

**STATE OF LOUISIANA  
DEPARTMENT OF NATURAL RESOURCES  
COASTAL RESTORATION DIVISION**

**CONSTRUCTION AND  
CONTRACT SPECIFICATIONS**

**TIMBALIER ISLAND DUNE/MARSH  
RESTORATION PROJECT**

**STATE PROJECT NO. TE-40  
STATE CONTRACT NO. \_\_\_\_\_**

**TERREBONNE PARISH, LOUISIANA**

December, 2003

SET NO.

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## SPECIAL PROVISIONS

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1.0 The name of the project is:

TIMBALIER ISLAND DUNE/MARSH RESTORATION PROJECT  
STATE PROJECT NO. TE-40

2.0 The ENGINEER is: T. Baker Smith & Son, Inc.  
412 South Van Avenue  
P. O. Box 2266  
Houma, Louisiana 70361

All references to ENGINEER shall be interpreted as OWNER'S designated Engineering Representative with the Louisiana Department of Natural Resources, Coastal Restoration Division, or such other agency or firm as may be designated by OWNER. The ENGINEER's Representative is Marc J. Rogers, P.E. - (985) 868-1050.

3.0 The OWNER is: State of Louisiana  
Department of Natural Resources  
Coastal Restoration Division

The OWNER's Representative and Project Manager is Chris Williams, P.E. - (225)342-7549.

4.0 The Federal Sponsor the Environmental Protection Agency (EPA). The Federal Sponsor's representative is Patricia A. Taylor, P.E. (214)665-6403.

5.0 Contract Award - One contract will be awarded that includes TE-40.

6.0 Contract Time - Contract time is the number of days allotted for the actual construction of the project, and is measured in calendar days. The Contract Time for this project is 210 days, beginning on the date indicated on the Notice to Proceed (NTP). The date on the NTP shall be selected by the CONTRACTOR, in coordination with the OWNER. The selected date may be any date between the date of the award of the contract and May 1, 2004. The CONTRACTOR shall then have 210 days from the date on the NTP to complete construction. The CONTRACTOR shall notify the OWNER via certified mail of the selected date, at least 15 days in advance of the date selected.”

7.0 Liquidated Damages - \$1,500.00 per calendar day.

8.0 Job Office - A job office will be required as described in Paragraph 20.0 in Division III - Supplementary Conditions.

9.0 Existing Pipelines and Structures - The CONTRACTOR will use extreme caution when working near existing structures and/or pipelines. The CONTRACTOR will be responsible for contacting the appropriate pipeline operators 48 hours in advance of any dredging or fill activities. Pipelines will be located and marked by the CONTRACTOR using the best available information from sources such as pipeline owner's data, Louisiana One Call (formerly DOTTIE) at 1-800-272-3020, existing mapping, etc. No dredging will take place within 200 feet on either side of a pipeline (see Sheets 2 of drawings, Note No. 3). CONTRACTOR will be responsible for maintaining all stakes, buoys or markers set by others. Any damage to existing pipelines caused by the CONTRACTOR or his SUBCONTRACTORS, and any costs resulting therefore, will be the responsibility of the CONTRACTOR.

10.0 General Construction Requirements.

10.1 Work under this contract consists of furnishing all the necessary equipment, material, and labor to perform all work shown on the plans and in accordance with these specifications. The CONTRACTOR, by submitting his proposal for this work, does thereby signify that he possesses or commands superior skills in this type of work and is therefore aware of all necessary requirements (material, labor, equipment and techniques) to construct the project efficiently and completely.

10.2 Conditions of the contract and Sections 21.0 and 22.0 of Division III apply to this Section.

10.3 The CONTRACTOR shall submit to the ENGINEER the anticipated critical path construction schedule and dredging plan 7 days before the date of the preconstruction conference. Subsequent to the preconstruction conference, any schedule revisions shall be submitted within 7 days of the Notice to Proceed for the contract.

10.4 The CONTRACTOR shall visit the site and examine and note all conditions as to the character and extent of the work involved. The CONTRACTOR shall assume all responsibility for failure to do so. See Paragraph 18 in this section for site visit assistance.

10.5 The CONTRACTOR will maintain all bench marks, monuments, and stakes, whether newly established by surveyor or previously existing and protect same from damage and dislocation and bear all costs to re-establish in a safe place if destroyed.

11.0 Scope of the Work.

11.1 Provide all labor, supervision, equipment, tools, and services necessary to excavate, dredge and deliver sediment fill materials, obtain final elevations,

construct revetments, and perform all work for a Restoration Construction Project on Timbalier Island in Terrebonne Parish, Louisiana. The work consists of restoring approximately 450 acres of island to elevations and grades shown on the drawings.

11.1.1 Construct gulf side containment dikes using insitu material and overwash sediments. Appropriate equipment and techniques will be used to construct dikes in the alignment, location, and elevation as denoted on the drawings. The CONTRACTOR may begin excavation during gulf dike construction.

11.1.2 Construct bayside containment using insitu materials on back bay sediments. Appropriate equipment and techniques will be used to construct dikes to the alignment, location, and elevation as denoted on the drawings.

11.1.3 RESERVED.

11.1.4 RESERVED.

11.1.5 After sufficient dewatering and when material will support the weight of equipment, complete construction of the dune and marsh platform to specified depths, and finish grade to elevations and contours.

11.1.6 All materials are to be excavated, deposited, and graded in approved fashion and in accordance with the projects plans and specifications.

The borrow areas are shown on the drawings. The Contractor will be furnished copies of the project's Coastal Use and Corps of Engineers Permits.

- 11.2 The following are the principal items of work in this contract.
- (1) Mobilization (Lump Sum)
  - (2) Hydraulic Fill (Cubic Yard Borrow Pit Measurement)
  - (3) Containment Dikes (Linear Foot)
  - (4) Grading and Shaping (Station)
- 12.0 Sequence of Construction and Construction Equipment
- 12.1 Work will begin on the east end or middle to be finalized during the preconstruction meeting, consistent with limits of the work corridor and access points.
- 12.2 Work Corridor and Access: The Contractor shall access the fill area via the pipeline canal on the western end of the project or via the location canal in the center of the project only. The Contractor shall also only be allowed to move equipment within the dune and berm footprints and within open water areas of the marsh platform footprint. At no time unless directed by the Engineer shall the Contractor move equipment, pipe, etc. on or across existing marsh within the marsh platform footprint.
- 13.0 Borrow Areas: There are two borrow areas that may be used for hydraulic fill placement. They are identified in the plans as Little Pass and Cas Tete Island Borrow Areas. Sand in these areas were mapped in two and one-half-foot increments below bottom as a function of percentage of sand by volume. Areas selected have incremental volumes not less than 70% sand. The CONTRACTOR(s) shall not dredge beyond the horizontal and vertical limits shown on the plans or described herein without written authorization from the ENGINEER. The borrow areas are shown with current bathymetry over each area.
- 14.0 Physical Data - Data and information furnished or referred to below is for the CONTRACTOR'S information. The ENGINEER will not be responsible for the CONTRACTOR'S interpretation of or conclusions drawn from the data or information furnished by the ENGINEER.
- 14.1 Field notes, representative soil samples, field and laboratory test results, and other data on which this information is based are available at the office of the ENGINEER, Houma, Louisiana and access thereto may be had upon request. Arrangements to view soil boring data should be made with the ENGINEER'S Representatives.
- 14.2 Transportation Facilities. The work area can be reached by traveling south on La. Hwy. 56 to the town of Cocodrie, La. Access to the island will be via the Houma Navigation Canal heading southeast in Timbalier Bay to Timbalier Island. Travel to the area is possible only by crew boats, helicopters or float planes.

- 14.3 Channel Traffic. Boat traffic in the area of the dredge consists of pleasure craft, fishing vessels, commercial trawlers and work boats.
- 14.4 Obstruction of Channels. The OWNER will not undertake to keep the channels free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The CONTRACTOR will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the CONTRACTOR'S plant so obstructs a designated channel as to make difficult or endanger the passage of any 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 completion of the work, the CONTRACTOR shall promptly remove his plant, including ranges, buoys, piles and other markers placed by him under the contract in navigable water or on shore.
- 14.5 Data on weather conditions can be obtained from the National Weather Service or by dialing the Houma Source line (876-6865 and entering 1001 when asked) for latest coastal weather and tidal information.

15.0 Surveys.

- 15.1 The CONTRACTOR shall perform all layout surveys required during progress of the work. All of these surveys shall be conducted with a representative of the ENGINEER present, unless the ENGINEER waives this requirement in a specific instance. The ENGINEER shall only be responsible for locating, identifying, and/or re-establishing project control points.
- 15.2 Within one week of completing any layout survey, the CONTRACTOR shall furnish the originals of all field notes and all other records relating to the survey or the layout of the work to the ENGINEER who shall use them as necessary to determine whether the work has been laid out correctly and in accordance with the project drawings.
- 15.3 The ENGINEER reserves the right to have the OWNER's On-Site Representative to participate in any or all quantity surveys.
- 15.4 The CONTRACTOR shall perform such surveying services as are necessary to show that the location, line, grade, and elevation of filled areas are in accordance with the plans, specifications, and other contract documents or such modifications as may have been made thereto by the ENGINEER or by the CONTRACTOR with the approval of the OWNER. Information and data pertaining to such surveys shall be maintained by the CONTRACTOR and reported to the ENGINEER in the form and format that is standard for surveying services.

16.0 Rights-of-way.

16.1 Rights-of-way for construction purposes and for access through private lands to the work site will be furnished by the OWNER without cost to the CONTRACTOR. Limits of construction are shown on the plans. The CONTRACTOR shall procure, without expense or liability to the OWNER, any additional lands or rights-of-way desired for his own convenience in the performance of the work. Any delays to the CONTRACTOR resulting from delays in CONTRACTOR'S procuring such additional lands, right-of-way, or permits will not be made a basis of any claim for increase in the cost or time of performance of the work. The CONTRACTOR shall make his own investigations to determine the conditions, restrictions, and difficulties which may be encountered in the transportation of material and equipment to the work site. Any damage to private property within or outside of the limits of construction will be repaired at the CONTRACTOR'S expense.

17.0 Communications - The CONTRACTOR shall furnish and maintain cellular equipment on the dredge(s) throughout the period of construction. This equipment will be available to the ENGINEER, DNR, and EPA for use. Dredge-to-Island communications between ENGINEER and Inspector will be via VHF hand-held radios furnished by ENGINEER and for ENGINEER and inspector's use only.

18.0 The CONTRACTOR is required to and shall comply with all provisions stated in the section entitled "Federal Requirements." These requirements satisfy the provisions of the Cooperative Agreement between the Louisiana Department of Natural Resources and the Environmental Protection Agency.

Attendance by prospective bidders at a pre-bid conference is mandatory. All prospective bidders must attend or their bid will not be accepted. The date and location of the conference will be specified in the official bid package. Questions a bidder would propose at the pre-bid conference must be submitted in writing two days prior to the conference to:



LA Department of Natural Resources  
Coastal Restoration Division  
P.O. Box 94396  
Baton Rouge, Louisiana 70804-9396  
Attn: Chris Williams, P.E.  
(225) 342-7549

T. Baker Smith & Son, Inc.  
412 South Van Avenue  
P. O. Box 2266  
Houma, LA 70361  
Attn: Marc J. Rogers, Sr., P. E.  
(985) 868-1050

Prospective bidders should inspect the project site prior to submittal of his bid. Failure to visit the project sites and ascertain conditions shall not be grounds for any subsequent claims that conditions were not as otherwise assumed or expected from any cause whatsoever.

Access to the island shall be restricted to the island's respective project area unless and until written approval has been obtained by the CONTRACTOR from the DNR/CRD Project Manager.

19.0 Hydraulic Dredging Equipment.

- 19.1 It is the intent of these specifications to secure for the OWNER the operation of hydraulic dredging equipment to accomplish the necessary work. The dredge proposed and approved for this work shall be of the type, size horsepower, configuration, capacity, production pumping (in cubic feet per minute at a specified percent of solids of the slurry and corresponding head loss), and as described in the completed data and specification forms provided for each dredge proposed. The forms for this data and information are as herein provided by DNR/CRD and are to be submitted as an attachment with the bid.
- 19.2 The "DREDGE DATA" form is to be submitted with the bid documents. However, the dredge data sheet is for informational purposes only and will not be used as a basis for award. The information submitted in the form is pertinent to the evaluation of the proposed dredges as to their capability of performing the work as required and as agreed to by the bidder through the submittal of a proposal. The bidder may only omit data or information that he considers proprietary.
- 19.3 The successful CONTRACTOR, having given due consideration to weather and sea conditions that may be reasonably expected at the project sites during the performance of the work and after having examined the Contract, agrees to perform the work in the number of days specified in his Bid for each project and to start within the number of days after issue of the Notice to Proceed as he also specified therein.
- 19.4 The CONTRACTOR shall be solely responsible for the safety of his dredge, vessels, equipment, ancillary facilities, and his own and sub-contract

personnel. DNR/CRD will neither suggest nor prohibit CONTRACTOR'S decision to discontinue operations or to move to safe harbor during adverse sea and weather conditions. The discontinuance of operations or movement to safe harbor shall be at the CONTRACTOR'S sole discretion and shall be made at no expense to the project or to the projects' scheduled completion dates.

19.5 Dredge Control - Positioning

19.5.1 Vertical - Cutter depth shall be measured electronically and automatically recorded as an average each hour. Accuracy and resolution will be to the nearest 2 foot as a minimum. This information will be displayed to the dredge operator.

This dredge depth will be measured and tide corrected electronically to provide dredge elevation in the datum utilized by the ENGINEER on the project.

19.5.2 Horizontal - The dredge will be equipped with an electronic horizontal positioning system. The dredge position will be displayed on a video monitor before the dredge operator. The video will display as a minimum:

- The dredge and its location within the dredge area.
- The gyro heading of dredge.

Use dredge data sheet at end of Special Provisions to provide information on dredging equipment.

**BID PROPOSAL**

**ATTACHMENT: DREDGE DATA**

**SPECIFICATIONS AND DATA FOR THE DREDGE.**

Owned: \_\_\_\_\_ Leased: \_\_\_\_\_ Leased From: \_\_\_\_\_  
Year: Constructed: \_\_\_\_\_ Commissioned: \_\_\_\_\_ Acquired: \_\_\_\_\_  
Built By: \_\_\_\_\_ (Shipyard)

Type Dredge:

Suction Pipe Size: \_\_\_\_\_ Discharge Pipe Size: \_\_\_\_\_

Hull L.O.A: \_\_\_\_\_ Beam \_\_\_\_\_ Depth: \_\_\_\_\_ Draft: \_\_\_\_\_

If a Spud Dredge: (Describe if not)

Length: Spuds to Bow: \_\_\_\_\_ Spuds to Front of Cutter: \_\_\_\_\_

Distance Between Spuds: \_\_\_\_\_ Spud Length: \_\_\_\_\_

Spud Diameter: \_\_\_\_\_ Spud Material Thickness: \_\_\_\_\_

Last Drydock: \_\_\_\_\_ Provide details of where and what work performed.

Last Overhaul: \_\_\_\_\_ Provide details of where and what work performed.

Damage History: No: \_\_\_\_\_ Yes: \_\_\_\_\_ (Provide details.)

Rated Dredge Efficiency: \_\_\_\_\_% (avg. % solids of \_\_\_\_\_% divided by  
max. % solids of \_\_\_\_\_%.)

Slurry Pumping Production Rate: \_\_\_\_\_ CY/HR at 10 ft digging depth.

Rate = GPM x average % solids x .297

.297 CY/HR = GPM x 60 MIN/HR / 7.48 GAL/CF x 27 CF/CY

Rated GPM: \_\_\_\_\_ Average % Solids at SP.GR. of 1.5: \_\_\_\_\_%

A SP.GR. of 1.5 corresponds with 45.4 % insitu volume.

Rated Horsepower (HP): \_\_\_\_\_ Horsepower Coefficient ( $C_{HP}$ ): \_\_\_\_\_

$C_{HP} = HP / ID^{2.5}$  of Discharge Line

Production Time (Pumping Slurry) per 24 hour day: \_\_\_\_\_ HRS \_\_\_\_\_ %

Planned Maintenance: \_\_\_\_\_ HRS/WK

Unplanned Downtime: \_\_\_\_\_ HRS/WK (Estimated)

Weather Downtime: \_\_\_\_\_ HRS/WK (Estimated)

Other Downtime: \_\_\_\_\_ HRS/WK (Advancing, Anchoring, Trash, etc.)

**MAIN DREDGE PUMP:** MFG. \_\_\_\_\_ Type: \_\_\_\_\_ Stages: \_\_\_\_\_  
Impeller Closed? \_\_\_\_\_ Volute or Spiral Casing: \_\_\_\_\_

Lining: Front Head? \_\_\_\_\_ Back Head? \_\_\_\_\_ Throat? \_\_\_\_\_ Shell? \_\_\_\_\_

No. of Vanes: \_\_\_\_\_ Curved Entrance?  
 Dia. Front Shroud \_\_\_\_\_ IN. Dia. Back Shroud \_\_\_\_\_ IN.  
 Impeller O.D.: \_\_\_\_\_ IN. Impeller Eye Dia.: \_\_\_\_\_ IN.  
 Ratio of Impeller O.D. to Eye Dia:  
 Impeller Tip Speed: \_\_\_\_\_ FT/SEC Impeller Eye Speed: \_\_\_\_\_ FT/SEC  
 Shaft at Impeller Hub Straight or Tapered? \_\_\_\_\_ Shaft Threaded?  
 Impeller Screwed to Shaft or Held In Place by a Nut?  
 Bearing at Stuffing Box: Type: \_\_\_\_\_ Water Slinger?  
 Outboard Bearings: Type(s):  
 Stuffing Box Replaceable? \_\_\_\_\_ No. of Packing Rings?  
 Stuffing Box Lantern Ring? \_\_\_\_\_ Provision for Lube and Cooling?  
 Base with Adjustable Mounting? \_\_\_\_\_ If Not, Adjust Impeller How?  
 Wiper Vanes on Impeller Shrouds? \_\_\_\_\_ Type:  
 Straight, Sloped, Recessed  
 Shroud to Liner Gap: \_\_\_\_\_ IN.

**MAIN PUMP DRIVE:** MFG. \_\_\_\_\_ Type:  
 Full Load HP: \_\_\_\_\_ at Rated Speed: \_\_\_\_\_ RPM  
 Operational Range: \_\_\_\_\_ RPM to: \_\_\_\_\_ RPM

**GEAR REDUCER, DRIVE TO PUMP**

MFG: \_\_\_\_\_ TYPE:  
 REDUCTION RANGE:

**CUTTER:** MFG: \_\_\_\_\_ TYPE:  
 No. of Blades: \_\_\_\_\_ O.D.: \_\_\_\_\_ IN Length: \_\_\_\_\_ IN  
 Rake Angle: \_\_\_\_\_ Degrees Peripheral Speed: \_\_\_\_\_ FPM  
 Variable Speed? \_\_\_\_\_ (Y/N) from \_\_\_\_\_ FPM to \_\_\_\_\_ FPM  
 from \_\_\_\_\_ RPM to \_\_\_\_\_ RPM  
 Unit Cutting Force Range: \_\_\_\_\_ LBS/IN to \_\_\_\_\_ LBS/IN  
 Ratio of Cutter O.D. to Suction I.D.: \_\_\_\_\_ to

**OTHER PUMPS:**  
**Ladder:** \_\_\_\_\_ Size: \_\_\_\_\_ IN \_\_\_\_\_ HP \_\_\_\_\_ RPM  
 Rated Capacity: \_\_\_\_\_ GPM Suction I.D.: \_\_\_\_\_ IN  
**Booster:** \_\_\_\_\_ Size: \_\_\_\_\_ IN \_\_\_\_\_ HP \_\_\_\_\_ RPM  
 Rated Capacity: \_\_\_\_\_ GPM Suction I.D.: \_\_\_\_\_ IN

**WINCHES:**

**Forward:** Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN  
Max. Swing Speed: \_\_\_\_\_ FT/MIN Max. Line Speed: \_\_\_\_\_ FT/MIN  
Winch in view of the leverman: \_\_\_\_\_ (Yes/No)

**Ladder:** Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN

**anchors:** Separate Port and Starboard: \_\_\_\_\_ (Yes/No)

Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN

**Anchor Booms:** \_\_\_\_\_ (Yes/No)

Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN

**Spuds:** (If other than spuds, describe in detail on another sheet.)

Stern Mooring Swivel: \_\_\_\_\_ (Yes/No)

Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN

Lift Speed: \_\_\_\_\_ FT/MIN

**Stern Mooring:** (If a separate winch, provide information.)

Type Drive: \_\_\_\_\_ : \_\_\_\_\_ HP Line Pull: \_\_\_\_\_ LBS  
No. of Drums: \_\_\_\_\_ DIA: \_\_\_\_\_ IN WIRE DIA: \_\_\_\_\_ IN

**Drum Brakes:** Fail Safe? \_\_\_\_\_ (Requires power to release)

Electric or Hydraulic: \_\_\_\_\_.

**Drum Clutches:** Fail Safe? \_\_\_\_\_ (Requires power to engage)

**INSTRUMENTATION AND AUTOMATIC CONTROLS:**

**Cutter Module:**

Torque Indication? \_\_\_\_\_ How?

Cutter Speed or RPM Indication? \_\_\_\_\_ How?

Running Indication Light? \_\_\_\_\_ (Yes/No)

**Slurry Pumping System:**

Suction Sides: Vacuum Gauges? \_\_\_\_\_ Pressure Gauges?

Discharge Sides: Vacuum Gauges? \_\_\_\_\_ Pressure Gauges?

RPM Indication For Each Pump?

Torque or Horsepower Indication For Each Pump?

Governor to Limit Torque For Each Pump?

Other:

**Winches:**

Torque Indication For Each Winch?

RPM Indication For Each Winch?

Other:

**Engines:**

Torque Indication For Each?

RPM Indication For Each?

Oil Pressure? \_\_\_\_\_ Oil Temperature?

Coolant Temperature?

**Production Meter:**

Is there a Production Meter? \_\_\_\_\_ Make & Model:

Year Installed:

Instantaneous Indication of: Specific Gravity? \_\_\_\_\_ (Y/N)

Velocity: \_\_\_\_\_

Production Rate: \_\_\_\_\_

Integrated Production: \_\_\_\_\_

**Automatic Velocity Control:** (Controls slurry velocity by varying engine speed  
by signal from Production Meter.)

Is there such control? \_\_\_\_\_ Is installation planned?

