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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

December 19, 2007
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit (SCAP.1777.3)
Maintenance Dredging at Waimalu Drainage Canal, Aiea, Oahu
TMKs: (1) 9-8-007, 008, 009, 023, and 024

APPLICANT:

Mr. Eugene C. Lee, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, HI 96813

LANDOWNER:

Same as applicant

SUMMARY OF REQUEST:

Application for a Stream Channel Alteration Permit (SCAP) to perform maintenance dredging for the City and County of Honolulu Waimalu Flood Control Drainage Canal, Waimalu Stream, Aiea, Oahu, TMKs: (1) 9-8-007, 008, 009, 023, and 024.

LOCATION: Exhibits 1a and 1b.

BACKGROUND:

On March 19, 1999, the Commission on Water Resource Management (Commission) adopted Declaratory Ruling No. DEC-ADM99-S8 on Stream Clearing Activities for the City and County of Honolulu. DEC-ADM99-S8 exempted the City and County of Honolulu from obtaining SCAPs for stream clearing activities that are considered routine maintenance and included the clearing of sand plugs at stream mouths involving less than 500 cubic yards of material removed and less than two weeks to complete. The proposed stream maintenance dredging for this project will remove 50,000 cubic yards of material and may take up to one year; consequently, a SCAP is required.

In July 2003, Engineers Surveyors Hawaii, Inc. prepared a Final Environmental Assessment for the Waimalu Stream Dredging Project for the City and County of Honolulu. The purpose of the proposed

action is to protect the public health and safety by restoring the peak channel discharge capacity of the Waimalu Stream Flood Control Project. The recommended alternative for the proposed project is the dredging of Waimalu Stream sediments on to barges to be towed and disposed at the Mamala Bay ocean disposal site which the EPA has approved. See Exhibit 2.

On October 15, 2007, Engineers Surveyors Hawaii, Inc. submitted a SCAP application to perform maintenance dredging on behalf of the City and County of Honolulu. The project is located within the confines of the Waimalu Flood Control Drainage Canal, which was constructed by the City and County of Honolulu between 1962 and 1970. The Waimalu Flood Control Drainage Canal was previously dredged in 1988-1989. The current proposed maintenance dredging of the drainage canal will restore the canal to its original design depths, facilitate the flow of storm water to the Pearl Harbor estuary, minimize the potential damage to structures, and increase public safety from flooding events within the watershed.

The City and County of Honolulu is currently soliciting bids for this project and will open bids on December 13, 2007. The City will award the contract approximately 30 days after the bid opening and expects to have all approvals and permits in place by April 2008. The time of completion will be within one year from the commencement date. The City's cost estimate for this project is approximately \$3 million.

DESCRIPTION:

The first project activity will involve dredging approximately 50,000 cubic yards of accumulated sediment and basalt material from the bottom of the drainage canal to re-establish the open water area, water depths and capacity of the flood drainage canal to carry peak discharges from 9,840 cubic feet per second (cfs) to 13,600 cfs. Conventional hydraulic suction dredging methods and/or mechanized excavation will be used to remove the accumulated sediment. The total length of the flood control dredging project is 3,700 lineal feet, including 2,800 feet between Kamehameha Highway and Moanalua Road bridges and 900 feet makai (towards the sea) of the Kamehameha Highway Bridge. The area to be dredged is up to 11 acres. See Exhibit 3 for drainage way cross sections.

The second project activity will involve transporting and disposing of suitable dredged spoils at the SOODMDS in Mamala Bay, which is approximately ten miles south of the project area and has been approved by the EPA. In 1988-1989, approximately 55,000 cubic yards of dredged material was disposed of at the Mamala Bay ocean disposal site.

Available geotechnical data indicate that Waimalu Drainage Canal contains sediments, gravels, cobbles, boulders, and miscellaneous debris. These sediments consist of previously discharged upland sediments of very loose, fine to medium clay and silty clays with gravel-sized and larger basalt material. At the estuarine terminus, sediments consist of native, carbonate marine sediments consisting of fine to coarse sand, silty sand and clayey sand, some coralline gravels, sandy clay and sandy silt layers.

Use of the project area will be restricted during construction by the placement of appropriate safety devices, structures, and signage. Water quality in the drainage way is expected to remain the same after construction, primarily as a result of improved water flow rates. The water quality of the receiving Pearl Harbor estuary waters that are accessible to the public is not expected to be significantly degraded during the project dredging. Site specific Best Management Practices Plan (BMPP) will be required to minimize turbidity and the proper handling and disposal of excavated material. In addition, the BMPP will also contain measures to avoid, minimize or mitigate potential pollution events from equipment maintenance, leaks and spills.

