

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS

12/98

PART 1 GENERAL

1.1 REFERENCES

1.2 ORDERING INFORMATION

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS

12/98

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g.

UL 1 (1993; Rev thru Jan 1995) Flexible Metal Conduit. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for convenience, e.g. UL's unnumbered 1995 edition of their Building Materials Directory is identified as UL-01 (1995) Building Materials Directory. The sponsoring organization number (UL 1) can be distinguished from an assigned identifying number (UL-01) by the lack of a dash mark (-) in the sponsoring organization assigned number.

1.2 ORDERING INFORMATION

The addresses of the organizations whose publications are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the sponsoring organization should be ordered from the source by title rather than by number.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
Internet: www.astm.org

NOTE: The annual ASTM Book of Standards (66 Vol) is available for \$3500.00. Prices of individual standards vary.

CODE OF FEDERAL REGULATIONS (CFR)

Order from:
Government Printing Office
Washington, DC 20402
Ph: 202-512-1800
Fax: 202-275-7703
Internet: <http://www.pls.com:8001/his/cfr.html>

CORPS OF ENGINEERS (COE)

Order from:
U.S. Army Engineer Engineering Research and Design Center
ATTN: Technical Report Distribution Section, Services

Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2571
Fax: 601-634-2506

DEPARTMENT OF COMMERCE (DOC)

Order From:
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Ph: 703-487-4600
Fax: 703-321-8547
Internet: <http://www.ntis.gov>

ENGINEERING MANUALS (EM)

USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

ENGINEERING PAMPHLETS (EP)

USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

ENGINEERING REGULATIONS (ER)

USACE Publications Depot
Attn: CEIM-SP-D 2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

FEDERAL SPECIFICATIONS (FS)

Order from:
General Services Administration
Federal Supply Service Bureau
470 L'Enfant Plaza, S.W.
Washington, DC 20407
Ph: 202-619-8925
Fax: 202-619-8978
Internet: <http://pub.fss.gsa.gov/>

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Department of Commerce

Gaithersburg, MD 20899-0001
Ph: 301-975-4025
Fax: 301-926-1630
Order Publications From:
Superintendent of Documents
U.S. Government Printing Office (GPO)
Washington, DC 20402
Ph: 202-512-1800
Fax: 202-512-2250
or
National Technical Information Services (NTIS)
5285 Port Royal Rd.
Springfield, VA 22161
Ph: 800-553-6847
Fax: 703-321-8547
Internet: <http://www.gov/ntis.gov>

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01200

GENERAL REQUIREMENTS

02/99

PART 1 GENERAL

- 1.1 APPLICABLE PUBLICATIONS
- 1.2 SUBMITTALS
- 1.3 PROJECT SIGNS AND BULLETIN BOARDS
 - 1.3.1 General
 - 1.3.2 Construction Signs
 - 1.3.2.1 Materials
 - 1.3.2.2 Execution
 - 1.3.3 Bulletin Board at the Contractor's office
 - 1.3.4 Maintenance and Disposal
- 1.4 GOVERNMENT FIELD OFFICE
- 1.5 PUBLIC UTILITIES
 - 1.5.1 General
 - 1.5.2 Utilities To be Relocated or Protected
 - 1.5.3 Relocation or Removal
 - 1.5.4 Coordination
 - 1.5.5 Utilities Not Shown
 - 1.5.6 ELECTRIC CURRENT
- 1.6 NOTICES
 - 1.6.1 Ventura County
 - 1.6.2 Underground Services Alert
 - 1.6.3 Existing Bench Marks and R/W Markers
 - 1.6.4 United States Coast Guard
- 1.7 AIDS TO NAVIGATION
- 1.8 DREDGING AIDS
- 1.9 POINTS OF CONTACT
- 1.10 RESTRICTIONS
 - 1.10.1 Obstruction of Channel
- 1.11 MARINE PLANT
- 1.12 PUBLIC SAFETY
- 1.13 GENERAL SAFETY REQUIREMENTS
 - 1.13.1 General
 - 1.13.2 Job Hazard Analysis
- 1.14 SIGNAL LIGHTS
- 1.15 RADIO COMMUNICATION
- 1.16 PERMITS
 - 1.16.1 Air Quality
- 1.17 REPAIR OF STREETS, ACCESS ROADS, AND WORK AREAS
- 1.18 INSPECTION
- 1.19 NAVIGATION
- 1.20 WORK AREAS AND EASEMENTS
- 1.21 CONTRACTOR'S WORK AND STORAGE AREAS
- 1.22 CORPS OF ENGINEERS RESERVE FLEET (CERF) IMPLEMENTATION
- 1.23 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
- 1.24 PIPELINE AND POWERLINE CROSSINGS
 - 1.24.1 General
 - 1.24.2 Channel Islands Harbor Crossing

- 1.24.3 Port Hueneme Harbor Crossing
 - 1.24.4 Powerlines for Booster Pump and Dredge
 - 1.24.5 Pipeline Leakage
 - 1.25 SHORE PIPELINE PLACEMENT AND REMOVAL
 - 1.26 AGGREGATE BASE RAMPS
 - 1.26.1 Beach Access Ramp
 - 1.27 ACCESS TO ADJACENT PROPERTIES
 - 1.28 ALTERNATE BOOSTER STATION
 - 1.29 METHOD OF DREDGING
 - 1.30 NOTICE OF PARTNERSHIP
 - 1.31 COORDINATION WITH OTHER CONSTRUCTION
- PART 2 MATERIALS (NOT APPLICABLE)
- PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section Table of Contents --

SECTION 01200

GENERAL REQUIREMENTS

02/99

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

CODE OF FEDERAL REGULATIONS (CFR)

CFR 29	Part 1926	Safety and Health Regulations for Construction
CFR 33	Part 80	Colregs Demarcation Lines
CFR 33	Part 156	Oil and Hazardous Material Transfer Operations

CORPS OF ENGINEERS (COE)

EM 385-1-1	(1996) Safety and Health Requirements Manual
ER 415-1-5-89	Construction Time Extensions for Weather

DEPARTMENT OF COMMERCE (DOC)

DOC PS 1	(1983) Construction and Industrial Plywood
DOC PS 20-70	American Softwood Lumber Standard

FEDERAL SPECIFICATIONS (FS)

FS FF-B-575	(Rev C) Bolts, Hexagon and Square
FS FF-N-105	(Rev B; Int Am 4) Nails, Brads, Staples and Spikes: Wire, Cut and Wrought
FS FF-N-836	(Rev D; Am 2) Nut: Square, Hexagon, Cap, Slotted, Castle, Knurled, Welding and Single Ball Seat
FS TT-E-529	(Rev D) Enamel, Alkyd, Semi-Gloss
FS TT-P-25	(Rev E; Am 2) Primer Coating, Exterior (Undercoat for Wood, Ready-Mixed, White and Tints)

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The

following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Work and Storage Areas Plan; GA

SD-08 Statements

Site Safety Health Plan; GA

Job Hazards Safety Analysis; GA

1.3 PROJECT SIGNS AND BULLETIN BOARDS

1.3.1 General

The Contractor shall construct and erect project and hard hat signs and a bulletin board at respective locations designated by the Contracting Officer. The signs shall conform to the requirements of the drawings attached at the end of this section. Signs shall be erected as soon as possible and within 5 days after commencement of work under this contract.

1.3.2 Construction Signs

1.3.2.1 Materials

Lumber shall conform to DOC PS 20-70, and shall be seasoned Douglas Fir, S4S, Grade D or better except that posts, braces and spacers shall be construction Grade (WCLB).

Plywood shall conform to DOC PS 1, grade AC, Group 1, Exterior.

Bolts, Nuts and Nails. Bolts and nuts shall be galvanized conform to FS FF-B-575 and to FS FF-N-836. Nails shall conform to FS FF-N-105.

Paints and Oils. Paints shall conform to FS TT-P-25 for primer and FS TT-E-529 for finish paint and lettering.

1.3.2.2 Execution

The following signs shall be erected:

Project Sign at location designated by the Contracting Officer.

Warning Signs facing approaching traffic on all haul roads crossing under overhead power transmission lines.

(Six) hard hat signs at locations directed.

(Four) beach disposal signs at locations directed.

Project and hard hat signs shall be constructed as detailed in Figures 1, 2, and 3. Decals for hard hat signs will be furnished by the Contracting Officer.

Warning Signs shall be constructed of plywood not less than 12mm thick and shall be securely bolted to the supports with the bottom of the sign face 900 mm above the ground. The sign face shall be 600 X 1200 mm, all

letters shall be 100 mm in height. Haul road signs shall depict the wording: "WARNING: OVERHEAD TRANSMISSION LINES". Beach disposal signs shall depict the wording: "DANGER - KEEP OUT, BEACH CLOSED, U.S. ARMY CORPS OF ENGINEERS BEACH NOURISHMENT PROJECT".

All exposed surfaces and edges of plywood shall be given one coat of linseed oil and be wiped prior to applying primer. All exposed surfaces of signs and supports shall be given one coat of primer and 2 finish coats of white paint. Except as otherwise indicated, lettering on all signs shall be black and sized as indicated.

1.3.3 Bulletin Board at the Contractor's office

A weatherproof bulletin board, approximately 900 mm wide and 760 mm high, with hinged glass door shall be provided adjacent to or mounted on the Contractor's project office. If adjacent to the office, the bulletin board shall be securely mounted on no less than 2 posts. Bulletin board and posts shall be painted or have other approved factory finish. The bulletin board shall be easily accessible at all times and shall contain wage rates, equal opportunity notice, and such other items required to be posted.

1.3.4 Maintenance and Disposal

The Contractor shall maintain the signs in good condition throughout the life of the project. Signs shall remain the property of the Contractor and upon completion of the project they shall be removed from the site.

1.4 GOVERNMENT FIELD OFFICE

The Contractor shall provide as a minimum, a separate room in the Contractor's project trailer/office for the Contracting Officer's Representative. The room shall be accessed by an outside door (locked) separate from the Contractor's entry door. The space shall not be less than 3 meters wide by 4.5 meters long, and shall contain the following:

- * suitable desk and 2 chairs
- * 1 telephone
- * independent service for telephone and modem
- * 1 file cabinet, minimum 3 drawer, legal, lockable
- * access to a copy machine
- * access to a FAX machine
- * electric light and power
- * heater and air conditioning
- * toilet facilities consisting of one lavatory and one water closet complete with connections to water (hot and cold) and sewer mains.

A mail slot in the door or a lockable mail box mounted on the surface of the door shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer.

1.5 PUBLIC UTILITIES

1.5.1 General

The approximate location of all railroads, pipe lines, power and communication lines, and other utilities known to exist within the limits of the work are indicated on the drawings. The sizes, locations, and names

of owners of such utilities are given from available information, but their accuracy is not guaranteed. Except as otherwise indicated on the drawings, all existing utilities will be left in place and the Contractor shall conduct his operations in such a manner that the utilities will be protected from damage at all times, or arrangements shall be made by the Contractor for their relocation at the Contractor's own expense. The Contractor shall be responsible for any damage to utilities known to exist and shall reimburse the owners for such damage caused by his operations.

1.5.2 Utilities To be Relocated or Protected

The Contractor shall notify the Contracting Officer, in writing, 7 calendar days prior to starting work on any utility to be relocated or protected. On each relocation, notification shall include dates on which the Contractor plans excavation, by-pass work, removal work and/or installation work, as applicable.

1.5.3 Relocation or Removal

Utilities to be relocated or removed not as part of this contract are designated "To be Relocated by Others" or "To be Removed by Others," respectively. Utilities shown on the plans and not so designated shall be left in place and will be subject to the provisions of the paragraph entitled "Protection of Existing Vegetation, Structures, Utilities, and Improvements" of Section 00700 CONTRACT CLAUSES. The Contractor without cost to the Government, may make arrangements with the owner for the temporary relocation and restoration of utilities not designated to be relocated, or for additional work in excess of the work needed to relocate utilities designated for relocation.

1.5.4 Coordination

The Contractor shall consult and cooperate with the owner of utilities that are to be relocated or removed by others to establish a mutual performance schedule and to enable coordination of such work with the construction work. These consultations shall be held as soon as possible after award of the contract or sufficiently in advance of anticipated interference with construction operations to provide required time for the removal or relocation of affected utilities.