**Swing Angle Control:** How?

**Digging Depth Control:** How?

**Compass:** Gyro or Magnetic?

**Positioning Equipment:**

Radio Direction Finder:

Loran:

Other:

**Acoustic Sounding Devices:**

Makes and Models:

Types:

With Plotter: \_\_\_\_\_ (Yes/No)

Other:

**Communications Equipment:** (List and Describe: Fixed and Portable)

General Decision Number LA970051

Superseded General Decision No. LA960051

State: Louisiana

Construction Type:  
DREDGING

County(ies):  
STATEWIDE

DREDGING PROJECTS ALONG THE GULF COAST AREA INCLUDING THE  
MISSISSIPPI RIVER AND ITS TRIBUTARIES TO THE OHIO RIVER

Modification Number	Publication Date
0	
1	



COUNTY(ies):  
STATEWIDE

\* SULA2001B 04/01/1994

	Rates	Fringes
DREDGES 16" AND OVER:		
Leverman	6.10	
Dredge Tender Operator	5.15	
First Assistant Engineer	6.06	
Second Assistant Engineer	5.50	
Third Assistant Engineer	5.15	
Deckhand	5.15	
Shoreman	5.15	
Fireman	5.15	
Oiler	5.15	
Truck Driver	5.15	
Welder	5.47	
DREDGES UNDER 16":		
Leverman	5.15	
Dredge tender Operator	5.15	
Deckhand	5.15	
Oiler	5.15	
Welder	5.15	
HYDRAULIC DREDGING:		
First Cook	5.15	
Second Cook	5.15	
Janitor - Cabin Person	5.15	
Handyman	5.15	
DERRICK OPERATOR	5.38	
DOZER OPERATOR	5.53	
MARSH BUGGY DRAGLINE:		
Operator	6.70	
Oiler	6.33	
SELF-PROPELLED HOPPER DREDGES:		
Drag Tender	9.70	3.45+a

FOOTNOTE:

- a. Fourteen paid vacation days and eight paid holidays:  
New Year's Day, Good Friday, Memorial Day, Independence Day,  
Labor Day, Veterans' Day, Thanksgiving Day & Christmas Day  
provided the employee has one year of service
- 

WELDERS - Receive rate prescribed for craft performing operation  
to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

-----  
In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor

200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.  
END OF GENERAL DECISION

**TIMBALIER DUNE/MARSH RESTORATION PROJECT**  
**STATE PROJECT NO. TE-40**  
**STATE CONTRACT NO. \_\_\_\_\_**  
**PROPOSAL A BASE BID**

ITEM #	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICES		AMOUNT	
			DOLLARS	CENTS	DOLLARS	CENTS
1	LUMP SUM	Mobilization at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				
2	3,100,000	Hydraulic Dredging (Net Section Borrow) (Little Pass Borrow Area) at _____ _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
3	23,000	Containment Dikes at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
4	22,750	Sand Fence at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
5	113.5	Grading & Shaping at _____ _____ DOLLARS AND _____ CENTS PER 100-FT. STATION				
6	4,800	Turbidity Screen at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
7	Lump Sum	Access Dredging at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				
8	Lump Sum	Timber Construction at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				

Total Proposal A Base Bid Amount: \_\_\_\_\_

\_\_\_\_\_ dollars and  
 \_\_\_\_\_ cents (\$ \_\_\_\_\_)

SUBMITTED BY: \_\_\_\_\_

CONTRACTOR

SIGNATURE BY: \_\_\_\_\_

\_\_\_\_\_  
 TITLE

**TIMBALIER DUNE/MARSH RESTORATION PROJECT**  
**STATE PROJECT NO. TE-40**  
**STATE CONTRACT NO. \_\_\_\_\_**  
**PROPOSAL A ADDITIVE ALTERNATIVE NO. 1**

ITEM #	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICES		AMOUNT	
			DOLLARS	CENTS	DOLLARS	CENTS
9	500,000	Beach Fill (Net Section Borrow) at _____ _____ DOLLARS AND _____ CENTS PER CUBIC YARD				

Total Proposal A Additive Alternative No. 1 Amount: \_\_\_\_\_

\_\_\_\_\_ dollars and

\_\_\_\_\_ cents (\$ \_\_\_\_\_)

SUBMITTED BY: \_\_\_\_\_

CONTRACTOR

SIGNATURE BY: \_\_\_\_\_

\_\_\_\_\_  
TITLE

**TIMBALIER DUNE/MARSH RESTORATION PROJECT**  
**STATE PROJECT NO. TE-40**  
**STATE CONTRACT NO. \_\_\_\_\_**  
**PROPOSAL B BASE BID**

ITEM #	APPROX. QUANTITY	ITEM WITH UNIT BID PRICE WRITTEN IN WORDS	UNIT PRICES		AMOUNT	
			DOLLARS	CENTS	DOLLARS	CENTS
1	LUMP SUM	Mobilization at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				
2	4,100,000	Hydraulic Dredging (Net Section Borrow) (Little Pass Borrow Area) at _____ _____ DOLLARS AND _____ CENTS PER CUBIC YARD				
3	32,500	Containment Dikes at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
4	32,200	Sand Fence at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
5	160.5	Grading & Shaping at _____ _____ DOLLARS AND _____ CENTS PER 100-FT. STATION				
6	4,800	Turbidity Screen at _____ _____ DOLLARS AND _____ CENTS PER LINEAR FOOT				
7	Lump Sum	Access Dredging at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				
8	Lump Sum	Timber Construction at _____ _____ DOLLARS AND _____ CENTS PER LUMP SUM				

Total Proposal B Base Bid Amount: \_\_\_\_\_

\_\_\_\_\_ dollars and  
 \_\_\_\_\_ cents (\$ \_\_\_\_\_)

SUBMITTED BY: \_\_\_\_\_

CONTRACTOR

SIGNATURE BY: \_\_\_\_\_

\_\_\_\_\_

TITLE

DIVISION I

INSTRUCTIONS TO BIDDERS

1.0 DEFINED TERMS:

Terms used in these Instructions to Bidders which are defined in Division II, General Conditions, have the meanings assigned to them in the General Conditions.

2.0 COPIES OF BIDDING DOCUMENTS: See Invitation to Bid.

3.0 QUALIFICATIONS OF BIDDERS:

3.1 To demonstrate his qualifications for the project, each Bidder shall submit within five days of DNR'S request, written evidence of the types set forth in the Supplementary Conditions, Special Provisions, or other bid documents as furnished; such as financial data, previous experience with references and their addresses, evidence that wage rates conform to federal requirements for the area, evidence of conformance with federal and State of Louisiana environmental safety and health regulations, evidence that all vessels and floating equipment proposed for use on the project are in conformance with all U.S. Coast Guard regulations and requirements and are so certified and will remain in full force and effect, evidence of authority to conduct business in the State of Louisiana, and such other similar information as may be regulatory required. The same information requirements are applicable to subcontractors.

3.2 Furnish with the Bid the equipment owned and subcontracted as is proposed for use on the project. Data and specification sheets shall be provided for each vessel and major piece of equipment listed that is proposed to be used or may be used on the project. This should also include, but is not limited to; information as to the date of construction, current condition, operating history, damage history, last overhaul date, horsepower ratings, rated capacities, and such other data as will assist in DNR'S evaluation of the equipment.

4.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE:

- 4.1 Before submitting a Bid, each Bidder should (a) examine the bid documents thoroughly, (b) visit the sites to familiarize himself with local conditions that may in any manner affect cost, progress, or performance of the work, (c) familiarize himself with federal, state, and local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance of the work, (d) review such geotechnical data that may be on file in the Coastal Restoration Division of the Department of Natural resources or available from other sources and which concerns the area from which materials are to be dredged, and (e) study and carefully correlate Bidder's observations with the bid documents. Site visits are to be arranged with Chris Williams, P.E., OWNER'S Project Manager (225-342-7549).
- 4.2 Bidders should inspect the project site prior to bid submittal. Bidders may access the project sites to conduct such observations and investigations and tests as Bidder deems necessary for submission of his Bid. He shall, however, conform to such restrictions as may be imposed by the approvals.
- 4.3 The land and water areas upon which the work is to be performed, rights-of-way for access thereto, and other areas designated for use by CONTRACTOR in performing the work are identified on the drawings or in the Supplementary Conditions, General Requirements.

5.0 CONTRACT TIME:

The number of days within which, and the date by which, the work on each project is to be completed (the Contract Time) is set forth in the Special Provisions and is included in the Agreement.

6.0 LIQUIDATED DAMAGES:

Provisions for liquidated damages are set forth in the Agreement.

7.0 INTERPRETATIONS:



All interpretations and/or questions about the meaning or intent of the Bid Documents shall be submitted in writing to the Department of Natural Resources (DNR) Project Manager and/or his designated agent. The DNR Contract Section will issue responses by Addenda mailed or delivered to all parties recorded as having received the Bidding Documents. Interpretations or questions received less than seven (7) days prior to the Bid due date will not be answered. Only the questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without merit or legal effect. Assumed interpretations of meaning or intent of the Contract Documents will not validate such interpretations.

8.0 CONDITIONS AND EXCEPTIONS:

Bidder PROPOSALS shall not impose conditions for acceptance of the Bid by DNR nor shall they take exception to terms of the Bid and Contract Documents. Any such conditions or exceptions that Bidders may have must be submitted and responded prior to bidding to in the manner prescribed in No. 7. INTERPRETATIONS.

9.0 SUBSTITUTE MATERIAL AND EQUIPMENT:

The Contract, if awarded, will be on the basis of the material and equipment described on the drawings or specified in the specifications or approved by Addenda. Whenever it is indicated in the drawings or in the specifications that a substitute or "or equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to DNR, application for such acceptance will be made in writing to DNR ten (10) days prior to Bid due date. The procedure for submittal of any such application by CONTRACTOR is set forth in the General Conditions which may be supplemented in the General Requirements. Materials and equipment approved as equal will be indicated to Bidders by Addenda.

10.0 SUBCONTRACTORS, ETC.:

10.1 The terms and conditions of the Contract Documents and all documents as may be referenced and related thereto shall be extended by the CONTRACTOR to be in force and effect upon his subcontractors, service agreements, agents, and any other firm or person employed to perform work or services for CONTRACTOR on the project.

10.2 Within seven (7) calendar days after the date of issue of a Notice of Award, the apparent successful Bidder will submit a certified and complete copy of each subcontract proposed for the project. This shall include purchase orders and/or agreements that include labor services.

- 10.3 Current with the requirement of 10.2 above, Bidder/Contractor will submit a list of all Subcontractors, persons, firms, and organizations (including those who are to furnish principal items of material and equipment) that are proposed for those portions of work as to which such identification is so required. Such list shall be accompanied by an experience statement with pertinent and accurate information as to similar projects and other evidence of qualification for Subcontractor, person, firm, or organization listed. If DNR/CRD after due investigation has reasonable objection to any proposed Subcontractor, person, firm, or organization, DNR/CRD may, before giving the Notice of Award, request the apparent successful Bidder to submit an acceptable substitute without an increase in price. If the apparent successful Bidder declines to make any such substitution, the Contract shall not be awarded to such bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person, firm, or organization listed and to whom DNR/CRD does not make written objection prior to giving Notice of Award will be deemed acceptable to DNR/CRD.
- 10.4 No CONTRACTOR shall be required to employ any Subcontractor, other person, firm, or organization against whom he has reasonable objections.
- 10.5 Subcontractor personnel at the job sites shall have a full time supervisor present at all times.

11.0 BID PROPOSAL:

The Bid Proposal should be factual and complete, i.e., the "Dredge Data" form is a requirement for submittal. See Paragraph 19.0 of the Special Provisions.

12.0 PRE-BID MEETING:

A Pre-bid meeting will be held at the time and place designated in the Invitation to Bid. Questions to be presented by the Bidders shall be in writing and shall be received by DNR at the specified address no less than two (2) working days prior to the specified date for the meeting. Questions shall be read and answered at the meeting, and a transcript of questions and answers will be issued to all Bidders in writing within three (3) working days thereafter. Any questions not previously submitted in writing as designated, may not be answered at the meeting, at the sole discretion of DNR, and deferred to a written response as an Addendum subsequent to the meeting. Bidder attendance is mandatory.

13.0 SUBMISSION OF BIDS: See Invitation to Bid.

14.0 MODIFICATION AND WITHDRAWAL OF BIDS: See Invitation to Bid.

15.0 OPENING OF BIDS:

15.1 Bidders shall furnish unit prices for all items listed on the Schedule of Bid Items which require unit prices. If bidder fails to insert a unit price in the appropriate blank required but does furnish an extended total or an estimated amount for such items, the OWNER will deem his unit price to be the quotient obtained by dividing the extended/estimated amount for that line item by the quantity. IF THE BIDDER OMITTS BOTH UNIT PRICE AND EXTENDED/ESTIMATED AMOUNT FOR ANY REQUIRED ITEM, HIS BID WILL BE DECLARED NON-RESPONSIVE AND WILL NOT BE EVALUATED.

15.2 Bidders shall furnish complete and accurate technical information as provided on and required by the Dredge Data Form of the Bid Proposal (see Paragraph 19.0 of the Special Provisions). All blanks shall be filled in. If response is "Not Applicable", "None", "Not Available", or "Not Known" it shall be so stated in the appropriate blank(s). Brochures, Technical Data Sheets, and other such supplemental information and data should be submitted as supplements to the Dredge Data Form but may not be used in lieu of fully responding to and completing the form. If the bidder fails to provide the information as specified or provides information that is found to be inaccurate as a result of calculations made during evaluation, or is insufficiently familiar with his equipment to provide definitive responses as evidenced by an abundance of "not available" or "not known" comments, his bid will be declared non-responsive and will not be rated.

16.0 RESERVED

17.0 BIDS TO REMAIN OPEN: See Invitation to Bid.

18.0 AWARD OF CONTRACT:

18.1 DNR may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of equipment or material) proposed for those portions of the work as to which the identity of subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and data for determining performance, and guarantees of

equipment and materials may also be considered by DNR.

18.2 DNR may conduct such investigations deemed necessary to assist in the evaluation of any Bid and to establish responsibility, qualifications, and technical ability, and financial stability of the Bidders, any proposed subcontractors, and other named persons and organizations to do the work in accordance with the bid/contract documents to DNR'S satisfaction within the prescribed time.

19.0 PERFORMANCE AND OTHER BONDS: See Invitation to Bid.

20.0 SIGNING OF AGREEMENT: See Invitation to Bid.

21.0 PRECONSTRUCTION CONFERENCE:

The successful Bidder and his Subcontractors will be required to attend a preconstruction conference prior to the commencement of work. He will also be required to conduct a preconstruction conference which each Subcontractor who was not represented at the initial conference conducted by DNR. Subcontractor's conferences will be held in the presence of DNR's designated representatives. When conferences are with lower tier Subcontractors, attendance of representatives of the prime contractor, all higher tier subcontractors, and the DNR'S designated representatives will be required. All conferences will be scheduled at times and locations satisfactory to DNR and Contractor and will be confirmed by a written Conference Notice.

22.0 QUANTITIES:

Estimates of quantities involved in certain items of work for which Bids are being solicited have been made for the use of DNR'S Construction Engineers and DNR'S Project Manager. Copies of these quantity estimates, if not provided on the drawings, may be obtained by contacting DNR'S Contract representative as denoted in the Invitation to Bid. It is expressly understood that the accuracy of these estimates is in no way warranted and the furnishing of this data and information to a Bidder will not relieve the Bidder of his responsibility to estimate any quantities involved. It is to be expressly understood that in no case will such estimates be used as a basis of a claim against DNR or any of his Agents or Representatives.

23.0 SPECIAL LEGAL REQUIREMENTS:

Any special legal requirements of this project are denoted in the Special Provisions or Supplementary Conditions.

24.0 WORK TO BE PERFORMED BY CONTRACTOR'S OWN ORGANIZATION:

Within seven (7) days after receipt of Notice of Award, the successful Bidder/Contractor shall deliver to DNR a full description of the items of work which will be performed with its own forces and the estimated cost of those items.

25.0 TIME IS OF THE ESSENCE:

Because of the necessity to effect the repairs and restoration measures specified under these bid/contract documents within the construction period as designated, the timing for various submittals, approvals, etc. as denoted in this or any other Division, may be altered or otherwise changed in the Invitation to Bid as may be required to facilitate the earliest reasonable start of the work. If and where so changed, the dates of the Invitation to Bid will supersede and replace those corresponding dates in the bid/contract documents wherever situated.

DIVISION II

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS:

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda: Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the bidding documents or the contract documents.

Agreement: The signed and executed contract between OWNER and CONTRACTOR covering the work to be performed; other documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment: The CONTRACTOR'S form, acceptable to DNR, which is to be used by CONTRACTOR in requesting progress or final payment and which is to include such supporting documentation as is required by the contract documents.

Bid: The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

Bidder: The individual or entity who submits a Bid directly to Owner.

Bidding Requirements: The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

Bonds: Bid, performance, and payment bonds and other instruments of security.

Change Order: A written order to CONTRACTOR signed by OWNER authorizing an addition, deletion, or revision in the work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.

Claim: A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

Contract: The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract

supersedes prior negotiations, representations, or agreements, whether written or oral.

Contract Documents: The Contract, Addenda pertaining to the Contract Documents, CONTRACTOR'S Bid (including documentation and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award when attached as an exhibit to the Contract), the Bonds, these General Conditions, the Supplementary Conditions, the Construction and Contract Specifications, the approved final Drawings, together with all modifications issued after the execution of the Contract in conformance with the Contract Documents.

Contract Price: The moneys payable by OWNER to CONTRACTOR under the Contract Documents as attached to the Contract.

Contract Time: The number of days or the date specified in the Contract for the completion of each part of the work, together with any extensions authorized by change orders.

Contractor: The person, firm, or corporation with whom OWNER has entered into the Contract.

CRD: The Coastal Restoration Division of the Louisiana Department of Natural Resources located at 617 North 3<sup>rd</sup> Street, Baton Rouge, LA. 70802.

CWPPRA: Coastal Wetlands Planning, Protection & Restoration Act (the principal source of funding).

Day: A calendar day of twenty-four hours measured from midnight to the next midnight.

Defective: An adjective which when modifying the word work refers to work that is unsatisfactory, faulty, or deficient, or does not conform to contract documents or does not meet the requirements of any inspection, test or approval referred to in the contract documents, or has been damaged prior to recommendation by the ENGINEER for final payment.

Downtime: That time of the dredge after mobilization and up to the start of demobilization, while the dredge is at the project area, that the dredge is not productively pumping slurry.

DNR: The Department of Natural Resources of the State of Louisiana.

Drawings: The drawings, plans, details, sections, sketches, and related documents which show the character and scope of the work to be performed and which have been prepared or

approved by the ENGINEER and are referred to in the contract documents.

Dredge: The dredge named in the CONTRACTOR'S Bid and accepted by OWNER for the work with all specified technical requirements, equipment, and functional capabilities in place and fully operational throughout the duration of the contract time.

Effective Date of the Agreement: The date indicated in the Contract on which it becomes effective, but if no such date is indicated it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.

Engineer: The person, firm, or agency functioning as the Engineer for OWNER and as advised in writing by OWNER to the CONTRACTOR prior to and/or subsequent to issuance of the Notice of Award. The ENGINEER will be in responsible charge and the point of contact between CONTRACTOR and OWNER.

Field Order: A written order issued by OWNER's designated representative which orders minor changes in the work in accordance with paragraph 10.2 of Division II but which does not involve a change in the contract price or the contract time.

General Requirements: The Sections of DIVISION I of the Specifications.

Mobilization: That time and activity required by the CONTRACTOR, from Notice to Proceed to start of work at the project site, to acquire, transport, deliver, and set-up equipment, manpower, facilities, and all other work requirements at the site. It also includes costs of services provided to OWNER as may be specified in the contract documents.

Modification: (a). A written amendment of the contract documents signed by both parties, (b) a change order, or (c) a field order. A modification may only be issued after the effective date of the Contract.

EPA: Environmental Protection Agency - The federal sponsor.

Notice of Award: The written notice by the Louisiana Office of State Purchasing to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Contract.

Notice to Proceed: The written notice given by the OWNER to CONTRACTOR fixing the latest date on which the contract



time will commence to run and by which contractor shall start to perform his obligation under the contract documents.

Owner: The State of Louisiana, Department of Natural Resources.

Production Time: That time the dredge spends effectively pumping slurry.

Production Day: The number of hours/day of Production Time.

Production Rate - Daily: The number of cubic yards of solids pumped at the dredge's hourly production rate times the number of hours in the production day.

Production Rate-Hourly: The average number of cubic yards of solids the dredge pumps per production hour and is equal to the gallons pumped per minute times average percent solids in the slurry times .297.

Projects: The total construction of projects of which the work to be provided under the contract documents may be the whole, or a part as may be indicated elsewhere in the contract documents.

Resident Project Representatives: The authorized representatives of OWNER who are assigned to the project site or any part thereof, and who have such responsibility and authority as authorized by OWNER. The agency, firm, or persons so authorized will be advised in writing at the time of Contract award.

Shop Drawings: All drawings, diagrams, illustrations, plots, layouts, sketches, and other data which are specifically prepared by CONTRACTOR, a subcontractor, a manufacturer, fabricator, supplier, or distributor to illustrate some portion of the work; and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared and submitted by CONTRACTOR to the ENGINEER, on his own volition or at the request of the ENGINEER, to illustrate equipment or material for some part of the work.

Specifications: Those portions of the contract documents consisting of written technical and performance descriptions of equipment, construction systems, standards, workmanship, and materials as applied to the work and certain administrative details applicable thereto.

Subcontractor: An individual, firm, or corporation having a direct contract with CONTRACTOR or with any other subcontractor for the performance of a part of the work at the site.

Substantial Completion: The work (or a specified part thereof) that has progressed to a point where, in the opinion of OWNER as evidenced by his definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the contract documents, so the work (or specified part) can be utilized for the purpose for which it was intended: or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" to any work refer to Substantial Completion thereof.

Successful Bidder: The lowest, qualified, responsible Bidder to whom OWNER (on the basis of OWNER's evaluation as specified in Section 17.0, DIVISION I, Instructions to Bidders.) makes an award.

Supplementary Conditions: That part of the Contract Documents which amends or supplements these General Conditions.

Work: The entire completed construction or the various separately identified parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor, and incorporating materials, tools, and equipment into the construction, all as required by the contract documents.

ARTICLE 2 - PRELIMINARY MATTERS:

**DELIVERY OF BONDS:**

2.1. Bonds shall be delivered as required by the Invitation to Bid.

**COPIES OF DOCUMENTS:**

2.2. OWNER shall furnish to CONTRACTOR up to five copies (unless otherwise provided in the Supplementary Conditions) of the contract documents as are reasonably necessary for the execution of the work. Additional copies will be furnished, upon request, at the cost of reproduction.

**COMMENCEMENT OF CONTRACT TIME: NOTICE TO PROCEED:**

2.3. The contract time will commence to run on the fifteenth day after the effective date of the Contract or, if a Notice to Proceed is given, by the day indicated in the Notice to Proceed; but in no event shall the contract time commence to run later than the sixtieth day after the specified due date for receipt of the Bids. (This requirement may be modified in the Special Provisions or the Invitation to Bid on some projects in which the

federal participation in the process requires a longer period of time between the execution of the Contract and the issuance of the Notice to Proceed). A Notice to Proceed may be given at any time within fifteen days after the day on which OWNER delivers the executed Contract to CONTRACTOR.

**STARTING THE PROJECT:**

- 2.4. CONTRACTOR shall start to perform the work by the date when the contract time commences to run. With the ENGINEER'S written approval, work may be performed at the site prior to this date. Upon written request to the ENGINEER by the CONTRACTOR, the ENGINEER will consider a start of mobilization, including the establishment of an onshore base, prior to the specified date for the contract time to commence. If acceptable to the ENGINEER after review and evaluation, written authorization to start will be provided.

**BEFORE STARTING CONSTRUCTION:**

- 2.5. Before undertaking any work, CONTRACTOR shall carefully study and compare the contract documents and check and verify pertinent figures and data shown thereon and all field measurements. The CONTRACTOR shall promptly report in writing to the ENGINEER any conflict, error, or discrepancy which CONTRACTOR may discover.
- 2.6. Within seven (7) calendar days of the effective date of the Contract (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to the ENGINEER for review and acceptance an estimated progress schedule showing starting and completion dates of the various stages of the work, a preliminary schedule of shop drawings submissions (if any), and a preliminary schedule of values (costs) of the work.
- 2.7. Within seven (7) calendar days of the effective date of the contract (unless otherwise specified in the General Requirements), CONTRACTOR shall deliver to OWNER certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the Invitation to Bid.
- 2.8. Before work at the site is started, but not more than fifteen (15) calendar days before, CONTRACTOR shall ascertain such access and work restrictions as may be imposed by OWNER, the Permits, or the property owner. Any and all restrictions shall be binding upon the CONTRACTOR, Subcontractors, or others employed or otherwise utilized by the CONTRACTOR in performance of the work.