ANALYSIS:

On November 16, 2007, the U.S. Army Corps of Engineers (COE) issued Public Notice POH-2005-375 for the Waimalu Drainage Canal, Waimalu Stream, Oahu and requested comments from Federal, State and local agencies and interested parties to consider and evaluate the impacts of the proposed activity. The deadline to respond to the COE's Public Notice is December 17, 2007.

The State Department of Health (DOH) Clean Water Branch (CWB) made the following comments:

- The project must meet the State's anti-degradation policy, designated uses, and water quality criteria.
- Additional maps, information on sediment quality and Department of the Army (DA) jurisdictional determination must be provided to the CWB.
- A Section 401 Water Quality Certification will be required if water is discharged from the dredged spoils or from the barge into State waters.
- The selected contractor must inform the CWB of the dredging method to be used, site-specific BMPP and applicable monitoring and assessment plan to be implemented before the commencement of any proposed construction activity.
- A National Pollutant Discharge Elimination System (NPDES) permit for discharges of waste water, including storm water runoff, into State surface waters may be required.

City and County of Honolulu, Department of Planning and Permitting stated that routine maintenance dredging of existing streams, channels and drainage ways is exempt from the requirements of Revised Ordinances of Honolulu (ROH) Chapter 25 Special Management Area Ordinance and had no comments on the grading, flood control, or Federal Emergency Management Agency (FEMA) requirements.

The Office of Hawaiian Affairs (OHA) expressed the following concerns:

- The effects of the dredged material and contaminants contained therein on the near shore environment are unknown. Human activities have added wastewater, shipyard contaminants, lead paint from ships, and agricultural fertilizers leached from fields to the bay. In addition, the potential adverse effects from re-suspension of contaminants on sediments resulting from the continued disposal of dredged spoils are not well known.
- OHA would like assurances that the project meets State water quality standards and all Federal Clean Water Act and Rivers and Harbors Act requirements.
- OHA recommends that the applicant identify the scope of valued cultural, historic, and natural resources in the project area, the extent to which these resources will be affected or impaired by the proposed action, and how these effects will be mitigated.
- OHA urged that future documents refer to lands impacted by this project, as well as all submerged lands, as ceded lands to make their special status known to others, to facilitate their continued registry, and to create and maintain an accurate inventory of ceded lands.

The Engineering Division noted that the project site is located in Flood Zone D and that the National Flood Insurance Program (NFIP) does not have any regulations for developments within Flood Zone D.

The Department of Hawaiian Home Lands and Forestry and Wildlife Division had no objections to the project. The Land Division did not require any permits from the applicant. The State Parks Division commented that the project was not subject to its regulatory permit or authority.

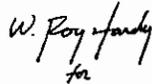
The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, University of Hawaii Environment Center, DLNR Aquatic Resources and Historic Preservation Divisions did not submit comments as of the date of preparation of this submittal.

The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, University of Hawaii Environment Center, DLNR Aquatic Resources and Historic Preservation Divisions did not submit comments as of the date of preparation of this submittal.

RECOMMENDATION:

That the Commission approve a Stream Channel Alteration Permit to perform maintenance dredging for the City and County of Honolulu Waimalu Flood Control Drainage Canal, Waimalu Stream, Aiea, Oahu, TMKs: (1) 9-8-007, 008, 009, 023, and 024. The permit shall have a term of two (2) years subject to the Commission's standard permit conditions in Exhibit 5.

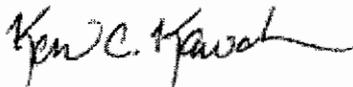
Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibits:
1. Location Maps 1a and 1b
 2. Disposal Site Plan
 3. Drainage Way Cross Sections
 4. Photos of Project Site
 5. Standard Stream Channel Alteration Permit Conditions