1.5.5 Utilities Not Shown

If the Contractor encounters, within the construction limits of the entire project, utilities not shown on the plans and not visible as of the date of this contract and if such utilities will interfere with construction operations, he shall immediately notify the Contracting Officer in writing to enable a determination by the Contracting Officer as to the necessity for removal or relocation. If such utilities are left in place, removed or relocated, as directed by the Contracting Officer, the Contractor shall be entitled to an equitable adjustment for any additional work or delay.

1.5.6 ELECTRIC CURRENT

All electric current required by the Contractor shall be furnished at his expense. All temporary lines shall be furnished, installed, connected, and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer and shall be removed by the Contractor in a like manner at his expense prior to final acceptance of the construction.

1.6 NOTICES

Copies of letters or notifications made to utilities companies, U.S. Navy, U.S. Coast Guard, Harbor Districts, County, and etc. shall be provided to the Contracting Officer.

1.6.1 Ventura County

The Contractor shall notify the Ventura County Harbor Director, Ms. Lyn Krieger, (805)382-3001, Andru Ortiz (U.S. Navy POC) Port Operations, Port Hueneme, Building 494, (805) 982-6929, and Pete Wallace, Oxnard Harbor District, (805) 488-3677 prior to the commencement of operation. The following information shall be provided:

- a. Description of the project and location of worksite(s).
- b. Size and type of construction equipment performing work in the project area.
- c. 24-hour telephone numbers of the project engineer, superintendent, and foreman.
- d. Schedule for completion of project.

Police, Highway Patrol, Harbor District, and Fire Departments shall be notified by the Contractor whenever a street is to be closed to traffic. If the closing is to be of long duration, a single notification to each department on the last working day before closing will be sufficient. A single notification shall then be made at the time the street is again opened to traffic. If closing is to be of short duration, or if different sections of the street are to be closed at different time, notifications shall be made on a day-to-day basis.

1.6.2 Underground Services Alert

The Contractor shall contact Underground Services Alert (USA) at 1-800-642-2444 at least 2 working days, but not more than 7 calendar days prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure.

1.6.3 Existing Bench Marks and R/W Markers

The Contractor shall notify the Contracting Officer, in writing, 7 days in advance of the time he proposes to remove any bench mark or right-of-way marker.

1.6.4 United States Coast Guard

The Contractor shall notify, in writing, the Commander Eleventh Coast Guard District, and the Coast Guard Marine Safety Office, Long Beach not less than 14 calendar days prior to commencing work. The notifications shall include as a minimum the following information:

- a. Project description and location including latitude/longitude (NAD 83).
- b. The size and type of any floating construction equipment to be used.
- c. Name and radio call signs for working vessels.

- d. Telephone number for 24-hour contact with the project engineer.
- e. The schedule for completing the project.
- f. Potential hazards to navigation.

Mail address:

Commander (POW)
 Eleventh Coast Guard District
 Building 50-6
 Coast Guard Island
 Alameda, CA 94501-5100
 ATTN: Local Notice to Mariners
 TEL: (510)437-2976 FAX: (510)437-2961

U.S. Coast Guard
 Marine Safety Office
 165 North Pico Avenue
 Long Beach, CA 90802-1096
 ATTN: Port Safety and Security
 TEL: (562)980-4454 FAX: (562)980-4415

1.7 AIDS TO NAVIGATION

The Contractor shall not remove, relocate, obstruct, willfully damage, make fast to, or interfere with any aids to navigation. The Contractor shall notify the Eleventh Coast Guard District in writing with a copy to the Contracting Officer, not less than 30 calendar days in advance, of the time he plans to operate any equipment adjacent to any aids to navigation which requires relocation or removal.

1.8 DREDGING AIDS

The Contractor shall coordinate with the Harbor Directors prior to placing any buoy or other dredging aid marker in the water. Buoys and other dredging aid markers shall be equipped with the necessary lights and the Contractor shall insure that all lights are in proper working order prior to installation. Buoys and dredging aids markers shall be maintained throughout the length of the dredging operation and shall not be colored, marked, or placed in a manner that will obstruct or be confused with other navigational aids. The Contractor's buoys and aid markers shall conform to U.S. Coast Guard regulations.

1.9 POINTS OF CONTACT

The following is a list of points of contact:

<u>Company or Agency</u>	<u>Contact</u>	<u>Telephone</u>
U.S. Army Corps of Engineers Project Engineer	Lori Satrom	(909)981-5571
Ventura County Channel Islands Harbor Captain	Jack Peveler	(805) 382-3007
Harbor Director	Lyn Krieger	(805) 382-3001
Channel Islands Beach Company	George Johnson	(805) 985-5130

U.S. Naval Construction Battalion Center		
Public Works	Sal Cervantes	(805) 982-4305
Port Operations	Andru Ortiz	(805) 982-6929
Frequency Management Representative	Dave Pennington	(805) 982-4200
Port Hueneme		
Oxnard Harbor District	Pete Wallace	(805) 488-3677
U.S. Coast Guard		
USCGC Point Carrew	Master Chief Betters	(805) 985-7518
Marine Safety Office-Long Beach	Lt. Rob Coller	(562) 980-4425
Eleventh Coast Guard District		
Local Notice to Mariners	QM1 Carlson	(510) 437-2976
Aids-to-Navigation	LTj.g. Matt Ten Bargo	(510) 437-2969
Ventura Air Pollution District	Chuck Thomas	(805) 645-1427

1.10 RESTRICTIONS

1.10.1 Obstruction of Channel

The Government will not undertake to keep the harbor entrance or navigation channels free from vessels or other obstructions. The Contractor shall be required to conduct the work in such a manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, temporary buoys, and piles and other marks placed by him under the contract in navigable waters or on shore. If the Contractor feels it is necessary to completely obstruct the navigation channel, he will be required to coordinate with the Channel Islands Harbor Office, the U.S. Navy Port Operations, and the Oxnard Harbor District in advance.

1.11 MARINE PLANT

- a. All marine plant and equipment which are required by federal regulations to be inspected by the United States Coast Guard, shall have valid certifications. No marine plant or equipment requiring Coast Guard inspection shall be put into use on the job without the required certification issued by the U.S. Coast Guard Officer in Charge of Marine Inspections.
- b. All marine construction equipment shall monitor appropriate VHF marine safety radio channels.
- c. Fuel transfer operations shall conform to U.S. Coast Guard design regulations, CFR 33 Part 156.

1.12 PUBLIC SAFETY

Attention is invited to the CONTRACT CLAUSE: PERMITS AND RESPONSIBILITIES. The Contractor shall provide temporary fencing, barricades, and/or guards, as required, to provide protection in the interest of public safety. Whenever the Contractor's operations create a condition hazardous to the public, he shall furnish at his own expense and without cost to the Government, such flag men and guards as are necessary to give adequate

warning to the public of any dangerous conditions to be encountered and he shall furnish, erect, or maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents and avoid damage or injury to the public. Flag men and guards, while on duty and assigned to give warning and safety devices shall conform to applicable city, county, and state requirements. Should the Contractor appear to be neglectful or negligent in furnishing adequate warning and protection measures, the Contracting Officer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the Contractor without additional cost to the Government. Should the Contracting Officer point out the inadequacy of warning and protective measures, such action of the Contracting Officer shall not relieve the Contractor from any responsibility for public safety or abrogate his obligation to furnish and pay for those devices. The installation of any general illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any protective facility.

The Contractor shall furnish flagmen, watchmen, or other security personnel to control traffic and protect pedestrians in the vicinity of the discharge pipe at all times while discharging material in the disposal area.

1.13 GENERAL SAFETY REQUIREMENTS

1.13.1 General

The Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, (see CONTRACT CLAUSES: SECTION 00700, ACCIDENT PREVENTION) and the Occupational Safety and Health Act (OSHA) Standards for Construction (Title 29, Code of Federal Regulations Part 1926 as revised from time to time) are both applicable to this contract. In case of conflict the most stringent requirement of the two standards is applicable. Pursuant to EM 385-1-1, the Contractor shall submit a Site Safety Health Plan.

1.13.2 Job Hazard Analysis

Based on the construction schedule, the Contractor shall submit a Job Hazards Safety Analysis of each major phase of work prior to entering that phase of activity. The analysis shall include major or high risk hazards, as well as commonly recurring deficiencies that might possibly be encountered for that operation, and shall identify proposed methods and techniques of accomplishing each phase in a safe manner. The Prime Contractor's superintendent shall take active participation in the Job Hazard Analysis, including the subcontractors' work. Prior to start of actual work a meeting shall be held with Prime Contractor, Government, and affected subcontractor to review the Job Hazard Analysis. In addition, job site meetings shall be held to indoctrinate foreman and workers on details of this analysis.

1.14 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard, governing lights and day signals to be displayed by towing vessels with tows, on which no signals can be displayed, vessels working on dredges, jetties, submarine or bank protection operations, lights to be displayed on dredge pipelines, and day signals to be displayed by vessels of more than 20 meters in length moored or anchored in a fairway

or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Secretary of the Army (33 C.F.R. 201.1-201.16) and the Commandant U.S. Coast Guard (33 C.F.R. 80.18-80.31a and 33 C.F.R. 95.51-95.70). All Contractor's anchor buoys, floating line, and plant shall be marked with flashing beacon lights after dark. Obstructions and hazards to navigation mentioned above shall be painted for visibility during daylight hours.

1.15 RADIO COMMUNICATION

To facilitate and insure the safe passage of vessels in the channel, the Contractor shall provide, operate and maintain on his plant, radio facilities capable of voice communication with vessels using the channel. Station licensing and frequency authorizations shall be the responsibility of the Contractor.

Radio transmitters (i.e., hand held radios, etc.) and/or electronic positioning equipment shall conform to restrictions and procedures as directed by the Contracting Officer. The Contractor shall monitor VHF marine safety radio channels and coordinate with the Frequency Management Representative, Naval Construction Battalion Center, prior to any transmittal on VHF radio or use of electronic positioning equipment. For additional information, contact Dave Pennington, telephone (805) 982-4200.

1.16 PERMITS

Reference is made to the clause of the contract entitled: PERMITS AND RESPONSIBILITIES, which obligate the Contractor to obtain all required licenses and permits.

1.16.1 Air Quality

Contractor shall have a current, valid Air Quality permit for all equipment that require an Air Quality permit from Ventura Air Pollution Control District prior to commencement of dredging operations coinciding with the notice to proceed. The Contractor shall allow approximately 2-3 months to obtain the permit. P.O.C. Chuck Thomas, (805) 645-1427.

1.17 REPAIR OF STREETS, ACCESS ROADS, AND WORK AREAS

The Contractor shall restore streets and access roads (used for haul routes and mobilizing equipment) and work areas to original condition upon completion of the work. Contractor shall restore to local city standards.

1.18 INSPECTION

Reference is made to the clause of the contract entitled: INSPECTION OF CONSTRUCTION. In addition, the Contractor will be required:

1. To furnish, on the request of the Contracting Officer or any inspector, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the plant as may be reasonably necessary in inspecting and supervising the work.
2. To furnish, on the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and

to and from the work areas. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

3. To allow authorized representatives of the California Regional Water Quality Control Board and the Ventura County Air Pollution Control District to: enter upon the Contractor's premises where a regulated facility or activity is located or conducted, or where records are kept; have access to and copy, at reasonable times, any records that must be kept per agency requirements; inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by these agencies; and sample or monitor at reasonable times any substances or parameters at any location for the purpose of assuring compliance with agency regulations.

1.19 NAVIGATION

The Contractor's operations shall conform to the U.S. Coast Guard publication "Navigation Rules, International-Inland, INST M16672.28" latest edition.

1.20 WORK AREAS AND EASEMENTS

The Contractor's work areas and temporary construction easements are as indicated, subject to approval of the Contracting Officer. The Contractor's work area(s) shall be fenced according to the instruction of the Contracting Officer. Upon completion of the work, the fence materials shall become the property of the Contractor and shall be removed from the site.