- 2.9. Within fifteen (15) days after effective date of the Contract, but before CONTRACTOR starts the work at the site, a pre-construction conference will be held at a mutually acceptable time and location for the review and acceptance of the project construction schedules; to establish procedures for handling all required submittals and for processing applications for payment; to establish procedures for the preparation, maintenance, submittal, and review of dredge production records and reports; to establish a working understanding among CONTRACTOR, EPA and OWNER as to the work and restrictions thereon; and such other matters as any party deems appropriate.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT AND REUSE:

**INTENT OF DOCUMENTS:**

- 3.1. The contract documents comprise the entire Contract between OWNER and CONTRACTOR. They may be altered only by an appropriate modification.
- 3.2. The contract documents are complimentary; what is called for by one is as binding as if called for by all. If, during the performance of the work, CONTRACTOR finds a conflict, error, or discrepancy in the contract documents, he shall report it to the ENGINEER in writing before proceeding with the work affected thereby.
- 3.3. It is the intent of the specifications and drawings to describe complete projects (or parts thereof) to be constructed in accordance with the contract documents. Any work that is to be reasonably inferred from the specifications or drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well known technical or trade meaning are used to describe work, materials, or equipment; such words shall be interpreted in accordance with such meaning. References to standard specifications, manuals, or codes of any technical society, organization, or association, or to the code or regulation of any government authority, whether such reference is by specific identification or by implication, shall mean the latest standard specifications, manuals, or codes in effect at the date the Bids were due for delivery, except as it may be otherwise specifically stated. However, no provision of any referenced standard document (whether or not specifically incorporated by reference in the contract documents) shall change the duties and responsibilities of OWNER or CONTRACTOR or any of their employees or agents from those set forth in the contract documents. All clarifications and/or interpretations of the contract

documents shall be issued by the ENGINEER as provided for in Article 9.

- 3.4. The contract documents will be governed by the law of the place of the project, and all lawsuits relative to same must be filed in Terrebonne Parish, Louisiana.

**REUSE OF DOCUMENTS:**

- 3.5. Neither CONTRACTOR nor any Subcontractor, manufacturer fabricator, supplier, distributor, or agent shall have or acquire any title to or ownership rights in any of the drawings, specifications or other documents or forms (or copies of any thereof) prepared for and hereinafter used for this project; and they shall not reuse any of them on extensions of the project or any other project without the written consent of OWNER.

**Electronic Data:**

- 3.6 Copies of data furnished by OWNER or ENGINEER to CONTRACTOR or CONTRACTOR to OWNER or ENGINEER that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 3.7 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- 3.8 When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

**ARTICLE 4 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS:**

**AVAILABILITY OF LANDS:**

4.1. OWNER shall furnish the lands, as indicated in the contract documents, and not later than the date when needed by CONTRACTOR the lands or parts thereof on which the work is to be done, rights-of-way for access thereto, and such other lands which are designated for use by the CONTRACTOR. Such easements as may be required will be obtained and paid for by OWNER, unless otherwise provided in the Contract. If CONTRACTOR believes that a delay in OWNER's furnishing these lands or easements entitles him to an extension of the contract time, he may make a claim therefore as provided in ARTICLE 12. CONTRACTOR shall provide all additional lands and access thereto that may be required on the islands or on the mainland for temporary construction uses and facilities, staging areas, docking of vessels and craft, and storage of materials and equipment.

**PHYSICAL CONDITIONS: INVESTIGATIONS AND REPORTS:**

4.2. Reference is made to the Supplementary Conditions for the identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress, or performance of the work which have been relied upon by the Engineer in preparation of the specifications and drawings. Such reports are furnished upon request at the cost of reproduction for informational purposes only, are not guaranteed for completeness, and are not a part of the contract documents.

**UNFORESEEN PHYSICAL CONDITIONS:**

4.3. CONTRACTOR shall promptly notify the ENGINEER in writing of any subsurface or latent physical conditions at the site that differs materially from those indicated or referred to in the contract documents. The ENGINEER will promptly review reported conditions and determine if further investigations or tests are needed and, if deemed necessary, shall obtain additional tests and investigations and furnish copies to CONTRACTOR. If it is found that there are subsurface or latent physical conditions which differ materially from those intended in the contract documents, and which could not have been reasonably anticipated by CONTRACTOR, a change order shall be considered, incorporating necessary revisions.

**REFERENCE POINTS:**

- 4.4. Owner shall provide Engineering surveys for construction to establish horizontal and vertical reference points which in OWNER'S judgment are necessary to enable CONTRACTOR to proceed with the work. Appropriate site survey drawings will also be provided. CONTRACTOR shall be responsible for laying out the work (except as may be otherwise specified in the General Requirements and or the Technical Specifications), shall protect and preserve the established reference points, and shall make no relocations or changes, unless instructed to do so by the ENGINEER. CONTRACTOR shall report to the ENGINEER whenever any reference point is lost or destroyed or will require relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professionally qualified personnel in a manner and at a location acceptable to and approved by the ENGINEER.
- 4.5. Unless otherwise specified in the General Conditions and or the Technical Specifications, the CONTRACTOR shall furnish, at his own expense, a qualified and experienced instrument person with adequate labor, survey equipment, and stakes, to lay out lines and grades from the base lines and benchmarks for the proper guidance of his work, to verify that lines and grades as shown and required by the contract documents, and to determine excavated quantities as may be required by the General Conditions or Technical Specifications. Before he commences work, CONTRACTOR shall satisfy himself of the meaning of the baseline and benchmarks and their relation to the actual location of the lines and grades of the proposed work. Any apparent error must be reported to the ENGINEER before any work is done. The CONTRACTOR shall further supply instruments, rod and chain persons, hubs, stakes, flagging, and incidental supplies and equipment necessary to properly lay out all details of the work, in accordance with the plans. CONTRACTOR'S quality control shall check out all lay out work and submit a written report to the ENGINEER.
- 4.6. All control or changes thereto shall be checked and approved by the ENGINEER or site representative before CONTRACTOR proceeds with construction.
- 4.7. All elevations are referenced to the North American Vertical Datum (NAVD). Terms such as Mean Sea Level (MSL), Mean High Water (MHW), Mean Low Water (MLW), etc. are not used on the project.

ARTICLE 5 - BONDS AND INSURANCE:

**PERFORMANCE AND OTHER BONDS:**

- 5.1. CONTRACTOR shall provide Performance Bonds and such other Bonds as prescribed by the Invitation to Bid and shall do so in a timely manner.

**CONTRACTOR'S LIABILITY INSURANCE:**

- 5.2. CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance as required and prescribed by OWNER. Suitable copies shall be provided to DNR in a timely manner.

**WAIVER OF RIGHTS:**

- 5.3. OWNER and CONTRACTOR waive all rights against each other and the Subcontractors and their agents and employees and against Engineer and separate Subcontractors and Consultants (if any) and their Subcontractors' or Consultants' employees and agents, for damages caused by fire or other perils to the extent covered by insurance provided, inclusive, or any other property insurance applicable to the work, except such rights as they may have to the proceeds of such insurance held by DNR as Trustee.

**RECEIPT AND APPLICATION OF PROCEEDS:**

- 5.4. Any insured loss under the policies of insurance required shall be adjusted with OWNER and be made payable to OWNER as Trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. Should another special agreement be reached, the damaged work shall be repaired or replaced; the moneys so received applied on the account thereof; and the work and the cost thereof covered by an appropriate Change Order.

- 5.5. OWNER as Trustee shall have the power to adjust and settle any loss with the insurer(s) unless one of the parties in interest shall object in writing to OWNER'S exercise of this power within fifteen (15) days after the occurrence of loss. If such objection is made, OWNER as Trustee shall make settlement with the insurer(s) in accordance with such agreement as the parties in interest may reach.

**ACCEPTANCE OF INSURANCE:**

- 5.6. CONTRACTOR shall furnish and maintain required insurance coverage satisfactory to OWNER through the life of the Contract and as may be stipulated by the Terms and Conditions of the Contract Documents.



**PARTIAL UTILIZATION: PROPERTY INSURANCE:**

5.7 Not Applicable. There will be no partial utilization of the sites.

**ARTICLE 6: CONTRACTOR'S RESPONSIBILITIES:**

**SUPERVISION AND SUPERINTENDENCE:**

6.1. CONTRACTOR shall supervise and direct the work completely and efficiently, devoting such attention thereto and applying such skills and expertise as is necessary to perform the work in accordance with the contract documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction (except as otherwise specified in the contract documents); however, the CONTRACTOR shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique or procedure of construction where same is not indicated in the contract documents. CONTRACTOR shall be responsible to see that the finished work complies with the contract documents.

6.2. CONTRACTOR shall keep on work at all times during construction a competent resident superintendent or manager, who shall not be replaced without written notice to ENGINEER except under very extraordinary circumstances. The Superintendent or manager will be the CONTRACTOR'S on site representative and shall have authority to act on behalf of the CONTRACTOR. All communications given to the Superintendent or manager shall be as binding as if given to CONTRACTOR.

**LABOR, EQUIPMENT, AND MATERIALS:**

6.3. CONTRACTOR shall provide safe, competent, and suitably qualified personnel to lay out the work and perform the construction as required by the contract documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except in any connection with safety or protection of persons or the work or the property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all dredging work at the site shall be performed on a continuous seven (7) days per week basis. Suspension of work for Saturdays, Sundays, or legal holidays shall require the OWNER'S written consent given after prior written notice to the ENGINEER, and any such suspension as may be approved will be taken on the CONTRACTOR'S time and at no cost to OWNER. Such overtime costs or shift differentials as may be incurred by the CONTRACTOR shall

be included in all Bid Unit Prices and Costs and in no way shall be additive to the Contract Price or parts thereof subsequent to submittal of the Bid. Subcontractor shall comply with Article 6.2 for this work and shall be subordinate to the CONTRACTOR'S superintendent or manager.

- 6.4. CONTRACTOR shall furnish all equipment, tools, materials, labor, transportation, machinery, appliances, fuel, power, light, heat, radio and telephone, food, water, sanitary facilities, safety appliances, first aid supplies, navigation warnings, moorings, construction, quarters, and all other facilities and incidentals necessary for the execution, testing, supervising, monitoring, site inspection, and completion of the work. Their cost shall be included in all Bid Unit Prices and Costs and shall not be considered as separate pay items.
- 6.5. All equipment, materials, and tools shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including detailed reports of required tests or inspections) as to the kind and quality of materials and equipment. Dredge, dredge equipment, dredge services and operating systems, and CONTRACTOR'S and subcontractor's vessels and equipment supporting the work shall be in good repair and operating condition prior to delivery to the project site and at all times during the term of the Contract. Damaged or worn tools, systems, equipment or components thereof shall be immediately repaired or replaced. Dredge downtime for other than routine maintenance, routine anchoring for planned movements, repositioning of discharge lines, and other required occurrences directly related to the performance of the work shall be at the expense of the CONTRACTOR and shall not be included in Applications for Payment. (ARTICLE 14)
- 6.6. All equipment and materials shall be applied, installed, operated, connected, erected, used, cleaned, conditioned, and maintained in accordance with the instructions of the applicable manufacturer, supplier, or distributor, and the established policies and procedures of the CONTRACTOR, except as otherwise specifically provided in the Contract Documents.

**SUBSTITUTE MATERIALS AND EQUIPMENT:**

- 6.7. The Contract, if awarded, will be on the basis of the material and equipment described on the drawings or specified in the specifications or approved by Addenda. Whenever it is indicated in the drawings or in the specifications that a substitute or "or equal" item of material or equipment may be furnished or used by

CONTRACTOR if acceptable to DNR, application for such acceptance will be made in writing to DNR ten (10) days prior to Bid due date. The procedure for submittal of any such application by CONTRACTOR is set forth in the General Conditions which may be supplemented in the General Requirements. Materials and equipment approved as "or equal" will be indicated to Bidders by Addenda.

**SUBCONTRACTORS :**

- 6.8. CONTRACTOR shall not employ any Subcontractor or other person or organization (including those who are to furnish the principal items of equipment or materials), whether initially or as a substitute, against whom OWNER may have reasonable objection. A Subcontractor or other person or organization identified in the Bid Proposal or in writing to OWNER by CONTRACTOR prior to the Notice of Award and not objected to in writing by OWNER prior to Notice of Award will be deemed acceptable to OWNER. Acceptance of any Subcontractor, other person, organization by DNR shall not constitute a waiver of right of OWNER to reject defective work. If OWNER or OWNER's Agent, after due investigation, has an objection to any Subcontractor, other person, or organization proposed by CONTRACTOR, adjustment in the Contract Price between the acceptable substitute and subcontractor rejected may be requested by CONTRACTOR in accordance with Article 11. Contractor will not be required to employ any Subcontractor, other person, or organization against whom CONTRACTOR has reasonable objection.
- 6.9. CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons or organizations for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of persons directly employed by CONTRACTOR. Nothing in the Contract Documents shall create any contractual relationship between OWNER and any Subcontractor or other person or organization having a direct contact with the CONTRACTOR, nor shall it create any obligation on the part of the OWNER to pay or see to the payment of any moneys due any Subcontractor or other person or organization, except as may otherwise be required by law. OWNER may furnish to any Subcontractor or organization or other person, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific work done.
- 6.10. The Divisions of the specifications and the identifications of any drawings shall not control CONTRACTOR in dividing the work among Subcontractors or delineating the work to be performed by any specific

trade, or relieve the CONTRACTOR from his obligation to do the work in accordance with contract documents.

6.11. The CONTRACTOR shall coordinate the work of Subcontractors to avoid conflicts, to assure clearances, and to maintain orderly progress of all work. Shop Drawings (if any) of the various trades shall be compared before approval to ascertain that the construction or activity proposed does not conflict with space requirements or other aspects of the work. The CONTRACTOR shall have full responsibility for satisfactory completion of all subcontract work.

6.12. All work performed for CONTRACTOR by a Subcontractor will be pursuant to appropriate written agreement between CONTRACTOR and Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the DNR and contains waiver provisions as may be required. CONTRACTOR shall pay each Subcontractor a just share of any insurance moneys received.

**PATENT FEES AND ROYALTIES:**

6.13. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in performance of the work and if to the actual knowledge of OWNER its use is subject to patent rights or copyrights calling for the payment of any license fees or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER and any agent thereof and anyone directly and indirectly employed by either of them from and against all claims, damages, losses, and expenses arising out of any infringement of patent rights or copyrights incident to use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

**PERMITS:**

6.14. With the exception of the Coastal Management Division's Coastal Use Permit, and the U.S. Army Corps of Engineers 404 Permit, CONTRACTOR shall obtain and pay for all construction permits and licenses and shall pay all governmental charges and inspection fees necessary for the prosecution of the work, which are applicable at the time of his Bid. CONTRACTOR is assumed to have made

himself familiar with all Federal, state, and parish laws, ordinances, rules, and regulations which in any manner affect those engaged or employed in the work or the material or equipment used in the proposed work/construction or which in any way affect the conduct of the work and no pleas of misunderstanding will be considered on account of ignorance thereof. In as much as this project is federally funded, CONTRACTOR shall be well versed in the rules, regulations, and laws governing federally funded projects including but not limited to wage rates, equal employment opportunities, etc. If CONTRACTOR shall discover any provision in the drawings, specifications, or Contract Documents which is contrary to or inconsistent with any such federal, state, or parish law, ordinance, rule, or regulation, he shall immediately report it in writing to the ENGINEER. CONTRACTOR shall also pay any and all public utility charges in connection with the work, and DNR shall pay all capital costs related thereto, unless otherwise provided in the Contract Documents.

**LAWS, REGULATIONS, RULES, AND ORDINANCES:**

6.15. All construction Contracts, Subcontracts, and Agreements shall conform to the applicable federal requirements and to applicable Louisiana and Terrebonne Parish lawful requirements to the extent that such requirements do not conflict with federal Laws. No statement or requirement of these contract requirements shall be deemed to abrogate any applicable federal, state, or parish law.

6.16. CONTRACTOR shall give all notices and comply with all laws, regulations, rules, and ordinances applicable to the work including the maintenance of required records, timely preparation and submittal of required reports, conducting and participating in inspections, satisfactory response to compliance orders, etc. If the CONTRACTOR observes that the specifications or drawings are at variance therewith, he shall give the ENGINEER prompt notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If CONTRACTOR performs any work knowing, or having reason to know, that it is contrary to law, ordinance, rule, or regulation, and without notice to DNR/CRD, CONTRACTOR shall bear all costs arising therefrom; however, it is not CONTRACTOR'S primary responsibility to make certain that the specifications and drawings are in accordance with applicable laws, regulations, rules, and ordinances.

**TAXES:**

6.17. CONTRACTOR shall pay all applicable sales, consumer, use, and other similar taxes required to be paid by him in

accordance with the Laws of the State of Louisiana and Terrebonne Parish.

**USE OF PREMISES:**

6.18. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and its operations of workmen to areas permitted by DNR, law, ordinances, permits, and the requirements of the Contract Documents, and shall not unreasonably or unsafely encumber the premises (land or water) with equipment or materials. CONTRACTOR shall not enter or occupy with men, tools, equipment, or material any areas restricted by OWNER or any private property, other than as granted by easement or other legal document, without the consent of the owner of said property.

6.19. During the progress of the work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from the work or work operations. Said premises include the lands and marsh of the islands, the surrounding waters, and all vessels, floating barges and platforms, and quarters' barges. At the completion of the work, CONTRACTOR shall remove all remaining waste, rubbish, debris, and materials from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean all to the satisfaction of the DNR. CONTRACTOR shall restore to the original condition those portions of the site not designated for alteration by the Contract Documents but which were adversely impacted by construction operations.

6.20. CONTRACTOR shall not load or permit any part of any structure or equipment to be loaded in any manner that will endanger the structure or equipment, nor shall CONTRACTOR subject any part of the work or adjacent property to loadings or stresses that will endanger it.

**RECORD DRAWINGS:**

6.21. CONTRACTOR shall keep one record copy of all specifications, drawings, addenda, modifications, and test results at the site, in good order, and annotated to show all changes made during the construction process. These shall be available to the ENGINEER or site representative for examination and shall be delivered to the ENGINEER upon completion of the project.

6.22. Contractor record documents will be maintained in the DNR files for the respective projects.

**OCCUPATIONAL SAFETY AND HEALTH:**

6.23. CONTRACTOR shall be responsible for initiating, maintaining, supervising, and enforcing a sound safety and health program at the site that shall be binding upon all personnel assigned to, working at, or visiting the site at any land or water location thereon for the duration of the project. CONTRACTOR shall provide training and supervision necessary to ensure personnel protection, and to prevent damage, injury, or loss to:

6.23.1 All employees on the work and all other persons who may be affected thereby;

6.23.2 All the work and all materials and equipment whether in use or in storage on or off the site, and;

6.23.3 Other property at the site or adjacent thereto, including all forms of vegetation, wildlife, survey monuments, and petroleum products pipelines.

CONTRACTOR shall comply with all applicable laws, regulations, rules, ordinances, and orders of any public agency having jurisdiction over the safety of persons or property and to protect them from injury, damage, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall provide such personal protective equipment as required to prevent injury, sickness, or death. CONTRACTOR shall notify owners of adjacent property, ashore at base and at site, and owners of pipelines in the site area, when prosecution of the work may affect them. All damage, injury, or loss to any property referred to in paragraph 6.23 or 6.24 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any subcontractor, or anyone direct or indirectly employed by any them or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the faults of drawings or specifications or to acts or omissions of OWNER or anyone employed by OWNER or anyone for whose acts OWNER may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR'S duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed and OWNER has verified and advised in writing that the work is completed.

6.24. CONTRACTOR shall designate a responsible member of his organization, resident at the site, and provide him with commensurate authority for the purpose of implementing and maintaining an effective safety and health environment and the prevention of accidents at the site and on any equipment thereon. The person so selected must be adequately trained in safety, have working experience

with all applicable safety and health rules and regulations pertaining to the type of work being performed, and have appropriate authority and management support.

- 6.25. SAFETY PROGRAM: The requirements for the project's safety program are presented in the Supplementary Conditions.

**EMERGENCIES:**

- 6.26. Employees of DNR, agents or representatives of DNR or any state, federal, or parish, or other agency working at or visiting the site shall abide by the CONTRACTOR'S Safety Program and all requirements thereof including, but not limited to, personal protective safety equipment, access to project areas and CONTRACTOR'S facilities, specific rules and or restrictions pertaining to the equipment in use and operations in progress. All visitors to the site not otherwise involved with the work at the site will report to the Superintendent or designated authority prior to accessing any work area.

- 6.27. In emergencies affecting the safety or protection of persons, work, or property at, en route to or from, or adjacent to the site, CONTRACTOR, without special instruction or authorization from OWNER, is obligated to act decisively to prevent threatened injury, damage, or loss. CONTRACTOR shall give the ENGINEER a prompt written notice and report of each such incident and significant changes in the work or deviations from the contract, if any, caused thereby.

**SHOP DRAWINGS AND SAMPLES:**

The paragraphs of this section are applicable to the contract only to the extent that "shop drawings" shall mean Dredging Plans, Dredging Progress Reports, Survey Documents, and such drawings, sketches, details, and information as specified and as prepared by or for the CONTRACTOR or Subcontractor with relation to the work or any part thereof.

- 6.28. After checking and verifying all field measurements, CONTRACTOR shall submit to ENGINEER for review and approval, in accordance with the accepted schedule of shop drawings, submissions (see paragraph 2.6), five copies (unless otherwise specified in the General Requirements) of all shop drawings, which have been checked by and stamped with the approval of CONTRACTOR and identified as DNR may require. The data shown on shop drawings will be complete with respect to dimensions, design criteria, materials, and like information to enable DNR/CRD to review the information as required.



- 6.29. CONTRACTOR shall submit to ENGINEER for review and approval with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of the CONTRACTOR, identified clearly as to material, location from where acquired, and other pertinent information with use for which intended.
- 6.30. At the time of each submission, CONTRACTOR shall in writing call ENGINEER'S attention to any deviations that the shop drawings or samples may have from the requirements of the Contract Documents.
- 6.31. ENGINEER will review and approve with reasonable promptness shop drawings and samples, but such review and approval will be only for conformance with the concept for the project and for compliance with such information as given in the Contract Documents and shall not extend to means, methods, sequences, techniques, or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of an assembly in which the item functions. CONTRACTOR shall make any corrections required by ENGINEER and shall return the required number of corrected copies of shop drawings and resubmit new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for on previous submittals. CONTRACTOR'S stamp of approval on any drawing or sample shall be a representation to OWNER that the CONTRACTOR has or assumes full responsibility for the determination and verification of all required data, and that CONTRACTOR has reviewed or coordinated each drawing or sample with the requirements of the work and Contract Documents.
- 6.32. Where a shop drawing or sample is required by the specifications, no related work shall be commenced until the submittal has been reviewed and approved by the ENGINEER. Where prepared by the CONTRACTOR for his own use and neither is required by Contract Documents, this restriction does not apply.
- 6.33. ENGINEER'S review and approval of shop drawings or samples shall not relieve CONTRACTOR from responsibility for any deviations from the Contract Documents unless such deviation has been noticed at the time of submission, and the ENGINEER has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by the ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the shop drawings.
- 6.34. CONTRACTOR'S approval and submission shall state the

following: "Checked and approved for compliance with the plans and specifications and for coordination with other items of work."

**CONTINUING THE WORK:**

6.35. CONTRACTOR shall carry on the work and maintain the progress schedule during all disagreements or disputes with OWNER. The work shall not be delayed or postponed pending resolution of any disagreements or disputes, except as CONTRACTOR and OWNER may otherwise agree in writing.

