

PRELIMINARY

THE BOARD OF COMMISSIONERS
OF THE
ORLEANS LEVEE DISTRICT
SPECIFICATIONS
FOR
CONTRACT 2043 - _____

EXCAVATION AND FLOOD PROTECTION - 17TH STREET CANAL
PHASE IB
HAMMOND HIGHWAY TO SOUTHERN RAILWAY

_____, 1989

OCT 10 1989

17TH STREET CANAL

PHASE IB

CONTRACT _____

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INSTRUCTION TO BIDDERS

B-1 CROSS REFERENCE TO PRIMARY STATEMENTS

Definitions, requirements, and limitations affecting the bidding are contained in the various contract documents, and are not necessarily repeated in these instructions.

B-2 QUALIFICATION OF BIDDERS

In determining the Bidder's qualifications, the following factors will be considered: Work previously completed by the Bidder and whether the Bidder (a) maintains a permanent place of business, (b) has adequate plant and equipment to do the Work properly and expeditiously, (c) has the financial resources to meet all obligations incident to the Work, and (d) has appropriate technical experience.

Each bidder shall submit with his bid evidence satisfactorily to the Board of his ability, experience and familiarity with work of the character specified, by completing the form titled "Bidder's Experience Form" attached to these specifications. bids received without the required data shall be considered informal and may be rejected.

Bidders may be required to submit evidence that they have the financial resources to complete the proposed work and that they have handled former work so that no just claims are pending against such work. No Bid will be accepted from a Bidder who is engaged in any work which would impair his ability to perform or finance this Work.

B-3 LOUISIANA LICENSE REQUIREMENTS

Only bids of Contractors licensed under LSA R.S. - 37:2150 et seq. will be considered. Licensing is supervised by the Louisiana Licensing Board for Contractors, State Capital Building, Baton Rouge, Louisiana. Contractors desiring to bid shall submit with their Bids evidence that they hold a valid license in the proper classification(s). Further, the Contractors shall be required to present evidence that they hold a valid license in the proper classification(s) prior to release of the Bid Documents to the Contractor.

B-4 FAMILIARIZATION WITH THE WORK

Before submitting his Bid, each prospective Bidder shall familiarize himself with the Work, the site where the Work is to be performed, local labor conditions and all laws, regulations and other factors affecting performance of the Work. He shall carefully correlate his observations with the requirements of the Contract Documents and otherwise satisfy himself of the expense and difficulties attending performance of the Work. The submission of a Bid will constitute a representation of compliance by the Bidder. There will be no subsequent financial adjust for lack of such familiarization.

B-4.01 Site Conditions

Each Bidder shall visit the site of the Work and the surroundings thereof, and completely inform himself relative to construction hazards and procedure, and availability of lands, the character and quantity of surface and subsurface materials, and utilities to be encountered, the arrangement and condition of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operation of existing facilities, the character of construction equipment and facilities needed for performance of the Work, and facilities for transportation, handling, and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the Bid.

B-4.02 Prebid Conference

A Pre-Bid Conference will be held at the Orleans Levee District offices located at Room 202, Administration Building, New Orleans Lakefront Airport, New Orleans, La., 70126 at 2:00 P.M., local time, on _____, _____, 1989. Representatives of the Engineer and Owner will be present to discuss the Project and answer questions. Bidders are encouraged to attend and participate in the conference.

B-4.03 Interpretations

All questions about the meaning or intent of the Contract Documents shall be submitted to the Engineer in writing. Replies will be issued by Addenda mailed or delivered to all parties recorded by the Engineer as having received the bidding documents. Addenda will be issued at least 72 hours (excluding weekends and holidays) prior to the time stated for opening bids. Questions received less than seven (7) calendar days (excluding weekends and holidays) to the time for opening of Bids will not be answered.

B-5 TAXES AND PERMITS

Attention is directed to the requirements of the General and Supplementary Conditions regarding payment of taxes and obtaining permits. All taxes that are lawfully assessed against the Owner or Contractor in connection with the Work shall be paid by the Contractor. The bid prices shall include all such taxes and the costs of all required permits.

B-6 BID SECURITY

The amount of bid security is stated in the Advertisement for Bids. The required security must be in the form of a certified or bank cashier's check or a bid bond. The bid bond must be executed by a surety, meeting the requirements set forth in General Conditions.

The bid security shall be made payable without conditions to the Board of Commissioners of the Orleans Levee District hereinafter referred to as the Owner. The bid security may be retained by and shall be forfeited to the Owner as liquidated damages if the Bid is accepted and a contract based thereon is awarded and the Bidder should fail to enter into a contract in the form prescribed, with legally responsible sureties, within twelve days after such award is made by the Owner.

B-7 RETURN OF BID SECURITY

The bid security of the successful Bidder will be retained until he has executed the Agreement and furnished the required Contract Security, whereupon checks furnished as bid security will be returned; if he fails to execute and deliver the Agreement and furnish the required Contract Security within twelve days of the Notice of Award, the Owner may annul the Notice of Award and the bid security of that Bidder will be forfeited. The bid security of any Bidder whom the Owner believes to have reasonable chance of receiving the award may be retained by the Owner until the seventh day after the executed Agreement is delivered by the Owner to the Contractor and the required contract Security is furnished, but not to exceed 60 days after the Bid opening. Checks furnished as bid security by other Bidders will be returned within fourteen (14) days of the Bid opening.

B-8 CONTRACT TIME

The Contract Time is an essential part of the contract and it will be necessary for each Bidder to satisfy the Owner of this ability to complete the Work within the time set forth in the Bid Form. Provisions for delays, liquidated damages, and extensions of time are set forth in the General Specifications.

B-9 SUBCONTRACTORS AND SUPPLIERS

Within seven days after Bids are opened, the apparent low Bidder, and any other Bidder so requested, shall submit a list of all Subcontractors he expects to use in the Work.

B-9.01 Subcontractor Qualification

Particular consideration will be given to the qualifications of each Subcontractor proposed to perform more than 10 percent of the Work. An experience statement with pertinent information as to similar projects and other evidence of qualification shall be furnished for each named Subcontractor, as requested by the Owner. If the Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, he may, before giving the Notice of Award request the apparent low Bidder to submit an acceptable substitute without an increase in his Bid. If the apparent low Bidder declines to make any such substitution, Notice of Award shall not be given to such bidder, but in declining to make substitution he will not thereby sacrifice his bid security. Any Subcontractor so listed and to whom the Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to the Owner and Engineer.

The Contractor shall not be required to employ any Subcontractor against whom he has reasonable objection.

The use of Subcontractors listed by the Bidder and accepted by the Owner prior to the Notice of Award and will be required in the performance of the Work.

B-9.02 Suppliers

The list of Subcontractors shall also include the suppliers and manufacturers of principal items or materials and equipment the Bidder expects to use in the Work unless such suppliers or manufacturers are named in the Bid.

The Bidder shall list the suppliers and manufacturers of materials and equipment.

The Bidder shall list the suppliers and manufacturers of materials and equipment.

B-9.03 Manufacturer's Data

The list of Subcontractors submitted as provided herein shall be accomplished by two prints or copies of data on equipment and materials to be furnished by each supplier or manufacturer. Data so submitted shall illustrate the physical characteristics of the materials to be furnished. The drawings submitted prior to the Notice of Award must contain sufficient detail for the Engineer to determine whether the materials will conform to the Contract Documents.