Any damage to electrical underground installations, light poles, pavement, fence, shrubs or other facilities within the Contractor's work area shall be repaired or replaced by and at the expense of the Contractor.

The Contractor shall mark the shoreward limits of the construction easement by means of suitable marker buoys. The remaining portion of the navigation channel shall not be obstructed and shall remain open to traffic. Areas within the construction easement not being used by the Contractor for construction shall be made available for anchorage, however, moorings within the easement will be moved by others within 5 days after written notice by the Contractor to the Contracting Officer.

The Contractor's dredge emergency mooring area within Channel Islands and Port Hueneme Harbors shall be coordinated as the need arises through the Contracting Officer, Harbor Directors and the U.S.N.C.B Center.

1.21 CONTRACTOR'S WORK AND STORAGE AREAS

The Contractor shall submit a Work and Storage Areas Plan for approval within 15 days after receipt of Notice to Proceed. Contractor's work and storage areas, indicated on the drawings, shall be enclosed by a 1.8 meter high chain-link fence. Fence material shall be provided by the Contractor and may be new or used. Upon completion of the work, the fence materials shall become the property of the Contractor and shall be removed from the site.

1.22 CORPS OF ENGINEERS RESERVE FLEET (CERF) IMPLEMENTATION

If the work specified in this contract is performed by a hopper dredge(s), the owner must have an active Basic Ordering Agreement (BOA) for the hopper dredge(s) on file with the Corps. The Contractor shall be obligated to make the hopper dredge(s) available to serve in the Corps of Engineers Reserve Fleet (CERF) at any time that the hopper dredge(s) is performing work under this contract. When the Contracting Officer is notified of the decision to activate this dredge(s) into the CERF, he shall take appropriate action to release the dredge(s). He may then extend or terminate the contract to implement whichever action is in the best interest of the Government. The CERF Contractor shall also be subject to the following conditions:

1. The Director of Civil Works may require the Contractor to perform emergency dredging at another CONUS (48 contiguous states) site for a period of time equal to the remaining time under this contract at the date of notification plus up to ninety (90) days at the previously negotiated rate which appears on the schedule of prices in the BOA.
2. The Chief of Engineers may require the Contractor to perform emergency dredging at an OCONUS (Outside CONUS which includes Alaska, Hawaii, Puerto Rico, the Virgin Islands, or U.S. Trust Territories) site for a period of time equal to the time remaining under this contract at the date of notification plus up to one hundred eighty (180) days at the negotiated rate which appears on the schedule of prices in the BOA.
3. The CERF shall be activated by the Chief of Engineers or the Director of Civil Works; then the Ordering Contracting Officer will notify the Contractor. From the time of notification, the selected hopper dredge(s) must depart for the emergency assignment within seventy-two (72) hours for CONUS or ten (10) days for OCONUS assignments.
4. A confirming delivery order will be issued pursuant to the Basic Ordering Agreement (BOA) by the Ordering Contracting Officer. Such delivery order shall utilize the schedule of rates in the BOA for the specific hopper dredge(s).
5. If during the time period specified in the paragraphs above, a CERF vessel(s) is still required, the contract performance may be continued for additional time by mutual agreement.

1.23 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSES: SECTION 00700, entitled DEFAULT (FIXED PRICE CONSTRUCTION). In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

- (1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.
- (2) The unusually severe weather must actually cause a delay to the

completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

The following schedule of monthly anticipated adverse weather delays is based upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DAYS
Work Days Based on Five (5) Day Work Week

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4	7	4	2	1	1	1	1	1	1	3	4

(3) Upon acknowledgment of the Notice to Proceed and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b, the Contracting Officer will convert any qualifying days to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the Contract Clause entitled: DEFAULT (FIXED PRICE CONSTRUCTION).

1.24 PIPELINE AND POWERLINE CROSSINGS

1.24.1 General

At the shore ends of the submerged dredging pipelines crossing Port Hueneme Harbor and Channel Islands entrance channel, the Contractor shall construct lighted signs. The sign face shall be not less than 2 x 4 meters, all letters shall be 100 mm in height and the wording shall be "Pipeline (Powerline) Crossing, Do not Drop Anchor - Stay within 15 meters of channel centerline". The Contractor shall provide anchors or similar provisions to prevent rupture along the pipelines as required and where pipelines change in direction 22 degrees or more. Spills resulting from rupture shall be removed by and at the expense of the Contractor. Should submerged pipeline cause shoaling in the entrance channel, the Contractor shall remove such shoals and restore to the depths as existed prior to the laying of the submerged pipe. Materials so removed shall be disposed of in a manner approved by the Contracting Officer. No separate payment will be made for the removal of such shoals and all cost thereof shall be included in the contract price. Where discharge pipelines are buried on shore, stakes shall be placed not less than 1.5 meters above the sand with the words "DREDGE PIPELINE BELOW" printed in 25 mm letters.

1.24.2 Channel Islands Harbor Crossing

Where the discharge pipe crosses Channel Islands Harbor entrance channel, the top of the pipe shall be submerged and maintained to a minimum depth of minus 6.6 meters MLLW to provide an unrestricted navigation over the pipe

for a distance of not less than 30 meters (15 meters each side of the centerline) normal to the channel alignment. The Contractor shall provide anchors or weights for the submerged pipeline to prevent it from floating. The Contractor shall remove the anchors or weights after completion of the dredging operations.

1.24.3 Port Hueneme Harbor Crossing

Where the discharge pipe crosses Port Hueneme channel, the top of the pipe shall be submerged and maintained to a minimum depth of minus 11.5 meters MLLW to provide an unrestricted navigation over the pipe for a distance of not less than 60 meters (30 meters each side of the centerline) normal to the channel alignment. The Contractor shall provide anchors or weights for the submerged pipeline to prevent it from floating. The Contractor shall remove the anchors or weights after completion of the dredging operations.

1.24.4 Powerlines for Booster Pump and Dredge

The powerline for the booster pump and dredge for the Channel Islands Harbor shall be submerged to a minimum depth of minus 6.6 meters across the entire entrance channel.

1.24.5 Pipeline Leakage

No discharge is allowed within Channel Islands Harbor or Port Hueneme Harbor. To prevent accidental discharge, no valves, ball joints, or other connections likely to leak or subject to breakage, shall be placed between the North and South Jetties at Channel Islands Harbor or between the West and East Jetties at Port Hueneme Harbor without the Contracting Officers approval.

1.25 SHORE PIPELINE PLACEMENT AND REMOVAL

Between Channel Islands and Port Hueneme Harbors (Silver Strand), the pipeline shall be placed upon the surface of the beach. The pipeline shall be located above plus 3 meters (MLLW) elevation and not closer than 15 meters inland of the MHW line. The floating booster station shall be placed seaward of the life guard station as indicated on the drawing, or as authorized by the Contracting Officer.

Downcoast of Port Hueneme, from the East Jetty to the end of the Oxnard Harbor District revetment the pipeline may be placed on the top of the ground between the existing fence and revetment.

The Contractor shall remove the discharge pipeline after each dredging episode (cycle).

1.26 AGGREGATE BASE RAMPS

The Contractor shall construct ramps crossing the discharge pipeline through Silver Strand Beach and the U.S.N.C.B. Center, where indicated on the drawing. Ramps shall be constructed with aggregate base course material and shall not have more than 10 percent gradient. The 3-meter wide ramps shall be designated for light vehicles such as pick-up trucks or vans. The 5-meter wide ramp shall be designated for 13.6-metric ton gross vehicle weight (amphibious vehicle) with 70 percent of the weight over the rear axle. Aggregate shall consist of natural gravel, crushed gravel, crushed stone, sand or other approved materials processed and blended or naturally combined, the maximum size shall not exceed 50 mm. At the

completion of the work under this contract the Contractor shall remove the ramps from the site at no additional cost to the Government.

1.26.1 Beach Access Ramp

The Contractor shall provide access ramps over the discharge pipeline at 150-meter intervals on Hueneme and Silver Strand Beaches so that beach access remains available during operations. The beach access ramps shall be constructed with material from adjacent area.

1.27 ACCESS TO ADJACENT PROPERTIES

Access to the Oxnard Harbor District is limited. The Contractor shall make arrangements to provide security guards at the two gates to the Oxnard Harbor District, when access is required. The Oxnard Harbor District gates shall not be left open without an approved security guard. The Contractor may obtain guard services from Oxnard Harbor District guard services contractor. Arrangements for obtaining guard services may be made by contacting Pete Wallace, at telephone (805) 488-3677.

Access to the Naval Construction Battalion Center (USNCB) may be obtained by contacting Pass and ID Section at telephone (805) 982-2019.

Contractor employees will be required to park within the designated work/storage area while working at USNCB. The Contractor shall provide a list of employees names and social security numbers to the USNCB Security Officer. Employees who will require access to USNCB shall be U.S. Citizens.

Channel Islands Beach Company. The Contractor shall make arrangement with Channel Islands Beach Company, Mr. George Johnson, President of Board of Directors, (805) 985-5130, for access to Parcel "A" (adjacent to Sand Trap D) indicated on the drawings.

1.28 ALTERNATE BOOSTER STATION

Unless otherwise directed, the alternate booster station shall be located as indicated on the drawings. The shore booster pump, if required, shall be mounted on rubber to reduce vibration and the blower shall be vented toward the ocean to minimize noise. The station shall be enclosed with bamboo, grape-stake, or chain-link fencing not less than 1.8 meters in height. Additional information concerning the booster stations may be obtained by contacting Ventura County, Harbor Director, Ms. Lyn Krieger, telephone (805) 382-3001.

If a gasoline generator is used for the alternate booster station, it must be approved by Planning and Environmental Branch, Naval Construction Battalion Center.

1.29 METHOD OF DREDGING

This contract is suitable for all methods of dredging, including hydraulic pipeline (cutter head), hopper dredge with pump-ashore buoy and pipeline, and clamshell-barge or pipeline-barge with pump-ashore capabilities. The following restrictions shall apply:

- a. Watertight barges or scows will be required for holding and transporting dredged material from clamshell-barge and pipeline-barge operations.

b. A disposal plan shall be submitted in accordance with SECTION 02020 and approved by the Contracting Officer prior to commencement of dredging operations.

The Contractor shall comply with all applicable Federal, State, County, and Municipal laws, regulations, and permits governing the work.

1.30 NOTICE OF PARTNERSHIP

The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance and intended to achieve completion within budget, on schedule, and in accordance with plans and specifications. This partnership would be bilateral in makeup, and participation will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by both parties and will be shared equally with no change in contract price. To implement this partnership initiative, it is anticipated that within 60 days of Notice to Proceed the Contractor's on-site Project Manager and the Government's Resident Engineer would attend a one or two day partnership development seminar/team building workshop together with the Contractor's key on-site staff and key Government personnel. Follow-up workshops of 1 to 2 days duration would be held periodically throughout the duration of the contract as agreed to by the Contractor and Government.

