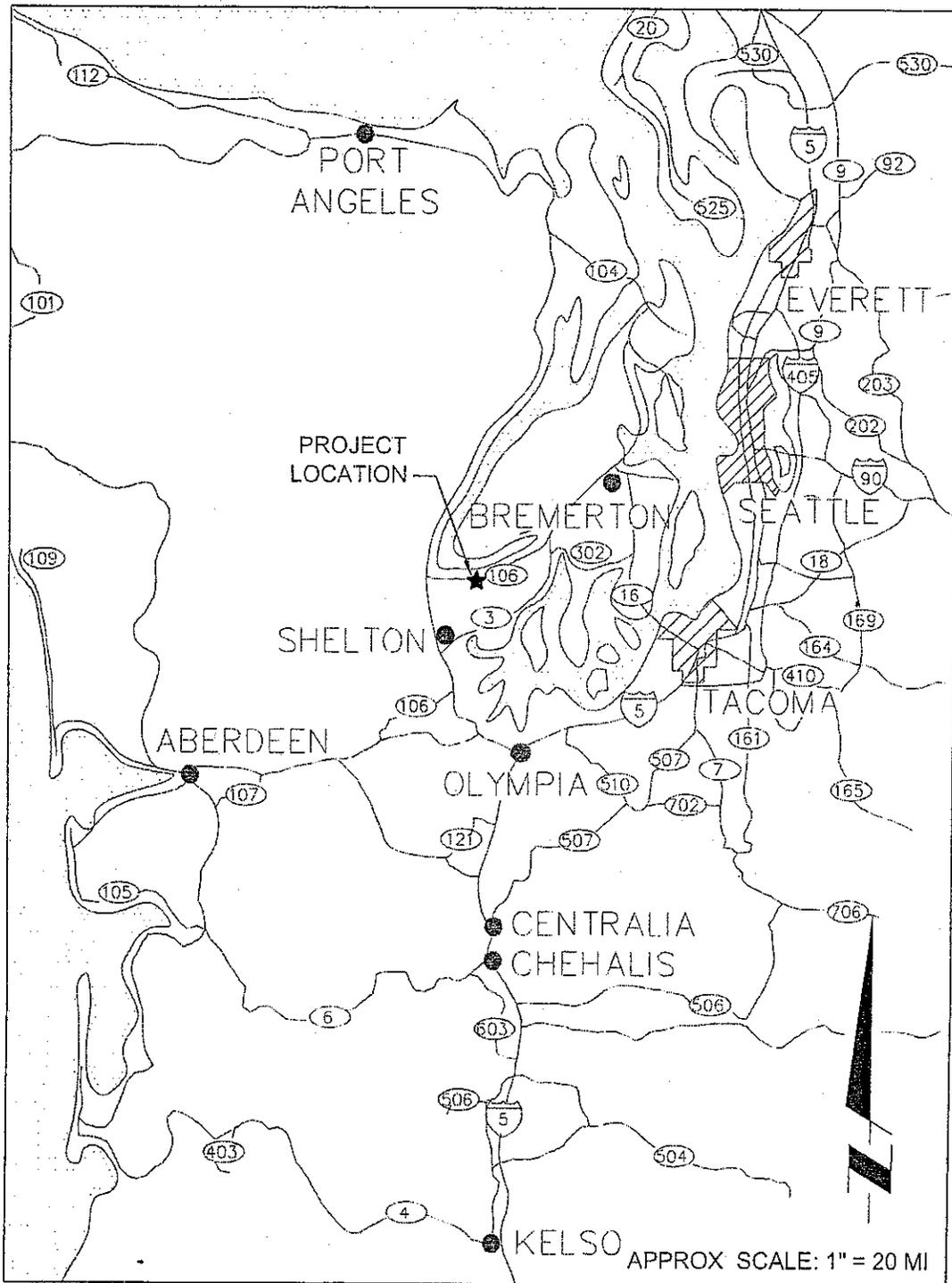
Corps comments: All e-mail comments should be sent to Olivia.h.romano@usace.army.mil. Conventional mail comments should be sent to U.S. Army Corps of Engineers, Regulatory Branch, Attn: Olivia Romano, Post Office Box 3755, Seattle, Washington, 98124-3755.

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: Department of Ecology, Attn: SEA program – Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington, 98504-7600, or e-mail to 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: North Forty Lodging, LLC; NWS-2007-00732-SO

Encl: Figures (23)

VICINITY MAP



PURPOSE: STORMWATER OUTFALL IMPROVEMENTS
& DOCK REPLACEMENT

LATITUDE: 47° 20' 53" N

LONGITUDE: 123° 04' 01" W

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER
OUTFALL EXTENSIONS

WATERWAY: HOOD CANAL

AT: ALDERBROOK INN & RESORT

SECTION: 33

TOWNSHIP: 22N

RANGE: 3W

COUNTY OF: MASON, WASHINGTON



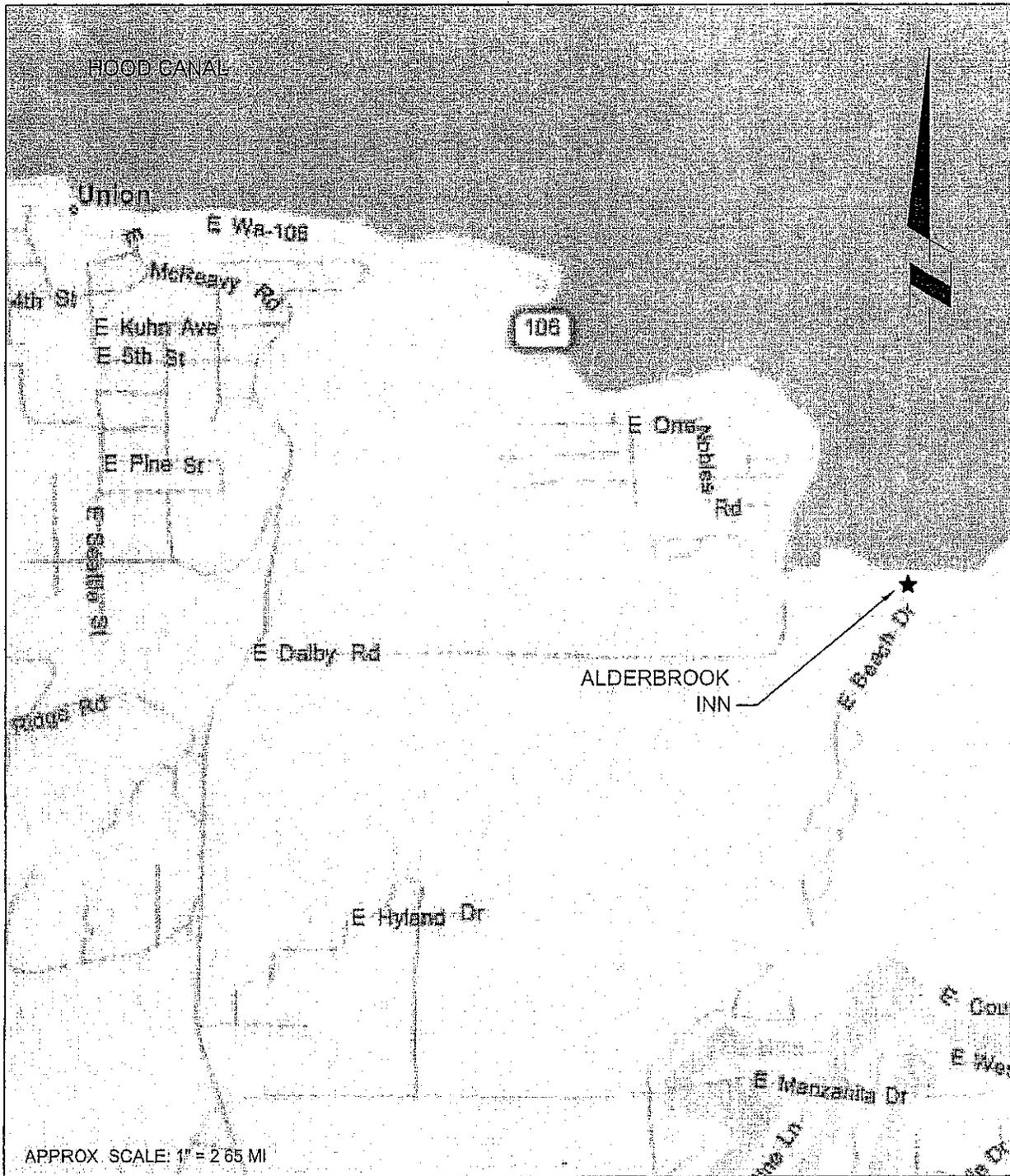
**ENGINEERING
GROUP**

FIGURE 1 of 23
MARCH 2008

USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-S0

**ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Vicinity Map**

LOCATION MAP



PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

ACTIVITY:

INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH WA 98027

WATERWAY:

COUNTY OF:

MASON, WASHINGTON



ENGINEERING
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FIGURE 2 of 23
MARCH 2008

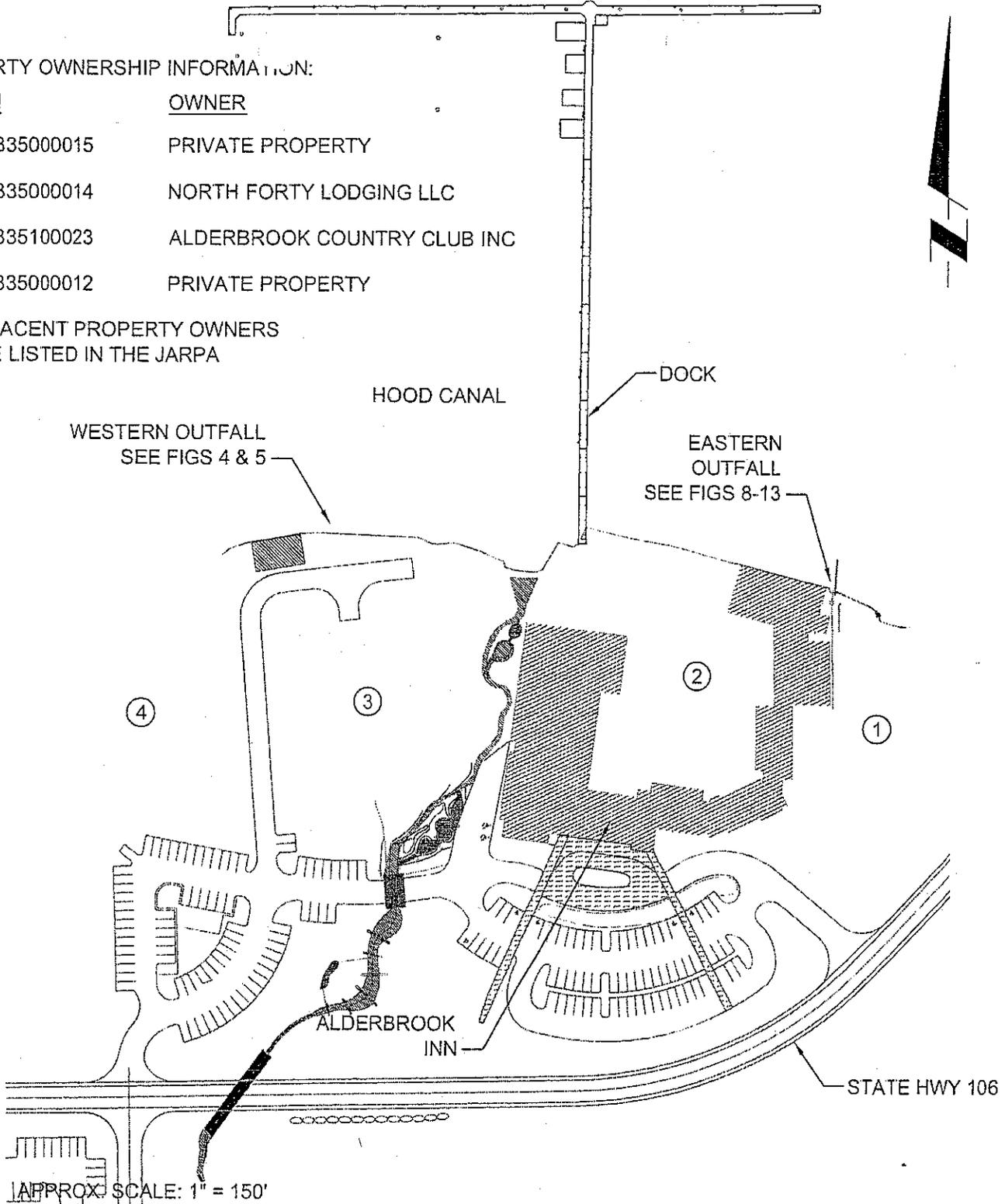
USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-SO

ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Location Map

PROPERTY OWNERSHIP INFORMATION:

TPN	OWNER
① 322335000015	PRIVATE PROPERTY
② 322335000014	NORTH FORTY LODGING LLC
③ 322335100023	ALDERBROOK COUNTRY CLUB INC
④ 322335000012	PRIVATE PROPERTY