**INDEMNIFICATION:**

6.36. To the fullest extent permitted by law, CONTRACTOR shall indemnify and hold harmless DNR and DNR Agents from and against all claims, damages, losses, and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the work; provided that any such claim, damage, loss, or expense (a) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or for anyone whose acts any of them may be liable, regardless of whether or not is caused in part by a party indemnified hereunder.

6.37. In any and all claims against OWNER or any of OWNER's agents or employees by any employee of CONTRACTOR or Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.35 shall not be limited in any way by any limitation on the amount and type of damages, compensation, or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability or other employee benefit acts.

6.38. The obligations of CONTRACTOR under paragraph 6.34 shall not extend to OWNER, OWNER's agents, or OWNER's employees arising out of the preparation and approval of maps, drawings, specifications, surveys, reports, change orders, designs, or opinions.

6.39. To assure indemnification of OWNER and agents thereof, CONTRACTOR must submit the Policy evidencing this coverage with the signed copy of his Agreement, and failure to submit policy will be cause for cancellation of the Contract by OWNER.

## **CONTRACTOR'S QUALITY CONTROL:**

- 6.40. The CONTRACTOR shall provide and maintain an effective quality control program, maintain adequate inspections as will assure that the work performed conforms to the contract requirements, and maintain and make available to OWNER adequate records of such inspections. In as much as the quality of work, as well as the nature of the work, is mostly dependent upon the performance of the dredge and dredging operations, this requirement shall extend to the inspections and maintenance of dredging equipment and systems.
- 6.41. The CONTRACTOR shall establish a system of quality control sufficient to perform inspections and tests, including that of his subcontractors, to ensure conformance to applicable specifications and drawings with respect to materials, equipment, workmanship, drawings, specifications, construction, job safety, functional performance, identification, and protection to vegetation and resident wildlife. This control shall be established for all construction except where technical provisions of the contract provide for specific OWNER control by inspections, tests, or other means. The CONTRACTOR'S quality control shall specifically include the surveillance and tests required in the technical provisions of the contract documents.
- 6.42. CONTRACTOR'S quality control program and application is the means by which he assures himself that his construction complies with the requirements of contract plans, specifications, and documents. The controls shall be adequate to cover all construction operations and services and should be keyed to the construction sequence. They shall include a minimum of four (4) phases of inspection of each defined or definable (if not defined) feature of work. These are:

a. Preparation Inspection:

Prior to beginning any definable feature of work, CONTRACTOR shall perform an inspection of that feature. It shall include a review of contract requirements; a check to ensure that equipment and material requirements have been tested, submitted, and approved as may have been required; a check to assure that provisions have been made to provide required control, monitoring, and testing; an examination of the work area to ascertain that all preliminary work has been completed; and a physical examination of equipment and materials and records to assure that they are on hand and conform to needs and requirements.

b. Initial Inspection:

As soon as work actually begins on a representative portion of a particular feature of the work, the CONTRACTOR shall perform an inspection that includes examination of the quality of workmanship, an evaluation of dredging systems performance, and a review of control testing for compliance with contract requirements and work performance evaluations.

c. FOLLOW-UP INSPECTIONS:

The CONTRACTOR shall perform such inspections through the course of the work to the completion of the particular feature of work to assure continuing compliance with the contract requirements, adequacy of control testing and work performance, and adequacy of protection to vegetation and wildlife. Prompt action will be taken by the CONTRACTOR to correct deficiencies.

d. FINAL INSPECTION:

Upon completion of a particular feature of work, CONTRACTOR shall inspect the work for compliance with contract requirements, evaluate dredging performance against forecasted performance, and execute any adjustments or corrections that may be required in the work and equipment.

6.43. The CONTRACTOR'S job supervisory staff may be used for quality control, supplemented as necessary by personnel and special technicians for surveillance, testing, and to provide for the controls required by the technical provisions of the specifications. Written records shall be maintained of all inspections, and a Summary Report provided monthly to the ENGINEER.

6.44. The CONTRACTOR shall furnish to the ENGINEER, within fourteen (14) calendar days of award of the contract but prior to construction, a Quality Control Plan which shall include the procedures, instructions, forms to be used, records to be kept, and reports to be used. This Plan shall include as a minimum:

- a. The quality control/quality assurance organization.
- b. Number and qualifications and experience of personnel to be used for this purpose.
- c. Authority and responsibilities of QA/QC personnel.
- d. Methods of quality control to be used for the project including that for all Subcontractors.
- e. Test methods including the name of the qualified testing laboratory to be used.
- f. Method of documenting quality control operation, inspection, and testing.
- g. Copies of forms to be used for performing and

documenting quality control operation,  
inspection, testing, and reporting.

- 6.45. If recurring deficiencies in an item or items indicate that the quality control system is not adequate for securing and/or maintaining quality performance, and the CONTRACTOR does not take appropriate action to correct the deficiency or deficiencies, OWNER will take such action as may be deemed necessary to ensure that the CONTRACTOR does take effective corrective actions as may be required or specified by OWNER.
- 6.46. When the CONTRACTOR proposes to make any changes in the approved Quality Control Plan, personnel, or implementation measure during construction, CONTRACTOR must notify the ENGINEER in writing. No such change shall be implemented prior to acceptance in writing by the ENGINEER. Additionally, a revised or amended Quality Control Plan shall be submitted for approval.
- 6.47. Failure by the CONTRACTOR to satisfactorily perform any required Quality Control function; to submit timely, complete, and factual reports and test data; or to comply with approved quality control provisions may form the basis for OWNER taking action to provide these services from another source. Any additional cost to OWNER for providing these services will be deducted from payments due the CONTRACTOR.
- 6.48. Separate payment will not be made for providing and maintaining an effective quality control program as required above, and the cost thereof shall be included in the applicable price for items on which payment is to be made.

**CARE OF WORK:**

- 6.49 Until acceptance of the work by OWNER as evidenced in writing, it shall be under the charge and care of the CONTRACTOR. He shall take every necessary precaution against damages to any part thereof from any cause whether arising from the execution of or the non-execution of the work. Before final acceptance, CONTRACTOR may be required by DNR/CRD to rebuild, restore, or repair any or all damages to any portion of the work occasioned by any of the above causes. If every reasonable and practical precaution was taken to prevent damages, any approved repair work will be at the expense of OWNER and will be authorized by a Change Order; however, if such damages were the direct or indirect result of failure by CONTRACTOR, Subcontractor, or any employee or agent thereof to make every reasonable and practical precaution to prevent them, the rebuilding, repairing, or restoration will be at the CONTRACTOR'S

expense and will be required by OWNER.

- 6.50 In case of the suspension of work for any cause whatever, CONTRACTOR shall be responsible for all material, shall properly store them if necessary, and shall provide whatever measures are necessary to protect the site and work.

ARTICLE 7 - WORK BY OTHERS:

- 7.1. OWNER may perform additional work related to the project or have additional work performed by other agencies, or let other direct contracts which shall contain general conditions similar to these. CONTRACTOR shall afford agencies and such other Contractors who are parties to such direct contracts (or OWNER, if OWNER'S employees are performing the additional work) reasonable opportunity for the introduction and storage of materials and equipment and execution of the work, and shall properly connect and coordinate his work with theirs.
- 7.2. If any part of CONTRACTOR'S work depends on proper execution or results of the work of any other CONTRACTOR or utility service company (or DNR), CONTRACTOR shall inspect and promptly report to the ENGINEER in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure to so report shall constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S work except for latent or non-apparent defects and deficiencies in the other work.
- 7.3. CONTRACTOR shall do all cutting, fitting, and patching of his work that may be required to make its several parts come together properly and integrate with such other work.
- 7.4. CONTRACTOR shall not endanger work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the ENGINEER and the others whose work will be affected.
- 7.5. If the performance of work by other contractors, other agencies, or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR or requires an extension of contract time, CONTRACTOR may make a claim therefore as provided in ARTICLES 11 and 12.

ARTICLE 8 - OWNER'S RESPONSIBILITIES:

- 8.1. OWNER shall furnish the data required of him under the contract documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in Paragraphs 14.4 and 14.14.
- 8.2. OWNER'S duties in respect of providing lands, easements, and Engineering surveys to establish reference point are set forth in Paragraphs 4.1 and 4.4. Paragraph 4.2 refers to DNR/CRD identifying and making available copies of surveys, investigations, and reports of subsurface and latent physical conditions at the site or otherwise affecting the performance of the work which have been relied upon in preparing the drawings and specifications.
- 8.3. In connection with OWNER'S right to request changes in the work in accordance with ARTICLE 10, OWNER will execute change orders.
- 8.4. OWNER'S responsibility with respect to certain inspections, tests, and approvals is set forth in ARTICLE 13.
- 8.5. In connection with OWNER'S right to suspend or terminate work, see paragraphs 13.10 and Article 15.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION:

**OWNER'S REPRESENTATIVES:**

- 9.1. ENGINEER shall issue all communications to CONTRACTOR.
- 9.2. ENGINEER shall address all technical matters pertaining to the project and contract documents and recommend action(s) to OWNER. The ENGINEER will be OWNER'S point of contact with the CONTRACTOR.
- 9.3. Project drawings, specifications, and contract documents have been prepared for OWNER by Engineer Consultants. During the construction period, the ENGINEER will provide reviews, evaluations, and other similar services as may be required during the construction period.
- 9.4. Field Engineering services will be performed or directed by the ENGINEER during the construction period. The duties, responsibilities, and the limitations of the ENGINEER and Resident Project Representatives during the construction period, whether OWNER'S employee (s) or otherwise, are set forth in Exhibits A and B of these General Conditions but may be modified as required by OWNER. Any changes in responsibilities, duties, or limitations, as they may affect the CONTRACTOR, will be promptly communicated to the CONTRACTOR in writing.

**VISITS TO SITE:**

9.5. ENGINEER will make visits to the site at intervals, appropriate to his responsibilities and to the various stages of construction, to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the contract documents and schedule. The ENGINEER will not make exhaustive or continuous on-site inspections to check the quality or quantity of the work. The ENGINEER'S actions and efforts will primarily be directed toward providing a greater degree of confidence so that the work is done at the maximum level of production and conforms to contract documents. On the basis of such visits and on-site observations, as an experienced and qualified professional, the ENGINEER will provide direction, information, approvals, and guidance to the CONTRACTOR to ensure effective and open communication between OWNER and CONTRACTOR, progress of the work, and assistance in guarding OWNER against defects, deficiencies, low production rates, and unsafe job conditions, and adverse impact upon vegetation and wildlife.

**CLARIFICATIONS AND INTERPRETATIONS:**

9.6. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the contract documents (in the form of drawings or otherwise) as may be determined necessary, which shall be consistent with or reasonably inferable from the overall intent of the contract documents. If CONTRACTOR believes that such clarifications or interpretations justifies an increase in contract price or time, CONTRACTOR may make a claim as provided in ARTICLE 11 or 12.

**REJECTING DEFECTIVE WORK:**

9.7. The ENGINEER will have authority to disapprove or reject work which is defective, and will also have authority to require special inspection or testing of the work as provided in Article 13, UNCOVERING WORK, whether or not work is fabricated, installed, or completed.

**CHANGE ORDERS AND PAYMENTS:**

9.8. See ARTICLES 10 and 11 for OWNER'S responsibility with regards to change orders.

9.9. See ARTICLE 14 for OWNER'S responsibility with regards to applications for payment.

**PROJECT REPRESENTATION:**



9.10. At OWNER'S discretion, one or more Resident Project Representatives will be assigned to the projects to assist the ENGINEER in carrying out his responsibilities at the site. Resident Project Representatives may be employees of OWNER or a Consultant. The duties, responsibilities, and limitations of authority of the project representatives shall be as set forth as in Exhibit "B" of DIVISION II.

**DECISIONS ON DISAGREEMENTS:**

9.11. The ENGINEER will provide interpretation of the contract documents and judge as to the acceptability of the work thereunder. Claims, disputes, and other matters relating to the acceptability of the work or the interpretation of the requirements of the contract documents pertaining to the execution and progress of the work shall, if deemed necessary, be reviewed by the ENGINEER with the respective Design Engineer. A decision with regards to this paragraph will be rendered by OWNER in writing within a reasonable time. Written notice of each such claim, dispute, or other matter shall be delivered by claimant to the ENGINEER within fifteen (15) days of occurrence of the event. Written supporting data will be submitted within forty five (45) days of such occurrence.

9.12. The rendering of a recommended decision to or by OWNER pursuant to paragraph 9.11 with respect to any such claim, dispute, or other matter (except any which have been waived by the making or the acceptance of final payment as provided in paragraph 14.18) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the contract documents or at law in respect of any such claim, dispute, or other matter.

**LIMITATIONS ON ENGINEER'S RESPONSIBILITIES:**

9.13. Neither ENGINEER'S authority to act under ARTICLE 9 or elsewhere in the contract documents, nor any recommended decision made upon request and in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, or to their agents or any other person performing any of the work.

9.14. Whenever in the contract documents the terms "as required", "as directed", "as ordered" "as allowed" or terms of like effect or import are used; or the adjectives "reasonable", "suitable", "acceptable", "proper", or satisfactory or adjectives of like effect or import are used to describe requirement, direction, review, or judgment of ENGINEER as to the work; it is intended that such requirement, direction, review, or

judgment will be solely to evaluate the work for compliance with the contract documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that the ENGINEER shall have the authority to undertake responsibility contrary to the provisions of paragraphs 9.15 and 9.16.

9.15. ENGINEER will not be responsible for means, methods, techniques, or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for the CONTRACTOR'S failure to perform the work in accordance with the contract documents.

9.16 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractors, or of the agents or employees of any CONTRACTOR or Subcontractor, or of any persons at the site or otherwise performing any of the work. The CONTRACTOR agrees to hold harmless OWNER and ENGINEER which claim of negligence made by any person contending negligence on the part of OWNER or ENGINEER which claim of negligence is for damages which is the result of the manner or method of CONTRACTOR or Subcontractors doing the work.

#### ARTICLE 10 - CHANGES IN THE WORK:

10.1. Without invalidating the Contract, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the work; these will be authorized by change orders. Upon receipt of a change order, CONTRACTOR shall proceed with or stop the work involved. All such work shall be executed under the applicable conditions of the contract documents. If any change order causes either an increase or decrease in the contract price or an extension or shortening of the contract time, an equitable adjustment will be made as provided in ARTICLE 11 or ARTICLE 12 on the basis of a claim by either party.

10.2. The ENGINEER and Project Representative may authorize minor changes in the work, not involving an adjustment in contract price or the contract time, which are consistent with the overall intent of the contract documents. These may be accomplished by a field order and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change promptly. If CONTRACTOR believes that a field order justifies an increase in the contract price or time, CONTRACTOR may make a claim therefore as provided in ARTICLE 11 or ARTICLE 12.

10.3. Additional work performed by the CONTRACTOR without authorization of a change order will not entitle him to an increase in the contract price or an extension of the contract time, except in the case of an emergency as

provided in paragraph 6.27 and except as provided for in paragraphs 10.2 and 13.9.

- 10.4. OWNER may execute appropriate change orders recommended by ENGINEER requiring changes in the work, or required because of unforeseen physical conditions or emergencies, or because of uncovering work found to not be defective, or as provided in paragraphs 11.9 or 11.10, or because of any claim of CONTRACTOR for a change in the contract time or the contract price which is approved by OWNER.
- 10.5. If notice of any change affecting the general scope of the work or change in the contract price is required by the provisions of any bond to be given to the surety, it will be the CONTRACTOR'S responsibility to so notify the surety, and the amount of the applicable bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to DNR.

ARTICLE 11 - CHANGE OF CONTRACT PRICE:

- 11.1. The contract price constitutes the maximum total compensation (subject to authorized adjustments) that shall be payable to CONTRACTOR for performing the work. All duties, responsibilities, and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change to the contract.
- 11.2. The contract price may only be changed by a change order. Any claim for an increase in the contract price shall be based upon written notice delivered to the ENGINEER within fifteen (15) days of occurrence of the event giving rise to the claim. Notice of amount of the claim with supporting data shall be delivered within forty-five (45) days of such occurrence unless OWNER allows an additional period of time to ascertain accurate cost data. All claims for adjustment of the contract price by OWNER shall be determined by OWNER and CONTRACTOR. Any change in the contract price resulting from any such claim shall be incorporated into a change order. If OWNER and CONTRACTOR cannot agree on the amount involved, the provisions of ARTICLE 16 shall apply .
- 11.3. The value of any work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways:
  - 11.3.1 Where the work involved is covered by unit prices contained in the contract documents, by the application of unit prices to the candid of the items involved.
  - 11.3.2 By mutual acceptance of a lump sum.

11.3.3 On the basis of the cost of the work plus a CONTRACTOR'S fee for overhead and profit.

ARTICLE 12 - CHANGE OF THE CONTRACT TIME:

12.1. Contract time may only be changed by a change order. Any claim for an extension in the contract time shall be based upon written notice delivered to ENGINEER within fifteen (15) calendar days of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five (45) calendar days of such occurrence unless (1) DNR/CRD allows an additional period of time to ascertain more accurate data, or (2) this time shall extend past the contract time. All claims for adjustment in the contract time shall be determined by OWNER and CONTRACTOR. Any change in the contract time resulting from any such claim shall be incorporated in a change order. If OWNER and CONTRACTOR cannot agree on a time extension, then the provisions of ARTICLE 16 apply.

12.2. The contract time will be extended in an amount equal to the time lost due to delays beyond the control of the CONTRACTOR if a claim is made as provided in paragraph 12.1. Such delays shall include, but not be limited to acts or neglects by OWNER, fires, labor disputes, epidemics, abnormal weather or sea conditions above and beyond those incorporated into the contract documents, or acts of GOD.

12.3. All time limits stated in the contract documents are of the essence of the agreement. The provisions of ARTICLE 12 shall not exclude recovery for damages (including compensation for additional professional services) for delay of either party.

ARTICLE 13 - WARRANTY AND GUARANTEE: TESTS AND INSPECTIONS: CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

**WARRANTY AND GUARANTEE:**

13.1. CONTRACTOR warrants and guarantees to OWNER that all work will be done in accordance with the contract documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective work, whether or not in place, may be rejected, corrected within one year, or as accepted as provided in ARTICLE 13.

**ACCESS TO WORK:**

13.2. OWNER, OWNER'S Representatives and other authorized representatives, testing agencies, and governmental agencies with jurisdictional interests will have access

to the work at reasonable times for their observation, inspection, and testing. CONTRACTOR shall provide proper and safe conditions for such access.

**TESTS AND INSPECTIONS:**

- 13.3. CONTRACTOR shall give the ENGINEER timely notice of readiness of work for all required inspections, tests, or approvals.
- 13.4. If any law, ordinance, rule, regulation, code or order of any public body having jurisdiction requires any work (or part thereof) to specifically be inspected, tested, or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, testing, or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER'S acceptance of materials to be incorporated in the work. The cost of all other inspections, tests, and approvals required by the contract documents shall be paid by the CONTRACTOR except as otherwise specified.
- 13.5. All inspections, tests, or approvals other than those required by law, ordinance, rule, regulation, code, or order of any public body having jurisdiction shall be performed by organizations acceptable to OWNER, ENGINEER and CONTRACTOR.
- 13.6. If any work that is to be inspected, tested, or approved is covered without written consent of ENGINEER, it must, if requested by the ENGINEER be uncovered for observation. Such uncovering shall be at the CONTRACTOR'S expense unless ENGINEER has not responded in seven (7) calendar days to CONTRACTOR'S intention.
- 13.7. Neither observations by ENGINEER nor inspections, tests, or approvals by others shall relieve CONTRACTOR from his obligations to perform the work in accordance with the contract documents.

**DNR/CRD MAY STOP THE WORK:**

- 13.8. If the work is defective, or CONTRACTOR fails to supply skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the work, or portion thereof, until the cause for such order has been eliminated; and all costs shall be borne by CONTRACTOR at no expense to OWNER. However, this right of OWNER to stop the work shall not give rise to any duty on the part of the OWNER to exercise the right for the benefit of the CONTRACTOR or any other party.

**CORRECTION OR REMOVAL OF DEFECTIVE WORK:**

13.9. If required by OWNER, CONTRACTOR shall promptly, without cost to OWNER, and as specified by the ENGINEER, whether installed or completed, or, if the work has been rejected, remove it from the site and replace it with work that is not defective.

**OWNER MAY CORRECT DEFECTIVE WORK:**

13.10. If CONTRACTOR fails within a reasonable time after written notice of OWNER to proceed to correct defective work or to remove and replace rejected work as required by OWNER, or if CONTRACTOR fails to perform the work in accordance with the contract documents (including any requirements of the progress schedule), OWNER may, after seven calendar day's written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights under this paragraph, OWNER shall proceed expeditiously. To the extent necessary to complete remedial or corrective work, (1) OWNER may exclude CONTRACTOR from all or part of the site, (2) take possession of all or part of the work; and (3) suspend CONTRACTOR'S services related thereto, take full possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the work all materials and equipment stored at the site or for which DNR has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER's representatives, employees, and agents such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charges against contractor, and a change order shall be issued incorporating the necessary revisions in the contract documents and a reduction in the contract price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and all costs of repair and/or replacement of work of others destroyed or damaged by correction, replacement or removal of CONTRACTOR'S defective work. CONTRACTOR shall not be allowed an extension of the contract time because of any delay in performance of the work due to the exercise of OWNER's rights hereunder.

**ARTICLE 14 -PAYMENTS TO CONTRACTOR AND COMPLETION:**

**SCHEDULES:**

14.1. At least ten (10) calendar days prior to submitting the first application for progress payment, CONTRACTOR shall (except as otherwise specified in the General Requirements) submit to the ENGINEER a progress schedule,

a final schedule of shop drawings and/or tests where applicable, and a schedule of values of the work. These schedules of values shall include quantities and unit prices and pay rates aggregating the contract price, and shall subdivide the work into component payments during construction. Upon acceptance of the schedule of values by the OWNER, it shall be incorporated into a form of Application for Payment suitable to and approved by the OWNER.

**APPLICATION FOR PROGRESS PAYMENT:**

14.2. At least ten (10) calendar days before each progress payment falls due (but not more than once a month), CONTRACTOR shall submit to ENGINEER an Application for Payment filled out and signed by CONTRACTOR covering the work completed as of the date of the Application and accompanied by such supporting documentation as is required by the contract documents and also as ENGINEER may reasonably require. Each subsequent Application for Payment shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the work have been applied to discharge in full CONTRACTOR'S obligations reflected in CONTRACTOR'S prior Applications for Payment. The amount of payment to be retained with respect to progress payments will be as stipulated in the Agreement.

**CONTRACTOR'S WARRANTY OF TITLE:**

14.3. CONTRACTOR warrants and guarantees that title to all work and materials covered by any Application for Payment, whether incorporated in the work or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests, and encumbrances (hereafter in these General Conditions referred to as "liens").

**REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT:**

14.4. ENGINEER will within ten (10) normal working days take such action as may be deemed appropriate to verify that the work has progressed to the point indicated and in the accompanying data and schedules; that, to the best of the ENGINEER'S knowledge, information, and belief the quality of the work is in accordance with the contract documents (subject to the results of any and all subsequent tests called for in the contract documents and any qualifications as might be noted); and that CONTRACTOR is entitled to payment in the amount requested. After such verification as before stated, the ENGINEER will either approve and process payment or return the application to CONTRACTOR indicating in writing ENGINEER'S reasons for returning the application. In the latter case, the CONTRACTOR is to make necessary corrections and resubmit

the application. DNR shall pay the CONTRACTOR the amount approved.