APPROVED FOR SUBMITTAL



LAURA H. THIELEN
Chairperson

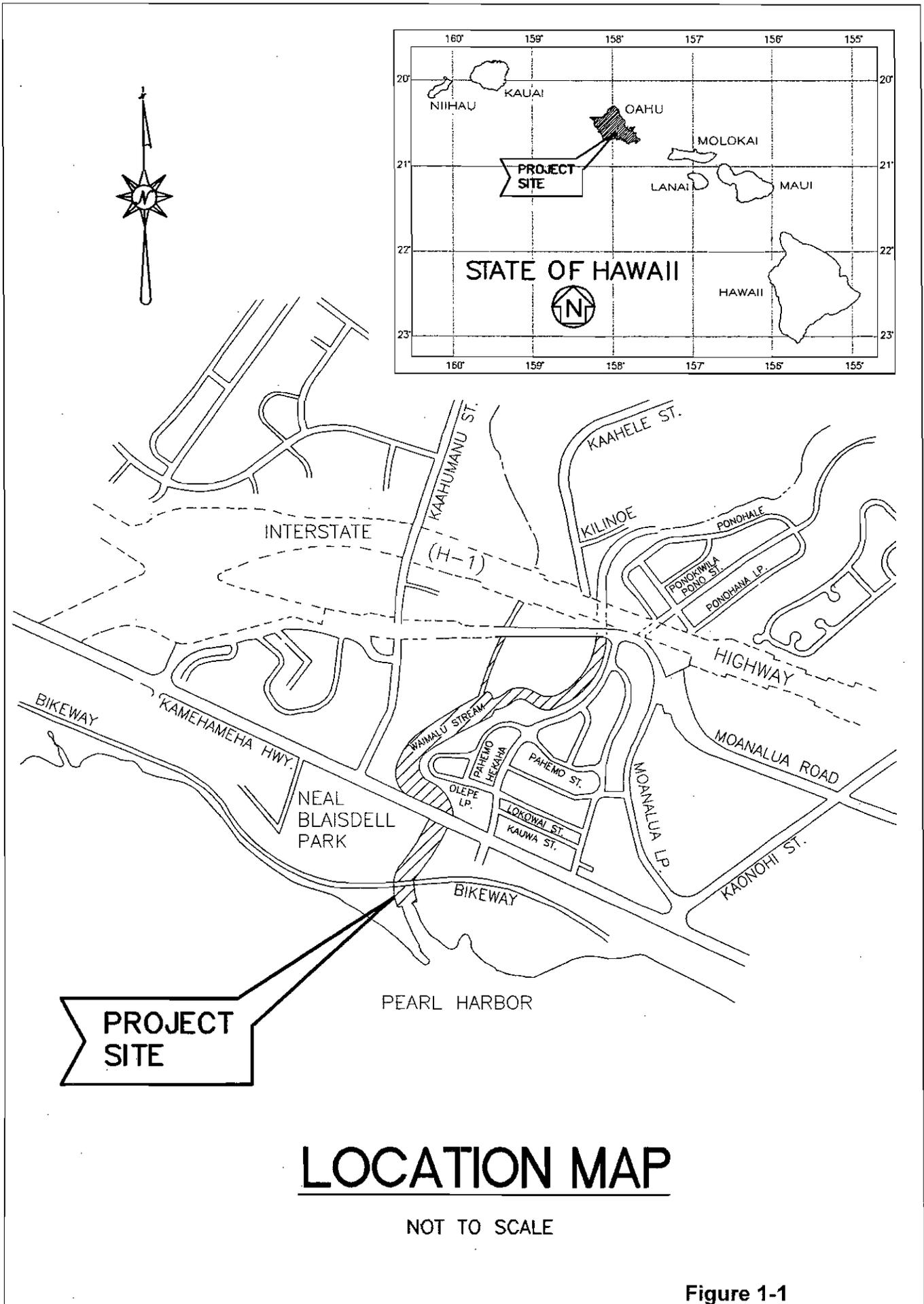


Figure 1-1

