CENPS-OP-DMMO

MEMORANDUM FOR RECORD 14 July 1993

SUBJECT: DETERMINATION ON THE SUITABILITY OF MAINTENANCE DREDGED MATERIAL TESTED FOR THE INDIAN COVE MOORAGE, HARSTENE ISLAND, WASHINGTON (OYB-92-2-00387) FOR DISPOSAL AT A PSDDA UNCONFINED OPEN-WATER DISPOSAL SITE.

1. The following summary reflects the consensus determination of the PSDDA Agencies' (U.S. Army Corps or Engineers, Department of Ecology, Department of Natural Resources, and the Environmental Protection Agency) with jurisdiction on dredging and disposal on the suitability of the estimated 8,000 cubic yards of maintenance material proposed for dredging from the Indian Cove Moorage, at Harstene Island, Washington for disposal at a PSDDA unconfined open-water disposal site (Ketron-Anderson Island nondispersive site). The determination of suitability is based on the acceptability of the sampling conducted on March 29, 1993 and all relevant test data contained in June 18, 1993 Data Summary Report submitted by Mr. Dennis Stettler and Dr. Peter Rude of Landau Asssociates, Incorporated.

2. The Agencies' approved sampling and testing plan was followed, and quality assurance/quality control guidelines specified by PSEP and the PSDDA program were generally complied with. This project was ranked moderate and sampling consisted of four diver collected core samples, which were composited for one analysis. The PSDDA approved SAP called for three samples to be composited into one sample for analysis. An additional diver collected core was necessitated at SC-2 (SC-2a located 80 feet south of SC-2) because the coarse gravel found at this location (enclosure 1) precluded collection of a 4-foot core sample (i.e., 1.2 foot retrieved). This small deviation from the SAP was not deemed a concern. The data gathered were sufficient and acceptable for decision making by the Agencies based on best professional judgement.

3. The results of these analyses showed that chemicals of concern were quantitated below the PSDDA screening levels except phenol, which was measured at 130 ppb (PSDDA SL = 120 ppb). This exceedance triggered the requirement to conduct standard PSDDA biological testing. The results of these analyses are summarized below.

4. Biological testing was accomplished to evaluate the DMMU (C1). The control sediment was collected at West Beach, Whidbey Island, and also served as the reference sediment collection site because of the coarse texture of the tested sediments. Both control sediment and reference sediment met the PSDDA performance requirements for all four bioassays. The results of the bioassays are summarized below in Table 1, and showed that the amphipod, sediment larval, and Neanthes biomass bioassays passed the PSDDA dispersive and nondispersive disposal guidelines. The results from the saline microtox test showed light enhancement and were not interpretable. Therefore, the results of the bioassays demonstrated that the material was suitable for unconfined disposal at either a PSDDA dispersive site or nondispersive site.

Table 1. Bioassay Results for Harstene Island/Indian Cove Moorage dredged material.

STATION	Amphipod Mortality (%)	Sediment Larval (Echinoderm)		20-day *Neanthes* biomass (mg)	Saline Microtox (% light Δ)
		Mort+Abnorm (%)	Abnormality (%)		
Control	6	15.9	6.4	18.0	N/A
West Beach Reference.	5	3.4	6.5	18.9	-24.79
C1	7	11.8	3.6	14.6	-18.09
Positive Control (LC50/EC50)	$CdCl^2$ 0.6838 mg/L	$CdCl^2$ 6.04/6.16 mg/L	--	$CdCl^2$ 6.92 mg/L	phenol 22.9 mg/L

5. The Agencies concluded based on the above discussion and summary of sediment chemical and biological testing results for the Indian Cove Moorage, at Harstene Island, Washington, that all the material tested (8,000 cubic yards) was suitable for disposal at either a PSDDA nondispersive or dispersive open-water disposal site.

6. This memorandum documents the suitability of proposed dredged sediments for unconfined open-water disposal at a PSDDA site. It does not constitute final agency approval of the project. A public notice will be issued for this project. During the public comment period, which follows a public notice, the resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under Section 404 (b)(1) of the Clean Water Act.