- 14.5. By approving any payment, ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or quantity of the work, or that the means, methods, techniques, sequences, and procedures of construction have been reviewed, or that any examination has been made to ascertain how or for what purpose CONTRACTOR has used the monies or to be paid to CONTRACTOR on account of the contract price, or that title to any work or materials has passed to OWNER free of any liens.
- 14.6. ENGINEER'S approval of final payment does not admit to concurrence, that the conditions precedent to CONTRACTOR'S being entitled to final payment as set forth in paragraph 14.3 have been fulfilled.
- 14.7. OWNER may refuse to pay the whole or any part of any payment if of the opinion it would be incorrect or improper to do so. OWNER may also refuse to make any such payment, or, because of subsequently discovered evidence or the results of inspections or tests, nullify any such payment previously made to the extent necessary to protect OWNER from loss because:
  - 14.7.1 The work is defective, or completed work has been damaged requiring correction or replacement.
  - 14.7.2 Written claims have been made against OWNER or liens have been filed in connection with the work.
  - 14.7.3 OWNER has been required to correct defective work or complete the work in accordance with paragraph 13.14.
  - 14.7.4 Of CONTRACTOR'S unsatisfactory prosecution of the work in accordance with the contract documents, or,
  - 14.7.5 CONTRACTOR'S failure to make payment to Subcontractors, or for labor, materials, equipment, or other financial obligations relating to the project.

**CONTRACT PRICE AND FINAL INSPECTION:**

- 14.8 CONTRACTOR shall maintain current and accurate cost records to ensure that the contract price is not exceeded and shall advise the ENGINEER'S Project Manager in writing no less than fifteen (15) days in advance of the date that the contract price will be reached. **THE CONTRACTOR SHALL NOT EXCEED THE CONTRACT PRICE UNLESS AND UNTIL RECEIVING WRITTEN**



**AUTHORIZATION AS PRESCRIBED BY SUB-PARAGRAPH 14.8.1.  
CONTRACTOR WILL NOT BE PAID FOR WORK PERFORMED IN  
EXCESS OF THE CONTRACT PRICE UNLESS AUTHORIZED IN  
ADVANCE BY THE DNR IN THE PRESCRIBED MANNER.**

- 14.8.1 Should contract price be reached before completion of the prescribed work, all work not completed shall be suspended and not be performed (in whole or in part) unless authorized by change order to Contract issued to CONTRACTOR by OWNER no less than seven (7) days prior to the expenditure of all funds as authorized.
- 14.8.2 Should completion of the work prescribed by the contract documents occur before the contract price is reached, DNR may, in writing and covered by a change order, extend the contract time, denote additional work to be performed, and authorize the CONTRACTOR to continue work until such work (or part thereof) reaches but does not exceed the up-set cost limit as advised in writing by DNR to the CONTRACTOR including change order increases approved in the manner prescribed by the contract documents.
- 14.8.3 When CONTRACTOR considers the work as prescribed by the contract documents is essentially complete and will be completed by a specific date, and the contract price has not been exceeded, the CONTRACTOR shall certify to the ENGINEER, in writing and fifteen (15) days in advance of completion, that the work will be completed on a specific date and request a final inspection by OWNER. Certification shall be accompanied by a realistic estimate of the final contract cost on the day of completion of all work. OWNER will, within seven (7) days of receipt of the certification from CONTRACTOR, either schedule the final inspection as requested or, if unexpended funds permit, authorize additional work as prescribed in sub-paragraph 14.8.2.
- 14.8.4 When CONTRACTOR has determined that the Contract price will be reached prior to completion of all work that is prescribed by the contract documents, he shall notify ENGINEER, in writing no less than fifteen (15) days in advance, that authorized funds do not permit completion of the work as prescribed by the contract documents, that work at the site on the project will be terminated on a specified date, and request a final inspection. OWNER will, within seven (7) days of receipt of notification from CONTRACTOR, schedule the requested termination inspection or, if additional funds are available and in the manner prescribed by the contract documents, authorize continuation of work until completion of

the work or part thereof.

14.8.5 If, as a result of the final inspection by OWNER, EPA, and CONTRACTOR, it is determined that work (or part thereof because of termination due to expenditure of available funds) is acceptable, that site cleanup and debris removal has been complete, and that any and all damage to island wildlife habitat has been repaired, OWNER and EPA will provide CONTRACTOR a written Notice of Acceptance of the work performed by CONTRACTOR. If, as a result of the final inspection by OWNER, EPA, and CONTRACTOR, work or any part thereof is not acceptable or is deficient because of conditions under CONTRACTOR'S actions or lack of actions, or cleanup and debris removal has not been completed or is not acceptable, or because island habitat has not been repaired or properly repaired, ENGINEER will provide CONTRACTOR with a written listing of unacceptable or deficient items for CONTRACTOR to correct at no cost to the OWNER. Upon completion of all specified corrective actions and receipt of notice to the ENGINEER from CONTRACTOR that all corrective actions are completed, OWNER and CONTRACTOR shall inspect the corrections made. If corrective actions are acceptable, OWNER will provide CONTRACTOR a written Notice of Acceptance.

14.9. OWNER shall have the right to exclude CONTRACTOR from the work after the date of substantial completion, but OWNER shall allow CONTRACTOR reasonable access to remove tools, equipment, and other property belonging to the CONTRACTOR and to perform such cleanup activity as may be necessary as the result of such removal.

**PARTIAL UTILIZATION:**

14.10. OWNER reserves no right for use of completed portions of the work prior to substantial completion of the work.

**NOTICE BY OWNER OF ACCEPTANCE OF WORK AND LIEN PERIOD:**

14.11. Upon written notice by the OWNER to the Division of Administration (State of Louisiana), a Notice by Owner of Acceptance of Work will be executed and forwarded to the CONTRACTOR for recording with the Clerk of Court in the parish in which the work has been performed. The CONTRACTOR shall furnish a clear lien certificate from the Clerk of Court to the OWNER forty-five (45) calendar days after the Notice by Owner of Acceptance of Work was recorded with the Clerk of Court. The amount withheld as retainage will be paid to the CONTRACTOR after receipt of the clear lien certificate and any other items that may be required by the contract.

**FINAL APPLICATION FOR PAYMENT:**

14.12. After CONTRACTOR has completed all corrections to the satisfaction of OWNER, and the CONTRACTOR has submitted to the ENGINEER complete bound sets in triplicate of all schedules, guarantees, bonds, certificates of inspection, marked-up record documents, and other documents, all as required by the contract documents, and after issuance of the Notice of Acceptance, CONTRACTOR may make application for final payment following the procedure for progress payments. The final application for payment shall be accompanied by all documentation called for in the contract documents and such other information and data and schedules as OWNER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all liens arising out of or filed in connection with the work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material, and equipment for which a lien could be filed, and that all payrolls material and equipment bills, and other indebtedness connected with the work for which owner or his property might in any way be responsible, have been paid or otherwise satisfied; and consent of surety, if any, to final payment. If any Subcontractor, manufacturer, fabricator, supplier, or distributor fails to furnish bond or other collateral that is satisfactory to DNR to indemnify DNR against any lien any part of or all of the retainage may be held.

**FINAL PAYMENT AND ACCEPTANCE:**

14.13. If, on the basis of OWNER's observation of the construction work and final inspection, and review of the final application for payment and accompanying documentation, all as required by the contract documents, the ENGINEER is satisfied that the work has been completed and CONTRACTOR has fulfilled all of his obligations under the contract documents, ENGINEER will within ten (10) normal work days thereafter approve Application for Payment and process for payment. DNR, thereupon, will give written notice to CONTRACTOR that the work is acceptable subject to the provisions of paragraph 14.17. Otherwise, ENGINEER will return the application to CONTRACTOR, indicating in writing the reasons for refusing to approve for final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the application. When the application and accompanying documentation are appropriate as to form and substance, OWNER shall, within forty-five (45) days of approval of application, pay CONTRACTOR the amount approved less any sums that may

legally be deducted under any provisions of the Agreement including any liquidated damages.

14.14. If, through no fault of CONTRACTOR, final completion of the work is significantly delayed and if confirmed by the ENGINEER, OWNER shall, upon receipt of CONTRACTOR'S final application for payment, and without terminating the Contract, make payment for the balance due for that portion of the work fully completed and accepted.

**CONTRACTOR'S CONTINUING OBLIGATION:**

14.15. CONTRACTOR'S obligation to perform and complete the work in full conformance with the provisions of the contract documents shall be absolute. Neither approval of any progress or final payment by OWNER, nor the issuance of a notice of acceptance, or any payment by OWNER to CONTRACTOR under the contract documents, nor any use or occupancy of the work or any part thereof by DNR, nor any act of acceptance by OWNER or its representatives nor any failure to do so, nor the issuance of any other document pursuant to paragraph 14.13, nor any correction of defective work by OWNER shall constitute an acceptance of work not in accordance with the contract documents or a release of CONTRACTOR'S obligation to perform the work in accordance with the contract documents.

**CLAIMS OF THE CONTRACTOR AND SUBCONTRACTOR:**

14.16. If through acts of neglect on the part of the CONTRACTOR or any of his employees, any other CONTRACTOR or Subcontractor shall suffer loss or damages on the work or shall have a claim against the CONTRACTOR, any agreement by CONTRACTOR with such other CONTRACTOR or Subcontractor shall be without expense to OWNER, and OWNER shall have the right to withhold an amount equal to the amount of the claim until settlement is made. If such other CONTRACTOR or Subcontractor shall assert any claim against OWNER or OWNER's representatives on account of any damage alleged to have been so sustained, OWNER shall immediately notify CONTRACTOR who shall indemnify and save harmless OWNER or OWNER's representatives against any such claim.

**WAIVER OF CLAIMS:**

14.17. The making and acceptance of final payment shall constitute:

14.17.1 A waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled liens, from defective work appearing after final inspection pursuant to paragraph 14.8, or from failure to comply with the contract documents or the terms of

any special guarantee specified therein. However, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligation under the contract documents; and

- 14.17.2 A waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION:

**OWNER MAY SUSPEND WORK:**

- 15.1. OWNER may, at any time and without cause, suspend the work or any portion thereof for a period of not more than thirty (30) days by notice in writing to CONTRACTOR which shall fix the date on which work shall be resumed. CONTRACTOR shall resume the work on the date so fixed. CONTRACTOR, with properly executed OWNER and EPA approvals, will be allowed an increase in the contract price or an extension of the contract time, or both directly attributable to any suspension if he makes a claim therefore prior to resumption of work and as provided in ARTICLES 11 and 12.
- 15.2. Paragraph 15.1 notwithstanding, and for justifiable cause beyond OWNER's control, OWNER has the right to suspend the work for durations greater than ninety (90) days but no longer than eight (8) months. For such suspension of work, OWNER will provide written notice to CONTRACTOR which shall include the estimated date on which work shall be resumed. CONTRACTOR shall plan for resumption of work on the date so estimated. CONTRACTOR, with properly executed OWNER and EPA approval, will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such suspension if he makes a claim therefore prior to resumption of work and as provided in ARTICLES 11 and 12.

**OWNER MAY TERMINATE:**

- 15.3. Upon the occurrence of one or more of the following events:
  - 15.3.1 If CONTRACTOR is adjudged bankrupt or insolvent.
  - 15.3.2 If CONTRACTOR makes a general assignment for the benefit of creditors.
  - 15.3.3 If a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR'S property.
  - 15.3.4 If CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under bankruptcy

or similar laws.

- 15.3.5 If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or acceptable and suitable materials and equipment.
  - 15.3.6 If CONTRACTOR repeatedly fails to make prompt payments to Subcontractors or for labor, materials, tools, or equipment.
  - 15.3.7 If CONTRACTOR disregards the authority of OWNER or any responsible representative of DNR.
  - 15.3.8 If the CONTRACTOR fails to provide safe equipment, tools, working conditions, and personnel.
  - 15.3.9 If the CONTRACTOR fails to provide or disregards measures to protect the vegetation at the site or if wildlife or habitat is destroyed or injured by wanton acts of employees, employees of Subcontractors, or others working for or under the control of CONTRACTOR or Subcontractors.
  - 15.3.10 If CONTRACTOR otherwise violates in any substantial way any provisions of the contract documents.
- 15.4. OWNER may, after giving CONTRACTOR and his Surety seven (7) days written notice, terminate the services of the CONTRACTOR, exclude CONTRACTOR from the site, and take possession of the work and all of CONTRACTOR'S tools, appliances, machinery and equipment at the site and use same to the full extent they could be used by the CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the work all materials stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract exceeds the direct and indirect costs of completing the work, including compensation for any consulting services, such excess shall be paid to the CONTRACTOR. If such costs exceed the unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be verified by an independent third party and incorporated in a Change Order, but in finishing the work OWNER will not be required to obtain the lowest figure for the work.
- 15.5. Where CONTRACTOR'S services have been so terminated by OWNER, the termination shall not affect any rights of OWNER's against CONTRACTOR then existing or which may thereafter accrue. Any retention of payment due CONTRACTOR will not release CONTRACTOR from liability.

15.6. Upon seven (7) days written notice to CONTRACTOR, OWNER may, without cause, and without prejudice to any right or remedy, elect to abandon the work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all work executed, materials paid for but not used and which shall be delivered to OWNER, and any reasonable expenses sustained because of termination including site cleanup, removal of debris, etc. Such expenses shall not include demobilization if not included in the contract.

**CONTRACTOR MAY STOP WORK OR TERMINATE:**

15.7. If, through no act or fault of CONTRACTOR, the work is suspended by OWNER for a period more than that specified in paragraphs 15.1 and 15.2, or under an order of court or public authority, CONTRACTOR may, upon seven (7) days written notice to OWNER terminate the Contract and recover from OWNER payment for all work executed and any expense sustained other than demobilization if such is not included in the contract. The provisions of this paragraph shall not relieve CONTRACTOR of his obligations under paragraph 6.34 to carry on the working accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

15.8. The CONTRACTOR, at his sole discretion, shall have the authority to stop the work, when in his opinion, weather or sea conditions, or both, are too severe to continue work. In addition, CONTRACTOR shall have the same authority to remove his equipment and personnel and others under his employ to safe harbor if and when, in his sole opinion, conditions or forecasts so warrant. Such stoppage of work shall be considered as non-reimbursable downtime; records of such downtime shall be kept, and the applications for payment shall not include costs for such downtime. The extent of such downtime, if in excess of the weather time included in the contract, will be added to the time for contract duration in the manner prescribed. The provisions of this paragraph shall not relieve the CONTRACTOR of his obligations under all remaining terms and conditions of the contract documents.

ARTICLE 16 - MISCELLANEOUS:

**GIVING NOTICE:**

16.1. Whenever any provision of the contract documents require the giving of written notice by OWNER, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or, if delivered at or sent by registered or certified mail or parcel delivery service, postage prepaid, to the last business address of record known to the giver of the notice.

**COMPUTATION OF TIME:**

16.2. When any period of time is referred to in the contract documents by days, it shall exclude the first and include the last day. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the U.S. or the State of Louisiana, such day shall be omitted from the computation.

**GENERAL:**

16.3. Should OWNER or CONTRACTOR suffer injury or damage to itself or its property because of any error, omission, or act of the other party or others for whose acts the other party is legally liable, immediate notification of such injury or damage shall be given to the other party, and a thorough investigation by both parties shall be promptly initiated. Claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage, and such claim shall provide all particulars relating to the extent of injury or damage, the details and results of the investigation, and action taken or is to be taken to prevent a reoccurrence.

16.4. All specifications, drawings, and copies thereof furnished by OWNER shall remain their property. They shall not be used on another project, and, with the exception of those sets which have been signed in connection with the execution of the Contract, shall be returned to OWNER upon completion of the project.

16.5. Exhibit A of these General Conditions details and lists the duties, responsibilities, and limitations of the ENGINEER for the contract work.

16.6. Exhibit B of these General Conditions details and lists the duties, responsibilities, and limitations of OWNER's Resident Project Representative(s) for the contract work.



**EXHIBIT A  
OF  
DIVISION II**

DUTIES, RESPONSIBILITIES, AND LIMITATIONS

OF THE AUTHORITY OF ENGINEER:

**A. GENERAL:**

The ENGINEER for the contract work is a licensed Professional ENGINEER in the State of Louisiana and is the designated representative of the OWNER; is knowledgeable about dredging, the details of the projects, the objectives, and the requirements and limitations necessary as the result of the projects being within and on Barrier Islands; and shall be in responsible charge of the project for OWNER. The ENGINEER shall direct, but not supervise, the activities of the work and the CONTRACTOR. His dealings with Subcontractors and others responsible to the CONTRACTOR will only be through or with the full knowledge of the CONTRACTOR'S Superintendent. The ENGINEER will be the principal contact with OWNER and the recipient of all correspondence and communications directed to OWNER by CONTRACTOR.

The ENGINEER will not be assigned full time to the site but will visit the site and work on an irregular schedule and, additionally, as circumstances and conditions warrant.

**B. DUTIES AND RESPONSIBILITIES:**

The ENGINEER shall:

1. Provide direction for execution of the project in accordance with the contract documents.
2. With concurrence of the CONTRACTOR, adjust or otherwise change sequences of work as on-site conditions require or warrant.
3. Monitor impact of construction activities upon vegetation, wildlife and habitat and make recommendations to CONTRACTOR that will prevent or materially lessen any adverse impacts.
4. Prepare and transmit all correspondence, documents, instructions, and other information as required to the CONTRACTOR and, in turn, receive same from CONTRACTOR.
5. Schedule and attend conferences and meetings as required to exchange and provide information and data pertaining to the administration and performance of the work.
6. Function as Contract Manager and address all matters and

questions pertaining to the contract documents and their terms and conditions.

7. Supervise all activities of OWNER including, but not restricted to, resident project representation, Engineering and Surveying, OWNER initiated tests and sampling, etc.
8. Receive, review, and make recommendations concerning Applications for Payment. Monitor progress for necessary corrections by CONTRACTOR and payment by OWNER.
9. Ensure that proper, correct, and current records are maintained by OWNER and the CONTRACTOR throughout the term of the contract.
10. Monitor the work personally and through the Resident Project Representative(s) and consult with the CONTRACTOR on matters that are pertinent or need to be addressed or corrected including, but not restricted to, safety and environmental matters, performance, schedule, reports and records, drawings and specifications, and conformance with contract documents.
11. Participate in all scheduled inspections of the work.
12. Assist CONTRACTOR as may be requested or required to ensure that OWNER and others do not impede or adversely impact CONTRACTOR'S work, schedule, personnel, or other activities except as may be required to adjust to site conditions, interpret and ensure conformance with the contract documents, and otherwise protect OWNER.
13. Acquire and maintain information and data for the preparation of plans, specifications, and other documents for future work of similar nature at Isles Dernieres, the Timbalier Islands, and other Louisiana barrier islands.
14. Participate in scheduled site visits by public officials, EPA and other agencies having jurisdiction over the project, dignitaries, etc.
15. Determine requirements and prepare and issue regular Project Reports to OWNER, EPA, and such others as designated or approved by OWNER.
16. Assure that CONTRACTOR'S measurements and verifications are performed as required by the contract documents and in a timely fashion.
17. Perform such other duties and responsibilities as assigned by OWNER.

C. **LIMITATIONS OF AUTHORITY:**

1. Shall not undertake any of the responsibilities of the CONTRACTOR, Subcontractors, or CONTRACTOR'S Superintendent.
2. Shall not expedite work for the CONTRACTOR.
3. Shall not issue directions relative to any aspect of the methods, techniques, or procedures of construction unless such is specifically called for in the contract documents or unless such is necessary to prohibit damage or otherwise impact the habitat or wildlife on the islands.
4. Shall not issue directions as to safety programs and precautions in connection with the work.
5. Shall not participate in specialized field or laboratory tests conducted by the CONTRACTOR.
6. Shall not assist contractor in maintaining up-to-date contract drawings, specifications, records, etc.

**EXHIBIT B  
OF  
DIVISION II**

DUTIES, RESPONSIBILITIES, AND LIMITATIONS

OF AUTHORITY OF RESIDENT PROJECT REPRESENTATIVE(S)

**A. GENERAL:**

The Resident Project Representative(s) or OWNER'S Agents shall act as directed by and under the supervision of the ENGINEER. He shall confer with the ENGINEER regarding his actions. His dealings in matters pertaining to the on-site work will be general only with the CONTRACTOR but more specific with the ENGINEER. His dealings with Subcontractors will only be through or with the full knowledge of the ENGINEER and the CONTRACTOR'S Superintendent. His communication with OWNER, ENVIRONMENTAL PROTECTION AGENCY, or others will be only through the ENGINEER.

**B. DUTIES AND RESPONSIBILITIES:**

These duties and responsibilities, as may be more specifically defined by OWNER, shall include the following unless otherwise modified by OWNER during the course of the work:

1. SCHEDULING: - Review the progress schedule, schedule of values, and other schedules prepared by CONTRACTOR and consult with ENGINEER concerning their acceptability.
2. CONFERENCES: - Attend pre-construction and other conferences and meetings as directed by the ENGINEER. Arrange a schedule of progress meetings and other job conferences as directed by the ENGINEER and notify in advance those expected to attend. When attending meetings, maintain and distribute copies of minutes.
3. LIAISON:
  - a. Serve as the ENGINEER'S liaison with CONTRACTOR through CONTRACTOR'S Superintendent or designate and assist him in understanding the intent of the contract documents.
  - b. As directed by the ENGINEER, assist in obtaining additional details or information from CONTRACTOR, when required at the job site for effective monitoring and inspection of the work.
  - c. In the interest of preserving proper contractual channels of communication, advise the ENGINEER of any direct communication with the CONTRACTOR by any

agency, firm, or party not responsible to the CONTRACTOR and not directly involved in DNR/CRD'S management of construction.

- d. Obtain and maintain CONTRACTOR'S daily dredge reports, prepare and submit daily dredging and sediment quantity reports with copies of the CONTRACTOR'S dredge reports, and prepare and submit weekly dredging and project report summaries. Maintain and report dredge down times and cause. Assist the ENGINEER in progress and dredge performance evaluations.
4. WEATHER AND SEA CONDITIONS: - Maintain records of weather, sea conditions, and tides for each shift and submit copies with daily reports. Advise immediately of conditions that may necessitate CONTRACTOR'S relocation of dredge and personnel to safe harbor.
5. TESTS AND SAMPLES:
    - a. Receive samples which are provided by the CONTRACTOR for OWNER'S approval and notify ENGINEER of their availability for examination.
    - b. Advise ENGINEER and CONTRACTOR'S Superintendent of the commencement of any work that requires sample submission.
    - c. Advise ENGINEER and CONTRACTOR'S Superintendent of the commencement of any work that requires tests.
    - d. Receive test results which are provided by the CONTRACTOR for the OWNER'S approval and notify ENGINEER of their availability.
6. REVIEW OF WORK: REJECTION OF DEFECTIVE WORK: INSPECTIONS AND TESTS:
    - a. Conduct on-site observations of the work in progress to assist the ENGINEER in determining that the project is proceeding in accordance with the contract documents and that completed work will conform to plans, specifications, and schedule.
    - b. Report to the ENGINEER whenever he believes that any work is unsatisfactory, faulty, defective, or does not conform to the plans and specifications, or has been damaged, or does not meet the requirements of any inspections, tests, or approvals required to be made; and advise the ENGINEER when he believes work should be corrected, rejected, uncovered for observation, or requires testing and inspection. Maintain a record of such observations and

recommendations.

- c. Verify that tests, equipment and systems operations, and maintenance requirements are conducted as required by the contract documents, and that CONTRACTOR maintains adequate and current records thereof. Observe, record, and report to the ENGINEER appropriate details relative to test procedures and such other matters observed or verified.
- d. Participate in CONTRACTOR'S measurements of excavated quantities and verify that such measurements are obtained and recorded in an acceptable manner in accordance with the contract documents.
- e. Accompany the ENGINEER, OWNER representatives, any visitors representing public or other agencies, and other dignitaries when present at the site for observation or inspection.

7. INTERPRETATION OF CONTRACT DOCUMENTS:

Transmit to CONTRACTOR clarifications and interpretations of the contract documents as issued by the ENGINEER.