The Contract Documents will take precedence over any non-forming data submitted.

Any Bid specifically conditioned upon furnishing equipment or materials which are not responsive to the Contract Documents will not be considered.

B-10 BIDS

B-10.01 Form of Proposal

The Form of Proposal is bound with the Contract Documents. Bid Forms must be completed in ink.

Bids by corporations must be executed in the corporate name by the president or vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The state of incorporation shall be shown below the corporate name. Bids by partnerships must be executed in the partnership name and signed by a partner; the title and official address of the partnership must be shown below the signature. Bids by joint ventures shall be signed by each participant in the joint venture or by an authorized agent of each participant.

The names of all persons signing must also be legibly printed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation, without disclosing his principal, may be held to be the Bid of the individual signing. When requested by the Owner, evidence of the authority of the person signing shall be furnished.

All blank spaces in the Bid Form shall be filled in ink. A bid price shall be indicated for each item, alternative, and unit price therein listed. Bids received without all such items completed will be considered nonresponsive.

The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers and dates of which shall be filled in the Bid Form.

No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, the Owner may require the Bidder to identify any alteration so initialed.

B-10.02 Bid Pricing

The unit prices listed in the Bid Form including those items designated as lump sum pay items shall be based on the Work indicated on the Drawings and as specified in these Specifications. The Contractor is, therefore, responsible for determining the quantities for all work items necessary to complete the Work and shall base his bids accordingly.

The Award shall be made to the lowest responsive, and responsible Bidder.

B-10.03 Submission of Bids

The entire bound set of specifications, properly executed by the Bidder, shall be submitted in a sealed envelope and identified, all in accordance with Paragraph 1.01 of the General Specifications. Bidders shall provide their own duplicate copies. If the specifications are not attached to the Bid proposal, Bond Form, and Bid Information, it will be assumed no qualifications to the Bid have been made.

A sample envelope sufficiently large for this submittal is available to the Bidder from the Orleans Levee District. Each bidder shall label such (or similar envelope) with the appropriate information as printed on the Orleans Levee Board furnished envelopes and as provided by the specifications.

If the Bid is sent by mail, the standard sealed envelope shall be enclosed in a separate mailing envelope with the notation "BID ENCLOSED" on the face thereof.

Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Advertisement for Bids, or the modified time and date indicated by Addendum. Bids received after the time and date for receipt of Bids will be returned unopened.

Bidders shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

Oral, telephone, or telegraphs Bids are invalid and will not receive consideration.

No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

B-10.04 Modification and Withdrawal of Bids

Bids may not be withdrawn or modified after the scheduled closing time for receipt of Bids, nor for at least sixty (60) days thereafter.

B-10.05 Bids to Remain Open

All Bids shall remain open for 60 days after the day of the Bid opening. The Owner shall release Bids and return bid securities as specified in this section under "Return of Bid Security".

B-11 AWARD OF CONTRACT

It is the intent of the Owner to issue the notice of award as soon as possible after the receipt of bids. The Owner shall award a contract to the Bidder who, in the Owner's judgement, is the lowest responsive, responsible Bidder. The Owner reserves the right to reject any or all Bids, to award the contract by sections, to waive informalities, and to reject nonconforming, nonresponsive, or conditional Bids.

In evaluating Bids, the Owner shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternatives and unit prices if requested in the Bid Form. The Owner may consider the qualifications and experience of Subcontractors and other persons and organizations, and may reject the Bid of any Bidder who does not pass any such evaluation to the Owner's satisfaction.

The evaluation of data submitted with the bid, or submitted upon request prior to the Notice to Award, will include consideration of the information requested in the experience and performance record of the contractor, subcontractor, and/or manufacturer, fabricators and suppliers.

B-12 EXECUTION OF THE AGREEMENT

The Owner shall furnish to the Contractor six copies of the Agreement and other Contract Documents bound therewith, necessary for execution of the Contract. Within five (5) days of the Owner's Notice of Award, the Contractor shall execute the Agreement, insert executed copies of the required bonds and power of attorney and other information and certificates required elsewhere in these documents (including the various schedules, etc.) and submit all copies to the Owner. The date of contract on the Agreement and Bond forms shall be left blank for filling in by the Owner. The certification date on the power of attorney also shall be left blank for filling in by the Owner.

The Owner shall execute all copies, insert the date of contract on the Agreement, Bonds, and power of attorney.

The Contractor shall file one complete copy of the executed Contract Documents with the Recorder of Mortgages in Orleans Parish. The notary fees and the recording fees shall be paid for by the Contractor. See Paragraph 1.04 of the General Specifications.

B-13 COPIES OF CONTRACT DOCUMENTS

Copies of the drawings and specifications for use in preparing Bids may be obtained from:

Modjeski and Masters
1055 St. Charles Ave., Room 510
New Orleans, LA 70130
(504) 524-4344

on the following basis:

	<u>Deposit</u>
Complete set of drawings and specifications	\$ 50.00
Complete set of drawings	\$ 30.00
Complete set of specifications	\$ 20.00
Individual sheets of drawings	\$ 2.50

The deposit is not refundable.

The Contractor to whom the contract is awarded will be furnished 5 copies of the specifications and the drawings, together with all Addenda thereto. Additional copies may be purchased as stated above.

B-14 LOCAL MATERIALS AND FIRMS

By statutory authority, preference is hereby given to materials, supplies and provisions produced, manufactured, or grown in Louisiana, quality being equal to articles offered by competitors outside of the State (LSA R.S. 38:2251), and preference is hereby given to firms doing business in the State of Louisiana (LSA R.S. - 38:2253).

FORM OF PROPOSAL

EXCAVATION AND FLOOD PROTECTION - 17TH STREET CANAL

PHASE IB

HAMMOND HIGHWAY TO SOUTHERN RAILWAY

NEW ORLEANS, LOUISIANA

Date: _____

Name of Bidder: _____

Proposal No.: 2043-

TO THE BOARD OF COMMISSIONERS
FOR THE ORLEANS LEVEE DISTRICT:

THE UNDERSIGNED BIDDER, having familiarized himself with the Work required by the Contract Documents, the site where the Work is to be performed, local labor conditions and all laws, regulations, and other factors affecting performance of the Work, and having satisfied himself of the expense and difficulties attending performance of the Work,

HEREBY PROPOSES and agrees, if this Bid is accepted, to enter into Agreement in the form attached to perform all Work, including the assumption of all obligations, duties, and responsibilities necessary to the successful completion of the contract and the furnishing of all materials and equipment required to be incorporated in and form a permanent part of the Work; tools, equipment, supplies, transportation, facilities, labor, superintendence, and services required to perform the work; and Bonds, insurance and submittals, all indicated or specified in the Contract Documents to be performed or furnished by Contractor for the total base bid of:

_____ Dollars (\$ _____)
which is the total of the prices set forth in the following Schedule of Bid Items.

SCHEDULE OF BID ITEMS:

1 Mobilization and Demobilization.

THE LUMP SUM PRICE OF

_____ Dollars
(\$ _____) Lump Sum \$ _____

2 Demolition and Removal of Existing Structures, Obstructions, and Concrete Cap.

THE LUMP SUM PRICE OF

_____ Dollars
(\$ _____) Lump Sum \$ _____

3 Pulling and Removal of Approximately 159,300 Square Feet of Existing Sheet Pile.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Square Foot \$ _____

4 Dredging and Disposal of Approximately 191,348 Cubic Yards of Dredge Material.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Cubic Yard \$ _____

5 Excavation and Disposal of Approximately 7,444 Cubic Yards of Levee Excavation Material.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Cubic Yard \$ _____

SCHEDULE OF BID ITEMS (CONT.):

6 Placement of Approximately 587 Cubic Yards of Levee Fill Material.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Cubic Yard \$ _____

7 Installation of Approximately 183,550 Square Feet of New Sheet Pile.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Square Foot \$ _____

8 Installation of Approximately 62,900 Square Feet of Reused Sheet Pile.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Square Foot \$ _____

9 Turfing of Approximately 9.0 acres.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Acre \$ _____

10 Construction of Approximately 19,300 Square Yards of Stone Revetment.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Square Yard \$ _____

SCHEDULE OF BID ITEMS (CONT.):

11 Construction of a Concrete Revetment.

THE LUMP SUM PRICE OF

_____ Dollars
(\$ _____) Lump Sum \$ _____

12 Relocation of Fiber Optic Line.

THE LUMP SUM PRICE OF

_____ Dollars
(\$ _____) Lump Sum \$ _____

13 Preconstruction Survey.

THE LUMP SUM PRICE OF

_____ Dollars
(\$ _____) Lump Sum \$ _____

14 Vibration Monitoring for Approximately
1,100 Hours.

THE UNIT PRICE OF

_____ Dollars
(\$ _____) Each Hour \$ _____

TOTAL FOR COMPARISON OF BIDS \$ _____

The undersigned Bidder agrees to furnish the required Bond and to enter into a contract within 12 days after Owner's notice of award and to complete all work within 400 calendar days after commencement of contract time as defined in the General Specifications. The undersigned bidder agrees to pay the Owner liquidated damages in the amount of \$250.00 per calendar day if the work is not completed within the specified time. The above time of completion includes time for a 30-day allowance for delays due to rain, strikes, or acts of God, such as hurricanes, fires, etc., which prohibit the Contractor from working at least four (4) hours any one day.

The undersigned Bidder hereby certifies (a) that this Bid is genuine and is not made in the interest of, or in the behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; (b) that he has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid; (c) that he has not solicited or induced any person, firm, or corporation to refrain from bidding; and (d) that he has not sought by collusion to obtain for himself any advantage over any other Bidder or over the Owner, and (e) that all statements contained in said proposal or bid are true.

The undersigned Bidder acknowledges receipt of the following Addenda, which have been considered in preparation of this Bid:

No. _____	Dated: _____
No. _____	Dated: _____
No. _____	Dated: _____
No. _____	Dated: _____
No. _____	Dated: _____
No. _____	Dated: _____

Dated in _____ this _____ day of _____, 19__.

Note: Bids shall include sales taxes and all other applicable taxes and fees.

SIGNATURE OF BIDDER:

Louisiana Contractor's License Number _____.

Classification(s) _____.

If an Individual: _____, doing business
as _____

If a Partnership: _____
by _____, partner

If a Corporation: _____
(a _____ Corporation)
by _____
Title _____ (SEAL &
ATTEST)

Business Address of Bidder _____

If Bidder is a joint venture, other party must sign below.

If an Individual: _____

doing business as _____

If a Partnership: _____
by _____

Title _____

If a Corporation: _____
(a _____ Corporation)
by _____
_____ (SEAL &
ATTEST)
Title _____

Business Address of Bidder _____

O.L.B. CONTRACT NO.

UNITED STATES OF AMERICA

STATE OF LOUISIANA

PARISH OF ORLEANS

CITY OF NEW ORLEANS

CONTRACT AND BOND BETWEEN
THE BOARD OF COMMISSIONERS
OF THE
ORLEANS LEVEE DISTRICT

AND

BE IT KNOWN, that on this _____
day of the month of _____
in the year of OUR LORD One Thousand
Nine Hundred and Eighty-_____
of the Independence of the United
States of America, the Two Hundred
and _____

BEFORE ME

a Notary Public in and for the Parish
of Orleans, State of Louisiana, duly
commissioned and qualified, therein
residing, and in the presence of the
witnesses, hereinafter named and
undersigned:

PERSONALLY CAME AND APPEARED:

1st: _____ herein representing and acting for
the Board of Commissioners of the Orleans Levee District, an Agency of the State
of Louisiana, by virtue of a Resolution of said Board, a duly certified copy of
which Resolution is attached hereto and made part hereof.

2nd: _____ hereinafter called the
"Contractor", appearing through _____, whose
authorization to represent the said Contractor herein, is attached hereto and
made part hereof.

Who declared, that for and in consideration of the payment, hereinafter provided
for, to be made by said Board of Commissioners of the Orleans Levee District, the
said Contractor agrees and is obliged to furnish all labor, equipment, supplies,
etc., and to perform all work necessary for the _____

_____.

O.L.B. CONTRACT NO.

in accordance with the proposal, specifications, plans, and addenda nos. _____, identified herewith, at the following total prices:

The Contractor agrees to complete all work contracted for within the period of time stipulated in the signed proposal, which in this instance is four hundred (400) calendar days from date of work order.

The Contractor agrees that in default of completing all work within the period of time stipulated above, to be bound in the amount of two hundred and fifty dollars (\$250.00) LIQUIDATED DAMAGES, not as a penalty, for each calendar day beyond the stipulated time.

Said proposal, specifications, plans, and addendas nos. _____ are identified herewith, and made part hereof, after being paraphed "NEW VARIETUR", by the Notary for identification herewith.

B O N D

And now to these presents, personally came and intervned

_____ who declared that he has read and taken cognizance of the above and foregoing contract between the Board of Commissioners of the Orleans Levee District and

_____, Contractor, and binds said company in solido with the said Contractor unto the Board of Commissioners of the Orleans Levee District, in the sum of: _____

_____ as security for the faithful and satisfactory performance by the said

_____, Contractor, of all clauses and

conditions of this contract and for the payment by the Contractor or

subcontractor for all work done, labor performed, or material or supplies

furnished for the construction, alteration, or repair under this contract, or for

transportation and delivery of such materials or supplies to the site of the job

by a for hire carrier, or for furnishing materials or supplies for use in

machines used in the construction, alteration, or repair under this contract, in

accordance with the law, the condition of this obligation being that if the said

_____, Contractor, shall well, truly

and faithfully and satisfactorily perform all of the obligations assumed by

_____, Contractor, under this Contract

and payment be made by said Contractor and by all Subcontractors for all work

done, labor performed and material furnished under this Contract in accordance

with law, then this Bond shall become null and void, otherwise to remain in full

force and effect.

The said Surety consents and yield to the jurisdiction of the Civil District Court for the Parish of Orleans, State of Louisiana, and formally waived any plea of jurisdiction on account of residence elsewhere in the event of suit under the Contract and Bonds, and the Surety herein shall be limited to such defense only as the principal of these bonds could make.