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Concur:

July 16, 1993 — David R. Kendall
Date — David R. Kendall, Ph.D
Seattle District Corps of Engineers

July 16, 1993 — Justine S. Barton
Date — Justine Barton/John Malek
Environmental Protection Agency
Region X

July 29, 1993 — Sandra L Manning
Date — Sandra Manning
Washington Department of Ecology

Aug 5, 1993 — Desiree D Turner
Date — Desiree Turner/Gene Revelas
Washington Department of Natural Resources

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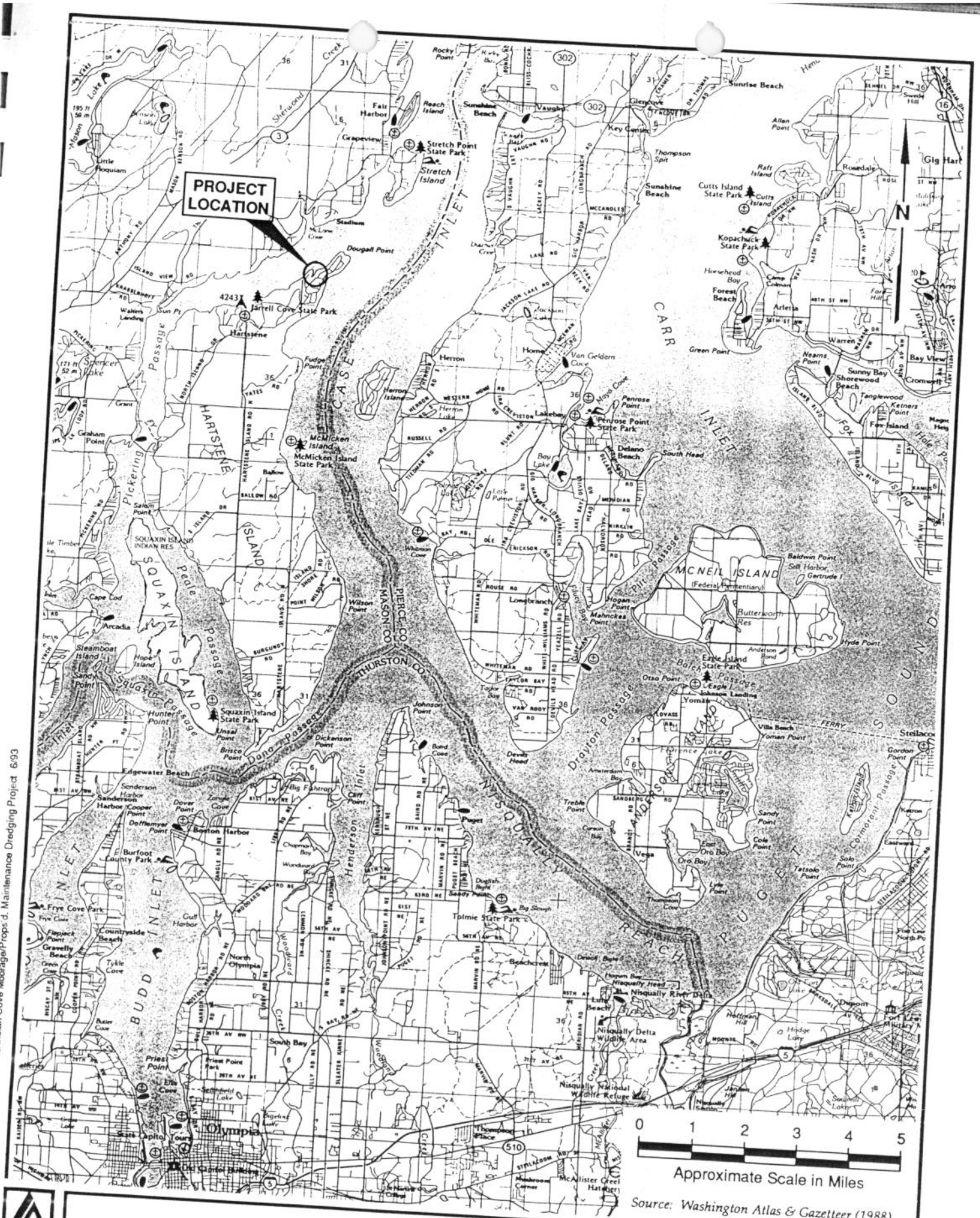
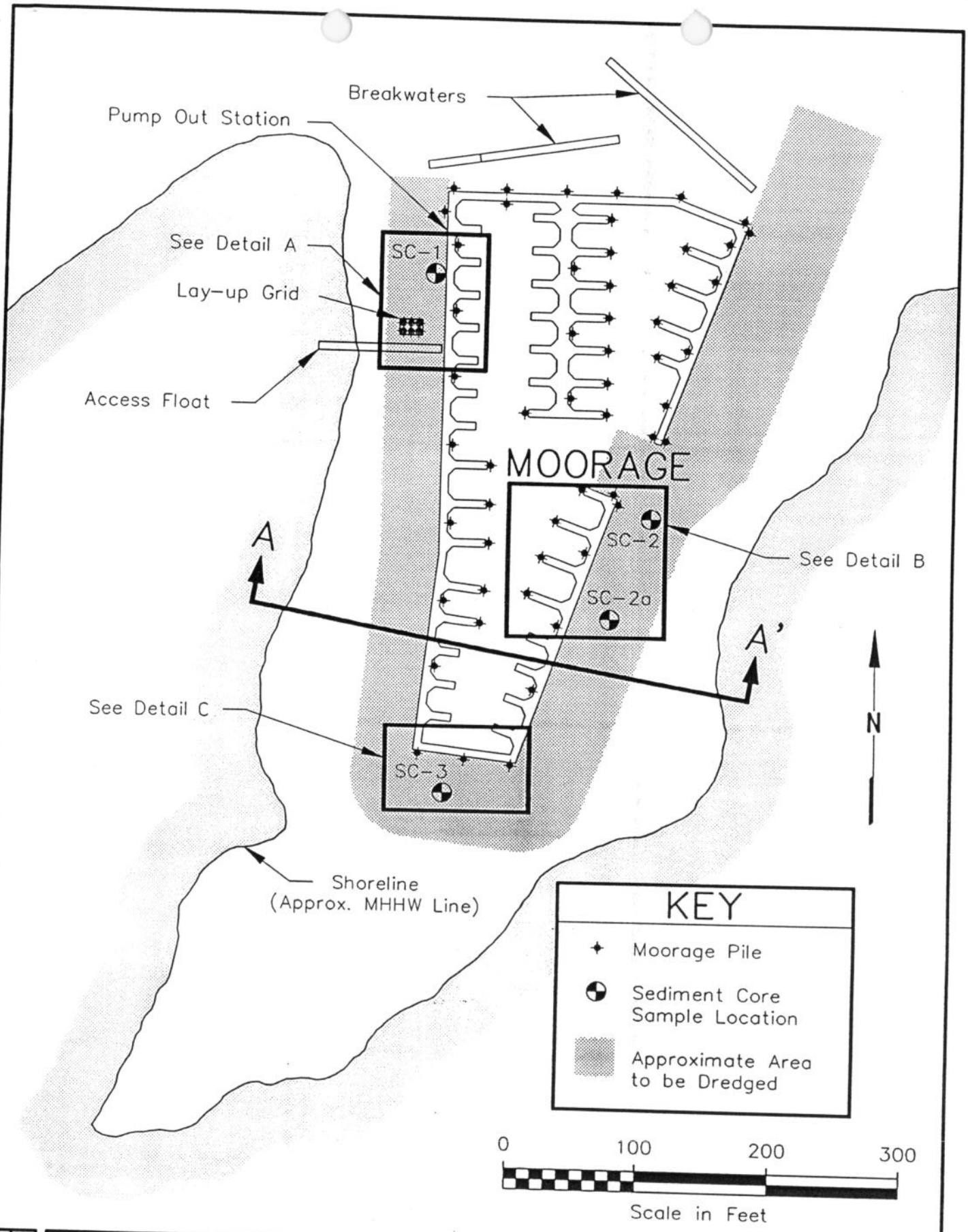