ADJACENT PROPERTY OWNERS
ARE LISTED IN THE JARPA



PROPERTY MAP

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS
& DOCK REPLACEMENT

ACTIVITY: INSTALL PROPOSED STORMWATER
OUTFALL EXTENSIONS
WATERWAY: HOOD CANAL

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

COUNTY OF: MASON, WASHINGTON



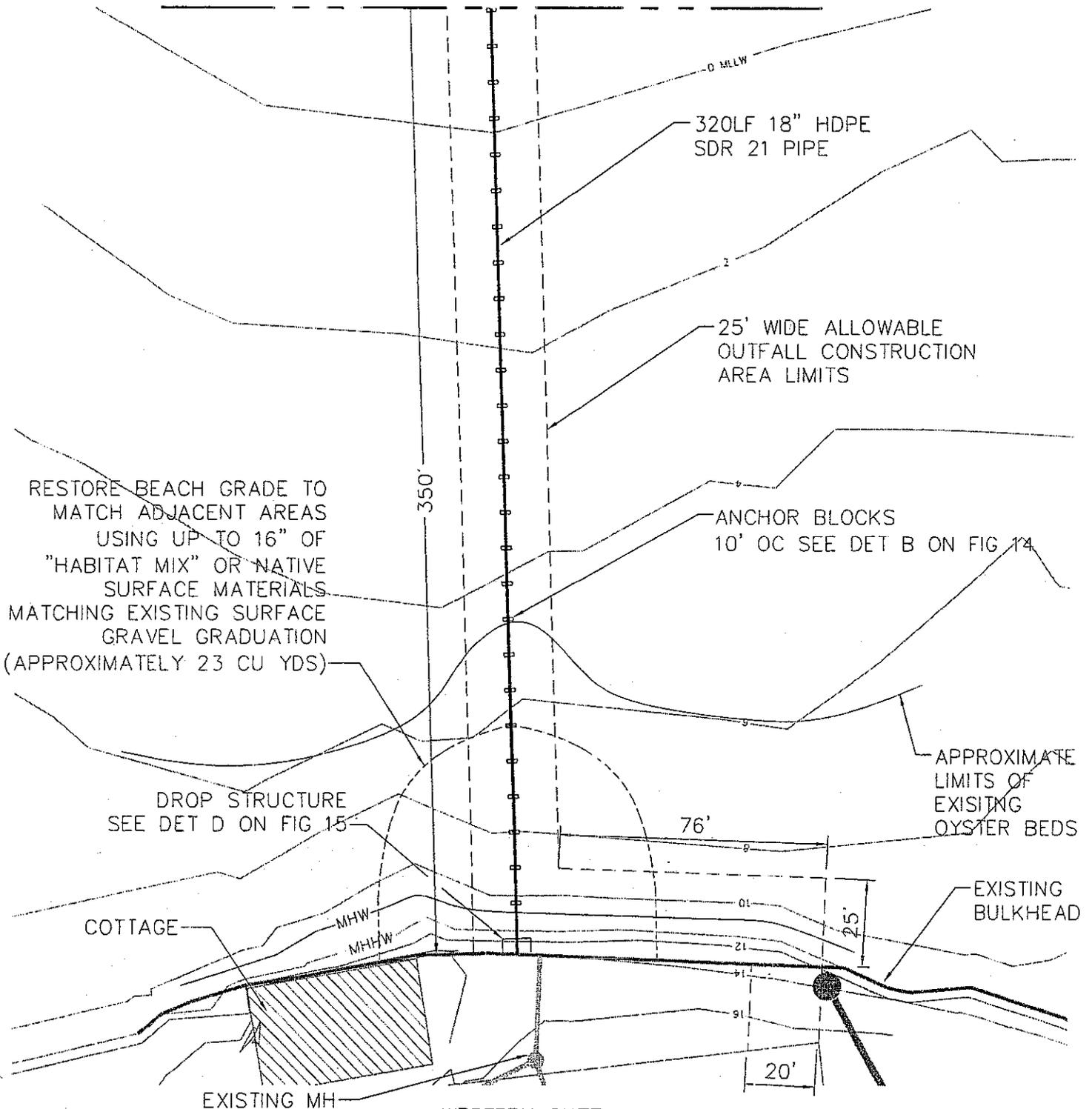
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FIGURE 3 of 23
MARCH 2008

USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-SO

ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Property Map

CHLINE - SEE FIG 5



WESTERN OUTFALL PLAN

SCALE: 1" = 40'

PURPOSE:	STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT	ACTIVITY:	INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL
APPLICATION BY:	NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027	WATERWAY:	
		COUNTY OF:	MASON WASHINGTON

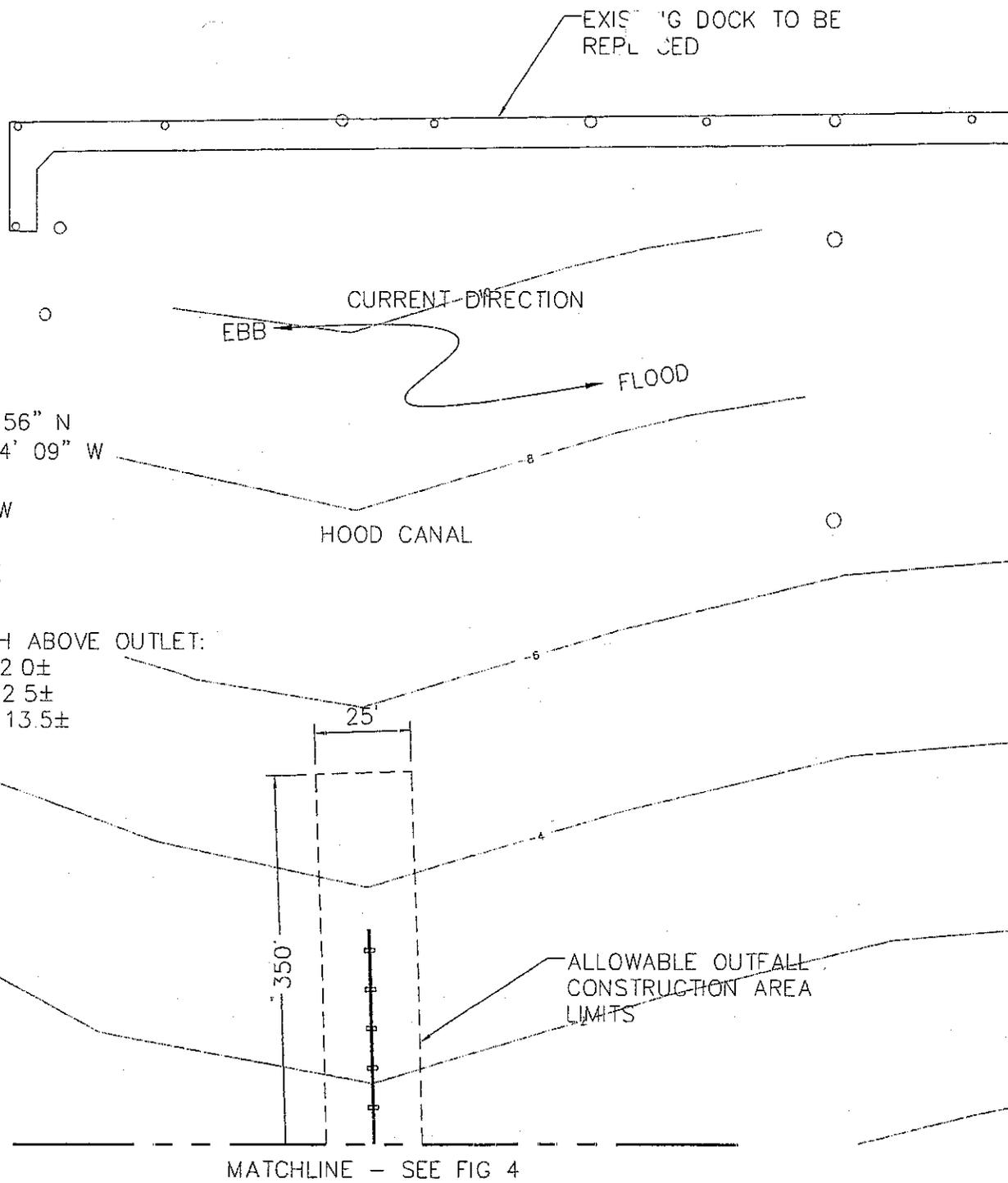


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FIGURE 4 of 23
MARCH 2008

USACE PROJECT REFERENCE NUMBER: NWS-2007-732-S0

ALDERBROOK INN & RESORT STORMWATER OUTFALL IMPROVEMENTS
Proposed Western Outfall Plan



**WESTERN OUTFALL
PLAN**

SCALE: 1" = 40'

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

ACTIVITY:

INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS
HOOD CANAL

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

WATERWAY:

COUNTY OF:

MASON, WASHINGTON



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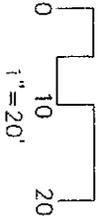
FIGURE 5 of 23
MARCH 2008

USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-SO

**ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Western Outfall Plan**



G P O O D D
ENGINEERING



USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-SO

FIGURE 6 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Western Outfall Profile

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT
APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS
WATERWAY: HOOD CANAL
COUNTY OF: MASON, WASHINGTON

WESTERN OUTFALL
PROFILE
H: 1" = 20' V: 1" = 20'

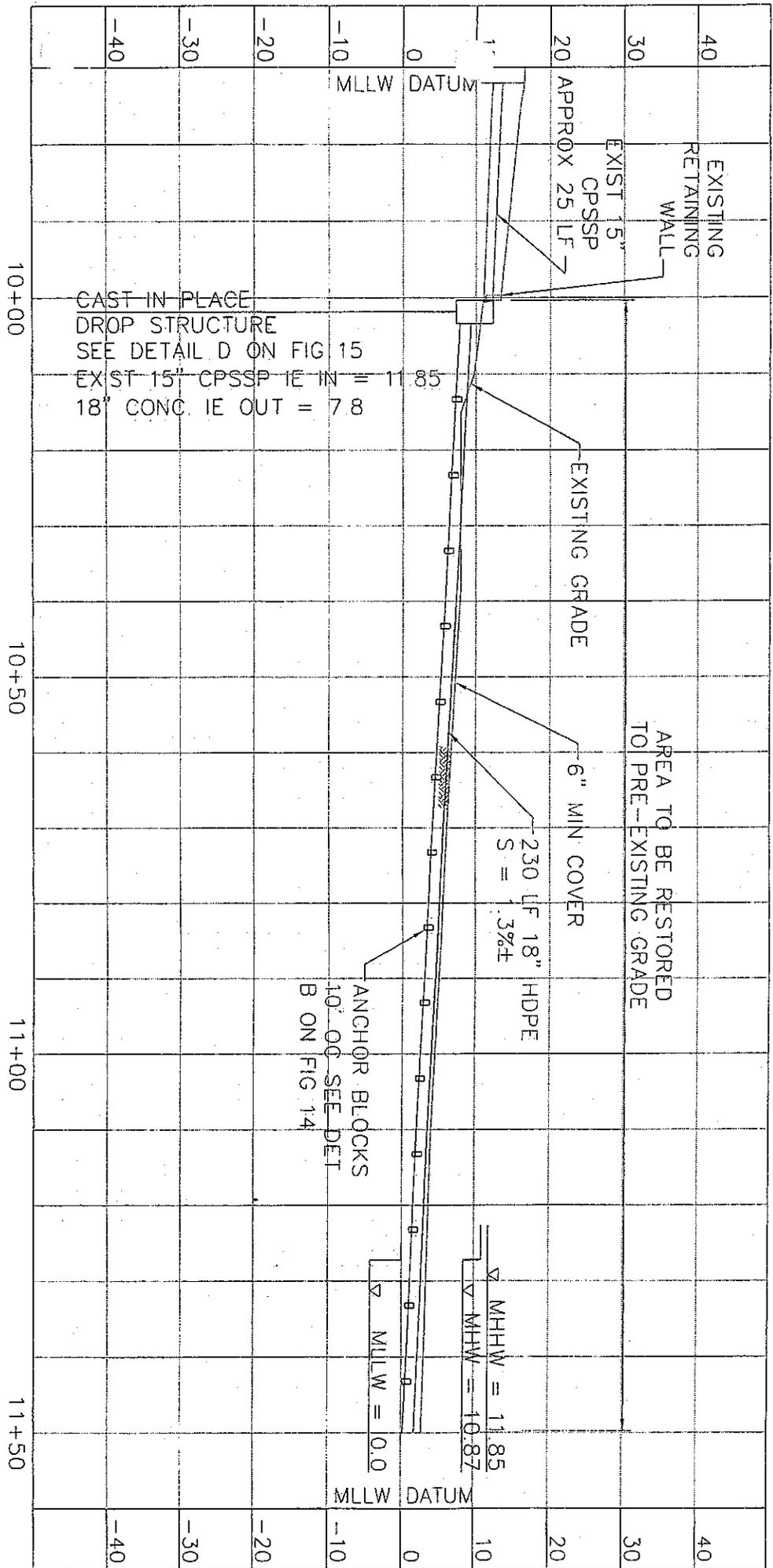
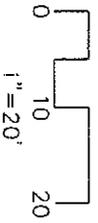