THUS DONE AND PASSED, in my office at the City of New Orleans, on the day, month and year hereinfirst above written, in the presence of _____ and _____ competent witnesses, who hereunto sign their names with said appearers and me, Notary, after reading of the whole.

THE BOARD OF COMMISSIONERS OF THE
ORLEANS LEVEE DISTRICT

WITNESSES:

BY: _____

BY: _____

Attorney-in-Fact Bonding

NOTARY PUBLIC

STATE OF LOUISIANA)
)
PARISH OF _____)

AFFIDAVIT ATTESTING THAT PUBLIC CONTRACT WAS NOT,
NOR WILL BE SECURED THROUGH EMPLOYMENT OR PAYMENT OF SOLICITOR

KNOW ALL MEN BY THESE PRESENTS, that a public contract is contemplated between THE BOARD OF COMMISSIONERS OF THE ORLEANS LEVEE DISTRICT AND _____

_____, represented by _____, who attests
(NAME) (TITLE)

that he is empowered and authorized to execute said documents.

FURTHER, _____, who being duly sworn, does depose and attest that:

(1) affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction of the public building or project, or in securing the public contract were in the regular course of their duties for affiant; and

(2) no part of the contract price received by affiant was paid or will be paid to any person, corporation firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction of the public building or project were in the regular course of their duties for affiant.

WITNESSES:

BEFORE ME, the undersigned authority, personally appeared _____, who being duly sworn, deposes and states that the above is true and correct in all respects recited.

SWORN TO AND SUBSCRIBED before me, this _____ day of _____, 19_____.

NOTARY PUBLIC

Federal Identification No.

CONTRACTOR'S EXPERIENCE

Under our present title, as given immediately below,
(or under other titles, if any, also stated)

FIRM NAME	NATURE OF BUSINESS	ORGANIZED

Work, comparable in kind and extent to that covered by the accompanying bid, has been performed by us, as follows:

DESCRIPTION OF WORK AND WHERE PERFORMED	OWNER	DATE OF COMPLETION	CONTRACT PRICE

(Bidder's Signature)

INFORMATION TO BE FURNISHED WITH BID

The information furnished below is necessary for the drafting of a notarial contract; however, it does not constitute a part of the contract documents.

PLEASE PRINT OR TYPE IN BLANK SPACES

1. Bidder is

If bidder is an individual, use paragraph (a) and ignore pars. (b) and (c).

(a) _____
(full name)
residing at _____
(street, city, and zone number)
or doing business at _____
(street, city, and zone number)
and is sole owner of, and doing business as,

(trade name)

If bidder is a partnership, use paragraph (b) and ignore pars. (a) and (c).

(b) A commercial co-partnership composed of the following partners:

(Give names of all partners)

doing business as _____
(trade name)
domiciled at _____
(street, city, and zone number)
in the state of _____ and which contract will be signed by
_____ a member of the co-partnership.
(Name of co-partner)

If bidder is a corporation, use paragraph (c) and ignore pars. (a) and (b).

(c) A corporation organized under the laws of the State of _____,
domiciled at _____, authorized
(city and state)
to do and doing business in the State of Louisiana, whose address in New Orleans is _____,
(street, city, and zone number)
and which contract will be signed by _____,

(name and title of officer) Officer who signs contract

for successful bidder must furnish Notary with an extract of minutes of corporation's Board of Directors showing his authority to act for the corporation.

2. The following named surety company in the City of New Orleans, Louisiana, will execute the bond as surety for the bidder:

CONTRACT 2043-

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SECTION 1

GENERAL SPECIFICATIONS

1.01 FORM OF PROPOSAL

The proposal form is bound with the specifications together with the Bond Form, and all are an integral part of each proposal, and must be returned so attached, sealed in an envelope marked "BID", and further identified by the project name, as indicated on advertisement to the Board's Office, Suite 202, Administration Building, New Orleans Lakefront Airport, New Orleans, Louisiana 70126, prior to the time specified in the advertisement for bids.

1.02 DEPOSITS

Each proposal must be accompanied by cash, bid bond, or certified check of five percent (5%) of the amount bid, payable to the Board of Commissioners of the Orleans Levee District as a guarantee that the Bidder will, if awarded the contract, enter into a Notarial Contract with the Board of Commissioners of the Orleans Levee District. Deposit will be returned to all unsuccessful bidders upon adjudication of the contract, included under these specifications, and to the successful bidder when contract is signed, bond furnished, and work started in accordance with proposal and specifications. Should the successful bidder fail to furnish Bond, as required, or to start work as per his proposal, the deposit of that bidder shall be forfeited to the Board of Commissioners of the Orleans Levee District as ascertained, admitted and liquidated damages.

1.03 ACCEPTANCE AND REJECTION OF BIDS

The Board of Commissioners of the Orleans Levee District reserves the right to accept any, or reject any and/or all bids, and to waive informalities, and to base acceptance of bids on responsibility and past performance of Contractors as well as on price bid.

1.04 NOTARIAL CONTRACT

The Board of Commissioners of the Orleans Levee District, as party of the first part, hereinafter referred to as "The Board" or the "Orleans Levee Board", will require that the bidder to whom the award has been made, as part of the second part, hereinafter referred to as "The Contractor", enter into a Notarial Contract within forty-eight (48) hours after receipt of notification from the Board that award of contract has been made to him. The fee of the Notary, who will be selected by the Board, will be paid by the Contractor. See 1.42 for fee schedule. The recording or fees likewise to be paid by the Contractor.

1.05 BOND

The Contractor shall furnish, without expense to the Board, a bond written by a Bonding Company to be approved by the Board in the total amount of Contract. This is to guarantee to the Board the proper

performance by the Contractor of all and singular obligations assumed by said Contractor under this contract. This bond will be cancelled and sureties released after completion and acceptance by the Board of the work described herein and after expiration of the period provided by law.

1.06 DEFINITION OF TERMS

Wherever the term "Chief Engineer" is used in these specifications, drawings, and in the contract, it shall mean the Chief Engineer of the Board of Commissioners of the Orleans Levee District. Wherever the word "Board" or "Orleans Levee Board" is used, it shall mean the Board of Commissioners of the Orleans Levee District.

1.07 GENERAL AND SPECIAL SPECIFICATIONS

Wherever the word "Specifications" is mentioned in the proposal, contract or elsewhere, it shall be taken as meaning both the General and the Special Specifications.

1.08 SPECIFICATIONS AND DRAWINGS

The specifications and drawings accompanying the proposal are deemed sufficient for the proper execution of the work contemplated under this contract, but should there be an omission or error, or should the said drawings and specifications be insufficient, the Contractor shall not be permitted to profit thereby, nor shall he be penalized, but the Chief Engineer shall, upon discovery of insufficient drawings and specifications, error or omission, correct same, or supply the necessary information or correction.

1.09 INTERPRETATION OF DOCUMENTS (See Section B-4.03)

No oral interpretation will be made to any bidder as to the meaning of any of the Contract Documents which in effect would modify any of the provisions of same. ~~Every request for an interpretation of the documents shall be made in writing and delivered to the Chief Engineer at least seventy-two (72) hours before the time fixed for opening of bids.~~ Every interpretation shall be in the form of an addendum to the specifications. All addenda issued shall become part of the Contract Documents.