Waimalu Stream -- Ownership

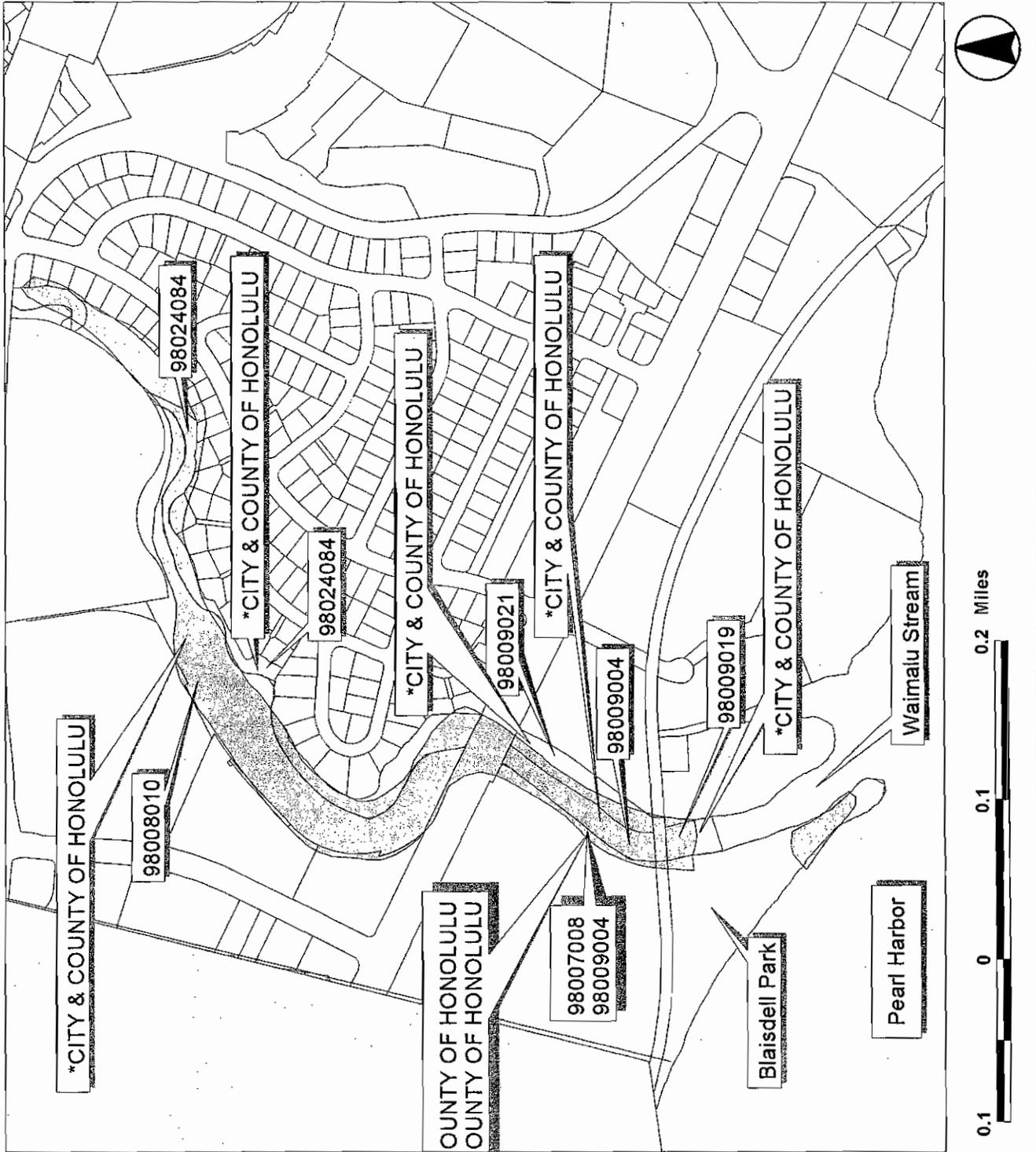
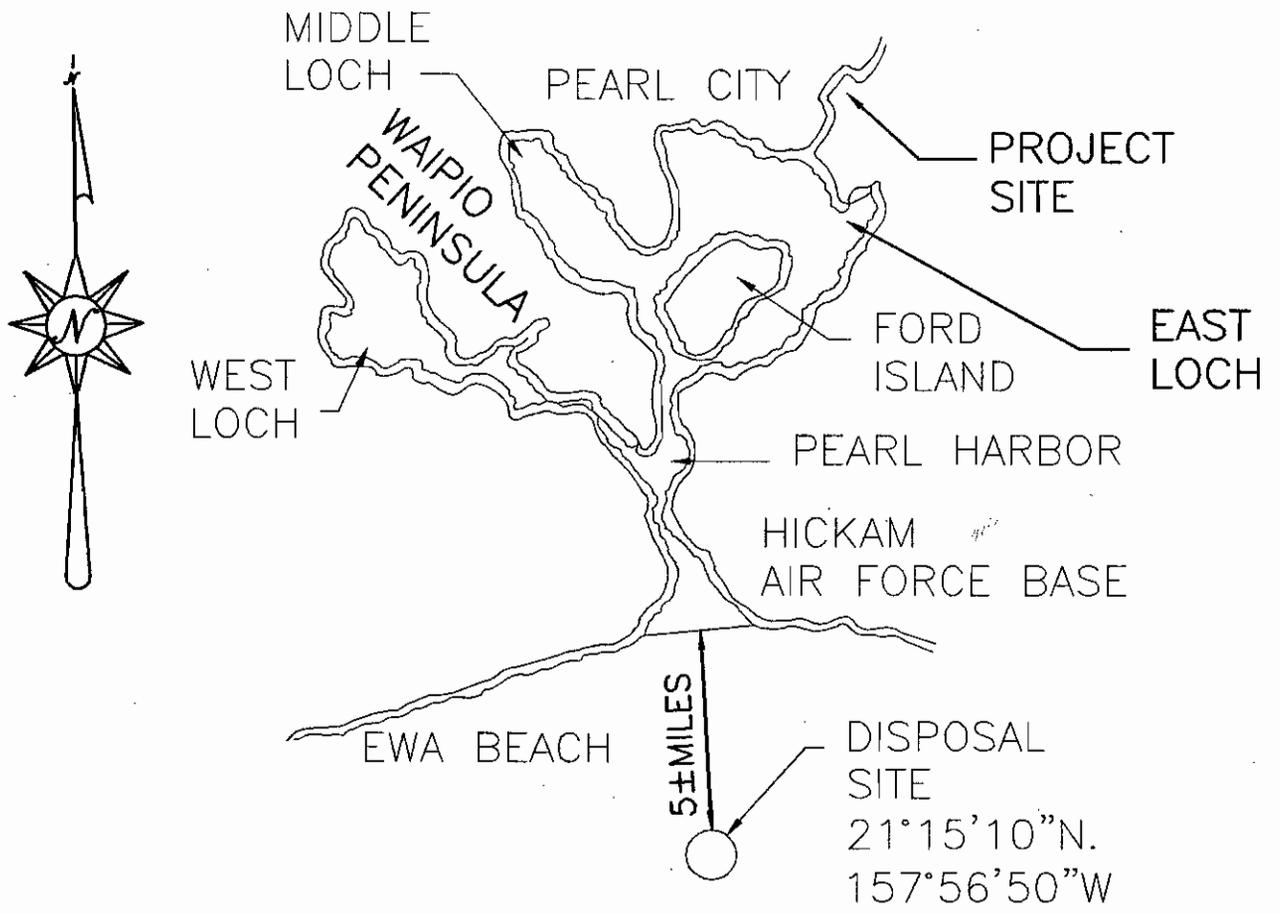