FIGURE 6 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Western Outfall Profile



ENGINEERING
GEOPPOINT



USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-S0

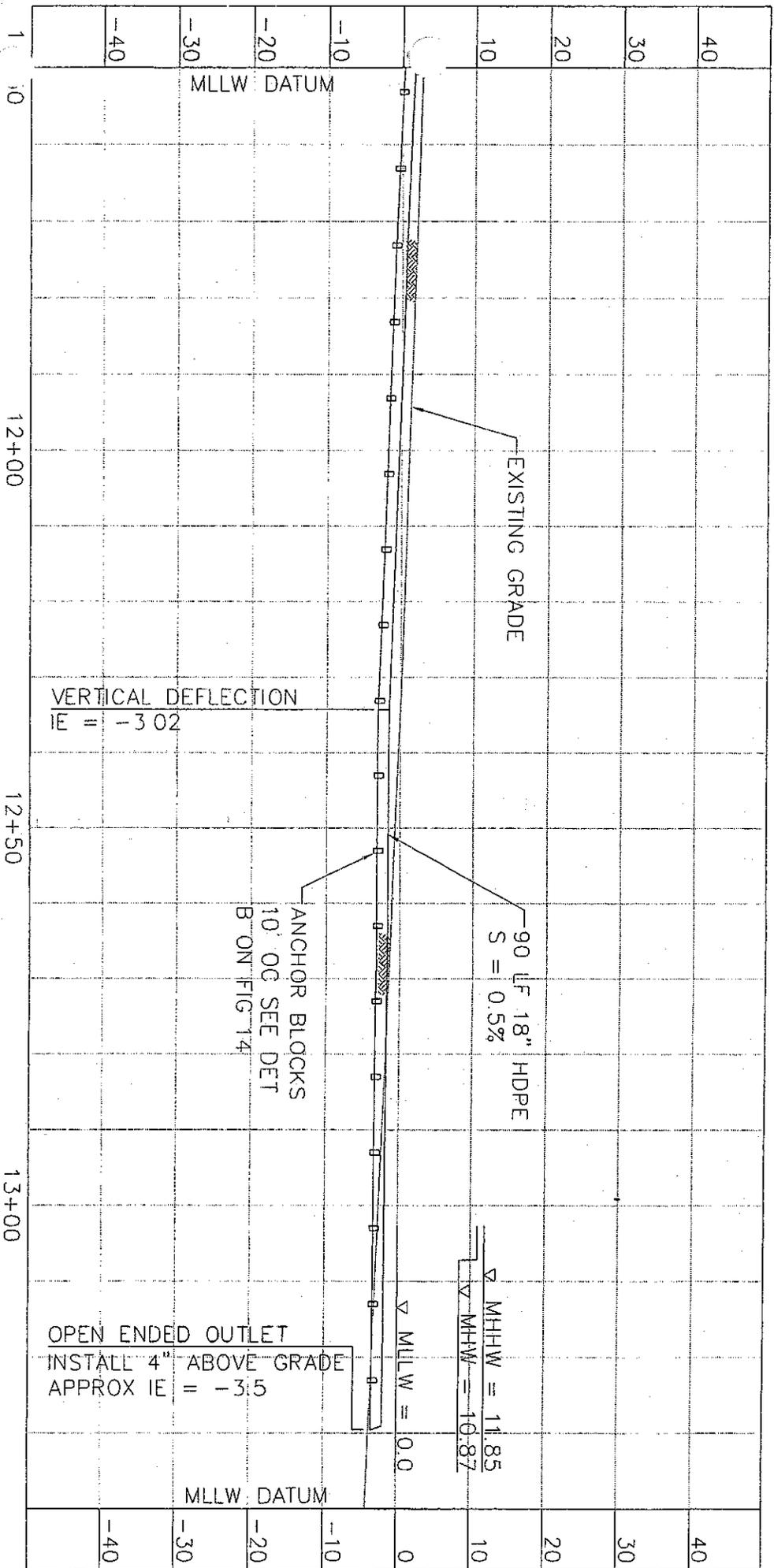
FIGURE 7 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Western Outfall Profile

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS
& DOCK REPLACEMENT
APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER
OUTFALL EXTENSIONS
WATERWAY: HOOD CANAL
COUNTY OF: MASON, WASHINGTON

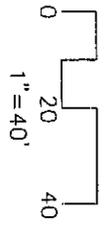
H: 1" = 20' V: 1" = 20'

WESTERN OUTFALL
PROFILE





ENGINEERING
GROUP



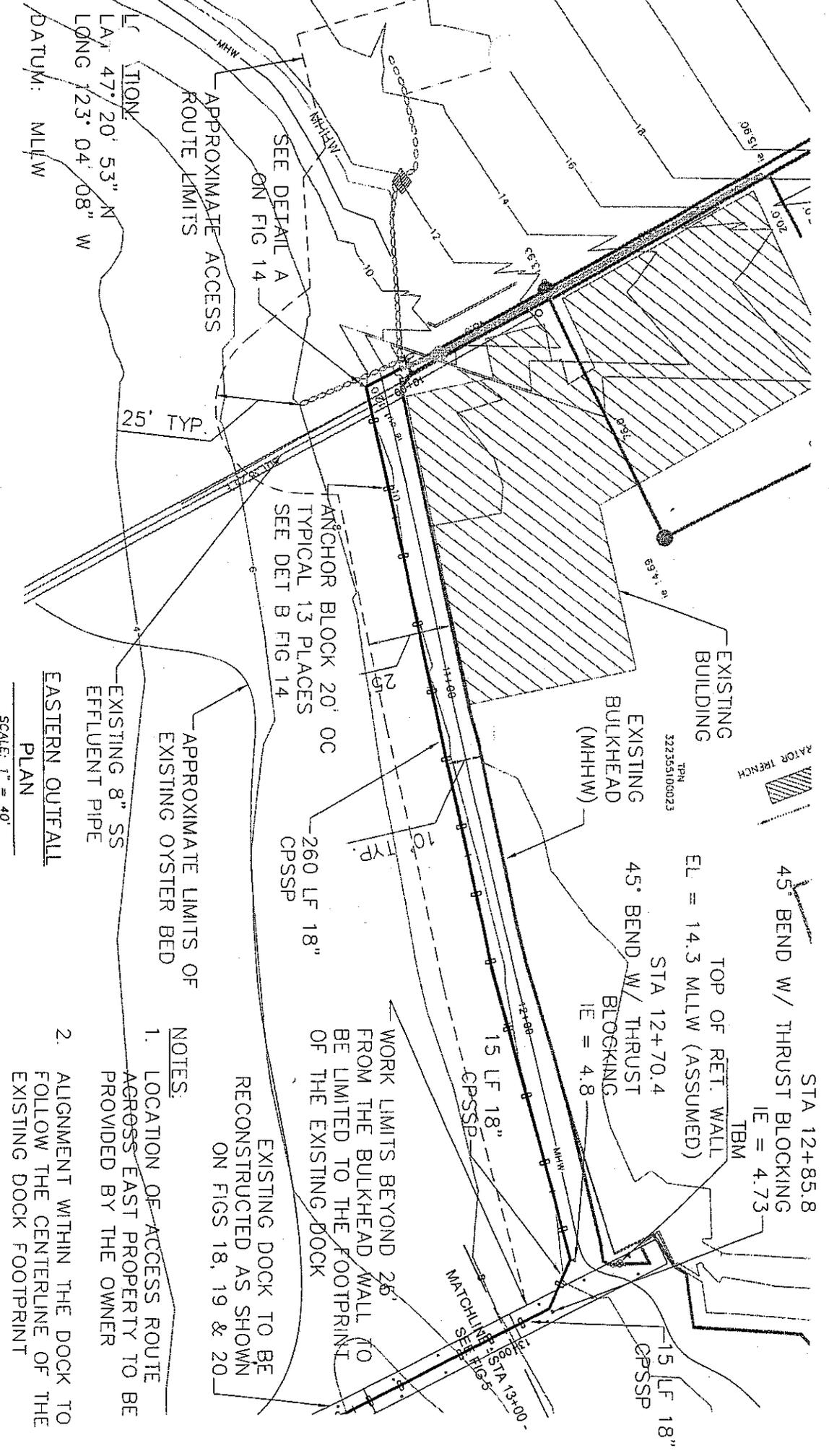
USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-SO

FIGURE 8 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Eastern Outfall Plan

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT
APPLICATION BY: NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS
WATERWAY: HOOD CANAL
COUNTY OF: MASON, WASHINGTON

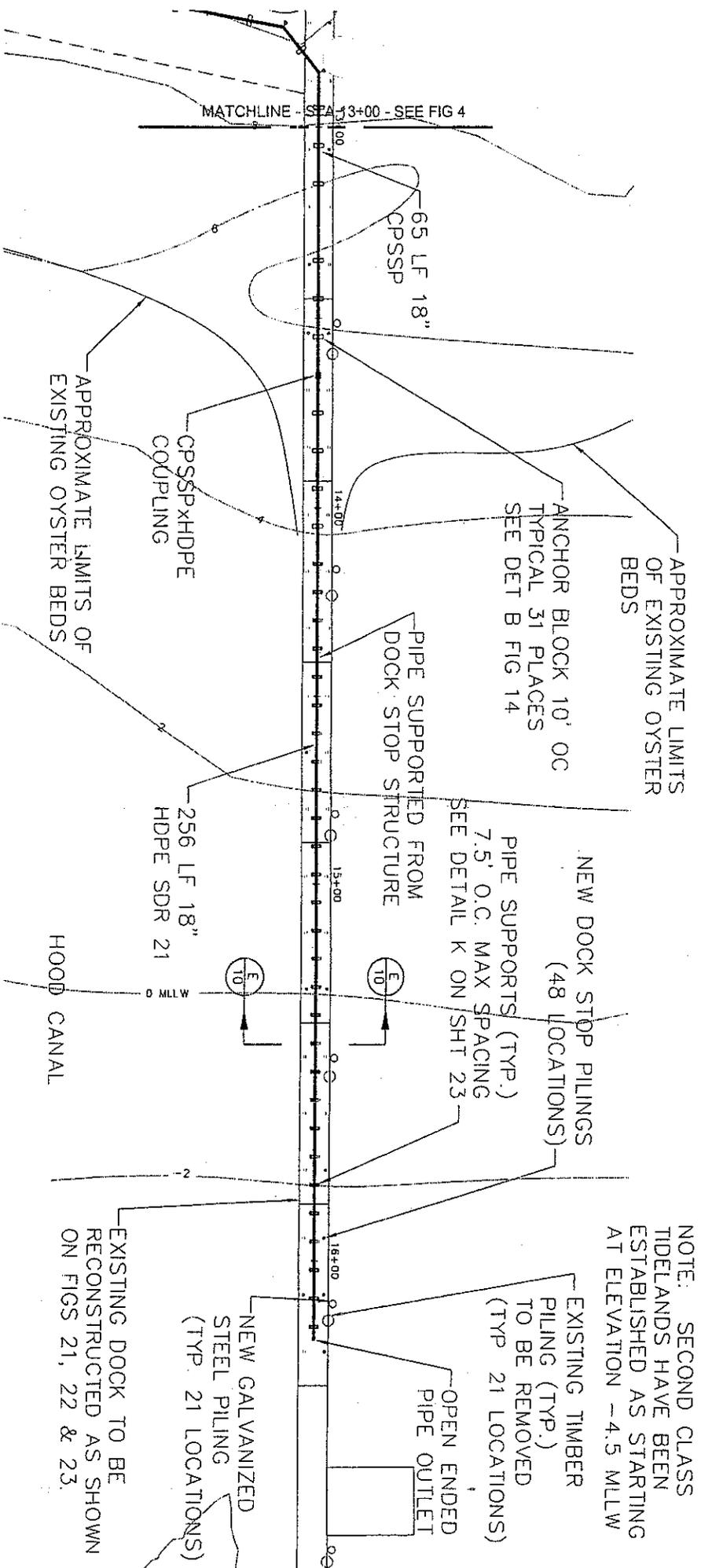
1. LOCATION OF ACCESS ROUTE ACROSS EAST PROPERTY TO BE PROVIDED BY THE OWNER
2. ALIGNMENT WITHIN THE DOCK TO FOLLOW THE CENTERLINE OF THE EXISTING DOCK FOOTPRINT
3. MHHW IS AT TOE OF EXISTING BULKHEAD
4. COORDINATE PIPE ALIGNMENT WITH DOCK STOP PILING LOCATIONS



EXISTING 8" SS EFFLUENT PIPE
EASTERN OUTFALL PLAN
SCALE: 1" = 40'

NOTES:

EXISTING DOCK TO BE RECONSTRUCTED AS SHOWN ON FIGS 18, 19 & 20



LOCATION:
 LAT 47° 20' 53" N
 LON 123° 04' 08" W

DATUM: MLLW

**EASTERN OUTFALL
 PLAN**

SCALE: 1" = 40'