1.10 EXTRA WORK

If any work not included in the contract and not specified herein or called for on the plans is deemed necessary by the Chief Engineer, it shall be performed by the Contractor as Extra Work. No claim for extras will be allowed unless specifically authorized in writing by the Chief Engineer of this Board. Payment for such extra work shall be made on the basis of a price previously agreed on if this is feasible, otherwise at actual cost to the Contractor for all labor and material used plus fifteen percent (15%). No compensation will be allowed for overhead or for the rental of small tools. If any equipment such as pile drivers, pumps, excavations, air compressor and such machinery is used in doing

extra work, payment for the rental of such machinery will be made at a price to be agreed on between the Contractor and the Chief Engineer before any work is undertaken.

1.11

INSURANCE

Before the Contract may be signed, the Contractor must have his insurance carrier submit to the Board properly completed insurance certificates for acceptance and evidencing coverage in the following limits:

(A) WORKMEN'S COMPENSATION AND EMPLOYER'S LIABILITY:

Statutory Workmen's Compensation. Employer's Liability coverage in the limit of \$100,000.00 each accident. In the event this Contract involves work on or adjacent to navigable streams or bays, Contractor's certificate shall show coverage in compliance with the provisions of the Federal Longshoreman's and Harbor Workers' Compensation Laws. If any watercraft and/or amphibian is used for work under this contract, coverage must be provided for Employer Maritime Liability (including but not limited to the Jones Act and the Voluntary Compensation Endorsement) for the limits of \$500,000.00 One Employee and a total limit of \$300,000.00 for Two or More Employees.

(B) COMPREHENSIVE GENERAL LIABILITY:

- (1) Coverage shall be on an occurrence basis
- (2) Bodily Injury limits shall be not less than \$500,000.00 per occurrence
- (3) Property Damage limits shall be not less than \$500,000.00 per occurrence and \$1,000,000.00 aggregate. Property Damage shall include coverage for crafts or trades which are subject to normal policy exclusions of:
 - (a) Blasting or explosion
 - (b) Collapse
 - (c) Damage to underground property (wires, conduits and the like) and injury to, or destruction of any property resulting therefrom.
- (4) Coverage shall include completed operation and products along with contractual liability.

(C) COMPREHENSIVE AUTOMOBILE LIABILITY:

- (1) Bodily Injury limits \$500,000.00 each person and \$500,000.00 each occurrence.
- (2) Property Damage Liability limits shall be not less than \$500,000.00 each occurrence.

(3) Coverage shall include:

- (a) Owned vehicles
- (b) Hired or leased vehicles
- (c) Non-owned vehicles

(D) OWNERS AND ENGINEERS' PROTECTIVE (CONTINGENT) LIABILITY:

- (1) This shall be in the name of, and for protection of, the Owner and the Engineer.
- (2) Bodily Injury limits shall be not less than \$500,000.00 per occurrence.
- (3) Property Damage limits shall be not less than \$500,000.00 per occurrence and \$1,000,000.00 aggregate.

(E) AVIATION LIABILITY INSURANCE (APPLICABLE IF AIRCRAFT ARE USED IN OPERATIONS):

- (1) Bodily Injury limits shall be not less than \$1,000,000.00 per person and \$2,000,000.00 per accident excluding passenger hazard.
- (2) Passenger hazard Bodily Injury limits shall be not less than \$1,000,000.00 per aircraft seat
- (3) Property Damage limits shall be not less than \$2,000,000.00 per accident.
- (4) Coverage shall include all leased, hired or other non-owned aircraft.

(F) MARINE INSURANCE (APPLICABLE IF WATERCRAFT AND/OR AMPHIBIANS ARE USED IN OPERATIONS):

- (1) Protection and Indemnity Insurance on all vessels owned and/or chartered with limit of liability up to value of vessel or \$1,000,000.00 single limits whichever is greater.

(G) HOLD HARMLESS AGREEMENT:

The Contractor shall indemnify and hold and save harmless the Board from all loss, liability or expense to which the Board may be subjected as a result of the operations, acts or omissions of the Contractor or any Subcontractor, and the Contractor shall effect and maintain an insurance policy with a contractual endorsement to insure the Board's protection as to its own property and the property of third parties under the foregoing indemnity, and hold harmless agreement with property damage limits of not less than one million dollars (\$1,000,000.00) for the properties of the Board or any other single property owner, and five hundred thousand dollars (\$500,000.00) for the properties of the Board and all other property owners.

This insurance shall be placed with reliable insurance carriers, satisfactory to the Board, with a Best Rating of B-X or better who are authorized to do business in the State of Louisiana.

All certificates of insurance shall include thirty (30) days notice of cancellation.

1.12 ENGINEER'S DECISION FINAL

If any of the clauses of these specifications appear to conflict or to be inconsistent, they will not be read separately, but all of the clauses shall be understood to be cumulative, and the specifications as a whole be read in order to arrive at the intent of the Contract.

The Chief Engineer shall be the sole judge of the meaning and intent of these specifications, and to whether the specifications have been fully complied with, and the contract satisfactorily performed, and his decision, in case of any misunderstanding or dispute in these particulars, shall be final and binding on both parties.

1.13 ANNULMENT OF CONTRACT

If, in the opinion of the Chief Engineer, the Contractor fails to perform the work with sufficient workmen and equipment, or with sufficient material to insure its completion in the time specified in the contract, or shall discontinue the prosecution of the work, or become insolvent, or bankrupt, or shall not carry out the work in an acceptable manner, the Chief Engineer shall give notice in writing to the Contractor, or his Surety, of such delay, neglect, or default, specifying same, and if the Contractor, within a period of ten (10) days after such notice shall not proceed in accordance therewith, then the Chief Engineer shall have full power and authority without violating the contract to take the prosecution of the work out of the hands of the Contractor to appropriate or use any, and/or all materials and equipment on the grounds as may be suitable and acceptable, and may enter into an agreement for the completion of said contract, according to the terms and provisions thereof, or use such other methods, as in his opinion shall be required for the completion of said contract in an acceptable manner and within the time specified. All costs and charges incurred by the Board of Commissioners of the Orleans Levee District, together with the cost of completing the work under the contract, shall be deducted from any monies due, or which may become due said Contractor. In case the expense incurred by the Board of Commissioners of the Orleans Levee District shall be less than the sum which would have been payable under the contract had it been completed by said Contractor, the said Contractor shall be entitled to receive the difference; and in case such expense shall exceed the sum which would have been payable under the contract, the Contractor and his Surety shall be liable to the Board of Commissioners of the Orleans Levee District for the amount of said excess.

1.14 ORDINANCES

The Contractor shall comply with all federal, state and city laws, as well as police and health ordinances applying to public work.

1.15 SUBCONTRACTORS

No part of the work herein contracted for shall be given, sold or assigned to subcontractors without the consent of the Chief Engineer of this Board.