8. MODIFICATIONS:

Consider and evaluate CONTRACTOR'S suggestions for modifications in drawings, specifications, sequences, or procedures and report them with recommendations to the ENGINEER.

9. RECORDS:

- a. Maintain at the job site orderly files for correspondence, reports and minutes of job conferences, drawings and specifications, samples and tests, reproductions of original contract documents including addenda, change orders, field orders, additional drawings or design information issued subsequent to the execution of the contracts, and such other information as issued or received pertinent to the work.
- b. Keep a diary or log book recording hours on the job site, weather and sea conditions, list of principal visitors, daily activities, problems, decisions, information relative to questions or extras or deductions, observations in general (performance, progress, safety, etc.), and certain specific observations in more detail as in the case of observing test procedures.

- c. Record names, addresses, and telephone numbers of CONTRACTORS, Subcontractors, ENGINEER, key OWNER'S representatives, and others as directed by the ENGINEER.
- d. Advise the ENGINEER when CONTRACTOR is not maintaining any up-to-date records at the site.

10. REPORTS:

- a. Furnish the ENGINEER periodic reports as required of progress of the work, compliance with approved progress schedule, schedule of any test or sample submissions, and submissions of other schedules.
- b. Consult with the ENGINEER regarding scheduled tests, inspections, or start of new phases or sequences of work.

11. APPLICATIONS FOR PAYMENT:

Observe quantity surveys and verify results. Review with CONTRACTOR for compliance with the established procedure for their submission and forward to the ENGINEER with comment noting particularly their relation to quantities, schedule of values, work completed, and materials delivered to job site.

12. GUARANTEES, CERTIFICATES, AND MANUALS:

Obtain from CONTRACTOR as may be required by the Contract.

13. COMPLETION:

- a. Prior to attaining Substantial Completion, prepare and submit to CONTRACTOR, and ENGINEER a list of observed items requiring correction.
- b. Participate in final inspection with ENGINEER, OWNER, EPA, and CONTRACTOR and record results.
- c. Verify that all items on final inspection list have been corrected and advise the ENGINEER.

**C. LIMITATIONS OF AUTHORITY:**

Except upon written instructions of the ENGINEER, the resident project representative **SHALL NOT:**

- 1. Authorize any deviation from the contract documents or approve any substitute materials unless and until approved by the ENGINEER.

2. Undertake any of the responsibilities of the CONTRACTOR, CONTRACTOR'S Superintendent, Subcontractor, or others responsible to CONTRACTOR.
3. Expedite the work for the CONTRACTOR.
4. Advise on or issue directions relative to any aspect of the means, methods, techniques, procedures, or sequences of construction except as called for by the contract documents.
5. Advise or issue directions as to safety, environmental, and quality control precautions and programs in connection with the work, but this shall not preclude reporting safety hazards, potential or actual environmental damages, or observed quality problems to the CONTRACTOR'S Superintendent when observed.
6. Participate in specialized field or laboratory tests or inspections performed by others.
7. Assist CONTRACTOR in maintaining up-to-date copies of contract documents.
8. Provide information, reports, and data to other persons or parties except as may be processed by, through or with the Construction Project Manager's full consent and knowledge.
9. Presume authority and responsibilities, or undertake any action prohibited by the Construction Project Manager or otherwise not specifically stated herein.



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DIVISION III

SUPPLEMENTARY CONDITIONS

**1.0. SCOPE OF THE WORK:**

1.1. The work to be done under the project is described in the Invitation for Bids.

**2.0. RESERVED:**

**3.0. SHOP DRAWING REQUIREMENTS:** (See GENERAL CONDITIONS, Definitions)

3.1. All drawings, diagrams, illustrations, plots, layouts, quantity survey notes and associated information, sketches, required Plans and Procedures, brochures, schedules, performance charts and determinations, instructions, and other information prepared by CONTRACTOR or a Subcontractor to illustrate some portion of the work shall be furnished as provided by ARTICLE 6 of the General Conditions.

3.2. CONTRACTOR shall be required to submit computations for particular submittals if and when requested by the ENGINEER.

3.3. Approval by ENGINEER is intended only to indicate that the submittals have been reviewed and found to be in general compliance with the contract documents. Approval does not relieve the CONTRACTOR of his responsibility to meet the requirements of the contract documents or any part thereof.

**4.0. RESERVED:**

**5.0. SANITARY ARRANGEMENTS:**

Necessary sanitary facilities for the use of the workmen, OWNER and other Project Representatives, and visitors to the project site are to be provided by the CONTRACTOR at appropriate locations and in a sufficient number, secluded from public observation, and maintained in a proper sanitary and clean condition, and in accordance with directions of the ENGINEER.

**6.0. WEEKENDS, HOLIDAYS, AND NIGHTS:**

When the CONTRACTOR elects to not work on weekends, holidays, and nights; notice of his intention shall be given to the ENGINEER, in writing, sufficiently in advance of such shutdown

to permit OWNER to evaluate and accommodate such shutdown. Adequate lighting of the work place shall be provided by the CONTRACTOR for safe night operations, inspections, and on-site movements.

**7.0. PROHIBITED INTERESTS:**

No official of OWNER who is authorized in such capacity and on behalf of DNR to negotiate, make, accept, or approve or take part in negotiating, making or approving any engineering, inspection, surveying, or other contract or any subcontractor in connection with the construction of this project shall become directly or indirectly interested personally in this contract or any part thereof. No officer, employee, architect, engineer, surveyor, attorney, or inspector of the ENGINEER who is authorized in such a capacity and in behalf of OWNER to exercise any executive, supervisory, or other similar function in connection with the construction of the project shall become directly or indirectly interested personally in this Contract or in any part thereof.

**8.0. REFERENCE POINTS:**

8.1. OWNER will establish such general and specific reference points as will enable the CONTRACTOR to proceed with the work. The CONTRACTOR will be responsible for that portion of the layout not provided by OWNER, will protect and preserve the reference points established by OWNER and CONTRACTOR, and will make no change in locations without the prior written approval of the ENGINEER. CONTRACTOR will report to the ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary change in grades or locations. The CONTRACTOR will replace and accurately relocate all reference points so lost, destroyed, or moved.

8.2. For layout and survey work beyond that provided by OWNER, the CONTRACTOR shall furnish a qualified instrument man (satisfactory to OWNER), crew, equipment, stakes, flagging, and tools needed to establish lines, grades, and elevations for the guidance of his work.

**9.0. CHANGES IN ELEVATIONS AND LOCATIONS:**

9.1. OWNER reserves the right to change the location of lines, elevations, and positions of facilities to be constructed under this contract for any reason deemed necessary, whether to avoid obstructions, prevent damage to existing vegetation, to provide placements more advantageous to

project objectives, or for any reason that would better assure accomplishment of the project objectives.

- 9.2. Should any change in the location, alignment, grade form, or dimensions of any part of the work under the contract be made by OWNER, either before or after the commencement of the work, the CONTRACTOR shall have no claim against DNR/CRD on account of such changes, but shall accept at full compensation the unit rates of the contract for work he is required to do regardless of whether or not the location of said work or parts thereof shall be as shown in the plans upon which the work was bid and compared, provided that such changes shall not involve any additional hazard or burden to the CONTRACTOR. The CONTRACTOR shall thoroughly evaluate the additional burden or hazard that may result from the change, if any, and shall notify the ENGINEER in writing of conditions which may affect the work. The CONTRACTOR will receive an equitable compensation for any such burden or hazard that cannot be avoided in an amount to be agreed upon in writing by the CONTRACTOR and OWNER before the work proceeds.

#### **10.0 PROTECTION OF PUBLIC/PRIVATE FACILITIES:**

- 10.1. The CONTRACTOR, his employees, and all others who are responsible to him shall be cognizant that the projects are totally on state property and that all work, activities, movement to and upon the site, and requirements pertaining thereto in the contract documents are to protect property, habitat, and wildlife from damage or harm. This shall include active oyster leases in adjacent waters.
- 10.2. Access to or movement across the islands outside of the defined project area shall generally be prohibited within vegetated areas for all personnel and equipment. All movements shall be upon or across non-vegetated sand and water areas except as may be specifically authorized on a case by case basis by the ENGINEER.
- 10.3. Trash, debris, garbage, or other objects of any type or size shall not be placed on or be permitted to be blown on or otherwise moved onto any areas of vegetation or other areas as prohibited by the ENGINEER.

#### **11.0 MATERIAL AND CARE OF INSTALLATIONS:**

All excavated and other materials shall be piled or placed so as to not endanger the work and so that free access along permitted routes may be had at any time and safe to all parts of the work sites and shall not inconvenience employees of OWNER, others in the performance of their duties on the islands, visitors to the projects, or members of the public that may access the islands during the course of the project.

**12.0 NOTIFICATION OF STATE OFFICIALS AND OTHERS:**

Sufficient notice (of no less than one week and preferably longer) shall be given by CONTRACTOR to pipeline oil and gas transmission companies whose pipes may be in the area and affected by the work. The CONTRACTOR shall identify such companies and consult with them as to the location and alignment of pipelines in the work area whether live or abandoned. Such identifications and contacts shall be reported by the CONTRACTOR to the ENGINEER.

**13.0 LOCATION OF EXISTING UNDERGROUND PIPELINES:**

13.1. Information as may be provided by OWNER regarding pipelines in or adjacent to the project areas is not warranted as to accuracy, and the CONTRACTOR is responsible for their verification and location.

13.2. CONTRACTOR is advised to secure information relative to underground pipelines in the area of Timbalier Island by consulting with the public agency or officials under whose jurisdiction the installation and maintenance of such lines lie.

13.3. If necessary to determine more precise locations of any identified underground pipelines in the project area, the CONTRACTOR shall be responsible for such determination including but not limited to magnetometer tests and the digging of test holes.

13.4. Underground and subsurface pipelines, if any, shall be located, marked, and protected by CONTRACTOR throughout construction and dredging operations.

**14.0 CONFLICT WITH SURFACE AND SUBSURFACE OBSTRUCTIONS:**

14.1. The CONTRACTOR shall be entirely responsible for all damages to pipelines or any other facility or structure of any kind wherever situated and met with during the prosecution of the work and shall be liable for damages to such property or persons resulting therefrom, which amounts may be deducted from any pay estimate due him for work done.

- 14.2. If it is necessary to work over, or near any pipeline or any other facility or structure of any kind, the CONTRACTOR shall make the necessary arrangements with the parties owning same and shall bear all necessary expenses for protecting same against possible loss or damage.
- 14.3. Reserved.
- 14.4. If the CONTRACTOR shall fail to act promptly to repair or effect the repair or replacement of any damaged pipeline or any other facility or structure of any kind, OWNER may have the repairs or replacements made and deduct the cost thereof from any moneys due or to become due to CONTRACTOR.
- 15.0. **PERMANENT CHANGES OF EXISTING STRUCTURES:**
- No permanent structures are to be affected by the projects.
- 16.0. **PRECAUTIONS:**
- 16.1 Whenever the CONTRACTOR is performing operations that are hazardous to others who are not a part of the operations, as defined by the Occupational Safety and Health Standards (OSHA), he shall provide and maintain appropriate signing of sufficient quality and quantity to warn of the hazard(s).
- 16.2 The safety standards promulgated by, and the precautions defined within same, of OSHA, the United States Coast Guard (USCG), and all other regulating authority having jurisdiction and that are applicable to the work shall be adhered to and enforced by the CONTRACTOR.
- 17.0. **CLEANING SITES:**
- The CONTRACTOR shall keep the work sites, work areas, and adjacent premises clean and free of trash, litter, debris, and rubbish and shall remove same from the site before they constitute a nuisance and become objectionable.
- 18.0. **LEGAL REGULATIONS:**
- The CONTRACTOR and all employees and persons responsible to him directly or indirectly shall comply with all laws, rules, and regulations of the Louisiana State Police, the Terrebonne Parish Sheriff's Office, DNR, USCG, federal authorities, state and Parish Health Departments, and other state or Parish

authorities having regulations and jurisdictional rights applicable to the work or job sites.

19.0.       **WORK STRUCTURES:**

Upon approval by, and subject to the limitations and requirements of the ENGINEER, the CONTRACTOR may provide such temporary structures as may be necessary.

20.0.       **JOB OFFICE(S) FOR OWNER:**

20.1.       The CONTRACTOR shall provide an office at each job site, acceptable to OWNER, for the ENGINEER and an On-Site Representative. The office shall be separate from the CONTRACTOR'S office, work, and storage areas. The office shall be of a size suitable to OWNER and be equipped with two (2) desks with chairs, one filing cabinet, and sufficient 110 Volt electrical outlets to operate office equipment supplied by the ENGINEER.

20.2.       The office shall be provided with lighting, heat, and air conditioning.

20.3.       Furnishings shall consist of or provide access to a plan table, work table, drafting table and stool, and two chairs. Adequate lighting and electrical services shall be provided.

20.4.       The cost for providing and furnishing a Job Office for OWNER shall be included in the contract lump sum price for "Mobilization".

21.0.       **APPLICABLE SEPARATE SPECIFICATIONS:**

21.1.       Occasional reference is made in the Technical Specifications or other sections of the contract documents to portions of Applicable Separate Specifications to be followed during construction of the project. The listing provided below defines abbreviated references and definitions of these Separate Specifications.

21.2.       When provided for in the Technical Specifications, the CONTRACTOR shall be required to obtain all necessary copies of the Applicable Separate Specifications cited therein and shall form a part of the contract documents in the same manner as if fully described herein.

22.0.       **DEFINITION OF APPLICABLE SEPARATE SPECIFICATIONS:**

"LDH STANDARD SPECIFICATIONS" is hereinafter defined as the latest edition of the "Louisiana Department of Standard Specifications for Roads and Bridges", including revisions, available through the Louisiana Department of Transportation and Development in Baton Rouge, LA.

"ASTM" is hereinafter defined as the "American Society for Testing Materials", including revisions, the copies of the applicable portions of which are available from ASTM or may be available from local and state libraries.

"OSHA" is hereinafter defined as the "Occupational Safety and Health Administration", of the U.S. Department of Labor (USDOL) and for the contract documents includes the OSHA Standards, including revisions, the copies of which are available from the USDOL.

"ANSI" STANDARDS is hereinafter defined as the "American National Standards Institute Standards", including revisions, the copies of which can be obtained from ANSI in Washington, D.C.

"WPCF" is hereinafter defined as the "Water Pollution Control Federation, Manual of Practice No. 9.

23.0. **OPEN SPECIFICATIONS:**

Not applicable.

24.0. **EXAMINATION OF DRAWINGS AND SPECIFICATIONS:**

24.1. It is the responsibility of the CONTRACTOR to examine the drawings, specifications, and other contract documents carefully before submitting his bid with particular attention given to errors, omissions, conflicts with portions of drawings, or between specifications. Any such discrepancy discovered shall be brought immediately to the attention of the ENGINEER for interpretation and correction.

24.2. Omissions from the drawings or specifications or an error in the description of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the CONTRACTOR from performing such omitted or misdescribed details of the work, but they shall be performed as if fully set forth and described in the drawings and specifications.

24.3. Should any of the aforementioned errors, omissions, conflicts, or ambiguities, existing in either or both of the specifications and plans, the CONTRACTOR shall not avail himself of such intentional error, omission or conflict but shall have the same explained or adjusted in writing before proceeding with the work; otherwise he shall at no cost to OWNER supply the proper materials and labor to make good any damage or defect in his work or the results therefrom, caused by such errors, omissions, or conflicts. Figures marked on drawings shall in general be followed in preference to scaled measurements. Large scale drawings shall in general govern small scale drawings. The CONTRACTOR shall compare all drawings and verify the figures before laying out the work and will be responsible for errors which might have been avoided thereby.

**25.0. SAFETY PROGRAM:**

25.1. CONTRACTOR shall, within fourteen (14) calendar days of contract award and prior to starting work on the project, provide the ENGINEER with a copy of his "Safety Policy Manual" and all Safety Procedures as established by the CONTRACTOR.

25.2. Concurrent with 25.1, CONTRACTOR shall, advise the ENGINEER of his Injury Frequency Rating and provide OWNER with copies of the reports required by and submitted to OSHA for the preceding twenty four (24) months. This shall include Incident Reports for accidents and injuries.

25.3. The CONTRACTOR shall set up and enforce the Safety Program at the site.

25.4. In addition to CONTRACTOR'S normal safety program and practices, the CONTRACTOR shall institute a daily inspection program on each shift to assure that safety requirements are being fulfilled. Reports of daily shift inspections shall be maintained at the job site and be made available to the ENGINEER for review upon request. The reports shall be records of the daily inspections and resulting actions. Each report shall include, as a minimum, the following:

- a. Construction underway.
- b. Area of work.
- c. Results of inspections, including nature of deficiencies observed, and corrective actions taken,



or to be taken, date, and signature of the person responsible for its contents.

- 25.5. Machinery and mechanical equipment compliance:
- a. Each piece of motorized construction equipment shall be equipped with at least one dry chemical or carbon dioxide fire extinguisher having a minimum UL rating of 5-B:C.
  - b. The stability of all motorized equipment shall be assured.
  - c. All motorized equipment brought to the job site shall be thoroughly inspected prior to being placed into service.
  - d. When a piece of motorized equipment is operated on a floating plant, etc., either a bumper or curb with minimum height of one-third of the outside diameter of the largest tire on the equipment, a barge tied alongside, or other means approved in writing by the ENGINEER shall be used to prevent equipment and operator from moving or falling into the water.
  - e. Inspections shall be made which will insure a safe and economical operation of all motorized equipment and mechanical parts thereof. Copies of the inspections and tests shall be available at the job site for review by OWNER or his representative.

25.6. MEANS OF ESCAPE FOR PERSONNEL, QUARTERED OR WORKING, ON FLOATING PLANT:

Two means of escape shall be provided for assembly, sleeping and messing areas on floating plants. For areas involving ten (10) or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where nine or fewer persons are involved, one of the means of escape may be a window (min. 24 in. by 36 in.) which leads to different exit route. Refer to Section 26 of EM 385-1-1.

25.7. EMERGENCY ALARMS AND SIGNALS:

- a. Alarms: Emergency alarms shall be installed and maintained on all floating plants requiring a crew where it is possible for either a crewman or visitor to be out of sight or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby

batteries on trickle charge that will automatically furnish the required energy during an electrical system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background of noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

b. Signals:

- (1). Fire Alarm Signals: The general fire alarm signal shall be in accordance with Paragraph 97.13-15b of the Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels, Sub-Chapter I, Sep 77 (CG 257).
- (2). Abandon Ship Signals: The signal for abandon ship shall be in accordance with Paragraph (7.13-15c of reference cited in b.(1). above.
- (3). Man-Overboard Signal: Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

25.8. HURRICANE PLAN:

A detailed plan for protection and evacuation of personnel and plant, in the event of an impending hurricane or tropical storm is required as an attachment to the CONTRACTOR'S Accident Prevention Program.

The Hurricane Plan shall be submitted to the ENGINEER for review prior to the pre-construction conference. The Plan shall include at least the following:

- a. The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the work site if it continues at the predicted speed and direction.
- b. The safe harbor(s) for personnel, plant, and vessels identified.
- c. The name of the vessel(s) that will be used to move the plant and details as to type, capacity, speed, and availability.

- d. The estimated time necessary to move the plant to the designated safe harbor after movement is started.

**26.0. SIGNAL LIGHTS:**

26.1. The CONTRACTOR'S floating plant shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the U.S. 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 wrecks, dredges, and vessels engaged in laying cables or pipe in a submarine operation; lights to be displayed on dredge pipelines, and day signals to be displayed by vessels more than 65 feet 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 Commandant, U.S. Coast Guard (Inland Navigation Rules Act of 1980 including and such addendum or revisions thereto).

26.2. Signal lights for all floating discharge lines shall conform to the lighting requirements of the U.S. Coast Guard published in the Inland Navigation Rules Act of 1980 and such addendum or revisions thereto.

**27.0. SEAWORTHINESS:**

27.1. All dredges, and all floating plants used in this contract to quarter personnel and not subject to U.S. Coast Guard inspection and certification, must be inspected and certified sea-worthy by a reputable Marine Surveyor who is recognized in the trade and acceptable to OWNER. The certificate must be applicable to the intended use, must be current, and must be submitted to the ENGINEER before the start of work. Certification of additional or substitute plant must be submitted to the ENGINEER before such plant may be used on the contract.

27.2. The Seagoing Barge Act (46 U.S.C 395 et seq) applies to this project. The CONTRACTOR shall comply with all U. S. Coast Guard Regulations pertaining to the Seagoing Barge Act.

**28.0. POLLUTION CONTROL:**

28.1. CONTAMINATION OF WATER: The CONTRACTOR shall not pollute bayous, canals, bays, lakes, or waterways

with fuels, oils, bitumens, calcium chloride, insecticides, herbicides, other chemicals, or other similar materials harmful to shellfish, fish, waterfowl, or wildlife or materials which may be detrimental to the environment or to outdoor recreation. It is the responsibility of the CONTRACTOR to investigate and comply with all applicable federal, state, and parish laws concerning pollution of rivers and streams, and protection of shellfish, fish, wildlife, and domestic animals.

- 28.2. DISPOSAL OF MATERIALS: The methods and locations of disposal of materials, wastes, effluent, trash, garbage, oil, grease, chemicals, etc., within the right-of-way limits and waters adjacent to the project shall be such that debris will not enter the waters. The CONTRACTOR shall submit to the ENGINEER for approval his planned method for disposal of debris and wastes afloat and onshore.
- 28.3. STYROFOAM AND OTHER CHEMICALLY FORMED FLOTATION MATERIALS USED FOR DISCHARGE PIPELINES: The CONTRACTOR will be responsible for removal of all debris caused by the use of such flotation materials at the dredge site or other locations used to install, store, or repair the floating pipelines. Suitable banding, mesh, or other covering will be required on such flotation materials to prevent deterioration during normal dredge operations.
- 28.4 VISQUEEN OR SIMILAR PLASTIC SHEETING MATERIAL USED AT THE PROJECT SITE: The CONTRACTOR will be responsible for the removal and safe disposal of such material upon completion of its use.
- 29.0. ENVIRONMENTAL LITIGATION:
- 29.1. If the performance of all or any part of the work is suspended, delayed, or interrupted due to the order of a court of competent jurisdiction as a result of environmental litigation, as defined below, OWNER, at the request of the CONTRACTOR, shall determine whether the order is due in any part to the acts or omissions of the CONTRACTOR or Subcontractor at any tier required by the terms of the contract. If it is determined that the order is not due in any part to acts or omissions of the CONTRACTOR or Subcontractor at any tier other than as required by the terms of the contract, such suspension, delay, or interruption shall be

considered as if ordered by OWNER in the administration of this contract under the terms of the "Suspension of Work" clause of the contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and any adjustment shall be made for any increase in contract time and increase in cost of the performance of the work (excluding profit) as provided in the aforementioned clause, subject to all the provisions thereof.

29.2. The term "Environmental Litigation" as used herein means a lawsuit alleging that the work has an adverse impact upon the environment or that OWNER has not duly considered, either substantively or procedurally, the effect of the work on the environment.

**30.0. MISPLACED MATERIAL:**

Should the CONTRACTOR, during the course of the work, lose, dump, throw overboard, sink, or misplace any material, equipment, machinery, appliance, or tool, which in the opinion of OWNER or CONTRACTOR may be dangerous to or obstruct navigation, recreational activity, or commercial activity, the CONTRACTOR shall recover and remove the same with the utmost dispatch. The CONTRACTOR shall give immediate notice, with description and location of such obstruction(s) to the ENGINEER or Site Representative and when required shall mark or buoy such obstruction until removed. Should CONTRACTOR refuse, neglect, or delay compliance with the above requirements, any such obstruction may be removed by OWNER, and the cost of such removal may be deducted from any money due or to become due to the CONTRACTOR, or may be recovered from his bond. The liability of the CONTRACTOR for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899. (33 U.S.C. 410 et seq).