NOTE: PIPE ALIGNMENT TO BE ALONG
 CENTERLINE OF EXISTING DOCK FOOTPRINT
 WATER DEPTH ABOVE OUTLET:
 AT MHHW = 12.5ft
 AT MHW = 11.5ft

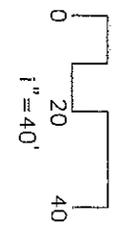
PURPOSE: STORMWATER OUTFALL IMPROVEMENTS
 & DOCK REPLACEMENT

APPLICATION BY: NORTH FORTY LODGING
 22526 SE 64TH PLACE
 ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER
 OUTFALL EXTENSIONS
 WATERWAY: HOOD CANAL
 COUNTY OF: MASON, WASHINGTON



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USACE PROJECT REFERENCE
 NUMBER: NWS-2007-732--50

FIGURE 9 of 23
 MARCH 2008

ALDERBROOK INN & RESORT
 STORMWATER OUTFALL
 IMPROVEMENTS
 Proposed Eastern Outfall Plan



ENGINEERING
GROUP

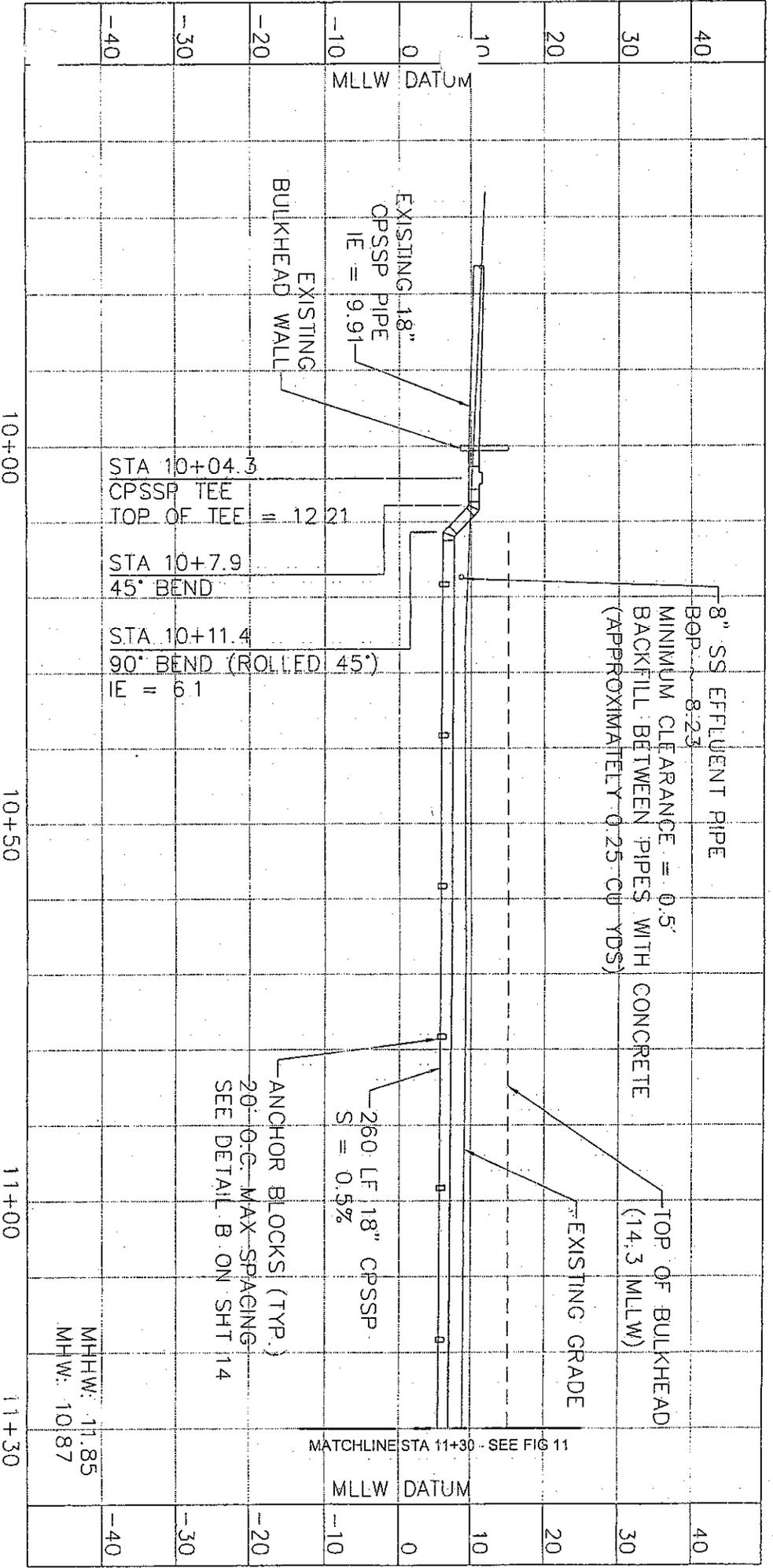


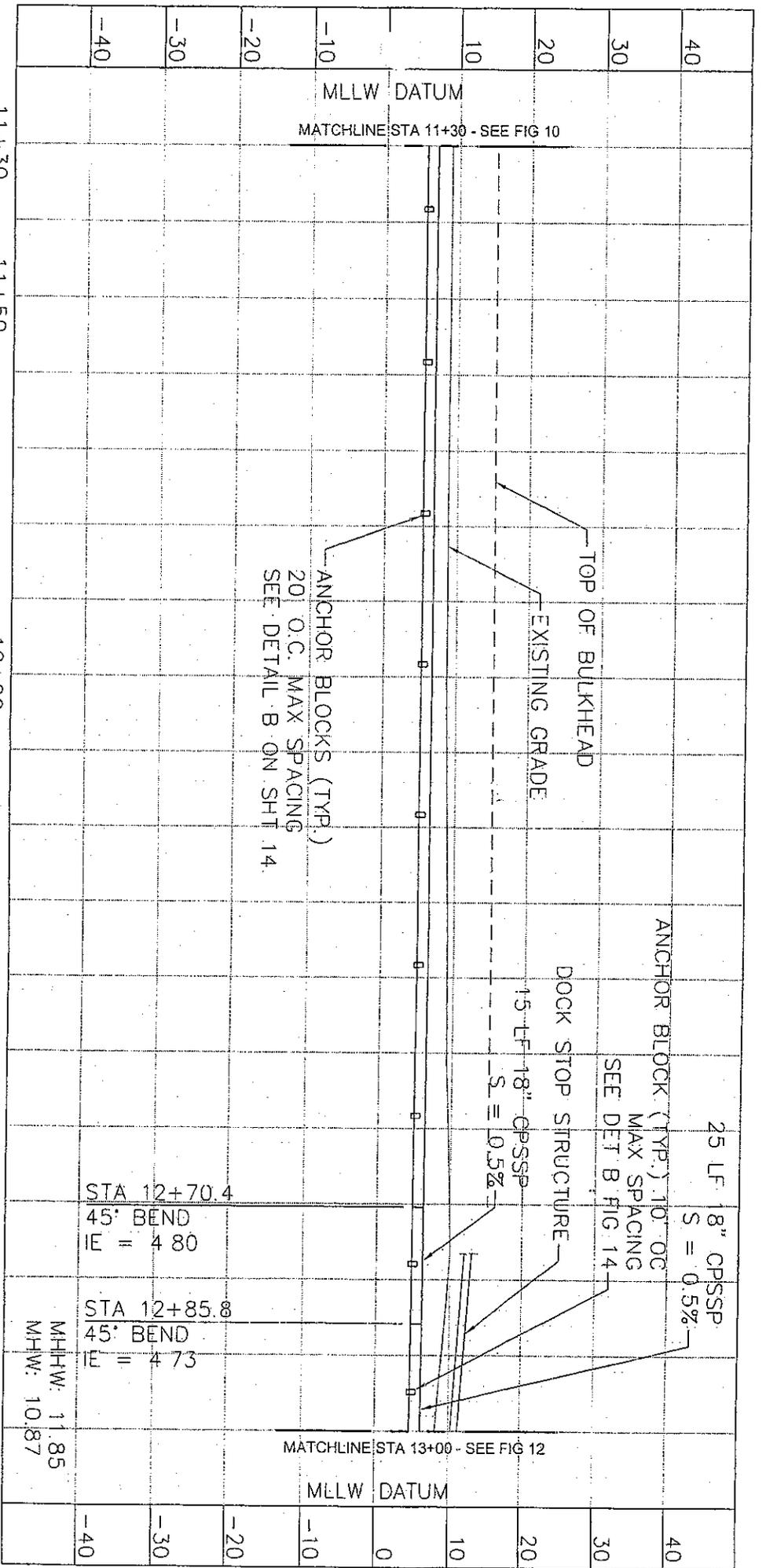
USACE PROJECT REFERENCE
 NUMBER: NWS-2007-732-50

FIGURE 10 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
 Proposed Eastern Outfall Profile

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT
APPLICATION BY: NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027
ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS
WATERWAY: HOOD CANAL
COUNTY OF: MASON, WASHINGTON

EASTERN OUTFALL PROFILE
 H: 1" = 20' V: 1" = 20'





**EASTERN OUTFALL
PROFILE**
H: 1" = 20' V: 1" = 20'

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

APPLICATION BY: NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL

WATERWAY: MASON, WASHINGTON

COUNTY OF: MASON, WASHINGTON



ENGINEERING
C A S P O D Y L L Y

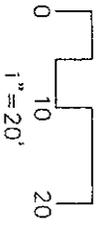


FIGURE 11 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Eastern Outfall Profile

USACE PROJECT REFERENCE
NUMBER: NWS-2007-732--50



ENGINEERING
G R O U P



USACE PROJECT REFERENCE NUMBER: NWS-2007-732-50

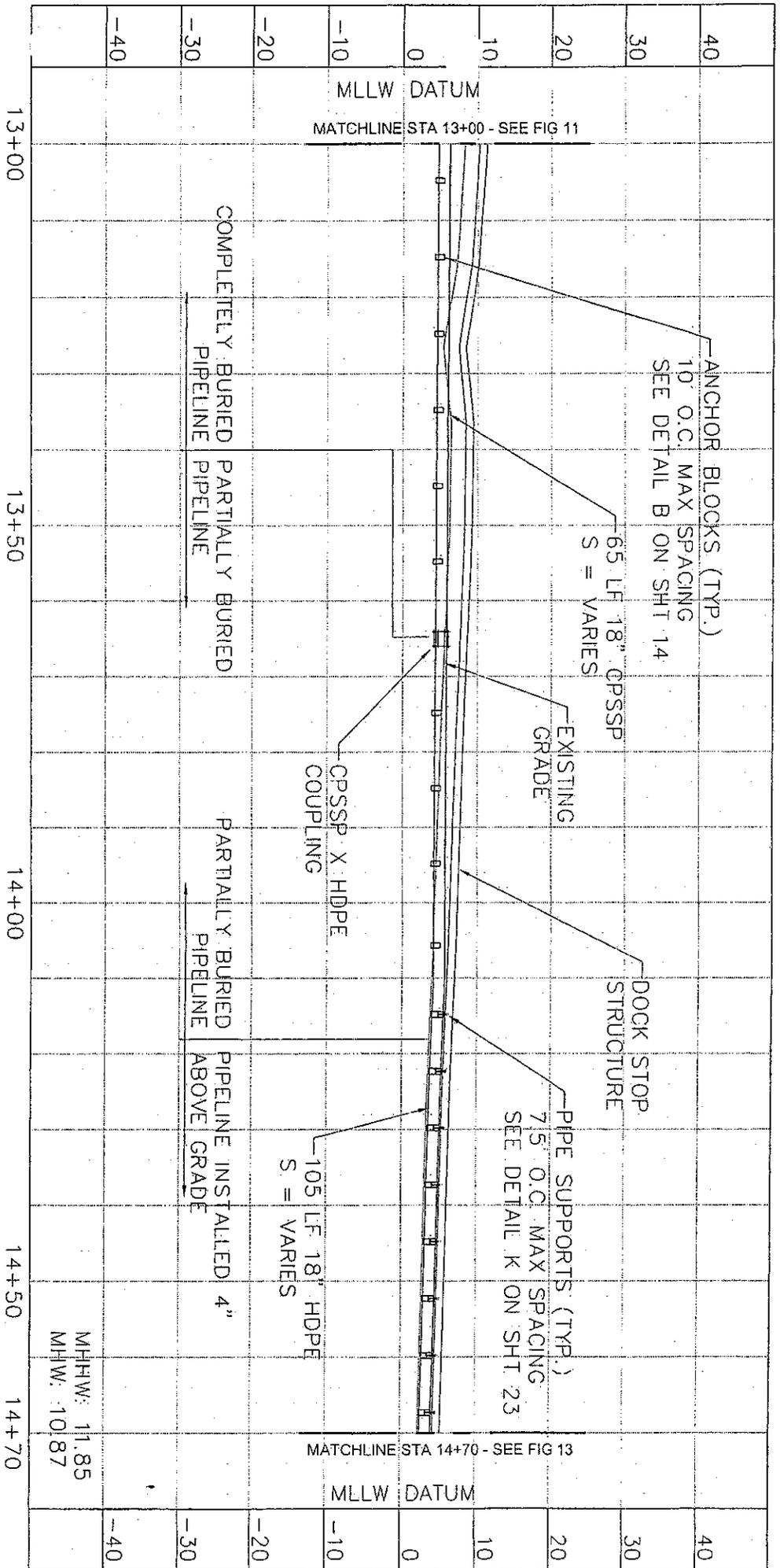
FIGURE 12 of 23 **MARCH 2008** **ALDERBROOK INN & RESORT**
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Eastern Outfall Profile