1.16 SUPERINTENDENT

The Contractor must, at all times, either be personally present around the work, or be represented by a competent superintendent, who shall be clothed with full authority to act for him in all cases, and to carry out any instructions relative to the work, which may be given by the Chief Engineer, either personally, or by his authorized representative. The superintendent shall have had the required experience in this class of work, and he shall be satisfactory to the Chief Engineer of the Board.

1.17 PATENTS

The Contractor shall defend any and all suits instituted for alleged infringement of patents, if any, or all of the material or apparatus furnished, or used under these specifications and drawings or for any other materials or apparatus not specifically mentioned therein and shall pay all damages and cost of suits instituted in any court provided that the Board of Commissioners of the Orleans Levee District shall give the Contractor notice and opportunity to defend such suit or suits.

1.18 LIGHTS

The Contractor shall keep proper lights each night between the hours of sunset and sunrise upon all equipment connected with the work when necessary and shall be responsible for all damages resulting from any neglect or failure in this respect.

1.19 INSPECTION

The work will be conducted under the general direction of the Chief Engineer and will be inspected by inspectors, appointed by him, who will enforce a strict compliance with the terms of the contract.

The inspector will keep all necessary records of the work that has been done, but the presence of the inspector shall not relieve the Contractor or his agents from any responsibility for the proper performance of the work.

The Contractor shall not be entitled to payment for any improper work accepted or allowed by the inspector.

1.20 PROSECUTION OF WORK

The work shall be prosecuted as directed by the Chief Engineer and shall be conducted in such manner and with sufficient materials, equipment and labor as will insure the completion of the work within the time specified in the written proposal of the Contractor.

1.21 MOVEMENT OF PLANT

At no time shall the plant of the Contractor or any part thereof be removed from the site of the work without the consent in writing from the Chief Engineer.

1.22 ORDER OF WORK

The Chief Engineer shall have the right to designate the place at which work shall begin, and the Contractor will be required in advance of the moving of the work to obtain the approval of the Chief Engineer as to the plan of operations he contemplates following.

1.23 LIENS AGAINST CONTRACTORS

Whenever required, the Contractor shall show evidence satisfactory to the Chief Engineer that all bills for labor, materials, supplies, salaries, and equipment have been paid by the Contractor, and that there are no liens or claims against the Contractor by furnishing a lien certificate from the Records of Mortgages for work or materials furnished in the performance of this work.

1.24 PARTIAL PAYMENTS

Partial payments will be made on monthly estimates of work done and accepted by the Chief Engineer as being completed according to plans and specifications reserving ten percent (10%) of the amount earned in each estimate.

The ten percent (10%) retainer on each payment will not be released by the Board until the expiration of the time prescribed by law.

The Contractor shall use Orleans Levee Board forms for "Periodical Estimate for Partial Contract Payment" in submitting request for partial payments. These forms are to be submitted to the Board in original and three copies for a total of four (4). Forms may be obtained at the office of the Orleans Levee Board as required.

The Contractor must submit his Lien and Privilege Certificate with his final request for payment in order to receive his ten percent (10%) retainer. This Lien and Privilege Certificate is obtained from the Mortgage Office forty-five (45) days after Certificate of Acceptance has been recorded.

1.25 TIME TO FILE CLAIMS

The monthly estimate of work accomplished shall cover all monies due the Contractor, but if the Contractor at any time shall feel that he has claim for work not allowed in the estimate, then he shall file this claim within thirty (30) days after receipt of the monthly estimate of work to which the claim applies.

Any claim filed later than thirty (30) days after receipt of the monthly estimate to which it applies shall not be considered, and the filing of any claim within the aforesaid time is a condition precedent to the consideration of the claim.

1.26 BOARD OF ARBITRATORS

Upon the final settlement of this contract all disputed matters which have occurred in the course of said contract and which have not been disposed of as provided for in Paragraph 1.12 shall be submitted to a Board of Arbitrators; one member shall be selected by the Board, one member by the Contractor, and the third member shall be selected by the former two members who shall grant a prompt hearing and decision on all disputed matters. Said decisions shall be final and binding on both parties. The cost for the services of the third member, if any, to be borne jointly between the Contractor and the Board.

1.27 CLEANING UP

At the completion of contract and before final acceptance, the Contractor shall move his equipment including the discarded equipment, if any, the temporary structures used by him during construction, all debris and rubbish, and leave the site in clean condition to the satisfaction of the Chief Engineer.

1.28 ACCEPTANCE

Upon completion of the work shown on the plans and described in these specifications, the work performed shall be inspected as a whole, and if found satisfactory by the Chief Engineer, a Certificate of Acceptance with the final estimate shall be issued, but no acceptance of the work for final payment shall be made unless and until said Certificate of Acceptance is issued by the Chief Engineer.

1.29 CERTIFICATE OF ACCEPTANCE

Upon acceptance of the contract, the Board will file the acceptance with the Recorder of Mortgages as the Contractor's retainage will be held for forty-five (45) days after date of filing as required by law.

1.30 OFFICE OF CONTRACTOR

The Contractor shall maintain on the site of the work a field office, and he shall agree that all communications, orders, or instructions delivered to his field office from the office of the Board shall be received and shall have the same legal force and effect as if delivered to him in person.

1.31 WITHDRAWAL OF BIDS

No bids may be withdrawn after the schedule closing time for receipt of bids nor for at least ~~THIRTY (30)~~ DAYS thereafter.

SIXTY (60)

1.32 TAXES

The prices stated in the proposal shall include all taxes applicable to the Board of Commissioners of the Orleans Levee District.

1.33 AWARD OF CONTRACT

Unless otherwise specifically stated in the Special Specifications, the contract will be awarded on bid prices in the proposal. If time is bid by the Contractor, all bids will be corrected in accordance with the Liquidated Damage Paragraph of the proposal, otherwise, no correction is necessary if the Board established the time of the contract.

1.34 CONTRACT BE LET AS WHOLE

Unless otherwise specifically stated in the Special Specifications, the contract will be let as whole. No bid will be considered in which all items have not been priced by the bidder.

1.35 ADDENDUM

All bidders are requested to direct all questions about the specifications promptly to the Chief Engineer. This will facilitate making Addendum as required.

1.36 APPROXIMATE QUANTITIES

Unless otherwise specifically specified in the Special Specifications, all quantities mentioned in the proposal are approximate and for bidding purposes only.

1.37 REFERENCE TO MATERIALS BY NAME

Specific reference in the specifications to any product or material by name or make shall be interpreted as established a standard of quality and shall not be construed as limiting competition, and the Contractor, in such cases, may at his option use any product or material which in the judgement of the Chief Engineer is equal to that named. Prior to the submission of proposal, any proposed substitution of material must be submitted to the Chief Engineer in writing for approval.

1.38 DIFFICULTIES

Attention of bidders is called to the conditions and difficulties that may be encountered in his work and bidders are warned to visit and inspect the site of work and acquaint themselves thoroughly with conditions, especially weather, etc., as the Board assumes no responsibility whatever for information furnished the Contractor and does not guarantee its correctness, but the Contractor shall assume full responsibility for his equipment as no claim will be entertained in the case of loss due to any cause whatsoever.