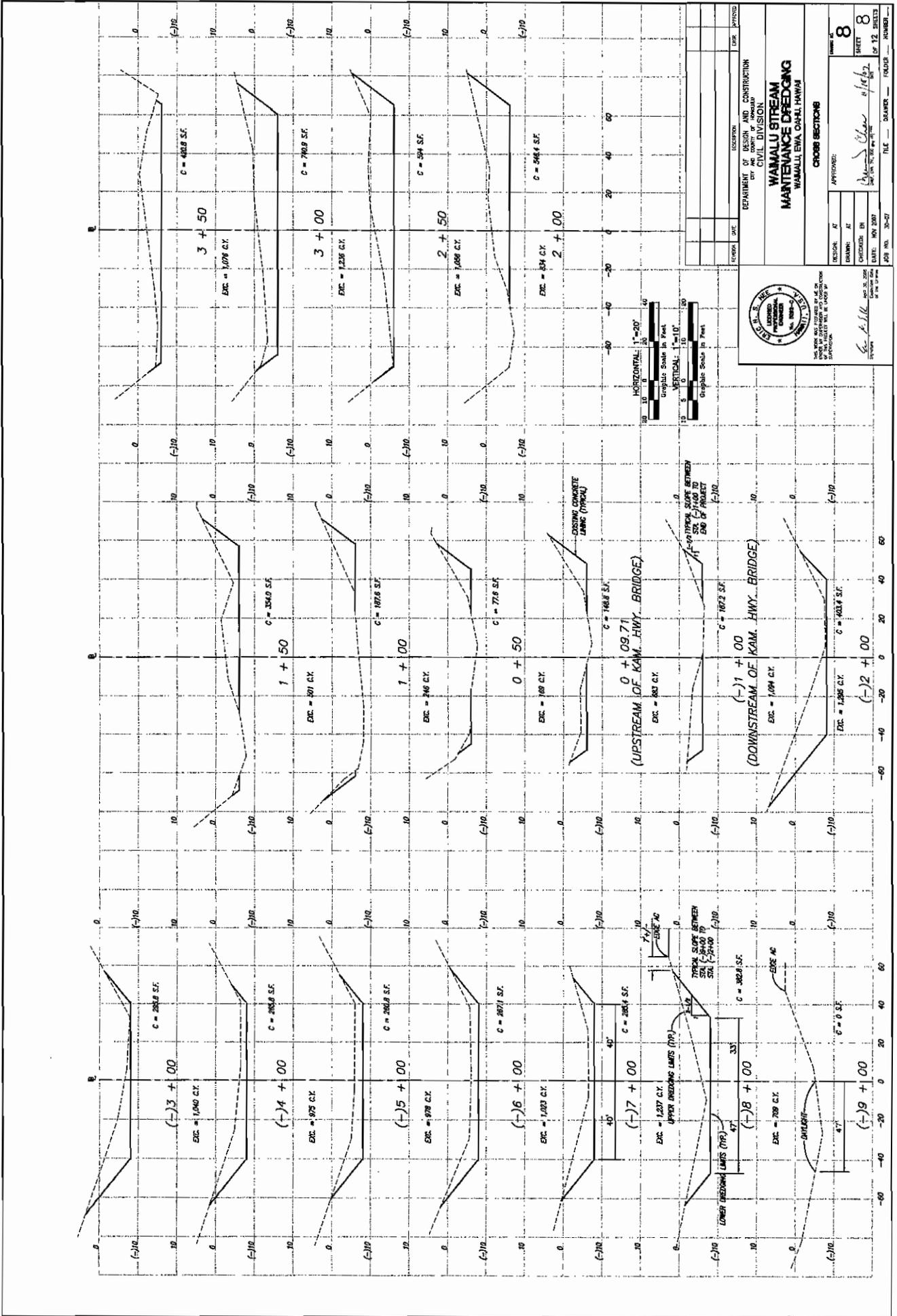
Figure 4-3



DISPOSAL SITE PLAN

NOT TO SCALE

Figure 1-2



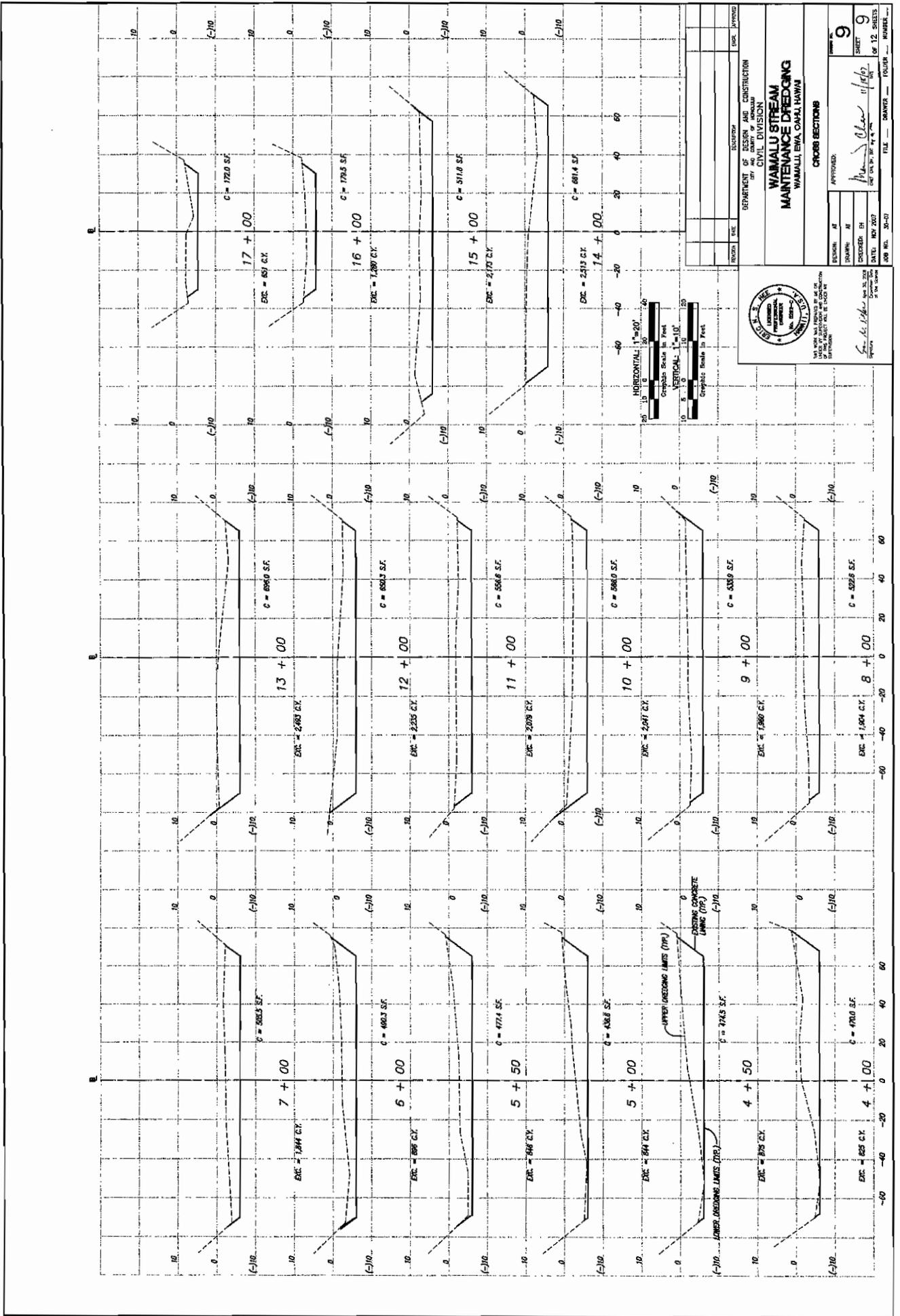
100-10-10-12 PROVISIONAL DESIGN DRAWING (REVISED) 10/11/20