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

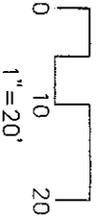
ACTIVITY: WATERWAY: COUNTY OF: MASON, WASHINGTON

INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL





ENGINEERING
C O O U P

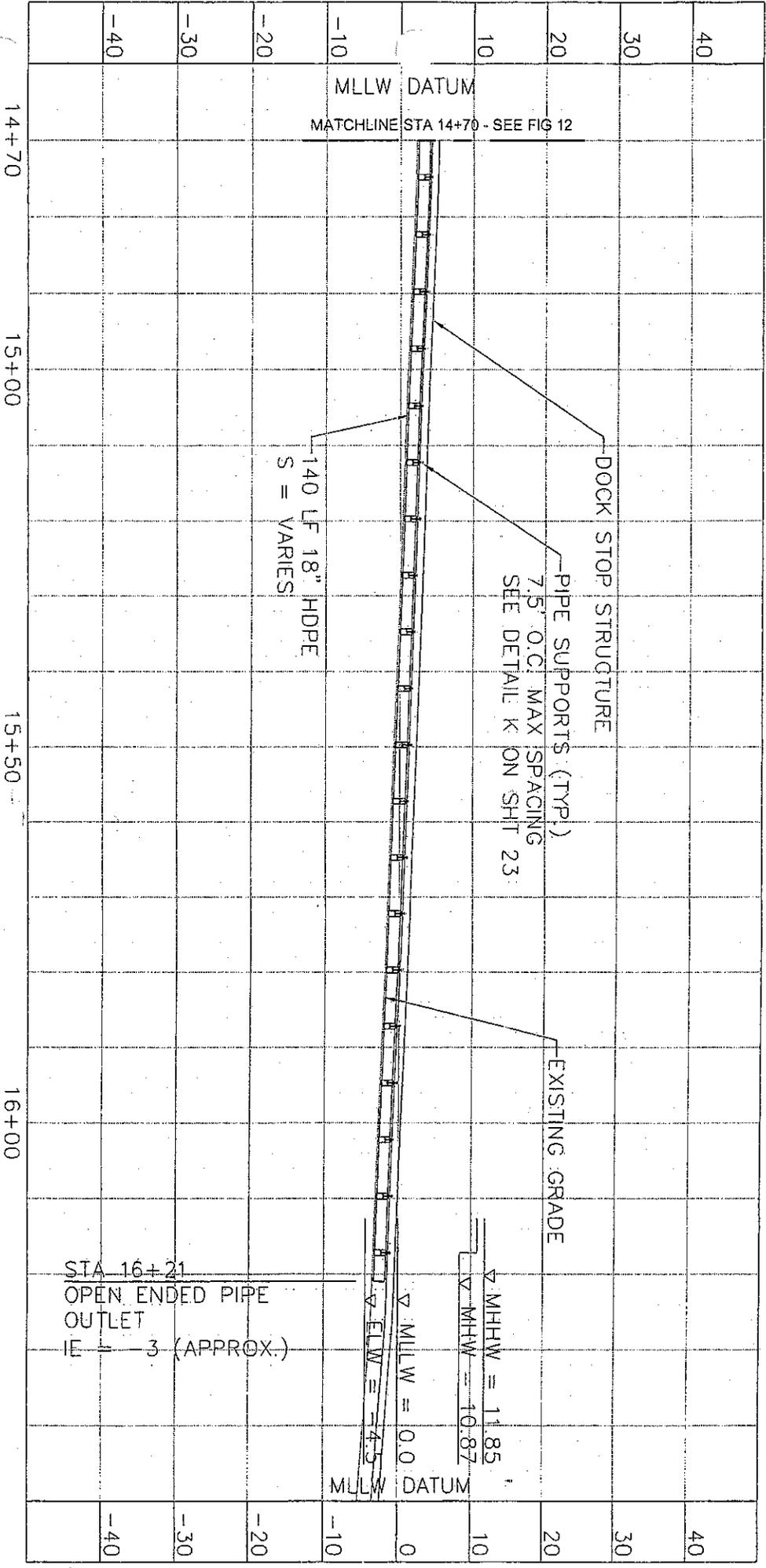


USACE PROJECT REFERENCE
NUMBER: NWS-2007-732-S0

FIGURE 13 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Eastern Outfall Profile

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT
 APPLICATION BY: NORTH FORTY LODGING, 22526 SE 64TH PLACE, ISSAQUAH, WA 98027
 ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS
 WATERWAY: HOOD CANAL
 COUNTY OF: MASON, WASHINGTON

EASTERN OUTFALL PROFILE
 H: 1" = 20' V: 1" = 20'



STA 16+21
 OPEN ENDED PIPE
 OUTLET
 IF = 3 (APPROX.)

▽ MLLW = 0.0
 ▽ MHHW = 11.85
 ▽ MHW = 10.87

140 LF 18" HDPE
 S = VARIES

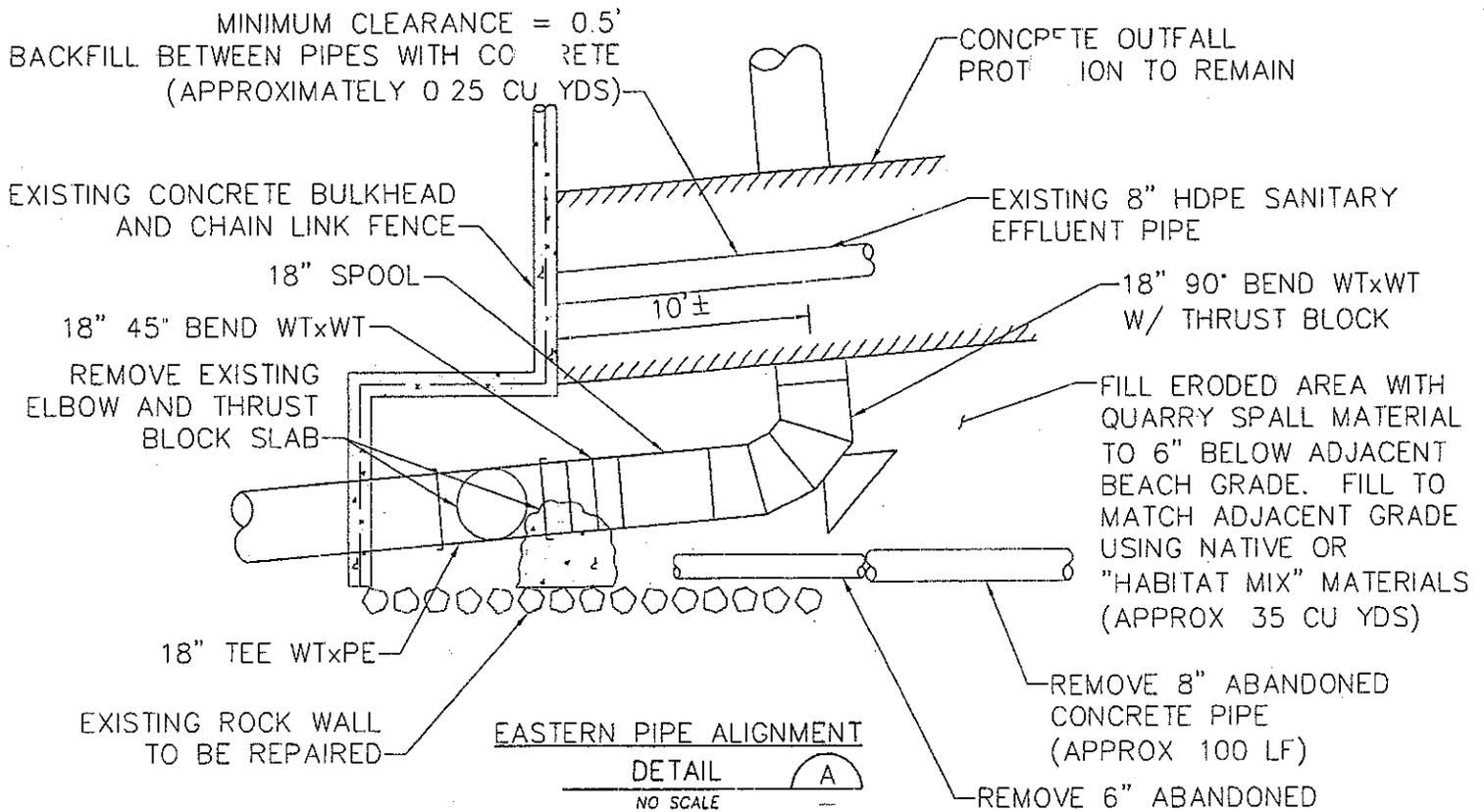
PIPE SUPPORTS (TYP.)
 7.5' O.C. MAX SPACING
 SEE DETAIL K ON SHIT 23

DOCK STOP STRUCTURE

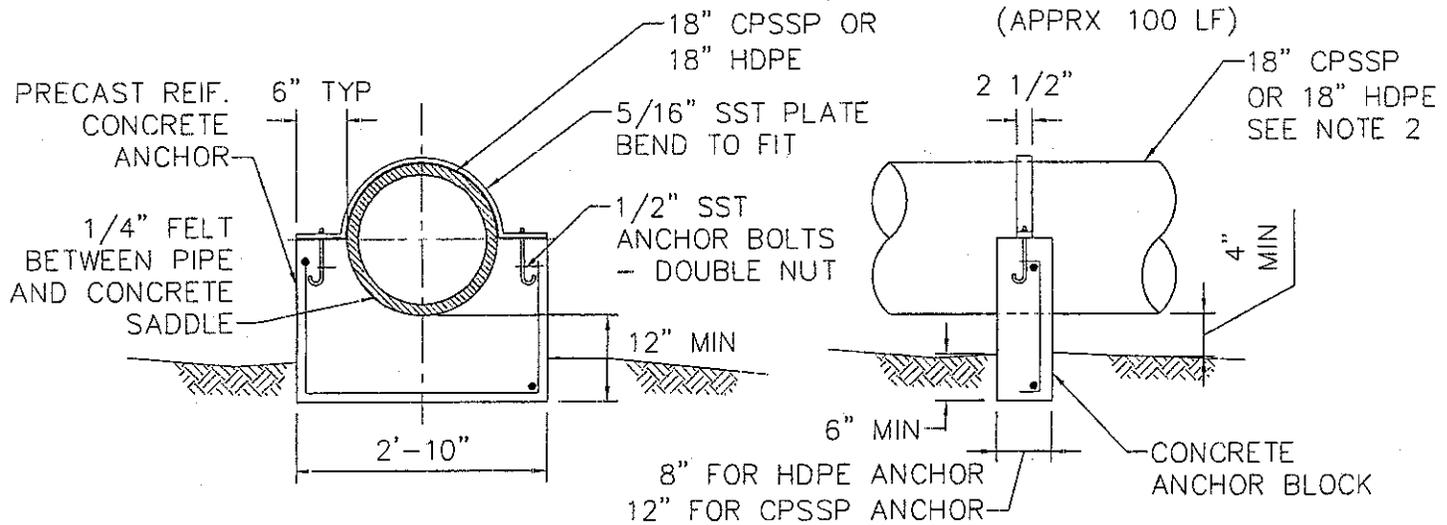
EXISTING GRADE

MLLW DATUM
 MATCHLINE STA 14+70 - SEE FIG 12

MLLW DATUM



EASTERN PIPE ALIGNMENT
DETAIL A
 NO SCALE



ANCHOR BLOCK
DETAIL B
 NO SCALE

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

APPLICATION BY: NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS

WATERWAY: HOOD CANAL

COUNTY OF: MASON, WASHINGTON

NOTES:

1. INSTALL ANCHOR BLOCKS AT ALL JOINTS AND FITTINGS AND WITH A MAXIMUM SPACING OF 10' O.C.
2. ANCHORS WILL REQUIRE DIFFERENT BLOCK WIDTHS AND SADDLE RADIUS' FOR CPSSP & HDPE PIPE. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO FABRICATION.
3. REINFORCING TO BE #3 BARS AT EACH CORNER WITH 2" MIN COVER.