1.39

LIQUIDATED DAMAGES

The Contractor specifically agrees in his proposal to the amount of time in which this contract is to be completed, calculated from the date of issuance of Work Order to the date of its completion and acceptance by the Chief Engineer. Any time that is consumed for the completion over and above the stipulated amount of time, agreed to in the proposal by the Contractor, shall be charged against the Contractor as liquidated damages, not as a penalty. The contractor's failure to complete the work on time shall be a default, notice of which is waived by the Contractor.

1.40

CONTRACT TIME

The contract time shall consist of the calendar days elapsed, beginning with the date of issuance of work order and ending with the completion of the work and acceptance by the Chief Engineer. If in the opinion of the Chief Engineer, the Contractor's work should be delayed because of rain, a strike, or an act of God such as a hurricane, fire, etc., he shall be granted an extension of time. If the Contractor has worked on any part of the project for least four (4) hours on any one day, he will have no claim for extra time on that day.

Any request for extension of contract time shall be submitted in writing by the Contractor to the Chief Engineer and shall state the reason for request.

1.41

LICENSES

In accordance with State Act No. 233, effective August 1, 1956, and amended to date, on projects amounting to more than \$50,000.00 only bids of Contractors and/or Subcontractors licensed under Act No. 233 of 1956 and amended to date will be considered.

It is the responsibility of the bidder to determine the proper job classification and to possess the proper license, all in accordance with LRS 37:2151 et seq.

Contractors desiring to bid shall submit to Architects or Engineers evidence that they hold license of proper classification and in full force and effect.

1.42

ATTORNEY AND NOTARY FEE SCHEDULE

		<u>FEE</u>		<u>COSTS*</u>		<u>TOTAL</u>
UNDER	\$ 3,000	\$ 125.00	+	\$ 75.00	=	\$ 200.00
UNDER	\$ 6,000	\$ 180.00	+	\$ 75.00	=	\$ 255.00
UNDER	\$ 10,000	\$ 230.00	+	\$ 75.00	=	\$ 305.00
UNDER	\$ 15,000	\$ 275.00	+	\$ 75.00	=	\$ 350.00
UNDER	\$ 25,000	\$ 375.00	+	\$ 75.00	=	\$ 450.00

	<u>FEE</u>		<u>COSTS*</u>		<u>TOTAL</u>
UNDER \$ 50,000	\$ 500.00	+	\$ 75.00	=	\$ 575.00
UNDER \$ 100,000	\$ 650.00	+	\$ 75.00	=	\$ 725.00
UNDER \$ 250,000	\$ 900.00	+	\$ 75.00	=	\$ 975.00
UNDER \$ 500,000	\$1,100.00	+	\$ 75.00	=	\$1,175.00
UNDER \$ 1,000,000	\$1,800.00	+	\$ 75.00	=	\$1,875.00
UNDER \$ 5,000,000	\$3,800.00	+	\$ 75.00	=	\$3,875.00
UNDER \$15,000,000	\$5,900.00	+	\$ 75.00	=	\$5,975.00
OVER \$15,000,000	\$6,500.00	+	\$ 75.00	=	\$6,575.00

* Includes costs of recording contract plus notarizing and recordation of Affidavit of Acceptance

1.43 PAYMENT OF EMPLOYEES

No laborer or mechanic shall be required or permitted to be employed in this work in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1 1/2) times his basic rate of pay for all hours worked in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such work week, whichever is the greatest number of overtime hours.

All employees engaged in this work shall be paid in full (less deductions made mandatory by law) no less often than once each week without subsequent deductions, rebate on any account the full amount due at time of payment computed in accordance with the provisions of (a) and (b) above, irrespective of any contractual relationship which may be alleged to exist between the contractor and/or subcontractor and such laborers and mechanics.

1.44 AUDIT AND INSPECTION

The owner's authorized representatives and/or the Louisiana State Legislative Auditor shall be entitled and permitted to inspect all work, material, records of personnel, invoices of materials, other data and all other records that pertain to the execution of this contract.

1.45 SIGNING OF PROPOSAL DOCUMENTS

Any proposal documents not signed by the Contractor will not be accepted by the Board. If the proposal is made by a partnership, it shall contain the names of each partner and shall be signed in the firm name, followed by the signature of the person authorized to sign. If the proposal is made by a corporation, it shall be signed by the name of the

corporation followed by the signature of the officer authorized to sign, and the printed designation of the office he holds in the corporation. Contractor is reminded that he must fill out the bidder information form and the bidder experience form, otherwise the proposal may be considered informal and could be rejected. Contract form, bond form and affidavit form are not to be filled in by bidder.

1.46 ARITHMETIC DISCREPANCIES IN BID PRICE

The following methods will be used to resolve any arithmetic discrepancies found on bid forms as submitted by bidders:

- (1) Obviously misplaced decimal points will be corrected.
- (2) In the event of a discrepancy between the unit price and the extended price, the unit price will govern.
- (3) Apparent errors in the extension of unit price will be corrected.
- (4) Apparent errors in the addition of lump sum and extended unit prices will be corrected.
- (5) See page 1-13

1.47 SUBCONTRACTORS

Prior to receiving a work order, the successful bidder must submit to the Chief Engineer a list of all proposed subcontractors for the project. The list shall show the name and address of each firm, the type or work to be performed, the estimated dollar value of the work and the minority status (if any) of the firm.

1.48 MINORITY BUSINESS PARTICIPATION

It is the established policy of the Orleans Levee Board to encourage to the fullest extent the use of local minority contractors for subcontract work whenever practical. A list of certified minority owned construction firms in each specialized field of construction may be obtained from the Office of Minority Business Development, City of New Orleans. For purposes of these specifications, minority owned firms are defined as follows:

"Minority" shall mean a person who is a citizen or lawful permanent resident of the United States and who is:

- (a) Black: having origins in any of the black racial groups of Africa.
- (b) Hispanic: of Mexican, Puerto Rican, Cuban, Central or South American, or other
- (c) Asian American: having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
- (d) American Indian or Alaskan Native: having origins in any of the original peoples of North America.
- (e) Female.

"Minority business enterprise" or "minority-owned business" means a small business organized for profit performing a commercially useful function which is owned and controlled by one or more minority individuals or minority business enterprises certified by the Office of Minority Business Development, City of New Orleans. Owned and controlled means a business in which one or more minorities or minority business enterprises certified by the Office of Minority Business Development, City of New Orleans, owns at least fifty-one percent or in the case of a corporation at least fifty-one percent of the voting stock and control at least fifty-one percent of the management and daily business operations of the business.

1.46 (Continued from Page 1-12)

- (5) In the event of a discrepancy between the written bid total and the numerical bid total, the written bid total shall govern, unless it is obvious through a summation of the bid items that the numerical bid total is correct.