**31.0. MAINTENANCE OF TRAFFIC:**

31.1. The CONTRACTOR shall, within reason, provide and maintain both through and local marine traffic at all times and shall conduct his operations in such a manner as to cause the least possible interference with traffic.

31.2. Marine traffic in the work area may consist of fishing craft, sport craft, offshore crew and work boats, barge tows, and other craft.

31.3. OWNER will not undertake to keep the work area free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed in accordance with the provision of Section 7 of the River and Harbor Act approved August 8, 1917 and amended thereto. The CONTRACTOR will be required to conduct the work in such a manner as to obstruct navigation as little as possible and in case the plant of the CONTRACTOR so obstructs the work area as to make difficult or endanger the passage of vessels in marked channels, said plant shall be moved on the approach of any vessel in the marked channel to such extent as may be necessary to afford a safe passage. Upon completion of the work, the CONTRACTOR shall promptly remove his plant, including ranges, buoys, piles, and other markers placed by him under the contract in navigable water or on shore.

32.0. **TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER:**

32.1. This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with Contract DIVISION II. The listing below defines the monthly anticipated adverse weather for a calendar year and is based upon historical data for the geographic location of the project.

**MONTHLY ANTICIPATED ADVERSE WEATHER CALENDAR DAYS \***

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1	7	0	0	0	3	10	11	0	0	0

32.2. The Contract shall denote the number of adverse, non-productive, non-reimbursed weather days within the total days specified for the work. The CONTRACTOR'S schedule must also reflect anticipated adverse weather delays on all weather dependent activities.

32.3. The above schedule of anticipated weather will constitute the base line for monthly (or portion thereof) weather time evaluations. Upon acknowledgment of the Notice to Proceed and continuing throughout the contract on a monthly basis, actual adverse weather days, or portions thereof, and their impact upon construction are to be recorded on a calendar day basis and compared to

the monthly anticipated adverse weather in subparagraph 32.1. above and that specified in the Contract.

32.4. The number of actual adverse weather days shall be calculated chronologically from the first to the last day of the month. Once the number of actual adverse weather days anticipated in paragraph 32.1 above have been incurred, ENGINEER will examine any subsequently occurring adverse weather days to determine whether CONTRACTOR is entitled to a time extension. These subsequently occurring adverse weather days must prevent billable work, standby and productive, for more than twelve (12) hours of the day or, if working on a short day for any approved reason, for more than 50% of such short work day. DNR will convert any days meeting the above requirements to calendar days and issue a modification in accordance with the terms of the contract documents.

33.0. **INSPECTION:**

33.1. OWNER'S Representatives/Inspectors will inspect the maintenance of gages, ranges, location marks, and limit marks in proper order and position; but the presence of the OWNER'S Representative shall not relieve the CONTRACTOR of responsibility for the proper execution of the work in accordance with the plans and specifications as issued or as may be modified by OWNER to accommodate field conditions. The CONTRACTOR will:

- a. Furnish, on request of the OWNER'S Representative, the use of such boats, boatmen, laborers, and material forming a part of the usual and ordinary equipment and crew of the plant as may be reasonably necessary in inspecting and supervising the work, for CONTRACTOR'S surveys as required to determine excavated quantities for pay items, and for other similar uses.
- b. Furnish, on the request of the ENGINEER or Representative, suitable transportation to and from the various pieces of the plant, and to and from floating equipment and the islands.

33.2. When the CONTRACTOR elects to work a shortened work day, notice of his intention to do so shall be given to the OWNER'S Representative in writing, within a reasonable time in advance thereof.

- 33.3. Night operations shall be adequately lighted for thorough and safe inspection of operations and shall be provided by the CONTRACTOR at his expense.
- 33.4. The CONTRACTOR shall furnish living and office quarters for a minimum of two inspectors on each dredge on the Quarters Barge or onshore, a suitable separate room for office and sleeping purposes. The room shall be fully equipped and maintained to the satisfaction of OWNER; it shall be properly heated, ventilated, air conditioned, and lighted and shall have a desk which can be locked, a comfortable bed and chair, and washing facilities. The entire cost to the CONTRACTOR for furnishing, equipping, and maintaining the foregoing accommodations shall be included in the contract lump sum price for "Mobilization."
- 33.5. If the CONTRACTOR maintains on this work an establishment for the subsistence of his own employees, he shall furnish the OWNER's Representatives and ENGINEER and OWNER's agents who may visit the site on official business, meals of quality satisfactory to OWNER. The entire cost to the CONTRACTOR for furnishing meals for up to (3) OWNER's Representatives shall be included in the contract lump sum price for "Mobilization".
- 33.6. The CONTRACTOR shall furnish and maintain throughout the contract time, one FM ship's radio transceiver with power not in excess of 25 watts and at 15 watts output on the maritime frequencies of 156.800 (Channel 16) and 156.375 (Channel 67) MHz 16F3 emission, with plus or minus deviation at 100% modulation for communications and to be operated in accordance with FCC regulations.
- 33.7. In the event that the CONTRACTOR should have more than one area operating simultaneously under this contract, then the above specified radio equipment shall be furnished and maintained at each place.
- 33.8. Should the CONTRACTOR refuse, neglect, or delay compliance with any requirement of paragraph 33, the specific facilities may be furnished and maintained by OWNER, and the cost thereof will be deducted from any amounts due or to become due to the CONTRACTOR.



33.9. No separate payment will be made for work required under paragraph 33. The cost thereof shall be included in the "Mobilization" price.

DIVISION IV

TECHNICAL SPECIFICATIONS

SECTION IV-1

HYDRAULIC DUNE AND FILL

1.0. **SCOPE:**

1.1. The work covered consists of furnishing all plant, equipment, labor, and materials and performing all operations in connection with excavation in designated borrow areas, and placement of dredged sand sediment within designated containment area.

1.2. Dredged material will be used to fill the areas from which insitu material was obtained and to provide a fill for area between the dunes containment dikes in a manner to obtain final quantities and contours.

2.0. **QUALITY CONTROL:** (See Division II, Article 6.0, Paragraph 6.40 through 6.48)

The CONTRACTOR shall establish and maintain quality control for the maximum productive excavation, sediment transport, and fill operations to assure compliance with contract requirements. He will maintain records of his quality control for all operations including but not limited to the following:

2.1. EQUIPMENT: Types, sizes, and suitability for the prescribed work.

2.2. MATERIALS: Suitability and visual classification.

2.4. CONSTRUCTION: Layout and positioning of discharge pipes and splitter valve, dispersal and spreading of slurry within bounds prescribed, dewatering, integrity of the sand fills, slopes, elevations, and dimension.

2.5. PREVENT CONTAMINATION OF VEGETATION:

Control of discharge to prevent destructive overflow or discharge onto vegetated areas outside of the bounds prescribed except as may be allowed at the work by the ENGINEER or representative.

3.0. **SUITABLE FILL MATERIALS:**

3.1. Areas designated to be filled shall be hydraulically filled using a cutter head dredge. Suitable materials from designated borrow areas have been identified and

shall be used per the plans and specifications. The dredged material will be placed within the containment dikes for partial dewatering, consolidation, and later shaping and grading, or within the area designated for beach fill. Suitable materials are defined as sand (SP) and silty sand (SM), as per the Unified Soil Classification System, and subject to the limitations of Paragraph 3.2,

- 3.2. Materials which are unsuitable, regardless of water content, are defined as masses of organic matter, sticks, branches, roots, and other debris. Isolated pieces of sea shells and wood will not be considered as objectionable provided their length does not exceed one foot, the volume of any mass does not exceed 48 cubic inches, and they are not clustered within the fill. Not more than ten percent (10%) by volume of sea shells, two percent (2%) by volume of clay, and one percent (1%) by volume of wood shall be in each cubic yard of sand. Pockets and/or zones of excessive clay or silty clay and sea shells shall not be used unless specifically authorized by the ENGINEER, and this is dependent upon location and site condition.

#### 4.0. SEQUENCE OF CONSTRUCTION FOR MATERIAL PLACEMENT:

- 4.1. The dredged fill shall be discharged within the contained area in a manner that will minimize overflow of the dredged material from the bounds of its placement area, except as may be otherwise authorized by the ENGINEER. Where, in the opinion of the CONTRACTOR, undesirable overflow onto vegetated areas can not be reasonably prevented or acceptably minimized by repositioning the discharge, the CONTRACTOR shall obtain direction and/or approval of the ENGINEER or site representative before doing the work in question.
- 4.2. Vegetated areas shall not be used for equipment, personnel, or material access or storage except as may be authorized by the OWNER or his representative. Trash and debris shall not be allowed to accumulate and is to be removed daily.
- 4.3. Splitter valves and/or baffling shall be used as may be required to control the velocity and force of the discharge to prevent excessive erosion and to facilitate stacking of the dredged material.
- 4.4. At all times during placement of dredged material; the CONTRACTOR shall provide a supervisor on shore to control the discharge operations and the movement and placement

of the fill. The supervisor on shore shall be equipped with radio or telephone facilities to provide direct communication with the dredge operator as specified in the General Provisions.

- 4.5. The CONTRACTOR shall place splash boards, baffling or other device at the discharge end of the pipe in order to prevent, as far as practicable, scouring and the forming of holes or craters and shall take all necessary precautions to prevent damage to dikes and existing areas.
  - 4.6. Trestles, if built to support discharge pipes, shall have no horizontal member except at the top. As the fill rises, all trestles shall be raised as necessary and removed when fill is completed.
  - 4.7. The CONTRACTOR shall remove all masses of organic matter or other debris promptly and before such objectionable material sinks or is covered. Such debris shall be disposed of as specified for debris disposal in these contract documents.
  - 4.8. Fill placement shall begin on the east end or middle and thence proceed in a westerly direction. Sequencing will be finalized at the pre-construction meeting.
- 5.0. **BORROW AREAS** :( See SPECIAL PROVISIONS, Paragraph 13.0).
- 5.1. Coordinates for all borrow areas defining area limits are listed on the plans. The control points are also shown and described on the drawings.
  - 5.2. Suspected pipelines within or adjacent to the borrow areas, if any, are denoted on the drawings. It is the CONTRACTOR'S responsibility to maintain the location of all pipelines.
  - 5.3. The CONTRACTOR shall be responsible for providing and maintaining all navigational aids and warnings and the equipment and materials necessary to do so efficiently within the limits required by the USCG and other regulating authority.
  - 5.4. The Contractor shall not dredge beyond the X, Y, Z recommended limitations shown on the plans without prior written approval from the ENGINEER.
- 6.0. **MEASUREMENT AND PAYMENT:** (See Division II, Article 14)
- 6.1. Measurement: Measurement will be based on borrow pit

cross sections taken by the Contractor before and after dredging. Before and after dredge cross sections for measurement shall be taken weekly as a minimum. Each week's total will be summed to obtain the monthly pay volume.

- 6.2. Payment: Payment will be made monthly at the contract unit price per cubic yard for hydraulic fill.

SECTION IV-2

CONTAINMENT CONSTRUCTION

**1.0 SCOPE:**

- 1.1 This work consists of furnishing all labor, equipment, and materials for performing all operations in connection with the construction of land and water containment dikes. Erosion protection incidental to maintenance of containment dikes will not be paid for directly.
- 1.2 Dike construction using insitu materials will precede other work and will be constructed to accommodate the sequence of construction for material placement described in Section IV-1, Paragraph 4.0. Bayside dike construction shall permit drainage of excess water without erosion.
- 1.3 Contractor shall take special precautions when excavating near pipelines. Known pipelines are labeled on the drawings but shall be verified by the Contractor.

**2.0 EQUIPMENT:**

- 2.1 The Contractor shall provide equipment of sufficient type, size, quality and quantity to perform the prescribed work.
- 2.2 The Contractor shall provide the Engineer with a schedule for dike construction prior to beginning the work.

**3.0 CONTAINMENT CONSTRUCTION:**

- 3.1 Gulf side containment will precede bayside containment to the extent deemed necessary by Contractor to provide protection to the project areas and frontal containment of the dredge material. Unless otherwise authorized, Contractor shall only use overwash sands and bottom sediments for construction of Gulf side containment. Gulf side and bayside land containment will be shaped to the typical section shown on the drawings.
- 3.2 Overflow structures as designed shall be placed, operated, and maintained by the Contractor at no direct pay. A minimum of two overflow structures shall be in position at all times.

**4.0 MEASUREMENT AND PAYMENT:**

- 4.1 Measurement for containment dikes shall be made monthly.

Measurement shall be made by the Project's Project Representative on the basis of linear feet of containment constructed, completed in accordance with the Plans and specifications.

- 4.2 CONTRACTOR shall maintain the integrity of the containment dikes during hydraulic fill. All maintenance costs associated with maintaining the containment dikes will be included in the lump sum price of the containment dikes.
- 4.3 Payment: Payment will be made monthly at the contract unit price per linear foot for containment dikes.

SECTION IV-3

GRADING AND SHAPING FILL AREAS

1.0 **SCOPE:**

- 1.1 The Contractor shall furnish all labor, material and equipment and perform all operations required to shape and grade hydraulic fill to the lines and grades established on the typical section in the project plans.
- 1.2 The Contractor will be required to determine the extent of overfilling (not overfill ratio) per station (100') required to shape and grade the final cross section. Unacceptable roughness of filled surfaces and areas in which equipment has operated shall be graded to the satisfaction of the Engineer.
- 1.3 The following tolerances will be allowed for shaping and grading.
  - 1.3.1  $\pm 0.5$  feet on elevation
  - 1.3.2  $\pm 5$  feet on width
  - 1.3.3  $\pm 10$  feet on alignment
  - 1.3.4  $\pm 20\%$  on slope.

The Contractor is responsible for checking all alignment, grades, slopes, and widths during construction.

SAND FILL: The fill within the project area shall be as close as possible to the design grades and profiles shown on the drawings or as may be modified by the ENGINEER to accommodate conditions. Finish elevations shall be within the tolerances shown above. This tolerance provides for the design grade in the final dressing if on the plus side, provided that excess material is so distributed that the required crowns remain without abrupt humps or depressions in the surface, and the side slopes are uniform. If sand fill is on the negative side, final dressing shall maintain the required crown shape without humps and depressions in the surface, and the side slopes are uniform.

SLIDES: Should sliding occur in any part of the dunes or dikes during or after construction, but prior to acceptance, the CONTRACTOR may be required by the ENGINEER, upon written order, to rebuild that portion of the dune in such a manner as prescribed. In case the slide is caused through fault of the CONTRACTOR, the rebuilding shall be performed at no additional cost to



DNR. If not the fault of the CONTRACTOR, the material ordered removed and/or replaced shall be paid by the contract unit price in the manner prescribed by the contract documents.

DEPRESSIONS: Depressions within or adjacent to the filled areas, and excluding vegetated areas if external of the filled areas, shall be filled with suitable material to adjacent grades to ensure drainage unless otherwise directed by the ENGINEER.

- 1.4 All equipment shall be of size, type, and quality intended for this type of construction.
- 1.5 Bayside and intermediate containment shall remain in place and shall not be graded as part of shaping.
- 1.6 All shaped and graded cross sections shall be maintained in that condition until substantial completion. No partial completion will be granted. Only as a result of an Act of God (Tropical Storm or Hurricane) shall the Contractor be relieved of his responsibility to maintain completed sections.
- 1.7 The Contractor shall furnish all field notes in book form or disk on all work partially or finally completed.

## **2.0 MEASUREMENT AND PAYMENT:**

- 2.1 Grading and shaping shall be measured by the station (100 feet per station). Measurement will be rounded to the nearest tenth of a station. Measurement will only take place after the Contractor has shown the Engineer as-built cross sections that are within the tolerances specified.
- 2.2 Payment for grading and shaping shall be made monthly at the contract unit price per station for work completed in accordance with the plans and these specifications.

## SECTION IV-4

### MOBILIZATION

#### 1.0 **SCOPE:**

1.1 Mobilization includes all costs that are not directly measured and paid for. Such costs include, but are not necessarily limited to the following:

1.1.1 Room, board, and meals for all personnel including Owner and the Engineer Representatives and Inspectors.

1.1.2 fuel, lube, maintenance, and repair of equipment

1.1.3 special equipment purchases required by Owner

1.1.4 overflow boxes and pipes

1.1.5 removal of structures and obstructions

1.1.6 temporary construction facilities such as field office on island

1.1.7 offshore radio telephones

#### 2.0 **MEASUREMENT AND PAYMENT:**

2.1 OWNER will pay for Mobilization and Demobilization only once. Should the CONTRACTOR elect to demobilize and seek safe harbor in severe adverse weather, a decision solely at the CONTRACTOR'S discretion, or for any other reason requested of OWNER in advance and acceptable to and approved by the ENGINEER, such demobilization and subsequent remobilization shall be at no cost to OWNER.

All costs connected with the mobilization of CONTRACTOR'S plant, equipment, personnel, and those of his Subcontractors and such other costs as may be denoted in the contract documents shall be paid at the contract lump sum price.

Sixty percent (60%) of the lump sum price will be paid to the CONTRACTOR upon completion of his mobilization at the work site of each project. At 50% completion of each project an additional 20% will be paid. At 75% completion, an additional 20% will be paid.

In the event OWNER considers that the amount of the mobilization cost does not bear a reasonable relation to the cost of work in this contract, OWNER may require the CONTRACTOR to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of OWNER will result, at the discretion of OWNER, (1) a determination that the bid and or bidder is non-responsive and the bid is invalid, or (2) OWNER will

pay actual mobilization costs at the completion of the mobilization at the island, and actual demobilization costs, as determined by OWNER, at the completion of demobilization at the island, and payment of the remainder of this item in the final payment under this contract. Such determinations of OWNER are not subject to appeal.

SECTION IV-5

BUCKET DREDGING

1.0. **SCOPE:**

- 1.1 The work covered consists of furnishing all labor, materials, and equipment, and performing all operations in connection with excavation of flotation canals, specifically shown and designated as such on the drawings.
- 1.2. Incidental bucket dredging to access a work site is a no direct pay item.
- 1.3 Equipment shall be of a type and size that is suitable to deposit dredged material in designated disposal areas.
- 1.4 Payment will not be allowed for over cut greater than two feet.
- 1.5 Once dredged, flotation canals shall be maintained at the plan dimensions for the duration of the contract at no direct pay.

Timbalier Island

- 1.8 Dredged material shall be deposited at designated location.
- 1.9 The timber wharf shall be constructed immediately after dredging to facilitate access to the island.

2.0. **MEASUREMENT AND PAYMENT:**

- 2.1 Payment shall be made monthly under the bid item for access dredging on a percent complete of the total per lump sum.

SECTION IV-6

SAND FENCING

1.0 **SCOPE:**

1.1. Sand fencing will be installed the length of the dunes, to aid in the stabilization of the sand and to aid in sand retention within the project area. This will consist of two rows of fence placed parallel to the dune in the general direction of west to east. Each section will be 500 feet in length. A three-foot offset will allow for access through the fencing. Steel fence posts are to be used for vertical support and will be eight (8) feet long driven four (4) feet into the ground and placed ten (10) feet on centers. The slatted, wood sand fencing will be wired to the posts at each wire and at the top and bottom. The wire shall be corrosion resistant and affixed with no less than four (4) wraps around the posts. At the end of fence sections, four wraps of wiring shall be used at each wire, at equal points in between, and at top and bottom. An additional row of fencing, or part thereof, may be installed should the width of the dune face require it. Access through the fencing will be as shown on the drawings.

Fence posts shall be vertically plumb, and alignment will follow the contour of the dune face at the toe of the dune.

1.2 **POSTS:** Posts shall be of the standard type meeting AASHTO Standard Specifications. They may be hot dipped galvanized per ASTM A525 (preferred) or they may be painted meeting the appropriate AASHTO specifications for surface preparation and painting. If painted, the finish coat may be green (preferred), orange or red.

Slats shall be made of No. 1 aspen or spruce measuring 3/8 inch thick, 1-1/2 inch wide by 4 feet long. The slats shall be painted with a good quality red iron oxide stain. Maximum distance between slats shall not exceed 2-1/4 inches.

Wire for securing slats shall be good commercial quality steel that has been hot-dipped galvanized with a minimum gage rating of 13. The wire shall be twisted around the slats sufficiently to penetrate the slat to hold it in place. Wire strands shall not exceed 10 inches and shall not be closer than 4 inches from slat ends.

Sand fence shall be furnished in rolls of 50 feet or 100 feet.

1.3 FENCING: Fencing shall be standard, weather resistant type of sand fencing. It may be weather proofed by an acceptable pressure treatment method or painted. If painted, the final coat shall be green (preferred), orange, or red.

1.4 TIE WIRE: The wire that is used to tie the fence to the posts shall be galvanized and of the same size or larger than the individual wires used for the fencing.

2.0 **MEASUREMENT AND PAYMENT:**

2.1 Sand fencing shall be measured for payment by the linear foot completely installed in accordance with the plan details and these specifications.

2.2 Payment shall be made monthly for sand fence completely installed at the contract unit price per linear foot for sand fence.

## SECTION IV-7

### TURBIDITY SCREENS

#### **1.0 SCOPE:**

1.1 The work covered consists of furnishing all equipment, materials, and labor to install and maintain turbidity screens in the locations shown on the plans and in accordance with these specifications.

#### **2.0 PURPOSE:**

2.1 The Contractor shall furnish, install maintain turbidity screens to provide sedimentation protection to adjacent active oyster leases from dredging or filling operations.

#### **3.0 GENERAL CONSIDERATIONS:**

3.1 The turbidity screen shall deflect and contain sediment within a limited area and provide enough residence time to allow soil particles to fall out of suspension and not flow to other areas, which could cause negative impacts upon adjacent oyster beds. It shall be designed to deflect suspended solids or sediment from intrusion into an area where environmental damages may be expected to occur from the settlement of suspended particles.

3.2 The turbidity screens shall not act as water impoundment barrier, but they are designed and permit the movement of water. The turbidity screens shall not be anchored from the bottom edge or bottom load line. Since the screen will be installed in tidal water conditions, provisions must be made to allow the volume of water contained within the screen to change. Since the screen is anchored, the volume of water contained within the screen should be expected to increase. In addition to slack in the screen to allow rise and fall, water must be allowed to flow through the screen, if the screen is to remain in roughly the same position and to maintain the same containment shape. In order to achieve this, part of the screen must be constructed from a high strength woven geotextile fabric. The fabric allows the water to pass through the screen, but retains the sediment. Consideration shall be given to the volume of water that must pass through the fabric and sediment particles size when specifying fabric permeability.

#### **4.0 DESIGN CRITERIA - TURBIDITY SCREEN CHARACTERISTICS**

4.1 The screen shall be configured for use in an area where

there will be small to moderate current running up to 2 knots or 3.5 feet per second and where wind and wave action can affect the screen, even in low velocity currents. The maximum depth of the water in the locations shown is five (5') feet. The turbidity screens shall extend the entire depth. The depth of the screen should not exceed manufacturer's design recommendations nor be deeper than the water. The screen shall not be in contact with the bottom. A minimum one (1) foot "gap" shall be maintained between the weighted lower end of the skirt and the bottom at 0.0 NAVD. The manufacturers shall avoid an excessive amount of joints in the screen. A minimum continuous span of 100 feet between joints is recommended. The ends of the screen, both floating upper and weighted lower shall extend well up (10 feet) into the shoreline since high water conditions are expected. The ends should be secured firmly to the shoreline to fully enclose the area where sediment may enter the water. Because of tidal or moving water conditions, a heavy woven pervious filter fabric may be substituted for the normally recommended impervious PVC fabric.