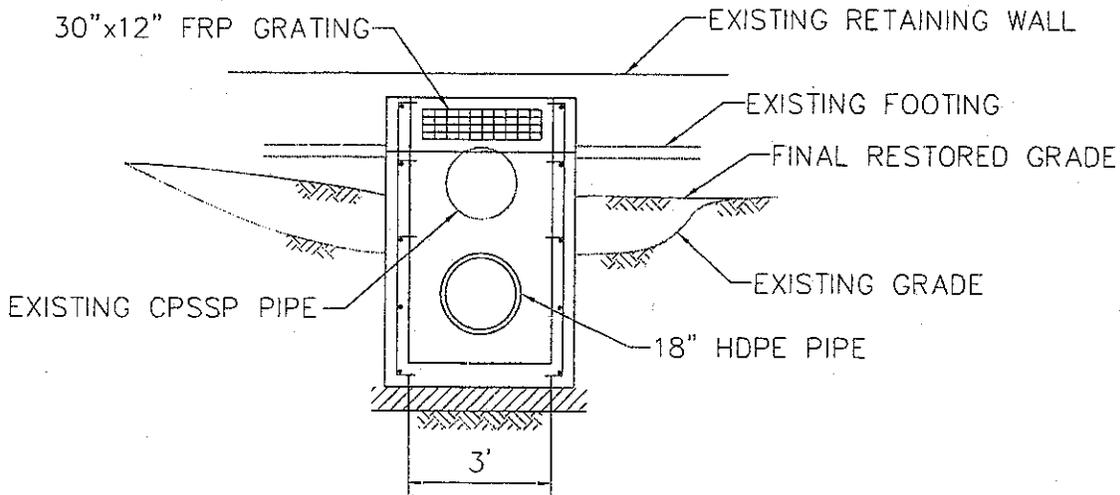
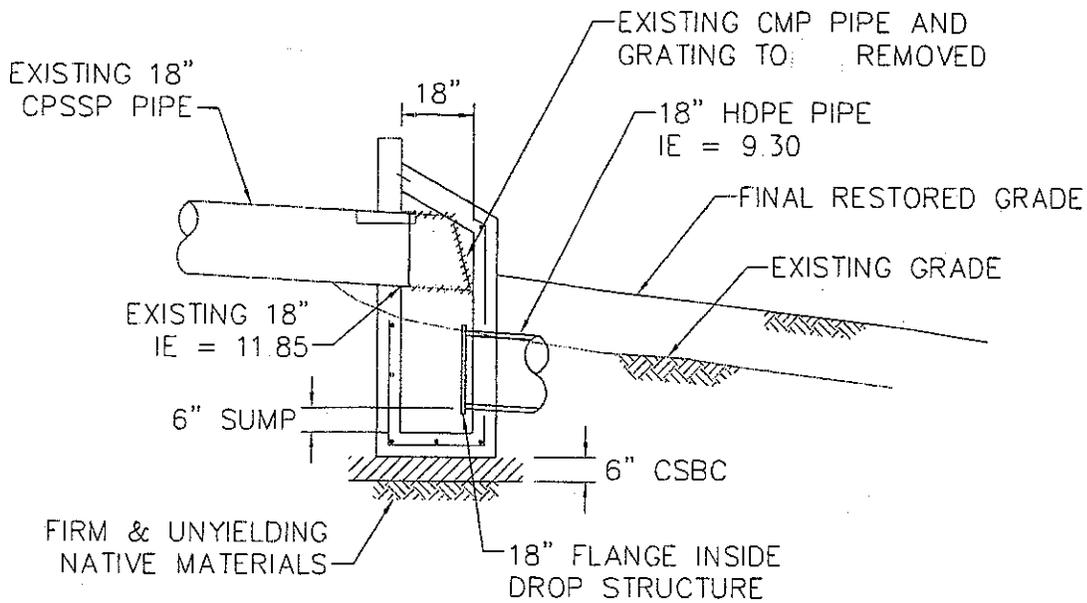
FIGURE 14 of 23
 MARCH 2008

ALDERBROOK INN & RESORT
STORMWATER OUTFALL IMPROVEMENTS
 Proposed Pipe Alignment and Anchor Block Details



ENGINEERING GROUP

USACE PROJECT REFERENCE NUMBER: NWS-2007-732-S0



NOTES:

- 1 REINFORCING TO BE A #3 BAR AT EACH CORNER AND #3 BAR @ 12" OC
- 2 MINIMUM WALL THICKNESS = 4"
- 3 EPOXY DOWEL CORNER BARS INTO EXISTING RETAINING WALL (MIN EMBED 6")
- 4 CONCRETE TO BE CLASS 3000 AS SPECIFIED IN THE WSDOT STD SPECIFICATIONS

**WESTERN OUTFALL
DROP STRUCTURE**

DETAIL

SCALE: 1" = 4'



PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT

ACTIVITY:

INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL

APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH, WA 98027

WATERWAY:

COUNTY OF:

MASON, WASHINGTON

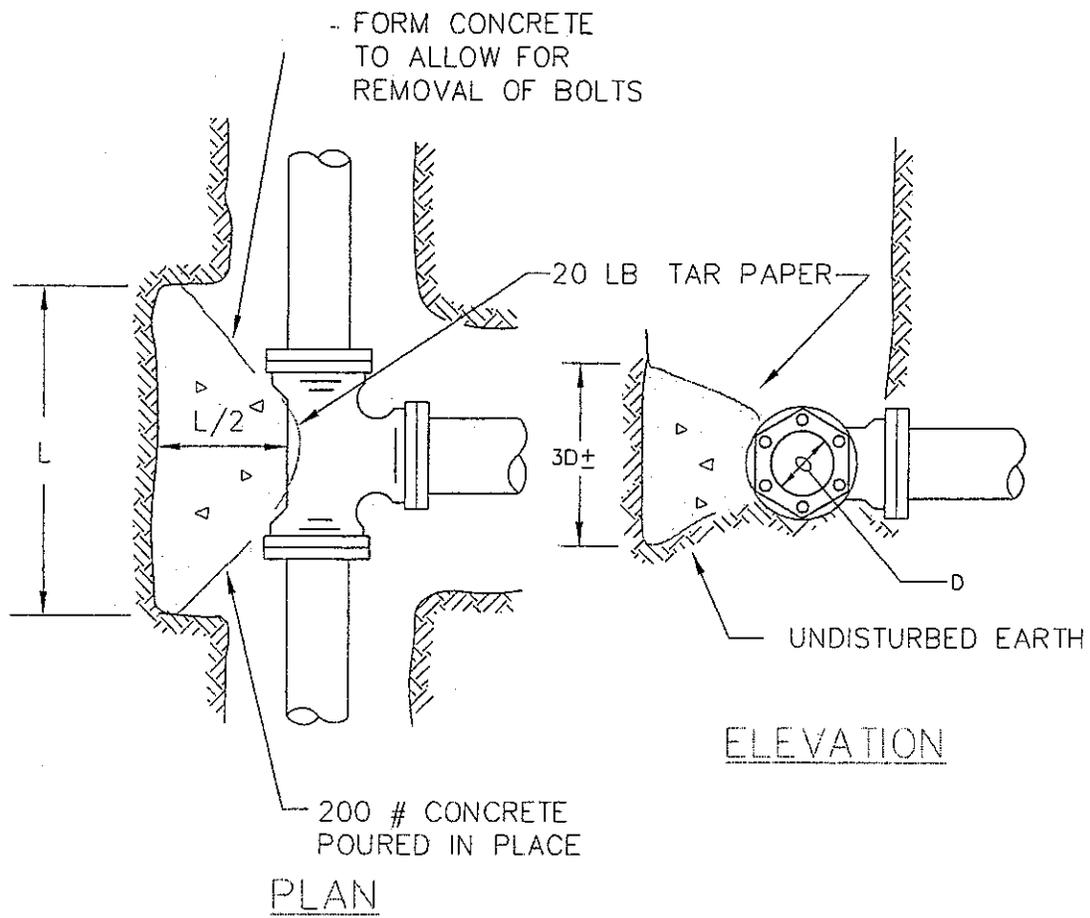


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FIGURE 15 of 23
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NUMBER: NWS-2007-732-S0

**ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Details**



BEARING AREA TABLE					
FITTING D	TEE	90°	45°	22 1/2°	11 1/4°
6"	4 SQ FT	6 SQ FT	3 SQ.FT.	2 SQ FT.	2 SQ.FT.
8"	7 SQ.FT.	10 SQ.FT.	6 SQ.FT.	3 SQ.FT.	2 SQ.FT.
10"	10 SQ.FT.	9 SQ.FT.	9 SQ.FT.	5 SQ.FT.	3 SQ.FT.
12"	14 SQ.FT.	22 SQ.FT.	12 SQ.FT.	6 SQ.FT.	4 SQ.FT.
16"	25 SQ.FT.	38 SQ.FT.	21 SQ.FT.	11 SQ.FT.	7 SQ.FT.
18"	32 SQ.FT.	48 SQ.FT.	27 SQ.FT.	14 SQ.FT.	8 SQ.FT.

THRUST BLOCK
DETAIL 
NO SCALE

PURPOSE: STORMWATER OUTFALL IMPROVEMENTS & DOCK REPLACEMENT
APPLICATION BY: NORTH FORTY LODGING
22526 SE 64TH PLACE
ISSAQUAH WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL
WATERWAY:
COUNTY OF: MASON, WASHINGTON



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FIGURE 16 of 23
MARCH 2008

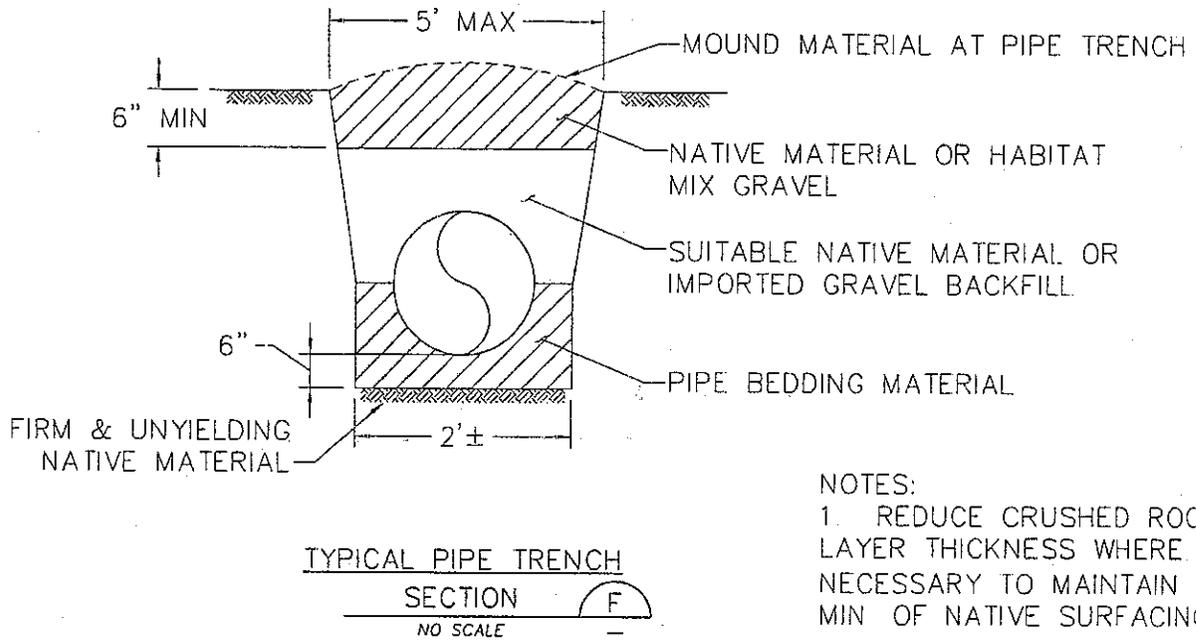
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NUMBER: NWS-2007-732-S0

ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Thrust Block Detail

GENERAL NOTE:

1 "HABITAT MIX" GRAVEL SHALL CONSIST OF THE FOLLOWING:

- A. GRAVEL SHALL BE CLEAN ROUND "PEA GRAVEL", NOT CRUSHED.
- B. AT LEAST 80% OF THE GRAVEL SHALL BE SIZED BETWEEN 1/16" AND 1/4" IN DIAMETER
- C. GRAVEL SHALL BE SPREAD ALONG THE ENTIRE AREA OF DISTURBANCE TO A UNIFORM DEPTH OF 6"
- D. GRAVELING SHALL BE COMPLETED WITHIN 48 HOURS FOLLOWING BACKFILLING TRENCH



NOTES:

- 1. REDUCE CRUSHED ROCK LAYER THICKNESS WHERE NECESSARY TO MAINTAIN 6" MIN OF NATIVE SURFACING

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WATERWAY:
COUNTY OF: MASON, WASHINGTON