DEPARTMENT OF DESIGN AND CONSTRUCTION
 CIVIL DIVISION
WAMALU STREAM MAINTENANCE DREDGING
 WAMALU EWA, OAHU, HAWAII

CROSS SECTIONS

APPROVED: _____
 DESIGN: AT _____
 DRAWN: AT _____
 CHECKED: BY _____
 DATE: NOV 2007
 SHEET 8 OF 12 SHEETS
 JOB NO. 35-07



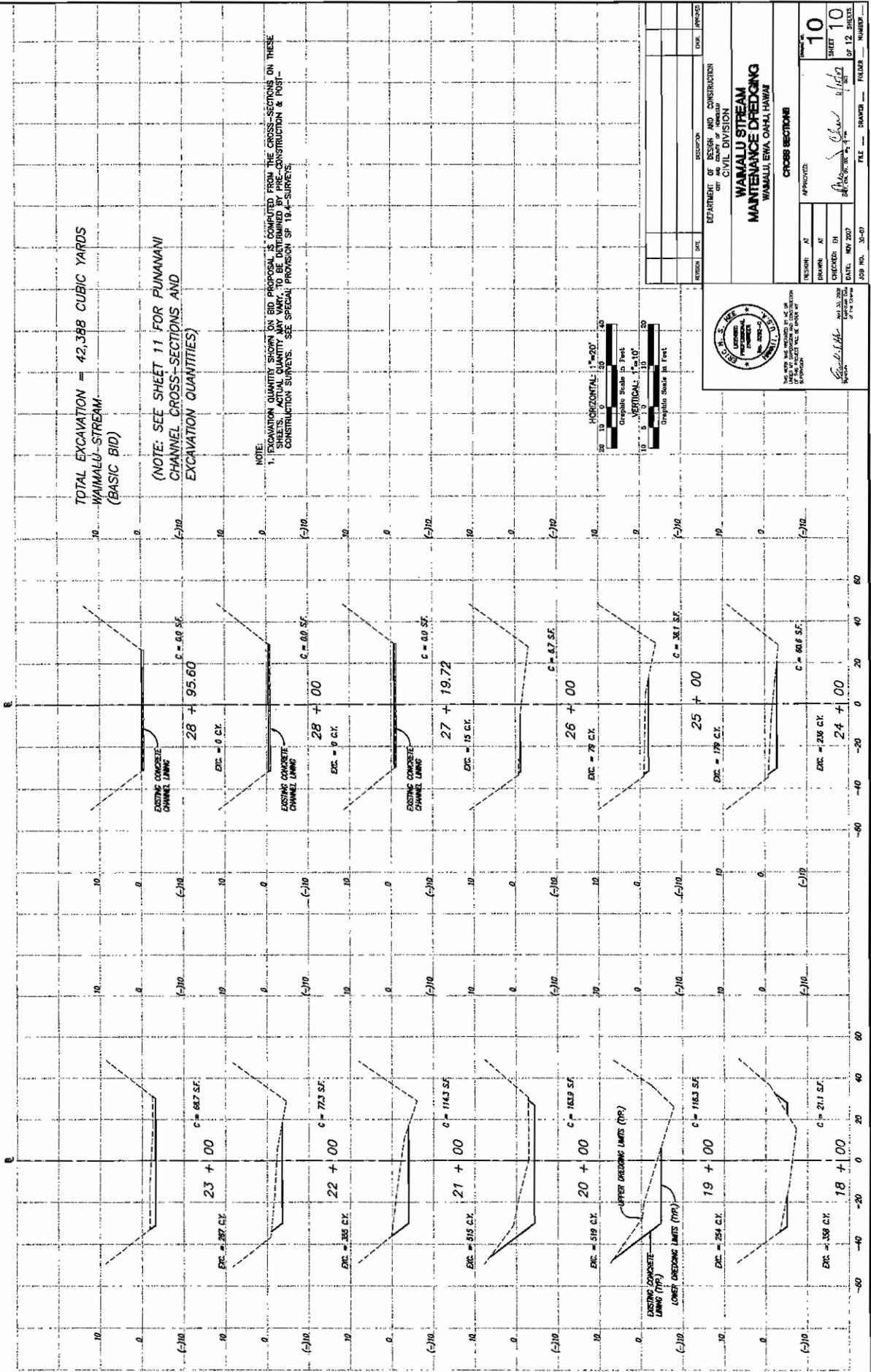
DEPARTMENT OF DESIGN AND CONSTRUCTION
 CIVIL DIVISION
**WAIMALU STREAM
 MAINTENANCE DREDGING**
 WAIMALU, HAWAII, OAHU, HAWAII