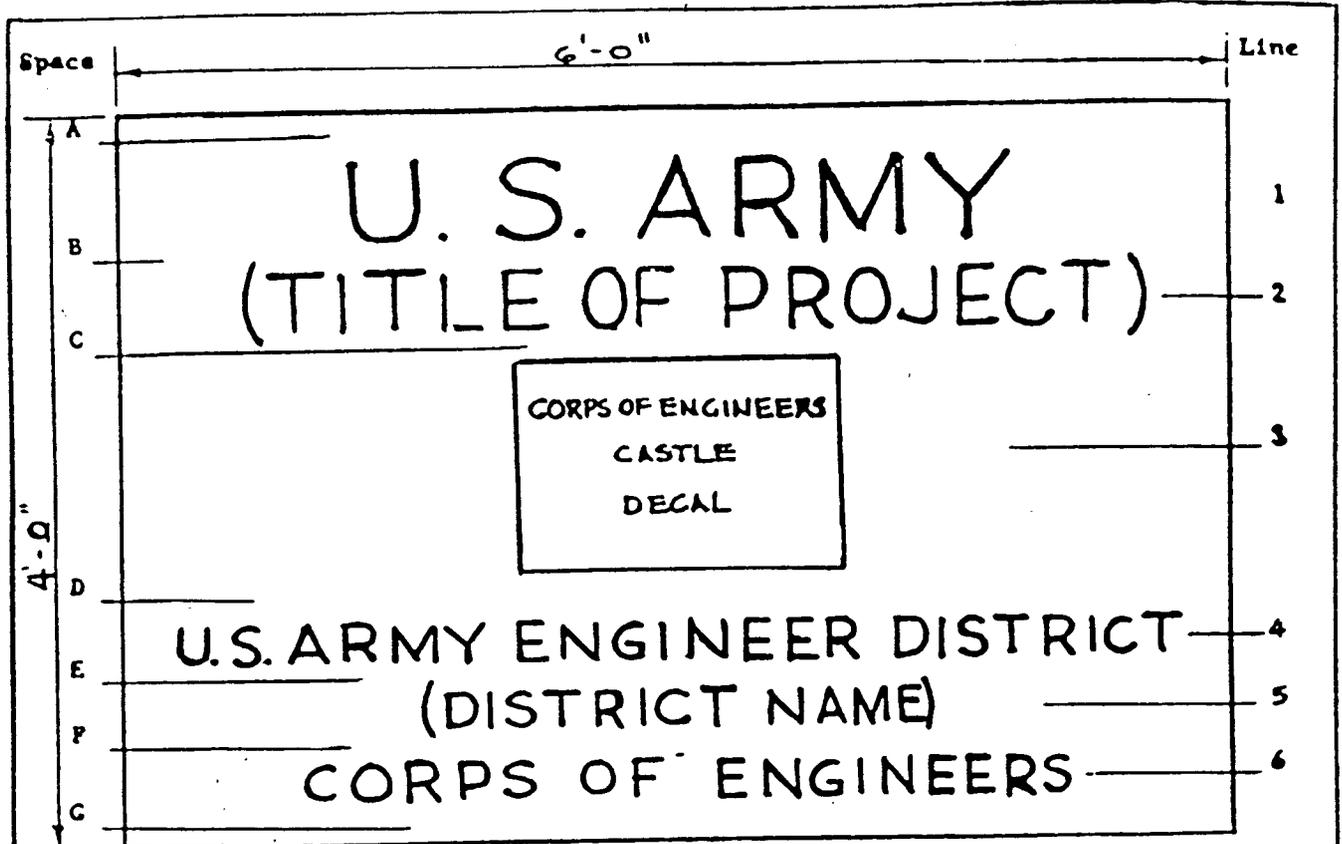
1.31 COORDINATION WITH OTHER CONSTRUCTION

The Contractor shall coordinate work with other construction projects in the vicinity of the project.

PART 2 MATERIALS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --



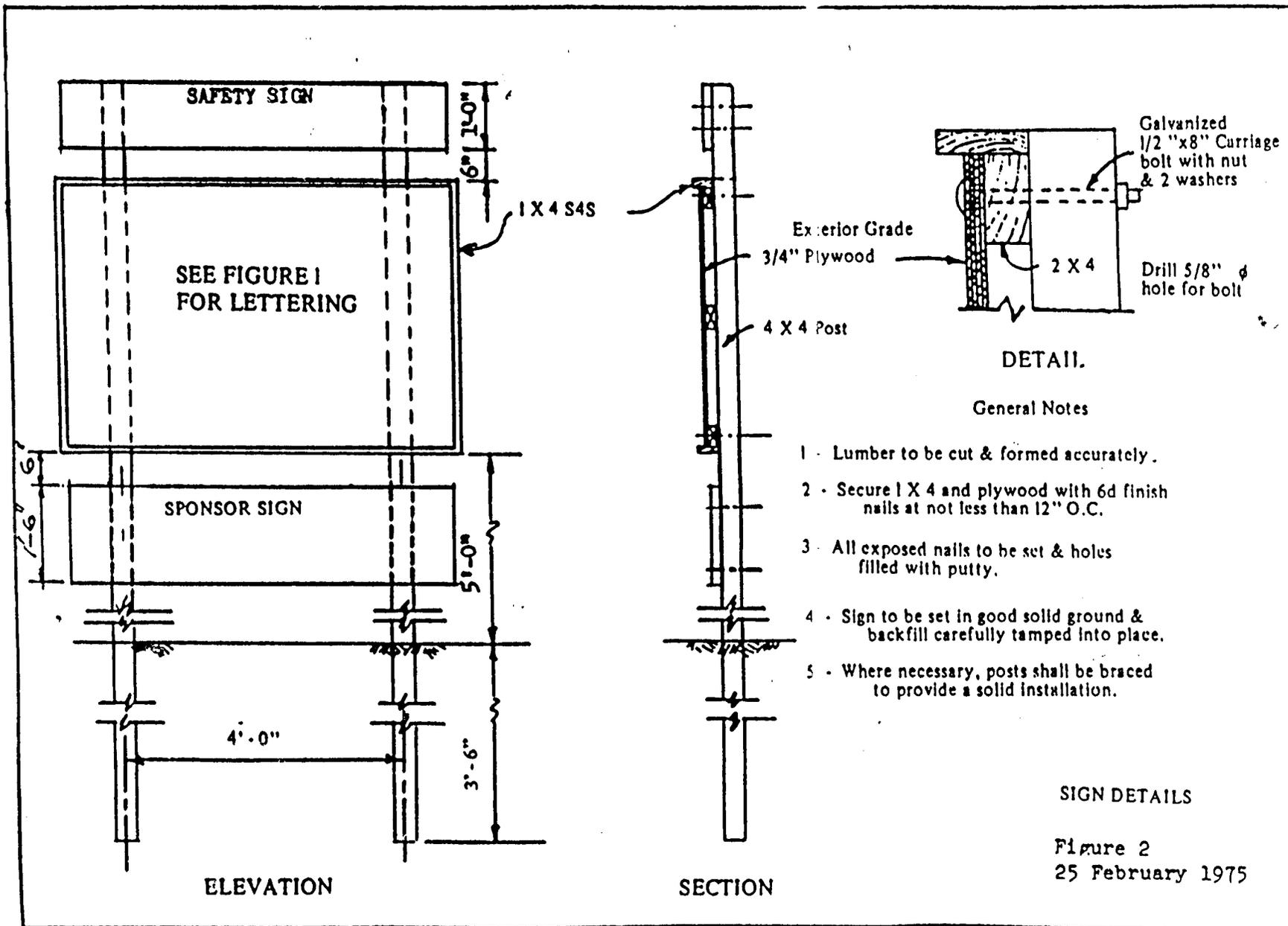
SCHEDULE

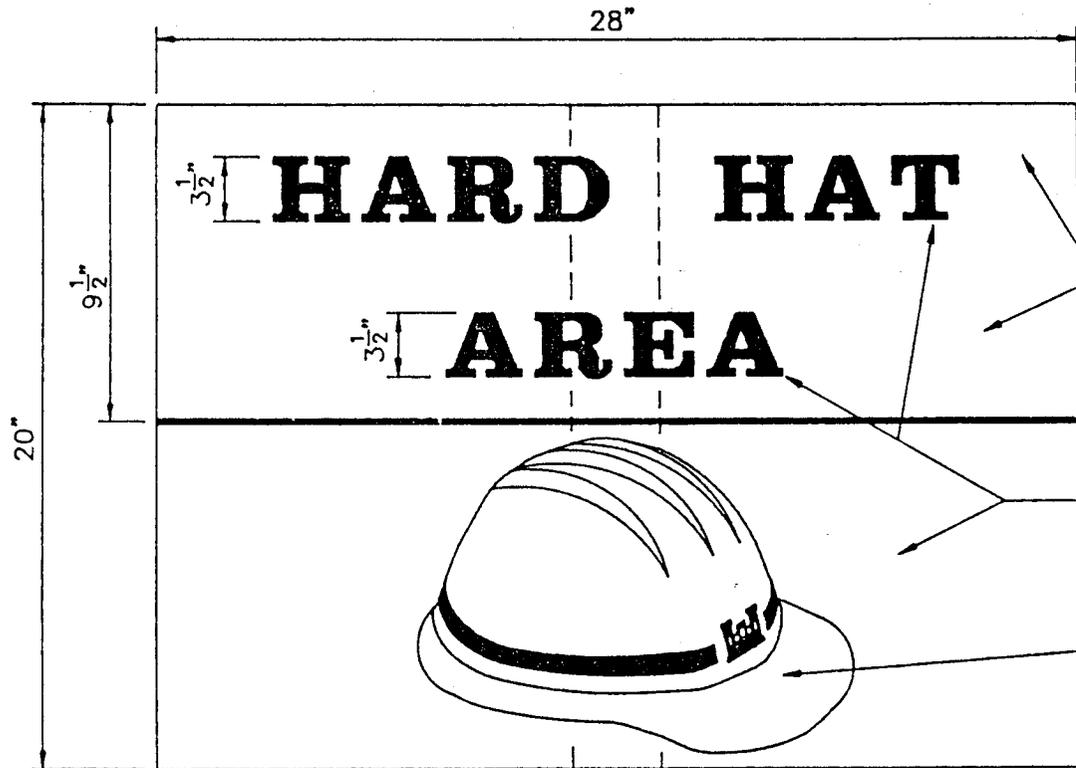
<u>Space</u>	<u>Height</u>	<u>Line</u>	<u>Description</u>	<u>Letter Height</u>	<u>Stroke</u>
A	3"	1	U. S. ARMY	5 1/2"	7/8"
B	2"	2	PROJECT NOMENCLATURE	4"	5/8"
C	2"	3	CORPS OF ENGINEERS CASTLE (DECAL)	1 1/2"	--
D	3"	4	U. S. ARMY ENGINEER DISTRICT	2 3/4"	3/8"
E	2"	5	DISTRICT NAME	2 1/4"	1/4"
F	2"	6	CORPS OF ENGINEERS	2 1/2"	3/8"
G	3"				

Lettering Color -- Black

PROJECT SIGN
(Army-Civil Works)

Figure 1
14 August 1972





WHITE:
PAINT BACK OF SIGN WHITE

GREEN

HARD HAT DECAL FURNISHED
BY GOVERNMENT

4" X 4" POST
PAINT GREEN

GENERAL NOTES:

1. Green & White Paint shall be opaque glossy as specified in ANSI Standard Z53.1.
2. Bolt Sign to post w/2 1/2" dia. Carriage Bolts.

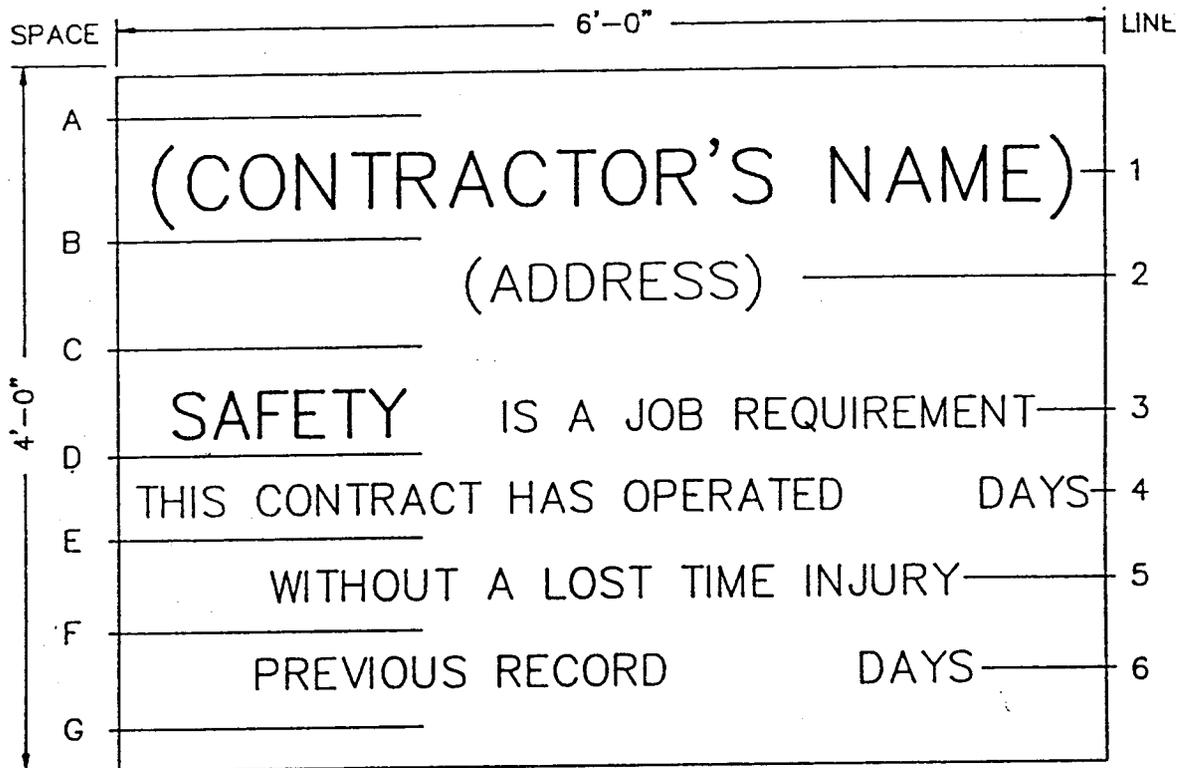
STANDARD DETAIL
HARD HAT SIGN

U.S. ARMY ENGINEER DISTRICT
SACRAMENTO

Drawn T. Tufts
Checked R. Simmons

Not to Scale
NOV. 1987

File No. 80-25-774



SCHEDULE

<u>SPACE</u>	<u>HEIGHT</u>	<u>LINE</u>	<u>DISCRIPTION</u>	<u>LETTER HEIGHT</u>
A	5"	1	CONTRACTOR'S NAME	5"
B	3"	2	ADDRESS	3"
C	6"	3	SAFETY IS A JOB REQUIREMENT	4 1/2" & 3"
D	3"	4	ALL LETTERING	3"
E	3"	5	ALL LETTERING	3"
F	3"	6	ALL LETTERING	3"
G	5"			