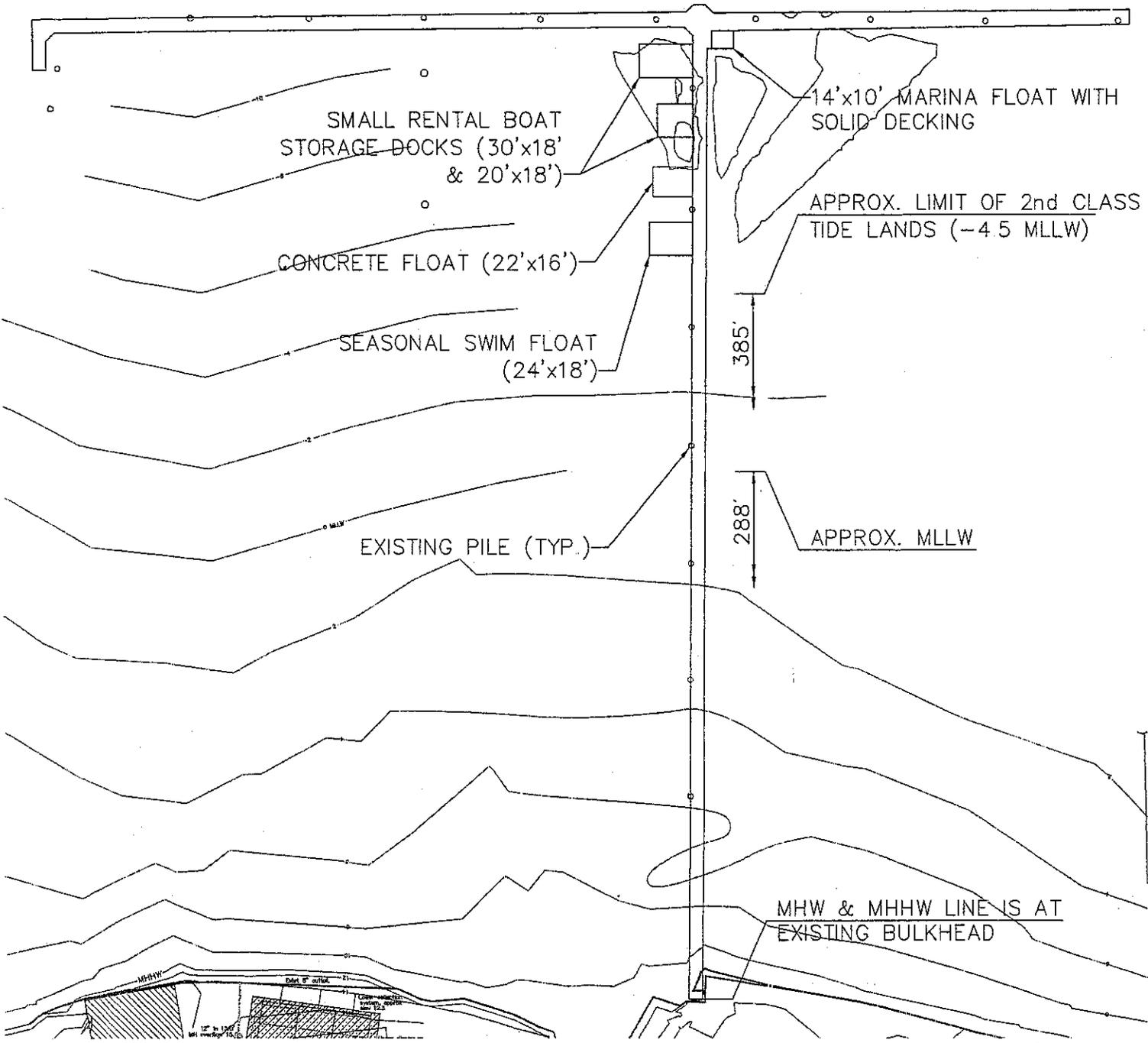


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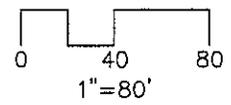
FIGURE 17 of 23
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ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Details



EXISTING DOCK LAYOUT
 PLAN G
 SCALE: 1" = 80'



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 ISSAQUAH, WA 98027

ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL

WATERWAY:

COUNTY OF: MASON, WASHINGTON

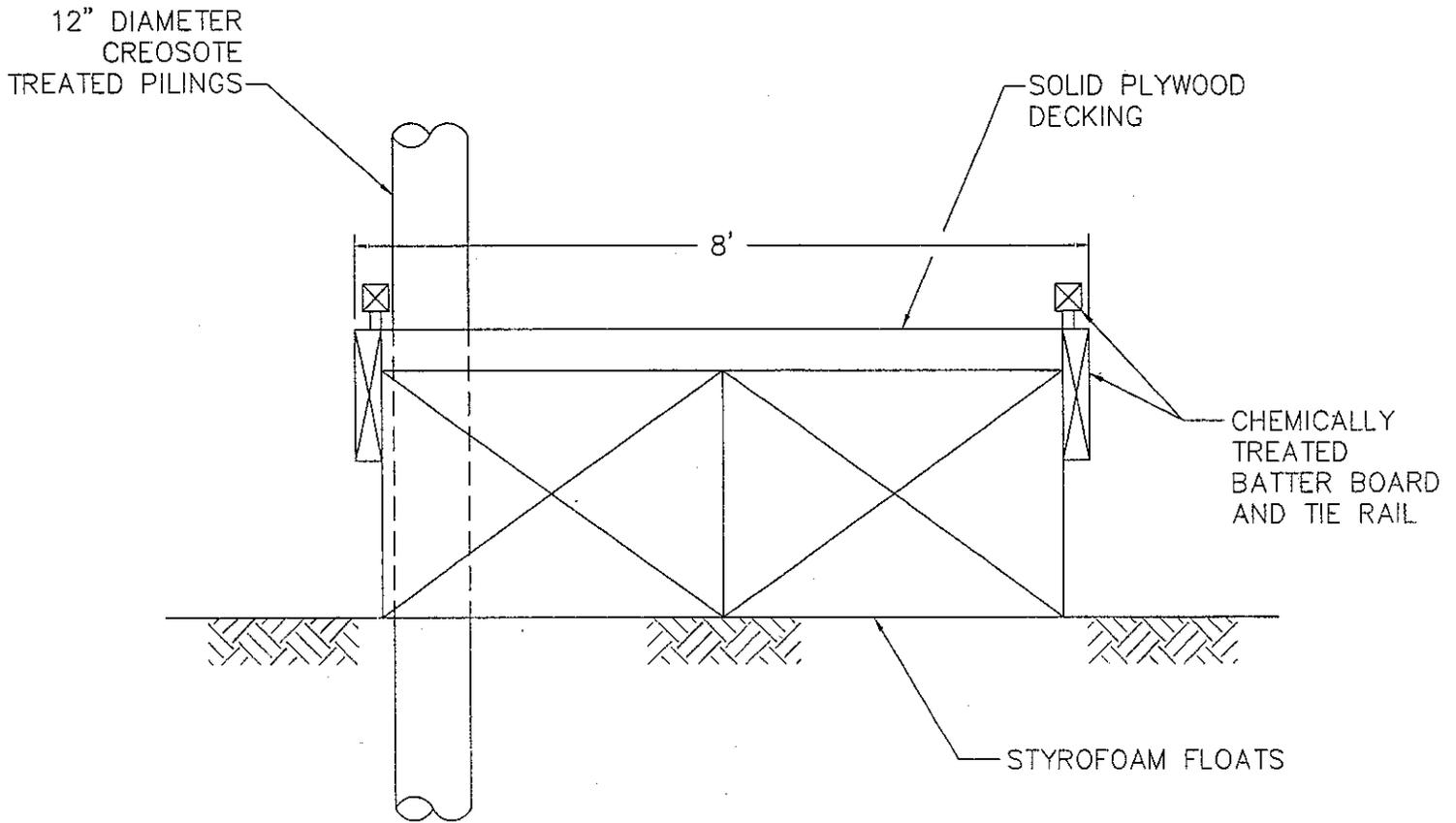


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FIGURE 18 of 23
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ALDERBROOK INN & RESORT
STORMWATER OUTFALL IMPROVEMENTS
Existing Dock Detail



EXISTING DOCK TYPICAL CONSTRUCTION

DETAIL M
NO SCALE

NOTE: THIS DETAIL DEPICTS A CROSS SECTION OF THE DOCK STEM. THE MARINA FLOAT, SMALL BOAT RENTAL FLOATS AND THE SEASONAL SWIM FLOAT HAVE SIMILAR CONSTRUCTION WITH VARIABLE DIMENSIONS AS SHOWN ON FIG 20

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ISSAQUAH, WA 98027

WATERWAY:

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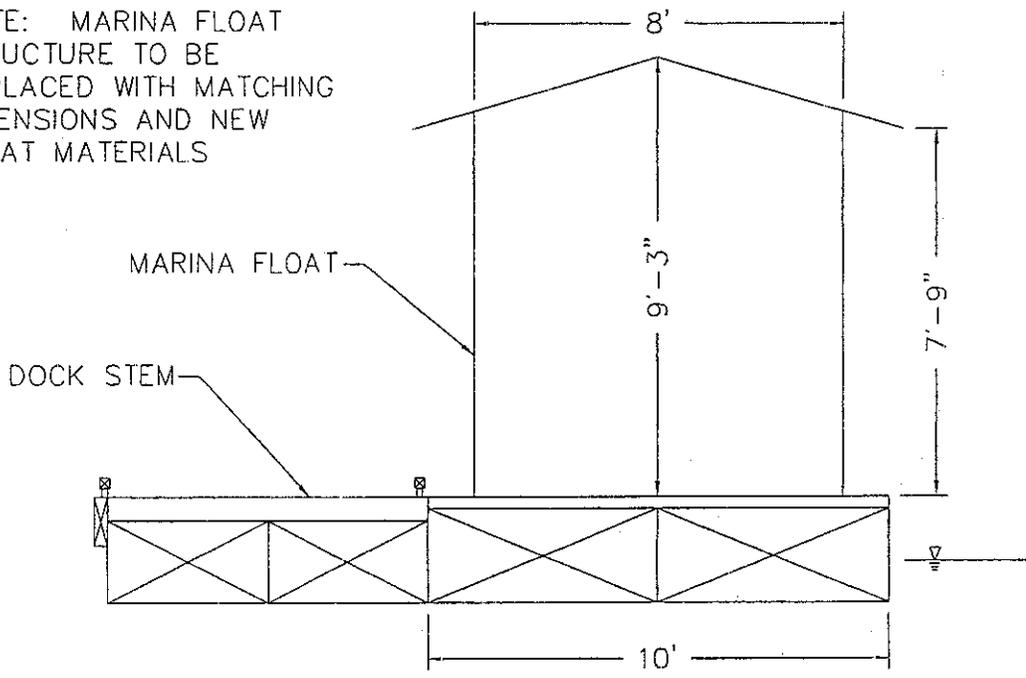
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FIGURE 19 of 23
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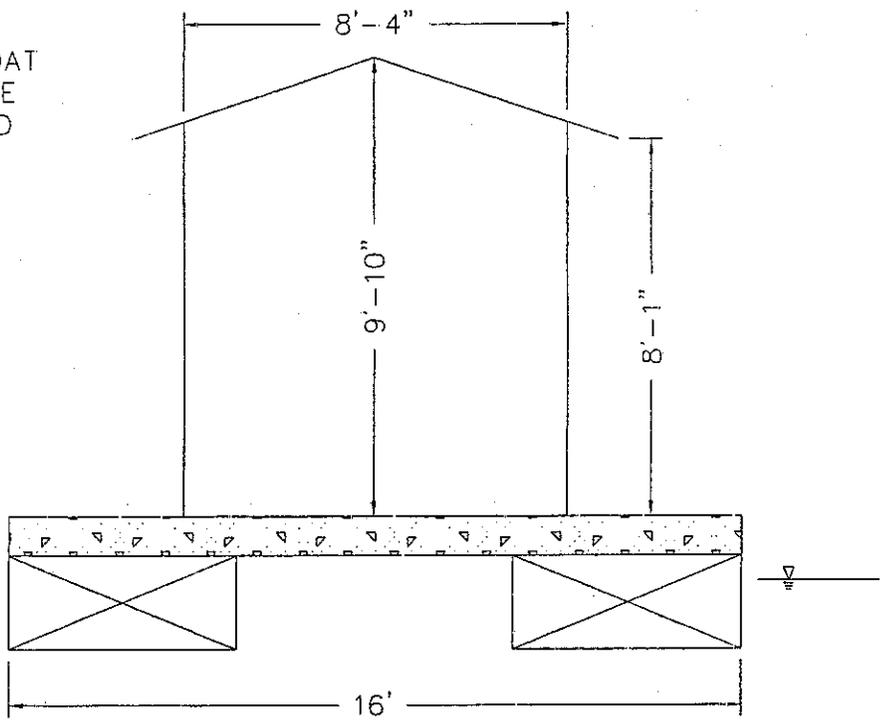
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Details

NOTE: MARINA FLOAT STRUCTURE TO BE REPLACED WITH MATCHING DIMENSIONS AND NEW FLOAT MATERIALS



MARINA FLOAT SECTION
NO SCALE

NOTE: CONCRETE FLOAT IS EXCLUDED FROM THE CURRENT PROJECT AND WILL REMAIN IN ITS CURRENT CONDITION



CONCRETE FLOAT SECTION
NO SCALE

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APPLICATION BY:	NORTH FORTY LODGING 22526 SE 64TH PLACE ISSAQUAH, WA 98027	WATERWAY:	
		COUNTY OF:	MASON, WASHINGTON