APPROVED: _____ DATE: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 DATE: MAY 2007
 JOB NO.: 30-07
 SHEET 9 OF 12 SHEETS
 DRAWING NUMBER: 10000

TOTAL EXCAVATION = 42,388 CUBIC YARDS
WAIMALU-STREAM
(BASIC BID)

(NOTE: SEE SHEET 11 FOR PUNANANI
CHANNEL CROSS-SECTIONS AND
EXCAVATION QUANTITIES)

NOTE:
1. EXCAVATION QUANTITY SHOWN ON BID PROPOSAL IS COMPUTED FROM THE CROSS-SECTIONS ON THESE SHEETS. ACTUAL QUANTITY MAY VARY, TO BE DETERMINED BY PRE-CONSTRUCTION & POST-CONSTRUCTION SURVEYS. SEE SPECIAL PROVISION SP 19.4-SURVEYS



DEPARTMENT OF DESIGN AND CONSTRUCTION
CIVIL DIVISION

WAIMALU STREAM
MAINTENANCE DREDGING
WAIMALU, EWA, OAHU, HAWAII

CROSS SECTIONS

DESIGNED BY: [Signature]
CHECKED BY: [Signature]
DATE: NOV 2007

APPROVED: [Signature]
DATE: 10/15/07

PROJECT NO. 30-00

SHEET 10 OF 12 SHEETS



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DSC00233.JPG



DSC00258.JPG



DSC00259.JPG

STANDARD STREAM CHANNEL ALTERATION PERMIT CONDITIONS
(Revised 9/19/07)

1. The permit application and staff submittal approved by the Commission at its meeting on December 19, 2007, shall be incorporated herein by reference.
2. The applicant shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments.
3. The applicant, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the applicant or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.
4. The applicant shall notify the Commission, by letter, of the actual dates of project initiation and completion. The applicant shall submit a set of as-built plans and photos of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
5. Before proceeding with any work authorized by the Commission, the applicant shall submit one set of construction plans and specifications to determine consistency with the conditions of the permit and the declarations set forth in the permit application.
6. *The applicant shall develop site-specific, construction best management practices (BMPs) that are designed, implemented, operated, and maintained by the applicant and its contractor to properly isolate and confine construction activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting state waters. BMPs shall control erosion and dust during construction and schedule construction activities during periods of low stream flow.*
7. *The applicant shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The applicant shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.*
8. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the applicant shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.