NOTE:

LETTERING SHALL BE BLACK No. 27038, FEDERAL STANDARD 595.
SIGN SHALL BE INSTALLED IN THE SAME MANNER
AS THE PROJECT SIGN.

STANDARD DETAIL

SAFETY SIGN

U S ARMY ENGINEER DISTRICT
SACRAMENTO

Drawn T. Tufts

Not to Scale

Checked R. Simmons

NOV. 1987

File number 80-25-707

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01270

MEASUREMENT AND PAYMENT

02/94

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 SUBMITTALS
- 1.3 LUMP SUM PAYMENT ITEMS
 - 1.3.1 Mobilization and Demobilization
 - 1.3.1.1 Payment
 - 1.3.1.2 Unit of Measure
 - 1.3.2 Set-Up
 - 1.3.2.1 Payment
 - 1.3.2.2 Unit of Measure
 - 1.3.3 Set-Down
 - 1.3.3.1 Payment
 - 1.3.3.2 Unit of Measure
- 1.4 UNIT PRICE PAYMENT ITEMS
 - 1.4.1 Dredging
 - 1.4.1.1 Payment
 - 1.4.1.2 Measurement
 - 1.4.1.3 Unit of Measure

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

SECTION 01270

MEASUREMENT AND PAYMENT

02/94

PART 1 GENERAL

1.1 REFERENCES

None

1.2 SUBMITTALS

None

1.3 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the SUPPLIES OR SERVICES AND PRICES/COSTS and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.3.1 Mobilization and Demobilization

1.3.1.1 Payment

Payment will be made for costs associated with mobilization and demobilization, as defined in Special Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

1.3.1.2 Unit of Measure

Unit of measure: Job

1.3.2 Set-Up

1.3.2.1 Payment

Payment will be made for costs associated with set-up as defined in SECTION 02002: SET-UP AND SET-DOWN.

1.3.2.2 Unit of Measure

Unit of measure: Job

1.3.3 Set-Down

1.3.3.1 Payment

Payment will be made for costs associated with set-down as defined in

SECTION 02002: SET-UP AND SET-DOWN.

1.3.3.2 Unit of Measure

Unit of measure: Job

1.4 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the SUPPLIES OR SERVICES AND PRICES/COSTS and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.4.1 Dredging

1.4.1.1 Payment

Payment will be made for costs associated with dredging, including overdepth dredging, transporting and deposition of dredge material at designated disposal site(s), and other operations incidental thereto, including hydrographic surveys and water quality control and monitoring.

1.4.1.2 Measurement

The total quantity of dredge material for which payment will be made will be by in-place (quantity) measurement in cubic meters by computing the difference in available material between the pre-dredge survey and the post-dredge survey. Available material is defined as material located within the boundaries of the dredge prism. Specifically, a quantity of available material will be computed between the dredge prism and the bottom surface shown by the soundings of the Government's pre-dredge survey, and a quantity of available material will be computed between the dredge prism and the bottom surface shown by the Government's post-dredge survey. The difference between these two available quantities (pre-dredge and post-dredge) will constitute the quantity of material dredged. Misplaced materials (including any required removal and placement), excessive overdepth dredging and material falling or drawn into the cut from beyond the side slope plane or beyond the limits indicated, will be excluded from the quantities for which payment will be made. The Triangulated Irregular Network (TIN) method will be used for quantity determination. For method of soundings, see SECTION 02020: DREDGING.

1.4.1.3 Unit of Measure

Unit of measure: cubic meter.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

09/97

PART 1 GENERAL

- 1.1 SUBMITTAL IDENTIFICATION
- 1.2 SUBMITTAL CLASSIFICATION
 - 1.2.1 Government Approved
 - 1.2.2 Information Only
- 1.3 APPROVED SUBMITTALS
- 1.4 DISAPPROVED SUBMITTALS
- 1.5 WITHHOLDING OF PAYMENT

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

- 3.1 GENERAL
- 3.2 SUBMITTAL REGISTER (ENG FORM 4288)
- 3.3 SCHEDULING
- 3.4 TRANSMITTAL FORM (ENG FORM 4025)
- 3.5 SUBMITTAL PROCEDURE
 - 3.5.1 Procedures
 - 3.5.2 Deviations
- 3.6 CONTROL OF SUBMITTALS
- 3.7 GOVERNMENT APPROVED SUBMITTALS
- 3.8 INFORMATION ONLY SUBMITTALS
- 3.9 STAMPS

-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES
09/97

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections

and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 10 calendar days after Notice to Proceed. The Contractor shall keep this diskette

up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 7 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

Submittals shall be made to:

Lori Satrom
USACE
Los Angeles Project Office
P.O. Box 3157
Ontario, CA. 91761-0916
Telephone: (909) 981-5571 or 6287
Fax: (909) 981-5649

For UPS/FED-EX only:

Lori Satrom
USACE
Los Angeles Project Office
1284 East 7th Street (Rear Trailer)
Upland, CA 91786

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four copies of the submittal will be retained by the Contracting Officer and Two copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

<p>CONTRACTOR</p> <p>(Firm Name)</p> <p>_____ Approved</p> <p>_____ Approved with corrections as noted on submittal data and/or attached sheets(s).</p> <p>SIGNATURE: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>

-- End of Section --

**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR
MANUFACTURER'S CERTIFICATES OF COMPLIANCE**

(Read instructions on the reverse side prior to initiating this form)

DATE

TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO	FROM	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
----	------	--------------	---

SPECIFICATION SEC. NO. (Cover only one section with each transmittal)	PROJECT TITLE AND LOCATION
---	----------------------------

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type size, model number/etc.)	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See instruction no. 8)	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE	VARIATION (See Instruction No. 8)	FOR CE USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.			
a	b	c	d	e	f	g	h	i

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and instruct conformance with the contract drawings and specifications except as otherwise stated. _____ NAME AND SIGNATURE OF CONTRACTOR
---------	---

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
--	--	------

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No." This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box, on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation " column when a submittal is not in accordance with the plans and specifications..also, a written statement to that effect shall be included in the space provided for "Remarks."
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- | | |
|--|---|
| A - Approved as submitted. | E - Disapproved (See attached). |
| B - Approved, except as noted on drawings. | F - Receipt acknowledged. |
| C - Approved, except as noted on drawings.
Refer to attached sheet resubmission required. | FX - Receipt acknowledged, does not comply
As noted with contract requirements |
| D - Will be returned by separate correspondence. | G - Other (Specify) |

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01354

ENVIRONMENTAL PROTECTION FOR CIVIL WORKS

10/95

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 DEFINITIONS
- 1.3 SUBMITTALS
- 1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS
 - 1.4.1 Protection of Features
 - 1.4.2 Permits
 - 1.4.3 Special Environmental Requirements
 - 1.4.4 Environmental Assessment of Contract Deviations
- 1.5 ENVIRONMENTAL PROTECTION PLAN
 - 1.5.1 List of State and Local Laws and Regulations
 - 1.5.2 Spill Control Plan
 - 1.5.3 Recycling and Waste Minimization Plan
 - 1.5.4 Contaminant Prevention Plan
 - 1.5.5 Debris Management Plan
 - 1.5.6 Environmental Monitoring

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

- 3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS
 - 3.1.1 U.S. Department of Agriculture (USDA) Quarantined Considerations
 - 3.1.2 Soil Disposal Areas on Government Property
 - 3.1.3 Disposal of Solid Wastes
 - 3.1.4 Clearing Debris
 - 3.1.5 Disposal of Contractor Generated Hazardous Wastes
 - 3.1.6 Fuels and Lubricants
- 3.2 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES
 - 3.2.1 Known Historic, Archaeological, and Cultural Resources
 - 3.2.2 Discovered Historic, Archaeological or Cultural Resources
- 3.3 PROTECTION OF WATER RESOURCES
 - 3.3.1 Monitoring of Water Areas Affected by Construction Activities
 - 3.3.2 Turbidity Plumes
 - 3.3.3 Floating Debris
 - 3.3.4 Other Discharges
 - 3.3.5 Mitigation Measures
 - 3.3.6 Boundaries
- 3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES
 - 3.4.1 Construction Windows
 - 3.4.2 Marine Mammals
 - 3.4.3 Dead or Injured Wildlife
 - 3.4.4 Marine Resources
 - 3.4.4.1 California Least Tern and Snowy Plover

- 3.4.4.2 Grunion
- 3.5 PROTECTION OF AIR RESOURCES
 - 3.5.1 Particulates
 - 3.5.2 Other Air Pollutants
- 3.6 Air Quality Management District
 - 3.6.1 Resource Commitments
- 3.7 NOISE
 - 3.7.1 City of Oxnard's Exterior Noise Standards
 - 3.7.2 City of Port Hueneme's Exterior Noise Standards
- 3.8 ENVIRONMENTAL COMMITMENTS
 - 3.8.1 General Commitments
- 3.9 INSPECTION
- 3.10 MAINTENANCE OF POLLUTION CONTROL FACILITIES
- 3.11 TRAINING OF CONTRACTOR PERSONNEL

-- End of Section Table of Contents --

SECTION 01354

ENVIRONMENTAL PROTECTION FOR CIVIL WORKS
10/95

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

CODE OF FEDERAL REGULATIONS (CFR)

40 CFR 261 Identification and Listing of Hazardous Waste

CORPS OF ENGINEERS (COE)

EM 385-1-1 (1996) Safety and Health Requirements Manual

1.2 DEFINITIONS

Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the environment from an aesthetic, cultural or historic perspective. Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of air, water, land, biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive materials; and other pollutants.

1.3 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-08 Statements

Environmental Protection Plan; GA.

SD-09 Reports

Daily Report of Operations; FIO

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental

protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

1.4.1 Protection of Features

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause whether or not they are specifically identified on the drawings as environmental features requiring protection. The Contractor shall protect those environmental features, indicated specifically on the drawings, in spite of interference which their preservation may cause to the Contractor's work under the contract.

1.4.2 Permits

This section supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained environmental permits. Ventura County has obtained a permit from the California Regional Water Control Board for dredging and disposal. The contractor shall comply with the terms, and conditions of this permit. The contractor shall also comply with other environmental commitments made by the Government and incorporated in this section. The Contractor is responsible for obtaining any necessary permits or licenses not previously obtained by the Government, including:

Air Quality - Permit to Operate. The Contractor is required to obtain or have in possession appropriate Permits to Operate from the California Air Resources Board (CARB) or Ventura Air Pollution Control District (VCAPCD) for all applicable equipment prior to commencement of work and to pay all associated fees.