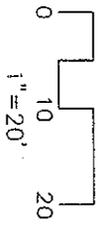
FIGURE 20 of 23
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ALDERBROOK INN & RESORT
STORMWATER OUTFALL IMPROVEMENTS
Details



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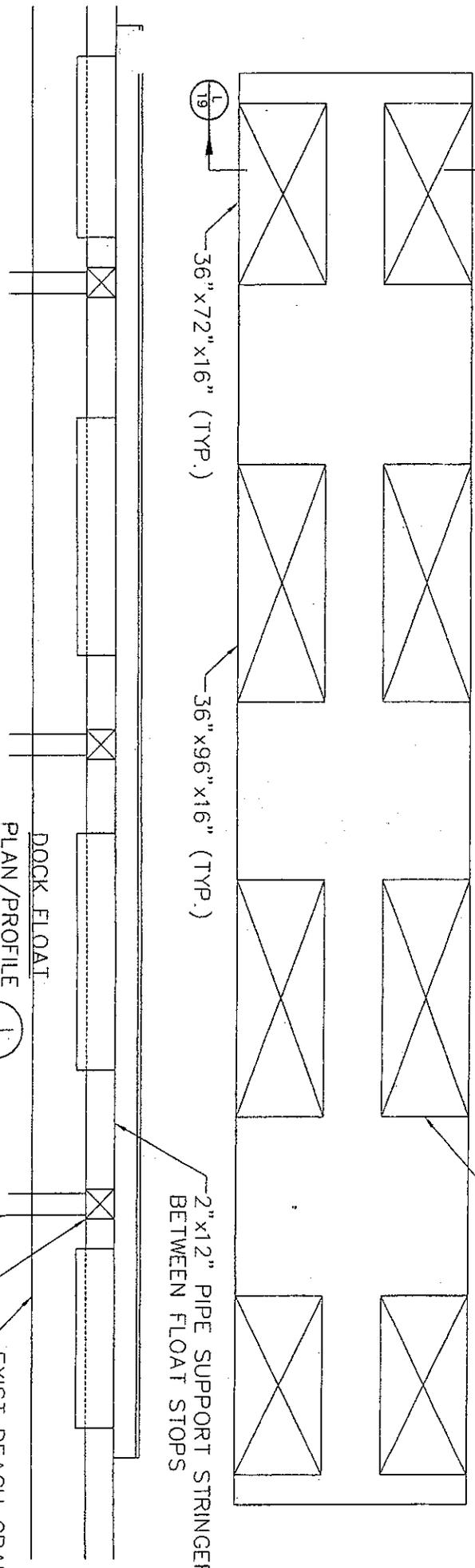
FIGURE 22 of 23
MARCH 2008
ALDERBROOK INN & RESORT
STORMWATER OUTFALL
IMPROVEMENTS
Proposed Details

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ACTIVITY: INSTALL PROPOSED STORMWATER OUTFALL EXTENSIONS HOOD CANAL
WATERWAY: MASON, WASHINGTON
COUNTY OF:

EXIST BEACH GRADE
12"x12" WOOD BEAM
FLOAT STOP
8" GALVANIZED STEEL PILING

DOCK FLOAT
PLAN / PROFILE
NO SCALE

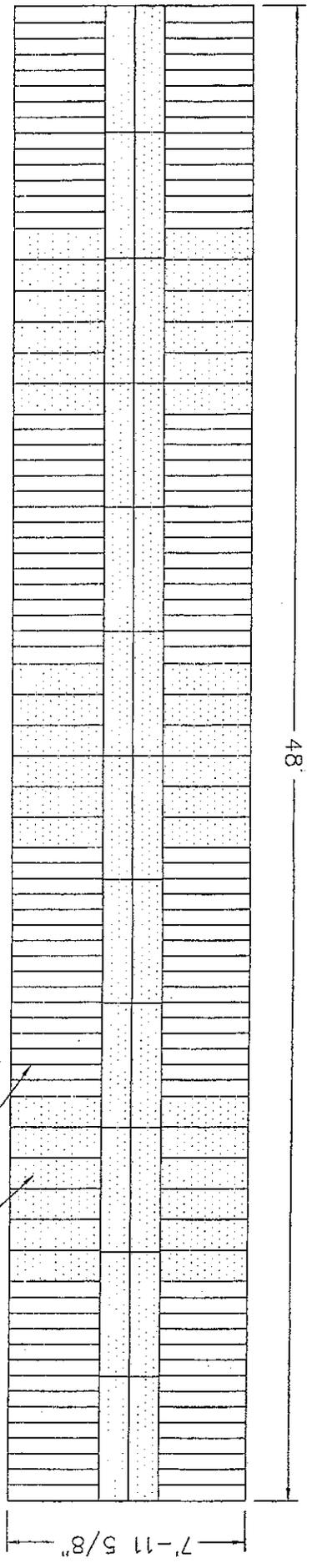


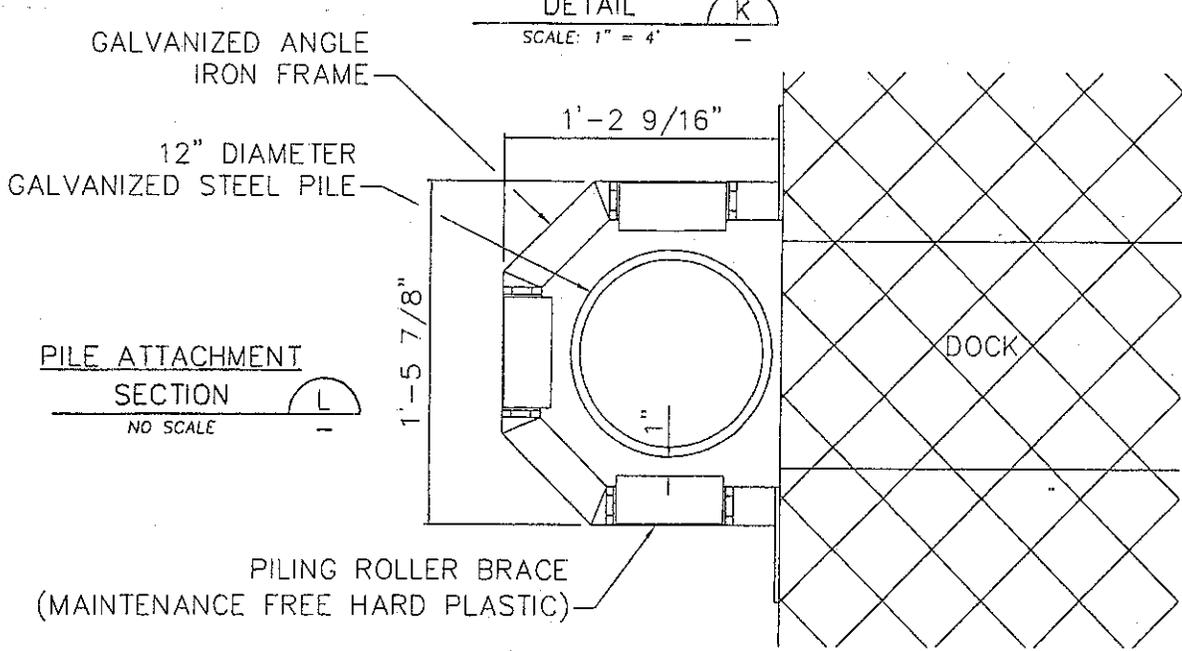
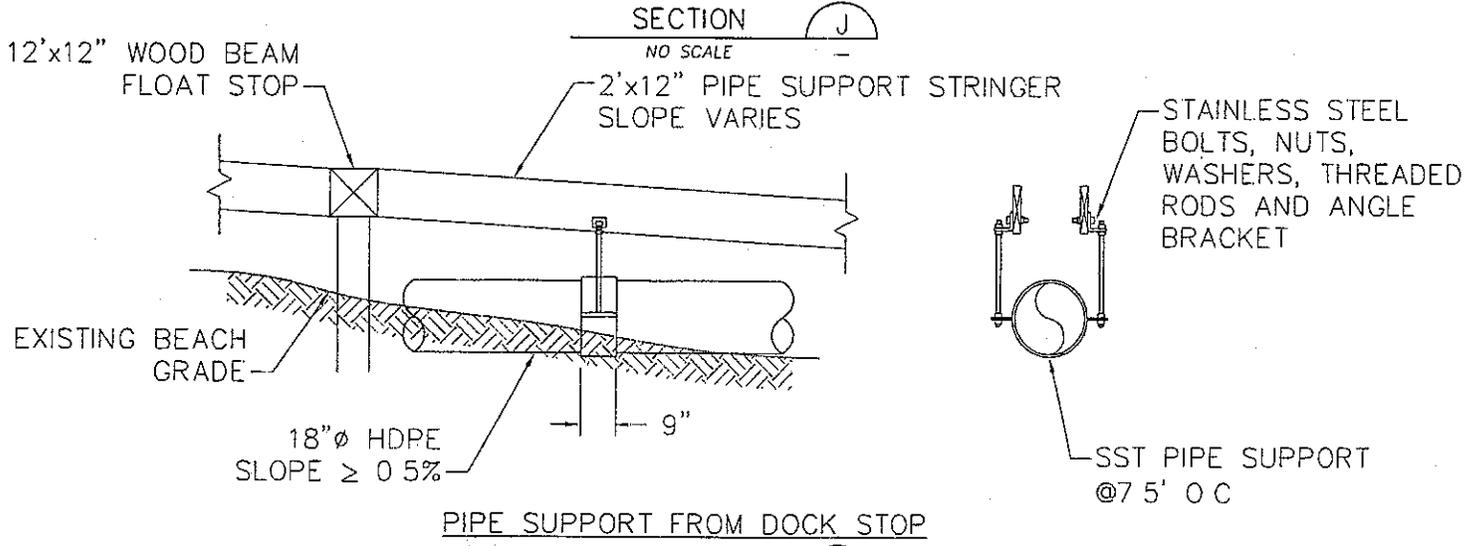
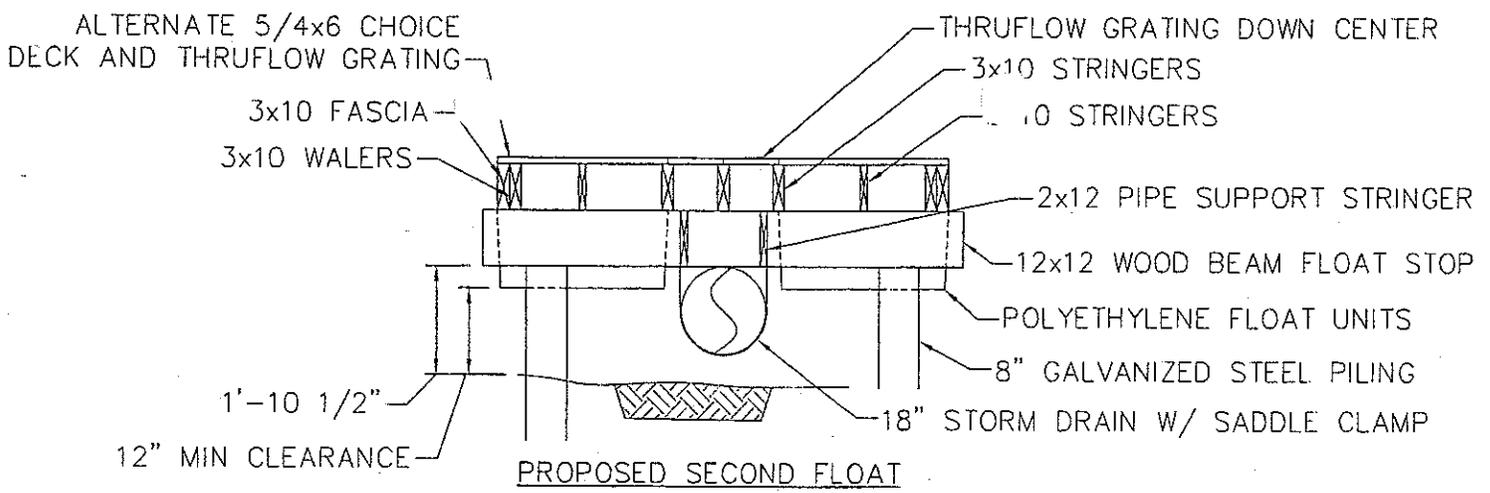
TYPICAL AREAS FOR EACH 48' SECTION
382 SQ FT OF FLOAT
201.5 SQ FT GRATING
52.6% GRATED AREA
FREEBOARD WITH DL 18"
FREEBOARD WITH DL + LL 11"
#15 PER SQ FT LIVE LOAD

GRATING LAYOUT
DETAIL
NO SCALE



THRUFLOW GRATING
5/4x6 LOWES WOOD GRAIN CHOICE DECK
POLYETHYLENE FLOAT UNITS





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FIGURE 23 of 23
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