## **5.0 ANCHORING CONSIDERATION**

5.1 The quantity, anchor weight, and interval of anchors shall be determined by the manufacturer and his recommendations shall be followed. Marine anchors must be sufficient to hold the screen in the same position relative to the bottom of the watercourse with the screen in its designated position. The anchor may dig into the bottom (grappling hook, plow, or fluke-type), or may be weighted (mushroom type, cement block), and should be attached to a floating anchor buoy to the connector of the screen. Do not connect an anchor line directly to the top load line of a barrier. The anchor lines shall contain enough slack to allow the buoy and the screen to float freely with tidal change without pulling the buoy or screen down, and must be checked regularly to make sure they do not become entangled with debris, anchor lines, or other potentially damaging materials or equipment. Driven piles or posts shall be placed at intervals recommended by the manufacturer which will sufficiently hold the screen under extreme conditions.

## **6.0 INSTALLATION**

6.1 In tidal waters, it is important to set all screen anchor points prior to screen deployment. Always attach anchors to the top load line, between flotation devices (most recommended), or to the connector at the water line. Anchors should not be attached to the bottom of the



screen or the bottom ballast/load line. Attaching anchors to the bottom of the screen could cause damage or premature failure of the screen. Care must be taken to ensure that anchor points are of sufficient holding power to maintain the screen under the existing current conditions, prior to putting the furled screen into the water. The screen should remain furled until completely anchored in place. Anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points and to visibly mark the anchor locations for other waterway traffic. If the moving water into which the screen is being installed is tidal, it is important to provide anchors on both sides. When the anchors are secure, the furled screen should be attached to the upstream anchor point, and then sequentially attached to each next downstream anchor point, allowing the current to act as a transporter until the entire screen is in position. At this point, and before unfurling, the "lay" of the screen should be assessed, and any necessary adjustments made to the anchors. Finally, when the anchoring system is attached to the screen, and the location and position is as desired, the furling lines should be cut, allowing the skirt to drop to its maximum depth.

## 7.0 TURBIDITY SCREEN SPECIFICATIONS - FABRICS

7.1 The screen fabric must meet the minimum requirements: The screen may be manufactured utilizing 18 oz. per square yard, fabric or 22 oz. per square yard fabric. This choice shall be in compliance with expected maximum current conditions, projected weather conditions, project longevity, and other pertinent criteria. The 18 oz. per square yard fabric shall be either a coated or a laminated fabric, certified by the fabric manufacturer, and shall have minimum specifications of:

Base Fabric:	Weight per square yard:	2.56 oz.
	Scrim:	Polyester/Nylon
	Denier:	Warp 1000/Fill 1000
	Fabric Count:	10 x 10
Total Weight per square yard:		18 +/- 1 oz
Adhesion of PVC:		18 lbs.
Hydrostatic Resistance:		365 lbs.
Tensile Strength:		Warp 225 lbs/Fill 212 lbs
Tear Strength:		Warp 85 lbs/Fill 120 lbs
Mullen Burst:		360 p.s.i.
Ultraviolet Resistant		
Mildew Resistant		
Rot Resistant		
Flame Certification	- ASTM E-84, Class A/UL - 214	

The 22 oz. per square yard fabric shall be PVC coated fabric only. Laminated fabrics are not recommended. The 22 oz. fabric shall be certified by the fabric manufacturer as having a minimum specification of:

Base Fabric:	Weight per square yard:	6.0 oz.
	Fabric Count:	Warp 26/Fill 12
	Denier:	1000 x 1800
	Scrim:	Polyester/Nylon
	Weave:	Oxford
Total Weight per square yard:		22 +/- 1 oz
Adhesion of Coating:		25 lbs/2 inch
Type of Coating:	Face:	PVC / Back: PVC
Hydrostatic:		600 lbs.
Distribution:	Face:	60% / Back: 40%
Tensile Strength (grab):	Warp	500/Fill 450
Tensile Strength (1"):	Warp	400/Fill 300
Abrasion Resistance:		300 Cycles* Normal 550
Tear Strength (tongue):	Warp	110/Fill 110
Ultraviolet Resistant		
Mildew Resistant		
Rot Resistant		
Flame Certification - ASTM E-84, Class A/UL - 214		

## 8.0 COLOR

8.1 Screens shall be a highly visible bright color (yellow or international orange are recommended), that will attract the attention of boaters and other navigating vessels.

## 9.0 SEAMS AND SEALS

9.1 All seams shall be of hot air welding, RF welding, or sewn in accordance with the specifications of this section. Metal plates or strips, Plastic strips, and other forms of inappropriate sealing mechanisms of the materials shall not be accepted as they do not attain a continuous watertight seal, may be the direct cause of damages to the screen (edges), or fatigue (break) causing the loss of seal and ultimate failure of the screen.

### 9.1.1 PVC Reinforced Fabrics:

All seams of PVC reinforced fabric in the horizontal directions shall be hot air welded (fabric manufacturers recommended procedure), to a minimum of 1-1/2 inches in width forming a continuous unbroken seal and attaining a parting strength equal to or greater than the adhesion specification of the fabric. RF welding in the horizontal direction is not recommended. All seams of PVC reinforced fabric in the vertical direction shall be RF welded with a

minimum width of 1 inch. All RF welded seams in the vertical direction shall overlap a minimum of 1 inch. All end seals in the vertical direction of the PVC reinforced fabric of the constructed screens shall maintain a minimum width of 2 inches.

#### Woven Geotextile Fabrics:

All seams of Woven Geotextile fabrics shall be sewn in such a manner (300 series lock stitch recommended), that the seams exceed the strength of all fabrics incorporated in the finished product. As a minimum no less than two (2) sewn lines shall be acceptable. Geotextiles shall be folded at the sewn edge to attain maximum strength.

### 10.0 FLOTATION

10.1 Flotation shall be flexible, buoyant units, contained in an individual flotation sleeve or collar attached to, or an internal part of, the screen. Buoyancy provided by the flotation units shall be sufficient to support the weight of the screen and maintain a minimum freeboard of 80% of the flotation height above the water surface level.

The flotation shall have minimum specifications of:

- a. 19 lbs per cubic foot buoyancy
- b. Polystyrene block
- c. Maximum length of 8 feet
- d. Diameter of: TYPE 1: 6 inches to depths of 10 feet
- e. All edges shall be made blunt
- f. All ends shall be tapered and blunted

### 11.0 LOAD LINES

#### 11.1 BOTTOM LOAD LINE

Load lines shall be fabricated into the bottom of all floating turbidity screens. This bottom tension load line shall be a chain incorporated internally into the bottom continuous hem (bottom pocket), of the screen of sufficient weight to serve as ballast to hold the screen in a vertical position when no load is applied. The ends of each chain shall be securely fastened to the vertical edges of each section of barrier utilizing a galvanized shackle. Quick Links or other means of fastening is not recommended.

#### 11.2 UPPER LOAD LINE

The upper load line must have a load line fabricated into the top of the fabric. The upper load line shall be a

vinyl - sheathed steel cable, or uncoated cable inserted through tubing. The wire rope (cable) shall be 5/16 inch diameter, 7x19 galvanized wire rope with minimum breaking strength of 9,800 lbs. The wire rope shall be HD thimble and swaged at both ends, the swedge shall completely cover the exposed ends of the cable. The wire rope shall be inserted and completely encapsulated through tubing which shall not impede the vertical movement of the wire rope. Continuous tubing shall be used; separate pieces or sections of tubing shall be unacceptable. The wire rope shall terminate a distance of no less than six (6) inches from the leading vertical edge of the barrier and be attached to a hook (with latch) which meets or exceeds the break strength of the wire rope.

## 12.0 DRAINS

12.1 Sufficient drains, a minimum of six (6), shall be provided to allow complete drainage of the bottom ballast pocket upon recovery of the screen, of all water or the release of trapped air during deployment.

## 13.0 CONNECTING DEVICES

13.1 Per manufacturer recommendations or the following:

### 13.1.1 LACE - GROMMET

Most often used in the MARK I barrier. The #5 Grommets shall be provided at one (1) foot intervals along the vertical edge of the barrier. The use of 1/4" rope to tie the vertical edges together.

### 13.1.2 ASTM UNIVERSAL CONNECTOR

Shall be an extruded continuous connector made of 6061-T6 Marine Grade Aluminum conforming to the ASTM standard design. The "quick" or "Z" ASTM designs are not recommended for use with turbidity barrier.

### 13.1.3 PVC SLOTTED TUBE TYPE

This, the most common of turbidity barrier connecting methods for the MARK II, MARK III, and PC-2 barriers, shall be Schedule 40 PVC tubing by aluminum bands which are riveted to the tube by aluminum pop rivets. The opening shall not exceed 1/4 inch in width. All corners shall be rounded. The PVC Slotted Tube connector shall include a lanyard and peg which shall have sufficient length and diameter to fit to and through a grommet located at

the top corner of the barrier preventing loss of the PVC Slotted tube when deploying, recovering, or when stresses force the connector to release from the screen. The PVC Slotted Tube should be allowed to automatically release from the screen when the current or water volume exceeds the full strength of the screen itself thereby preventing undue damage to the barrier.

#### 13.1.4 HOOK AND O-RING

A hook equal to or stronger than the wire rope shall be attached no less than six (6) inches from the vertical leading edge of the barrier and shall mate to an O-Ring on the opposing or matching leading edge of the adjacent barrier. The O-Ring shall be no less than six (6) inches from the leading vertical edge of the barrier. The wire rope, O-Ring, and hook shall be securely fastened to the boom by aluminum plates located below the wire rope for a distance of not less than twelve (12) inches.

### 14.0 MAINTENANCE

14.1 The turbidity barrier shall be maintained in a condition which shall ensure the continuous protection should repairs to the turbidity barrier be necessary, there are repair kits available from the manufacture; manufacturer's recommendations or instructions must be followed to ensure the adequacy of the repair and continued appropriate use of the screen. The screen may require occasional cleaning while deployed. This might be required during long-term deployment. Excessive marine growth often requires removal to stabilize the barrier and help it retain the minimum designed freeboard. The extreme weight of marine growth or accumulated sediment in geotextiles could cause damage, excessive loss of freeboard, or premature failure of the screen.

- a. The use of a sharp instrument to scrape debris and growth from the screen is not recommended. This may cause rips or tears.
- b. The use of a long handled scrubbing brush is recommended.
- c. The use of high pressure water cleaning equipment may be used observing all safety precautions.
- d. Shaking of sections of the screen while deployed should remove large amounts of silt embedded in geotextile fabrics.
- e. The use of chemicals is not recommended. Some

chemicals have a direct adverse affect upon the fabric or other parts of the barrier causing damage. Chemicals may also damage the environment, require special handling, or require special disposal in accordance with local, state, and federal law.

When the screen is no longer required, as determined by the inspector, the screen and related components shall be removed in such a manner as to minimize the release of sediment and creation of turbidity. Remaining sediment shall be sufficiently settled before removing the screen. Sediment may be removed and the original depth restored.

**15.0 MEASUREMENT AND PAYMENT:**

- 15.1 Turbidity Screen shall be measured for payment by the linear foot completely installed in accordance with the plan details and these specifications.
- 15.2 Payment shall be made monthly for turbidity screen completely installed at the contract unit price per linear foot for turbidity screen.

SECTION IV-8

TREATED TIMBER

**DESCRIPTION.** This work consists of furnishing lumber of the sizes and grade specified and of furnishing timber of the stress-grade, sizes and dimensions for the different uses specified, treated or untreated, and of preparing, framing, assembling and erecting the same, including painting where specified, and all hardware.

**MATERIALS.** Materials shall conform to the following Subsections of the Standard Specifications For Roads and Bridges, 1992 edition (Silver Book).

Structural Timber and Lumber	1014.01
Preservatives	1014.03
Treatment	1014.04
Connectors	1018.07
Hardware and Structural Shapes	1018.08
Roofing Pitch	1018.13

**SPECIES OF WOOD.**

(a) **Permanent Structures:** Timber and lumber used in permanent docks, wharves, fenders and bulkheads may be either Douglas Fir or Southern Yellow Pine, provided the same species is used throughout each structure.

**STORAGE OF MATERIAL.** Lumber and timber stored on the site shall be kept in orderly stacks. When directed, protection from the weather by suitable covering will be required.

**TREATED TIMBER.**

(a) **Workmanship:** Nails and spikes shall be driven with just sufficient force to set the heads flush with the surface of the wood. Deep hammer marks in wood surfaces shall be considered evidence of poor workmanship and sufficient cause for removal of the workman causing them.

(b) **Surfacing:** Lumber and timber, except bulkhead planks and sway bracing, shall be S4S.

(c) **Handling:** Treated timber shall be handled with rope slings, without dropping or breaking of outer fibers, bruising, or penetrating the surface with tools.

(d) **Framing and Boring:** Cutting, framing and boring of treated timbers shall be done before treatment insofar as practical. When treated timber is to be placed in waters infested by marine borers, untreated cuts, borings or other joint framings below high-water elevation shall be avoided.

(e) **Installation of Timber Connectors:** The split ring and the shear plate shall be installed in precut grooves of dimensions as specified or as recommended by the manufacturer. The toothed ring

and the spike grid shall be forced into contact surfaces of the timbers joined by means of pressure equipment. Connectors of this type at a joint shall be embedded simultaneously and uniformly. Fabrication of structures using connectors shall be done prior to treatment. Bolt holes shall not be more than 1/16 inch larger than bolt diameter and shall be bored perpendicular to the face of the timber.

Timber, after fabrication, shall be stored in a manner which will prevent changes in dimensions of members before assembly.

Dimensions of materials and details not specified shall be subject to approval.

**(f) Cuts and Abrasions:** Cuts and abrasions in creosoted piles or timbers, after having been carefully trimmed, shall be covered with two applications of creosote conforming to Subsection 1014.03(e) of the Standard Specifications For Roads and Bridges, 1992 edition (Silver Book), and covered with hot roofing pitch.

Cuts and abrasions in timbers treated with other preservatives shall be repaired with the same preservative.

**(g) Bolt Holes:** Holes bored in pressure-treated material shall be filled with preservative. Unused bore holes and spike holes shall be poured full of preservatives and plugged with tight-fitting treated plugs.

**(h) Temporary Attachment:** When, with the approval of the engineer, forms or temporary braces are attached to treated timber with nails or spikes, holes shall be filled by driving galvanized nails or spikes flush with the surface or plugged as required for bolt holes.

#### **TREATMENT OF PILE HEADS.**

**(a) General:** Pile heads, after cutting to receive caps and prior to placing caps, shall be treated to prevent decay. Pile heads to be encased in concrete will not require treatment.

Immediately after making final cut-off on treated timber foundation piles, the cut area shall be given two liberal applications of preservative followed by a heavy application of coal-tar pitch or other approved sealer. Heads of treated timber piles in bents or where the cut-off is exposed shall be protected by one of the following methods, as specified. If not specified, galvanized metal coverings shall be used.

**(b) Galvanized Metal Coverings:** The sawed surface shall be thoroughly brush coated with two applications of hot creosote oil, after which there shall be placed two layers of heavy canvas size 20 by 20 inches saturated with hot asphalt, followed by 24 by 24 inches 28 gage galvanized metal cover. The cover shall be bent down over the pile at an angle of approximately 45E.

**(c) Fabric Covering:** Heads of treated piles shall be covered with alternate layers of hot pitch and loosely woven fabric conforming to AASHTO M 117, using four applications of pitch and three layers of fabric. The cover shall measure at least 6 inches more in dimension than the diameter of the pile and shall be neatly folded down over the pile and secured by large headed galvanized



nails or by binding with at least seven complete turns of galvanized wire securely held in place by large-headed galvanized nails and staples. Edges of fabric projecting below the wire wrapping shall be trimmed to present a workmanlike appearance.

Heads of untreated piles shall be thoroughly brush coated with two applications of Creosote conforming to Subsection 1014.03(e) of the Standard Specifications For Roads and Bridges, 1992 edition (Silver Book).

**HOLES FOR BOLTS, DOWELS, RODS AND LAG SCREWS.** Holes for drift bolts and dowels shall be bored 1/16 inch less in diameter than bolt or dowel. For square drift bolts or dowels, the diameter of the bored hole shall be equal to the least dimension of the bolt or dowel.

Holes for machine bolts shall be bored the same diameter as the bolt.

Holes for rods shall be bored 1/16 inch greater in diameter than the rod.

Holes for lag screws shall be bored not larger than the body of the screw at the base of the thread.

**BOLTS AND WASHERS.** A washer of the size and type specified shall be used under bolt heads and nuts which would otherwise come in contact with wood. Stacked washers will not be permitted. Bolts shall not project more than 1 inch beyond the nut on work securely tightened.

Long bolts shall be saw-cut or clipped ground smooth and repaired as specified in Subsection 811.15 of the Standard Specifications For Roads and Bridges, 2000 edition (Red Book).

Nuts of bolts shall be locked after they have been tightened.

**COUNTERSINKING.** Countersinking shall be done when smooth faces are required. Horizontal recesses formed for countersinking shall be painted with creosote conforming to Subsection 1014.03(e) and, after bolt or screw is in place, filled with hot pitch.

**FRAMING.** Lumber and timber shall be accurately cut and framed to a close fit in such manner that joints will have even bearing over the contact surfaces. No shimming will be permitted in making joints nor will open joints be accepted. Mating pieces shall be tightly bound or clamped in position prior to drilling bolt holes.

**MEASUREMENT AND PAYMENT.** Treated timber will not be measured for payment. Payment for furnishing and installing treated timber will be made under the bid item for Treated Timber Construction.

SECTION IV-9

BEARING PILES

**DESCRIPTION.** This work consists of furnishing and driving piles of the kind and size designated to the required penetration.

**MATERIALS.** Materials shall conform to the following Sections and Subsections Standard Specifications For Roads and Bridges, 2002 edition (Red Book):

Timber Piles

1014

**PREPARATION FOR DRIVING.**

**(A) Equipment for Driving Piles:**

**(1) Steam and Air Hammers:** The plant and equipment furnished for steam and air hammers shall have sufficient capacity to maintain at the hammer, under working conditions, the volume and pressure specified by the manufacturer. The plant and equipment shall be equipped with accurate pressure gauges which are easily accessible for viewing by the engineer. The weight of the striking parts of air and steam hammers shall not be less than 1/3 the weight of drive head and pile being driven, and in no case shall the striking parts weigh less than 2,750 pounds.

**(2) Diesel Hammers:** Open-end (single acting) diesel hammers shall be equipped with a device such as rings on the ram or a scale (jump stick) extending above the ram cylinder, to permit the engineer to visually determine height of fall of the ram at all times during pile driving operations. The contractor shall provide the engineer with a chart from the hammer manufacturer equating stroke and blows per minute for the open-end diesel hammer to be used. Closed-end (double acting) diesel hammers shall be equipped with a bounce chamber pressure gauge, in good working order, mounted near ground level so as to be easily read by the engineer. Also, the contractor shall provide the engineer a chart, calibrated to actual hammer performance equating bounce chamber pressure to either equivalent energy or stroke for the closed-end diesel hammer to be used. This chart shall be provided within 90 calendar days before driving.

**(B) Collars:** Collars, bands or other approved devices to protect timber piles against splitting or brooming shall be provided where necessary or as required by the engineer.

**(C) Splicing Piles:**

**(1)** Timber piles shall be furnished and driven full length where possible. Splicing of timber piles may be made only by written permission and in accordance with the splicing detail approved by the engineer.

**METHODS OF DRIVING.**

**(a) Description:** Pile driving equipment furnished by the contractor shall be approved by the Engineer. Equipment shall be such that piles will obtain required penetration without damage. Gravity hammers will be permitted only when driving timber piles. In no case shall the driving equipment be transported to the project site until approval is received in writing. As a prerequisite to such approval, the contractor shall submit the necessary pile driving equipment information at least 30 calendar days prior to driving piles. The minimum energy developed by the hammer shall be specified herein for the various type piles. The adequacy of diesel hammers in meeting the 1 foot-pound of energy for each pound of pile criteria will be determined by rating the diesel hammer at 85 percent of the maximum rating specified by the manufacturer. During pile driving operations, the contractor shall use the approved system. No variations in the driving system will be permitted without the Engineer's written approval. In the event the pile driving hammer is causing damage to the pile, the contractor shall supply additional hammers to drive the pile without damage.

**(b) Hammers for Timber Piles:** Gravity hammers for driving timber piles shall weigh not less than 2,000 pounds, but in no case shall the weight of the hammer be less than the combined weight of the driving head and pile. The fall shall be so regulated as to avoid damaging piles and in no case shall it exceed 10 feet. When timber piles are driven with steam, air or diesel hammers, either single or double acting, the total energy developed by the hammer shall not be less than 7,200 nor more than 20,000 foot-pounds per blow.

**(c) Hammer Cushion:** All impact pile driving equipment except gravity hammers shall be equipped with a suitable thickness of hammer cushion material to prevent damage to the hammer or pile and to ensure uniform driving behavior. Hammer cushions shall be made of durable, manufactured materials, provided in accordance with the hammer manufacturer's guidelines except that wood, wire rope, and asbestos hammer cushions shall not be used. A striker plate as recommended by the hammer manufacturer shall be placed on the hammer cushion to insure uniform compression of the cushion material. The hammer cushion shall be inspected in the presence of the engineer when beginning pile driving at each structure and periodically during the pile driving. The contractor shall replace the cushion when the reduction in thickness exceeds 25 percent of the original thickness.

**(d) Driving Caps:** When the nature of driving requires protection for timber piles, pile driving heads shall be cushioned by an approved cap. The cap shall have a suitable cushion next to the pile head. When the area of the head of a timber pile is greater than that of the face of the hammer, a suitable cap shall be provided to distribute the blow of the hammer throughout the cross section of the pile.

Special driving heads, mandrels or other devices shall be provided as recommended by the manufacturer for special types of piling so the pile may be driven without damage.

(e) **Pile Cushion:** The heads of concrete piles shall be protected by a pile cushion made of suitable wood. The pile cushion dimensions shall match the cross sectional area of the pile top.

(f) **Additional Equipment:** If required penetration of the pile is not obtained by the use of a hammer complying with the above requirements, the contractor shall, with approval, use pilot holes or water jets or both with the hammer.

(g) **Leads and Templates:** Equipment shall be constructed in such manner as to afford freedom of movement of the hammer and to drive piles to the tolerances specified without damaging piles. Either fixed leads or swinging leads may be used. Swinging leads shall be used in combination with a rigid template providing pile support meeting the approval of the engineer. Inclined leads shall be used in driving batter piles.

(h) **Accuracy of Driving:** Piles shall be driven shown on the plans or as ordered in writing.

(i) **Extent of Driving:** Driving shall be continued until plan cut-off is reached or until satisfactory penetration and resistance are obtained. If desired resistance to driving is not obtained at plan cut-off, the engineer has the option of either loading a permanent pile to determine its capacity or continuing to drive the pile until satisfactory resistance is obtained. The additional length of pile required shall be supplied by splicing.

**DEFECTIVE PILES.** The procedure used in driving piles shall not subject them to excessive abuse which produces cracking, crushing, splitting, splintering and brooming of timber. Any pile found to be unacceptable due to internal defects, by improper driving, driven out of proper location, or driven below required elevation shall be corrected at no direct pay by one of the following methods approved by the engineer:

1. The pile shall be withdrawn and replaced by a new and, if necessary, a longer pile.

2. A second pile shall be driven adjacent to the defective pile.

3. The pile shall be spliced or built up as otherwise provided herein or a sufficient portion of the footing extended to embed the pile. Timber piles shall not be spliced without approval.

4. The cap or footing shall be redesigned at no direct pay and shall be approved by the engineer. The contractor will not be allowed additional compensation for increased quantities in a bent or footing due to driving additional piles to correct defective piles.

**MEASUREMENT AND PAYMENT:** Treated timber piles, furnished and driven, shall not be measured for payment. Payment for treated timber piles shall be made under Bid Item No. 8, Timber Construction.