Permit obtained by Ventura County:

Permit and Number	Issuing Agency	Effective Date
Waste Discharge Requirements, Order No. 75-2 and 75-63	California Regional Water Quality Control Board Los Angeles Region	21 July 1975 - indefinite

Note: All other permits, including operational permits from Ventura County and the City of Port Hueneme, shall be obtained by the Contractor.

1.4.3 Special Environmental Requirements

The Contractor shall comply with the special environmental requirements included at the end of this section. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development.

1.4.4 Environmental Assessment of Contract Deviations

The Contract specifications have been prepared to comply with the special conditions and mitigation measures of an environmental nature which were established during the planning and development of this project. The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, scheduling delays, and unauthorized activities in

designated "no work" areas) could result in the requirement for the Government to reanalyze the project from an environmental standpoint. Deviations from the construction methods and procedures indicated by the plans and specifications which may have an environmental impact will require an extended review, processing, and approval time by the Government.

The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.5 ENVIRONMENTAL PROTECTION PLAN

Within 7 calendar days of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan not later than 30 calendar days after receipt of the Notice to Proceed. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions which the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The environmental protection plan shall include, but not be limited to, the following:

1.5.1 List of State and Local Laws and Regulations

The Contractor shall provide as part of the Environmental Protection Plan a list of all State and local environmental laws and regulations which apply to the construction operations under the Contract. Permits obtained by the Contractor shall be attached to, and specific conditions included in the Environmental Protection Plan.

1.5.2 Spill Control Plan

The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

- a. The name of the individual who will be responsible for implementing and supervising the containment and cleanup.
- b. Training requirements for Contractor's personnel and methods of accomplishing the training.
- c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.
- d. The names and locations of suppliers of containment materials and

locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.5.3 Recycling and Waste Minimization Plan

The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

a. The Contractor shall participate in State and local government sponsored recycling programs to reduce the volume of solid waste materials at the source.

b. The Contractor shall collect glass bottles, aluminum cans, and paper at the job site for recycling.

1.5.4 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.5.5 Debris Management Plan

As part of the Environmental Protection Plan, the Contractor shall prepare a Debris Management plan to prevent disposal of solid debris at disposal sites. The Debris Management Plan shall include sources and expected types of debris, debris separation and retrieval methods, and debris disposal methods.

1.5.6 Environmental Monitoring

The Contractor shall include in the plan the details of environmental monitoring requirements under the laws and regulations and a description of how this monitoring will be accomplished.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 U.S. Department of Agriculture (USDA) Quarantined Considerations

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that barnacles, mussels, vegetation, and egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

3.1.2 Soil Disposal Areas on Government Property

Material disposal on Government property shall be disposed only in those areas designated on the contract drawings. Hazardous, toxic, and radiological wastes (HTRW) shall not be disposed of on Government property. Disposal operations shall be managed and controlled to prevent erosion of soil or sediment from entering nearby waters or wetlands. Disposal operations shall be developed and managed in accordance with the grading plan shown on the drawings or as approved by the Contracting Officer.

3.1.3 Disposal of Solid Wastes

Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials (including trash and debris dredged from the work area, but excluding clearing debris and hazardous waste as defined in following paragraphs). Solid waste shall be placed in containers and disposed on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste off Government property in compliance with Federal, State, and local requirements.

3.1.4 Clearing Debris

Clearing debris is trees, tree stumps, tree trimmings, and shrubs, and leaves, vegetative matter, excavated organic materials (e.g. vegetative matter that is easily separable from the dredged sediment), and demolition products (e.g., brick, concrete, glass, and metals).

a. The Contractor shall collect trees, tree stumps, tree trimmings, shrubs, leaves, and other vegetative matter; and shall transport from Government property for proper disposal in compliance with Federal, State, and local requirements. The Contractor shall segregate the matter where appropriate for proper disposal. Untreated and unpainted scrap lumber may be disposed of with this debris where appropriate.

b. Demolition products shall be transported from Government property for proper disposal in compliance with Federal, State, and local requirements.

3.1.5 Disposal of Contractor Generated Hazardous Wastes

Hazardous wastes are hazardous substances as defined in 40 CFR 261, or as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such

as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from Government property within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

3.1.6 Fuels and Lubricants

Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with Federal, State, and local laws and regulations.

3.2 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

3.2.1 Known Historic, Archaeological, and Cultural Resources

There are no known historic, archaeological, and cultural resources at the project site.

3.2.2 Discovered Historic, Archaeological or Cultural Resources

If during construction activities, items are observed that may have historic or archaeological value (e.g., Native American human remains or associated objects are discovered), such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall prevent his employees from trespassing on, removing, or otherwise disturbing such resources.

3.3 PROTECTION OF WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.3.1 Monitoring of Water Areas Affected by Construction Activities

As part of the Environmental Plan, the Contractor shall implement a Water Quality Monitoring Plan at the dredge and beach disposal sites. Monitoring shall be conducted a minimum of once a week during construction. The Contractor shall conduct all monitoring during daylight hours.

All water quality monitoring data shall be obtained via remote electronic detection equipment and secchi disk. Parameters measured by electronic detection equipment shall be sampled 2.0 meters below the water's surface, then at 2.0- meter interval to the bottom. The Contractor shall monitor the following locations:

Dredge Site:

- a. 30 meters upstream of the dredge (in opposite direction of turbidity plume).
- b. 30 meters downstream of the dredge (in direction of turbidity plume).
- c. 100 meters downstream of the dredge (in direction of turbidity plume).

plume).

- d. Control Measurement #1: 200 to 300 meters from the dredge site.
- e. Control Measurement #2: 300 to 400 meters from the dredge site.
- f. Two sites randomly located within the dredge footprint for pre- and post-construction monitoring.

Beach Disposal:

- a. 30 meters upstream of the disposal (in opposite direction of turbidity plume).
- b. 30 meters downstream of the disposal (in direction of turbidity plume).
- c. 100 meters downstream of the disposal (in direction of turbidity plume).
- d. Control Measurement #1: 200 to 250 meters from the disposal site.
- e. Control Measurement #2: 300 to 400 meters from the disposal site.
- f. One site randomly located adjacent to the beach disposal area for pre- and post-construction monitoring.

The control measurement sites shall be representative of ambient conditions within the dredge and beach disposal areas. They shall be located outside any visible turbidity plume.

The Contractor shall monitor for the following parameters:

- a. dissolved oxygen (mg/l)
- b. salinity (ppt)
- c. temperature (^F)
- d. pH
- e. light transmittance (Nephelometric Turbidity Units, NTU's)

Secchi Disk:

The Contractor shall also perform secchi disk readings at all monitoring locations (identified above) to determine vertical depth of water quality. Readings shall be taken from a boat or platform small enough to obtain accurate secchi disk readings. The same or similar type of boat or platform shall be used for all readings to assure consistency.

Monitoring shall be conducted according to United States Environmental Protection Agency or California Department of Health Services approved test procedures as described in the current Title 40, CFR 136 and CFR 261, or the current California Code or Regulations Title 22, Article 11, as appropriate, unless other test procedures have been specified.

During sampling and measurement operations, the following observations shall be recorded by the individual performing such operations for each monitoring location:

- a. Name of project
- b. Date, exact location and time of sampling or measurements

- c. Name of individual performing sampling or measurements
- d. Speed and direction of current
- e. Tidal stage
- f. General weather conditions and wind velocity
- g. Appearance of trash, floatable material, grease, oil slick, or other objectionable material
- h. Discoloration and extent of visible turbidity plumes
- i. Any distinguishable odors
- j. Quantity of material dredged the previous day
- k. Cumulative total amount of material dredged to date
- l. Disposal site, material being disposed during monitoring
- m. Name of individual performing analysis
- n. Analytical techniques and/or methods to be used to analyze and interpret data
- o. Results

Upon completion of weekly monitoring, the Contractor shall, that same day, submit all monitoring results along with secchi disk measurements to the Contracting Officer as part of the Daily Report of Operations. The Contractor shall keep a copy of all monitoring results, secchi disk measurements, observations, calibration, and maintenance records in a file at the job site available for inspection.

3.3.2 Turbidity Plumes

The Contractor shall exercise reasonable care to prevent a turbidity plume from forming inside Port Hueneme Harbor as a result of beach disposal operations. When depositing dredged material in the area between the east jetty and a point 210 meters east (downcoast) of the jetty, the Contractor may be required to restrict disposal operations to time periods when tides are outgoing or slack, or eliminating direct disposal in those areas altogether. In the event that direct disposal by beach disposal is permitted, the Contractor shall place only coarser and clean material (sand) between the east jetty and the first 210 meters downcoast of the jetty.

3.3.3 Floating Debris

During the performance of work, the Contractor shall institute and enforce procedures to prevent spills and floating debris from fouling the local waters and beach. Should these procedures fail, the Contractor shall promptly clean up all spills and debris. At the end of each work shift, loose materials on adjoining structures and debris in the water and on the beach shall be removed by the Contractor and disposed of off site.

3.3.4 Other Discharges

Should the Contractor lose, dump, throw overboard, sink or misplace material, plant, machinery appliance, or cause pollution on the waters, the Contractor shall give immediate notice to the Contracting Officer and, if required shall boom, buoy or otherwise mark the location of the incident until the obstruction or pollution problem is removed. Should the Contractor refuse, neglect or delay compliance with these requirements, the necessary removal and clean up may be deducted from the monies due or to become due to the Contractor.

3.3.5 Mitigation Measures

If directed by the Contracting Officer, the Contractor shall immediately

modify operations as necessary to reduce turbidity or other water quality impacts. Modifications could include use of alternate equipment (i.e., closed, sealed, or smaller-sized buckets, in the case of clamshell dredging), silt curtains, avoidance of certain tidal conditions, stopping overflow of the disposal scow or hopper dredge, slowing operations, and temporarily stopping to allow turbidity to dissipate.

3.3.6 Boundaries

All dredging and fill activities will remain within the boundaries specified in the plans. There will be no dumping of fill or material outside of the project area or within any adjacent aquatic community.

3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES

The Contractor shall keep construction activities under surveillance, management and control to minimize interference with, disturbance to and damage of fish and wildlife (endangered species and their habitat). Endangered or protected species known to frequent the project area and their respective nesting season include:

California least tern	1 April through 15 September each year
California grunion	15 March through 15 September each year
Western snowy plover	1 March through 30 September each year
California brown pelican	non-breeding individuals may occur year-round roosting on breakwater

3.4.1 Construction Windows

Impacts to the California least tern and grunion shall be avoided by limiting operations to the period between Notice to Proceed (NTP) and 15 March of year of operations.

3.4.2 Marine Mammals

Personnel shall not harass any marine mammals or waterfowl.

3.4.3 Dead or Injured Wildlife

The Contractor shall report any incidental take (dead or injured species) immediately to the Contracting Officer. The Contracting Officer shall consult with U.S. Fish and Wildlife Service immediately in the event of incidental take in the form of direct mortality through accidental death of a California least tern, or California brown pelican. Operations may be stopped if it is suspected that the impact of the taking causes an irreversible and adverse impact on the species.

3.4.4 Marine Resources

If construction ceases prior to 15 March of each year dredge period, no significant impacts are expected to result on marine resources. However, if construction continues through 31 March, there is a potential to affect the following species: snowy plover, grunion, and California least tern. To offset the potential impacts, the following contingency plans will be implemented to reduce the level of impact insignificance/no effect.