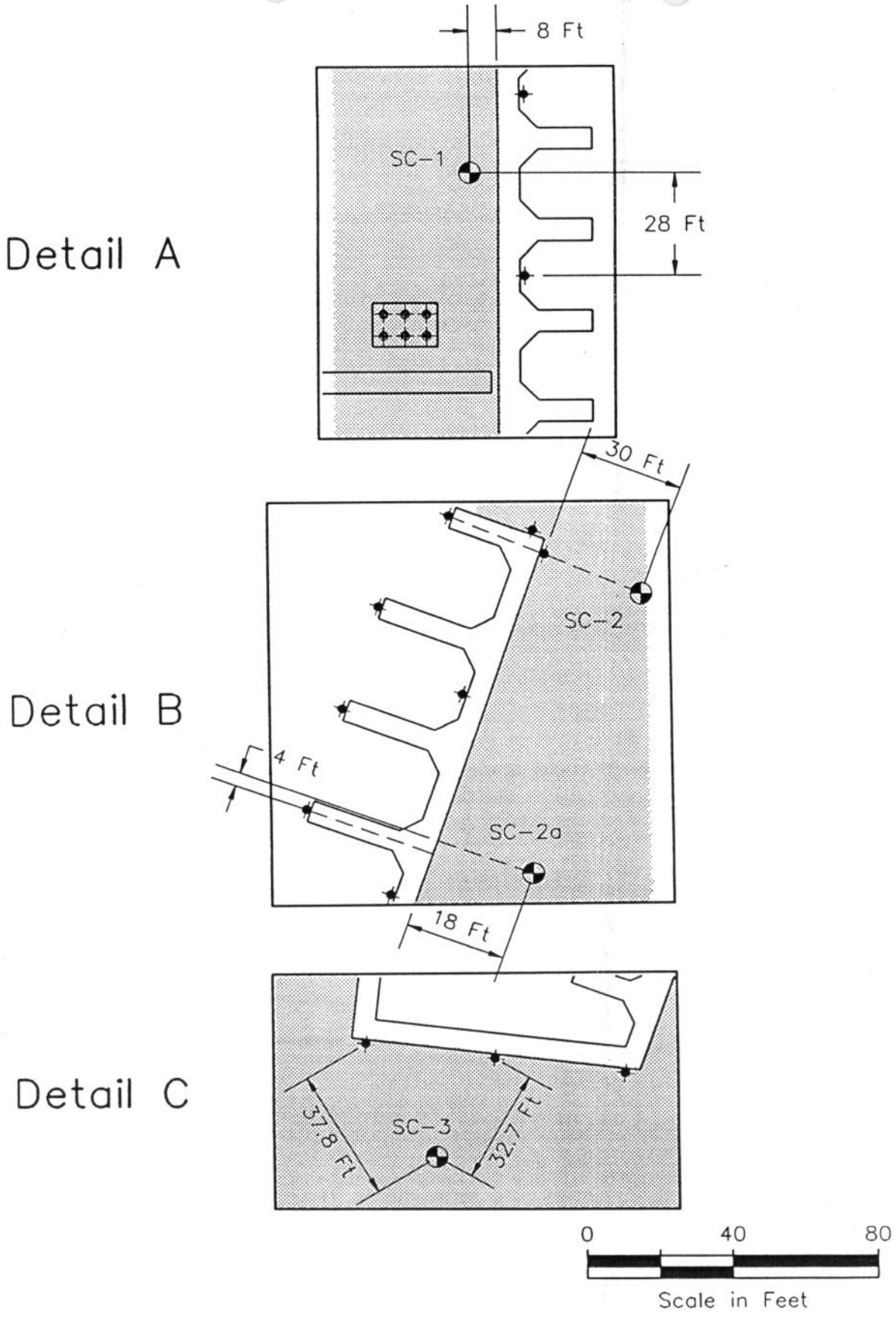
Vicinity Map

Figure 1



215001.10 Hartstene Pointe/Indian Cove Moorage/Props'd. Maintenance Dredging Project 6/93

Indian Cove Moorage Site Plan | Figure 2



Indian Cove Moorage Sampling Locations (see Figure 2) | Figure 3