3.4.4.1 California Least Tern and Snowy Plover

Specific measures shall be taken to avoid impacts to nesting and wintering

snowy plovers and California least terns, if beach disposal occurs. These measures include: completion of all beach disposal activity by 15 March of each year dredge period. If disposal occurs past 15 March, then additional regulations concerning pipeline placement, vehicle use, and other disposal activities will be imposed as discussed below to minimize potential impacts on the snowy plover and California least tern.

a. For all activities occurring after 15 March:

1. Agency coordination and field monitoring will be reinitiated and conducted by the Corps when it appears operations may continue beyond 15 March.
2. Disposal will be retrofitted for dike disposal.
3. The Corps will have a qualified expert survey the project area and document plover and California least tern activity. If it is documented that no plover or California least tern nesting activities are occurring or found in the project area, then operations may continue with triweekly surveys (3 times per week). If plover or California least tern sites are found or nesting activities are noted, activities will be marked and mapped. Field monitoring will be conducted to determine the impacts to the plover and California least tern. Field observations will then be recorded and discussed with the Corps project ecologist. The Corps will consult with the resource agencies to determine the level of impact to the plover and California least tern. If, at any time, it is determined construction activities will affect active nesting snowy plovers and California least terns, the Corps will instruct the Contractor to immediately stop operations.
4. Construction will not occur beyond 31 March.

3.4.4.2 Grunion

If it is necessary to conduct the disposal past 15 March, impacts on grunion will be minimized by utilizing diked disposal alternative. Refer to Section 02020 DREDGING for dike disposal method.

3.5 PROTECTION OF AIR RESOURCES

Special management techniques as set out below shall be implemented to control air pollution by the construction activities. These techniques supplement the requirements of Federal, State, and local laws and regulations; and the safety requirements under this Contract. If any of the following techniques conflict with the requirements of Federal, State, or local laws or regulations, or safety requirements under this contract, then those requirements shall be followed in lieu of the following.

3.5.1 Particulates

Airborne particulates, including dust particles, from construction activities and processing and preparation of materials shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, disposal sites, borrow areas, and all other work areas free from airborne dust which would cause a hazard or nuisance.

3.5.2 Other Air Pollutants

Hydrocarbons and Carbon Monoxide - Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

Odors - Odors shall be controlled at all times for all construction activities, processing, and preparation of materials.

Monitoring of air quality shall be the responsibility of the Contractor. All air areas affected by the construction activities shall be monitored by the Contractor.

3.6 Air Quality Management District

All activities, equipment, processes, and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the Ventura County Air Pollution Control District permit requirements and all Federal emission and performance laws and standards. The Contractor shall obtain a Permit to Operate from the Ventura County Air Pollution Control District prior to commencement of work, pay all associated fees, and follow all permit requirements. Point of contact for VCAPCD is Chuck Thomas, (805) 645-1427. The Contractor should schedule suitable time to acquire appropriate VCAPCD permits, waivers or credits.

Construction equipment shall be properly maintained to minimize release of diesel and hydrocarbons effluent. The Contractor shall follow all air quality standards.

3.6.1 Resource Commitments

Air Quality. The Contractor shall comply with Ventura County's Air Pollution Control District (VCAPCD) Ordinances. Listed below are applicable measures to comply with the VCAPCD ordinances.

- a. Maintaining equipment in tune as per manufacturer's specifications.
- b. Utilizing catalytic converters on any gasoline-powered equipment.
- c. Utilizing selective catalytic reduction (SCR) and ammonia injection on any tugs.
- d. Retarding engine timing by 2 degrees.
- e. Installing high pressure fuel injectors.
- f. Using reformed, low-emissions diesel fuel.
- g. Substituting gasoline-powered for diesel-powered equipment where feasible.
- h. Where applicable, equipment will not be left idling for prolonged periods.
- i. Curtailing (ceasing or reducing) construction during periods of high ambient pollutant concentrations (e.g., State I smog alerts).
- j. Using equipment that is currently permitted within VCAPCD.

3.7 NOISE

Noise levels of the dredge operations shall not exceed the limits established by the County of Ventura's noise ordinance unless the Contractor obtains any necessary permits or exemptions from the County of Ventura. Thus, mitigation will be required if dredging occurs within 365 meters of residential housing units, 150 meters of high density units, and 30 meters of water recreation/industrial uses; and if dredge maneuvering/dumping and/or earthmoving equipment occurs within 240 meters of residential housing units, 90 meters of high density units, and 20 meters of water recreation/industrial uses. Mitigation includes the limitation that operations occur between 7:00 A.M. to 7:00 P.M. Also noise level limits will not be allowed to exceed more than 30 minutes in any consecutive 60 minutes; by 5 dBA for a total period of 15 minutes in any consecutive 60 minutes; by 10 dBA for a total period of 5 minutes in any consecutive 10 minutes; by 15 dBA for a total period of 1 minute in any consecutive 60 minutes; or by 20 dBA for any period of time for the respective land use categories identified in paragraphs: 3.7.1 and 3.7.2. In addition, if it is determined that construction noise will exceed 90 dBA at a distance of 15 meters or greater, the use of the equipment that produces such noise will be limited to between the hours of 10:00 A.M. to 3:00 P.M. All construction shall utilize engine shrouds. Further mitigation shall consist of a public awareness program, instituted prior to project implementation, explaining the process, the benefits of the project, and the length of the disturbance. Included with this program shall be phone number of a project representative at which any nuisance complaints can be registered.

3.7.1 City of Oxnard's Exterior Noise Standards

The City of Oxnard's exterior noise standards not to be exceeded by various categories of land uses are as follows:

- a. Low density residential areas are limited to an exterior noise level of 60 CNEL dBA.
- b. High density residential areas are limited to an exterior noise level of 65 dBA.
- c. Water recreation areas are limited to an exterior noise level at 75 dBA.

3.7.2 City of Port Hueneme's Exterior Noise Standards

The City of Port Hueneme's Exterior Noise Standards not to be exceeded by various categories of land use area as follows:

- a. Noise sensitive properties (i.e., residential and park reserve) are limited to an exterior noise level of 55 dBA between the hours of 7:00 A.M. to 10:00 P.M. and 50 dBA between the hours of 10:00 P.M. and 7:00 A.M.
- b. Commercial properties are limited to an exterior noise level of 65 dBA anytime.
- c. Industrial properties are limited to an exterior noise level of 75 dBA anytime.

3.8 ENVIRONMENTAL COMMITMENTS

The following environmental commitments shall be implemented by the Contractor:

3.8.1 General Commitments

All construction equipment shall utilize properly working and approved mufflers, and be kept in a proper state of tune to alleviate backfires.

Placement of any stationary equipment, parking, fueling, and servicing operations for all heavy equipment and onsite vehicles as far from proximate receptors as possible.

Where possible, stationary equipment, such as generators, shall be equipped with noise shrouds and placed as far as possible from receptors.

Unless otherwise directed by the Contracting Officer, the Contractor will not be permitted to operate heavy equipment on Silver Strand Beach or Port Hueneme City Beach, adjacent to Surfside Drive, between the hours of 10:00 P.M. and 7:00 A.M.

3.9 INSPECTION

If the Contracting Officer notifies the Contractor in writing of any observed noncompliance with contract requirements or Federal, State, or local laws, regulations, or permits, the Contractor shall inform the Contracting Officer of proposed corrective action and take such action to correct the noncompliance. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action is taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

3.10 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

3.11 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel monthly.

The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities (vegetative covers, etc.), and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall also be discussed. Other items to be discussed shall include recognition and protection of archaeological sites and artifacts.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01415

METRIC MEASUREMENTS

03/97

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 USE OF MEASUREMENTS
 - 1.3.1 Hard Metric
 - 1.3.2 Soft Metric
 - 1.3.3 Neutral
- 1.4 COORDINATION
- 1.5 RELATIONSHIP TO SUBMITTALS

-- End of Section Table of Contents --

SECTION 01415

METRIC MEASUREMENTS

03/97

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 380	(1993) Practice for Use of the International System of Units (SI)
ASTM E 621	(1994) Practice for Use of Metric (SI) Units in Building Design and Construction

1.2 GENERAL

This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric) dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

1.3 USE OF MEASUREMENTS

Measurements shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

1.3.1 Hard Metric

A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value, i.e., where an SI value is not an exact mathematical conversion of an I-P value, such as the use of 100 mm in lieu of 4 inches. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor.

Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

1.3.2 Soft Metric

- a. A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.
- b. A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8 inches)).

1.3.3 Neutral

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

1.4 COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

1.5 RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM E 380 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01451

CONTRACTOR QUALITY CONTROL

04/97

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 SUBMITTALS
- 1.3 PAYMENT

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

- 3.1 GENERAL
- 3.2 QUALITY CONTROL PLAN
 - 3.2.1 General
 - 3.2.2 Content of the CQC Plan
 - 3.2.3 Acceptance of Plan
 - 3.2.4 Notification of Changes
- 3.3 COORDINATION MEETING
- 3.4 QUALITY CONTROL ORGANIZATION
 - 3.4.1 General
 - 3.4.2 CQC System Manager
 - 3.4.3 CQC Personnel
 - 3.4.4 Additional Requirement
 - 3.4.5 Organizational Changes
- 3.5 SUBMITTALS
- 3.6 CONTROL
 - 3.6.1 Preparatory Phase
 - 3.6.2 Initial Phase
 - 3.6.3 Follow-up Phase
 - 3.6.4 Additional Preparatory and Initial Phases
- 3.7 TESTS
 - 3.7.1 Testing Procedure
 - 3.7.2 Testing Laboratories
 - 3.7.2.1 Capability Check
 - 3.7.2.2 Capability Recheck
 - 3.7.3 Onsite Laboratory
 - 3.7.4 Furnishing or Transportation of Samples for Testing
- 3.8 COMPLETION INSPECTION
 - 3.8.1 Punch-Out Inspection
 - 3.8.2 Pre-Final Inspection
 - 3.8.3 Final Acceptance Inspection
- 3.9 DOCUMENTATION
- 3.10 SAMPLE FORMS
- 3.11 NOTIFICATION OF NONCOMPLIANCE
- 3.12 CONTRACTOR PROJECT MANAGEMENT SYSTEM
 - 3.12.1 General

- 3.12.2 Submission and Approval
- 3.12.3 Network Modifications
- 3.12.4 Logic Diagrams and Reports
 - 3.12.4.1 Logic Diagrams
 - 3.12.4.2 Reports
- 3.12.5 Payment Requests
- 3.13 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM
- 3.14 PROJECT SCHEDULE

-- End of Section Table of Contents --

SECTION 01451

CONTRACTOR QUALITY CONTROL
04/97

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM D 3740 (1996) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
- ASTM E 329 (1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Schedules

Project Schedule; GA.

SD-08 Statements

Contractor Quality Control (QCP) Plan; GA.

1.3 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the SUPPLIES OR SERVICES AND PRICES/COSTS .

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "INSPECTION OF CONSTRUCTION." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the Contractor Quality Control (QCP) Plan proposed to implement the requirements of the Contract Clause titled "INSPECTION OF CONSTRUCTION." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 15 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 7 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting

shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 5 years construction experience on construction similar to this contract. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: civil and dredging. These individuals may be employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.

		Experience Matrix
Area		Qualifications
a.	Civil	Graduate Civil Engineer with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience
b.	Dredging	Experienced engineer or technician with 10 years of

Area	Experience Matrix	Qualifications
marine dredging experience		

3.4.4 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered, contact U.S. Army Corps of Engineers, Los Angeles District, Emmanuel Molina, at (213) 452-3382 for information.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract

requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing

procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$675.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Samples of materials for test verification and acceptance testing will be tested at a commercial laboratory approved by the Contracting Officer. All cost for transporting of samples will be borne by the Contractor.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK," or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the

superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at this inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "INSPECTION OF CONSTRUCTION".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and

deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.12 CONTRACTOR PROJECT MANAGEMENT SYSTEM

3.12.1 General

The Contractor project Management System is included to assure adequate planning and execution of the work, to assist the Contracting Officer on appraising the reasonableness of the schedule, to evaluate progress of the work, and make progress payments, and to make decisions relative to time and/or cost adjustments which may result from changes in the work.

The management system is to be based on a computerized Network Analysis (Critical Path Method) operated by on-site personnel at terminals located in the Contractor's on-site office. On-site management shall be capable of using the system to address all project activities and resources on a real time interactive basis and be capable of rapidly evaluating alternative scenarios which will optimize project management. Evidence of technical expertise of on-site personnel with the proposed computerized Network Analysis System shall be submitted for Contracting Officer's approval prior to on-site work.

The Contractor shall resource load all work activities. As a minimum, resource loading shall identify equipment, management, skilled and unskilled labor requirements. The Contractor may at his option decide on greater detail for his own purposes, but if this option is elected, the system must be able to consolidate resources into the above defined categories for use by the Contracting Officer.

The Contractor shall incorporate any and all milestone and contract

required events which may be specified elsewhere within these specifications. Should milestone events be not specifically identified by the Government within these specifications, the Contractor shall identify at least five percent of the network activities and designate them as milestone activities.

The Contractor Project Management System is to be staffed and prepared pursuant of Contract Clause: SCHEDULE FOR CONSTRUCTION CONTRACTS, and Contract Clause: SUPERINTENDENT BY THE CONTRACTOR. In preparing this system the Contractor assume responsibility for conformance with contract requirements, planning, sequencing of work, and determining the construction means and methods.

3.12.2 Submission and Approval

The complete network system consisting of the detailed network mathematical analysis (including on-site manpower loading schedule) and network logic diagrams shall be submitted for approval within thirty (30) calendar days after receipt of Notice to Proceed. This shall be submitted in assembled hardcopy paper format and via 90 mm HD (3 1/2" High Density) floppy disk to allow restoring on Government Computers in accordance with the Corps of Engineers Standard Data Exchange Format as described in ER 1-1-11.

The Contractor shall participate in a review and evaluation of the proposed network logic diagrams and mathematical analysis by the Contracting Officer. Any revisions necessary as a result of this review shall be resubmitted for approval of the Contracting Officer within three (3) calendar days after the conference. The approved schedule shall be used by the Contractor for planning, organizing and directing the work, reporting progress, and requesting payment for work accomplished.

3.12.3 Network Modifications

In those cases where the contract performance is delayed due to causes beyond the control of the Contractor, and a time extension may be allowable under one or more of the Contract Clauses: CHANGES, or DIFFERING SITE CONDITIONS, or DEFAULT (FIXED PRICE CONSTRUCTION), or SUSPENSION OF WORK, or other applicable clauses, as a condition precedent to granting a time extension, the Contractor shall submit a time proposal in such format as to identify the specific subnet diagram and activities affected.

Change order proposals shall include description or listing of all proposed changes to the network, by activity, and demonstrate the effect on the contract required completion date. A complete list of activities changed and subnet of activities affected by the change shall be submitted.

Float or slack is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the NAS schedule. Float or slack is not time for the exclusive use or benefit of either the Government or the Contractor. Extensions of time for performance may be granted to the extent that equitable time adjustment for the activities affected exceed the total float or where otherwise justified, effect on contract completion can be shown. The contract completion date is fixed, and will be amended only if the modifications which include time are signed by the Contracting Officer.

Rapid resolution of change orders and the granting of other time extensions where authorized by the Contracting Officer is a critical part of the

overall management system. Implementation of all justified activity and logic changes shall be made and reflected on the next monthly update after approval of the Contracting Officer.

If, in the opinion of the Contracting Officer, the current schedule no longer accurately reflects the Contractor's real plan for accomplishing the work, or no longer reflects a viable way of finishing the work on schedule, the Contractor shall be directed to revise the schedule and submit it for approval within seven (7) calendar days of direction.

3.12.4 Logic Diagrams and Reports

3.12.4.1 Logic Diagrams

Logic diagrams shall show the order and interdependency of activities and sequence in which the work is to be accomplished as planned by the Contractor.

Detailed networks need not be timed scaled, but drafted to have a continuous flow from left to right, showing how the start of a given activity is dependent on the completion of preceding activities, and how its completion restricts the start of the following activities.

An assembled logic diagram of the complete project shall be submitted with the initial NAS, showing each activity's identifying numbers, duration and description, with the critical path easily identified. Updated assembled diagrams will be provided as required by logic changes (but not more frequently than the monthly update). The logic diagram shall be plotted on architectural size E paper.

In addition to the detailed schedule, a summary schedule shall be developed by the Contractor. The summary schedule shall consist of minimum thirty (30) activities and maximum of 100 activities, and be updated monthly.

3.12.4.2 Reports

After the network approval, the Contractor shall review and evaluate the actual progress with the Contracting Officer's representative on a weekly basis, and submit any updated weekly reports three (3) workdays after the meeting.

Three (3) weekly reports, selected from specific items of the menu will be required, for specified time window of the project (such as the next two weeks). These reports must be flexible in format, allowing generation of reports relating specifically to critical work areas, or areas of particular interest. The Government will identify the subject of the requested reports for the following week at a weekly review meeting. All activities involving the Government that affect progress will be coded to allow a separate report.

Monthly update reports will be submitted at midmonth showing status and actual start and finish dates of project activities, and will be capable of comparing the current status with the approved base schedule. Each monthly update report shall be uniquely identified and shall be stored on the Contractor's computer until the final pay estimate is processed. The content of the monthly update shall be flexible to show items listed in the menu. The midmonth report shall be used for partial payments.

A meeting shall be held three (3) workdays before the delivery of the

midmonth report to discuss all input data. If the Contractor desires to make changes in his method of operation and scheduling, he shall clearly present the proposed changes.

A narrative report shall be submitted with midmonth report indicating current and anticipated problems, delaying factors, and conditions that are impacting the Contractor's work effort. An analysis showing the reasons for the delay/gain and their impact upon the current schedule shall be included. When it is apparent the scheduled milestone(s) and completion date(s) will not be met, the Contractor shall propose specific methods he intends to implement to bring the project back on schedule at no cost to the Government. Such measure may include but are not limited to:

a. Increasing construction manpower in such quantities and crafts as will substantially eliminate the backlog of work effort.

b. Increasing the number of working hours per shift; shifts per workday; workdays per week; the amount of construction equipment; or any combination thereof.

c. Rescheduling of activities to achieve maximum practical concurrence of work shifts.

The Contractor shall implement such procedures as may be necessary for the active participation by his subcontractors in preparing and updating the schedule. Subcontractors shall be provided with schedules which identify the interfaces of their work with the work of others. At minimum, the Contractor shall provide bar graphs to each major subcontractor showing activity times with plots on an Early Start basis. Copies of these schedules shall also be provided to the Contracting Officer. The relationship between subcontractor and interdependency or work shall be managed by the Contractor. When these interdependencies are violated or impaired, the Contractor shall identify the problem, resolve it, and provide the information to the Contracting Officer as part of the monthly report.

3.12.5 Payment Requests

The monthly update report shall be used as a basis for the monthly partial pay estimate. The report will state the cost, actual percent complete, and current value of partially completed or completed work. Subtotals from subnets representing separate areas of construction will be given, along with a grand dollar value of work completed for the project.

The first payment shall not be made until the Network Analysis Schedule has been approved by the Contracting Officer. If, in the judgment of the Contracting Officer, the Contractor fails or refuses to provide an approved schedule and other progress or input data specified, the Contractor shall be deemed not to have provided the required information upon which progress payments may be made, and no payment request will be honored.

Activities submitted for payment shall be based on the approved network activities and monetary amount. No payment shall be made for activities conducted in deviation of the approved logic.

Payment for activities conducted when previously dependent activities have not been completed or accepted due to quality defects shall be restricted at the discretion of the Contracting Officer, and may be the basis for a resubmittal of the logic diagram.

3.13 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM

The Contractor shall utilize a Government furnished CQC Programming Module (A computerized executable file which is DOS based and operates on a minimum of 80386 IBM compatible computers). The Module includes a Daily CQC Reporting System form which must also be used. This form may be in addition to other Contractor desired reporting forms. However, all other such reporting forms shall be consolidated into this one Government specified Daily CQC Report Form. The Contractor will also be required to complete Government-Furnished Module elements which includes, but is not limited to, Prime Contractor staffing; letter codes; planned cumulative progress earnings; subcontractor information showing trade, name, address, point-of-contact, and insurance expiration dates; definable features of work; pay activity and activity information; required Quality Control tests tied to specific specification paragraphs and contractor activities; Installed Property Listing, Transfer Property Listing and submittal information relating to individual activities; planned User Schooling tied to specification section, description, activity number, review period and expected procurement period. The sum of all activity values shall equal the contract amount, and all Bid Items, Options and Additives shall be separately identified, in accordance with the "Bidding Schedule". Bid Items may include multiple Activities, but Activities may only be assigned to one such Bid Item. This Module shall be completed to the satisfaction of the Contracting Officer prior to any contract payment (except for Bonds, Insurance and/or Mobilization, as approved by the Contracting Officer) and shall be updated as required.

During the course of the contract, the Contractor will receive various Quality Assurance comments from the Government that will reflect corrections needed to Contractor activities or reflect outstanding or future items needing the attention of the Contractor. The Contractor will acknowledge receipt of these comments by specific number reference on his Daily CQC Report and will also reflect on his Daily CQC Report when these items are specifically completed or corrected to permit Government verification.

The Contractor's schedule system shall include, as specific and separate activities, all Preparatory Phase Meetings (inspections); all O&M Manuals; and all Test Plans of Electrical and Mechanical Equipment or Systems that require validation testing or instructions to Government Representatives.

3.14 PROJECT SCHEDULE

Pursuant to the Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS (52.236-15), the Contractor shall prepare and submit to the Contracting Officer for approval three copies of a practicable Project Schedule showing the order in which he proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work. A progress report, showing the progress of the work in relation to the project schedule, shall be submitted to the Contracting Officer not less than weekly. The project schedule shall be revised and resubmitted as needed, or whenever the actual progress is substantially different than the proposed schedule.

-- End of Section --

**CONSTRUCTION QUALITY CONTROL REPORT
(SAMPLE)**

CONTRACT NO. _____

HARBOR & PROJECT _____ CONTRACTOR _____

DATE _____ WEATHER _____ DREDGING CYCLE: _____

SEA CONDITION _____ SWELL/DIRECTION _____ TURBIDITY _____

PERIOD COVERED _____ DREDGE _____ MATERIAL _____

NO. & LOCATION OF DREDGE SAMPLES TAKEN: _____

QUANTITY CUT
This period total _____ Location _____
This period per pump hour _____ Cut No. _____ Sta. _____ To Sta. _____
To date total _____ Avg. Width _____ Depth before _____
Advance _____ Depth after _____
Avg. Bank _____

FILL PIPELINE
LOCATION QUANTITY TO DATE

Floating _____ Total _____
Submerged _____ Avg. Total _____
Shore _____

LABOR DREDGE INFORMATION
of Crew Leverman _____
Shift #1 _____
Shift #2 _____
Shift #3 _____

*Pump Speed (RPM) _____
*Cutter RPM _____
*Cutter type _____
*Runner Diameter _____
*Applicable to cutter suction/suction dredging only.

<u>DOWN TIME</u> TIME DOWN	<u>TIME RESTART</u>	<u>REASONS</u>	<u>TIME</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	TOTAL	_____	_____

EQUIPMENT _____

DAILY SOUNDINGS

	<u>VERTICAL</u>	<u>HORIZONTAL</u>
Minimum	_____	_____
Maximum	_____	_____
Average	_____	_____

REMARKS _____

SUBMITTED BY: _____

SIGNED: _____

**HYDRAULIC
DAILY REPORT**

DREDGE _____
 WEATHER _____
 WIND _____
 SEA _____

REPORT NO. _____
 CONTRACT NO. _____
 DATE _____
 TIDE GAGE # _____
 HORIZONTAL POS. _____

DREDGING CYCLE: _____

WORK LOCATION SKETCH
 (Include Dredge Advances, Stationing, & Channel Widths)

ACTIVITY

Non-Effective Time (hours)	Today	To Date
1. Mob/demob		
2. New area move		
3. Traffic		
4. Weather		
5. Relocate Pipe		
6. Repair Pipe		
7. Handling Anchors		
8. Clearing Pump		
9. Clearing Pipe		
10. Clearing Cutter		
11. Clearing Suction Head		
12. Booster Offline		
13. Dredge Repair		
14. Survey Delay		
15. Other (see remarks)		
TOTALS		

Effective Time (hours)	Today	To Date	
1. Dredge/booster			
2. Other (see remarks)			
TOTALS			
Production	Unit	Today	To Date
1. Avg. cut width	ft.		
2. Avg. cut depth	ft.		
3. Advance	ft.		
4. Pipe Change	ft.		

REMARKS