SECTION 2
SPECIAL PROVISIONS

2-01 EXTENT OF CONTRACT

The work to be done under this contract consists of furnishing all plant, equipment, labor and materials, and performing all operations necessary for the following items of work along the 17th Street Canal from the Hammond Highway Bridge to the Southern Railway Bridge: (1) Demolition and removal of all existing structures and obstructions in the canal between Hammond Highway and the Southern Railway; (2) Removal of existing sheet pile, and demolition and removal of its concrete cap, on the Orleans Levee from Hammond Highway to Baseline Sta. 634+65; (3) Dredging of the Orleans side of the canal between Hammond Highway and Interstate 10, and disposal of all dredge material; (4) Reshaping of the Orleans Levee between Hammond Highway and the Southern Railway, and disposal of all excess excavation material at the designated site; (5) Construction of a cantilever steel sheet pile wall between Hammond Highway and the Southern Railway, and providing for vibration monitoring to be in effect during all pile driving operations; (6) Turfing of disturbed and regraded areas within the project limits and at the disposal site for excess levee excavation material; (7) Construction of stone revetments under the Hammond Highway, Veterans Highway and Interstate 10 bridges; (8) Construction of a concrete revetment on the Orleans Levee, just south of the Hammond Highway bridge; (9) Coordinating with U.S. Sprint to relocate one of their fiber optic lines; and (10) Providing for a pre-construction survey of all properties along the Orleans Levee from Hammond Highway to the Southern Railway; all as shown in the contract drawings and as specified herein.

2-02 CONTRACT DOCUMENTS

The contract documents governing this contract consist of the following:

1. Contract Specifications consisting of the following papers which are bound together under one cover:

- Advertisement
- Instruction to Bidders
- Proposal Form
- Bidder's Information Form
- Bidder's Experience Form
- Contract and Bond
- Affidavit Form
- General Specifications of the Orleans Levee Board
- Special Specifications for Contract 2043-

2. Contract Drawings titled:

The Board of Levee Commissioners
of the
Orleans Levee District
Contract 2043-

Excavation and Flood Protection - 17th Street Canal
Phase IB
Hammond Highway to Southern Railway

Consisting of: Drawings Nos.: 1-43

2-03 SPECIAL SPECIFICATIONS

The special specifications governing the work to be done under this contract, as described in Paragraph 2-02, will be covered under the following headings:

- Section 2 - Special Provisions
- Section 3 - Demolition
- Section 4 - Dredging and Levee Reconstruction
- Section 5 - Steel Sheet Piling
- Section 6 - Turfing
- Section 7 - Miscellaneous Specifications

2-04 STANDARDS

Wherever in these contract documents, references are made to A.S.A., A.C.I., A.W.W.A., A.S.T.M., and/or other standards and/or requirements, it shall be understood that the latest standards and/or requirements of the American Standard Association, American Concrete Institute, etc., are intended and shall apply, except to the extent that said standards and/or requirements may be in conflict with applicable laws, ordinances, etc.

2-05 DEFINITION OF TERMS

See also Section 1.06.

Whenever the term "Engineer" is used, it shall be understood to refer to Modjeski and Masters.

Whenever the term "Chief Engineer's Representative" is used, it shall be understood to refer to the Chief Engineer's field inspector.

Any submittals that are to be made to the Chief Engineer for approval shall be made through the Chief Engineer's Representative.

2-06 CHANGES IN CONDITIONS

As it is impossible for the Board to guarantee that no changes in conditions will take place from the time bids are submitted until work is started, the Contractor will be required to assume responsibility for changes in conditions beyond the control of the Board. These contract documents with the Form of Proposal are understood by bidders with the understanding that the Board disclaims all responsibility to the matter of general conditions in the project area.

Bidders must determine for themselves the conditions under which the work will be done and keep abreast of the changes. It is noted that the Engineer's Survey, as referenced to in these specifications and the contract drawings, was current as of April, 1987.

2-07 RIGHT-OF-WAY

The Orleans Levee Board will provide the right-of-way required for construction purposes without cost to the Contractor. The right-of-way which will be provided is restricted to the region bounded by the following limits:

North Limit - a line perpendicular to the project baseline and passing through Station 552+00.

South Limit - a line perpendicular to the project baseline and passing through Station 671+00.

West Limit - the canalside edge of crown on the Jefferson levee.

East Limit - the "fence line" on the backside slope of the Orleans levee.

In addition, right-of-way will be given in the vacant lot opposite Baseline Station 604+00 requiring 6" of fill, but only for the required distance from the backside levee toe necessary to perform the required work, and only for the performance of the required work. This is not to be construed as a given access route.

The Contractor shall obtain at his own expense, any additional lands desired for his own convenience in the performance of the work. Any agreements made with public agencies or private concerns shall be the sole responsibility of the Contractor and shall be made in writing, stating all terms of the agreement. Two copies of all agreements shall be submitted to the Chief Engineer.

Upon completion of work, all rights-of-way must be left in a condition which fulfills the terms of any agreements made, and to the satisfaction of the Chief Engineer.

The Contractor will be required to make rights-of-way and access areas suitable for traveling to and from the work site. (See Section 2-09.)

2-08 TRAFFIC

The Contractor shall schedule and plan his work to minimize interference with vehicular traffic.

All traffic re-routing, barricading, signing, lighting, and other construction traffic control devices shall comply with the Federal Highway Administration's "Manual on Uniform Traffic Control Devices" - Part VI, and shall be submitted to the Chief Engineer for approval.

2-09 CONTRACTOR'S ACCESS TO WORK SITE

The Contractor shall submit a plan for approval by the Chief Engineer indicating all points of access. Any agreements made with public agencies or with private concerns, shall be the sole responsibility of the Contractor and shall be made in writing, stating all terms of the agreement. Two copies of all agreements shall be submitted to the Chief Engineer.

Upon completion of work, all access areas must be left in a condition which fulfills the terms of any agreements made, and to the satisfaction of the Chief Engineer.

2-10 TRUCKING THROUGH CITY STREETS

If necessary, to prevent littering city streets, trucks hauling spoil will be prohibited from being loaded above water level lines. All trucks hauling spoil will require liners as specified in Section 4-04.2 of these specifications.

The Contractor shall clean all city streets used for trucking as may be directed by the Chief Engineer.

The Contractor shall submit a plan, for approval by the Chief Engineer, indicating all haul routes.

2-11 WORKING IN THE VICINITY OF EXISTING STRUCTURES

The Contractor shall exercise caution when working in the vicinity of existing structures. Repair of damage to any items will be the responsibility of the Contractor.

The Contractor's attention is brought to the proximity of private residences along the full length of the project site, especially the close proximity of fences, garages, outbuildings, swimming pools etc. Consideration should be given to this condition, as well as the limited width of the work area, in choosing the size of equipment to perform the job.

2-12 DAMAGE TO PROPERTY

The Contractor shall assume full responsibility for any damage to any property of the Board or other owner, resulting from his work under this contract. He shall also put back into its original position and condition any and all fences, sidewalks, curbing, roadways, neutral grounds, billboards, signs, etc., that he is required to remove to necessitate the completion of this contract.

2-13 LINES, GRADES, ETC.

The Engineer will verify with the Contractor the permanent control points and bench marks for locations and elevations. From these established control points and bench marks, the Contractor shall establish all locations and grades of the work and shall be solely responsible for the exact position of all parts of the work with

reference to these established lines and bench marks. The Contractor shall maintain his own field engineering force, that of the Chief Engineer being for checking. The Contractor shall furnish, free of charge, all stakes, permanent bench construction, templates, instrument platforms, other materials necessary for marking and maintaining points and lines given. He shall furnish the Chief Engineer's Representative such assistance as he may require in checking the layout of the work. The Contractor shall be held responsible for the protection of all stakes and marks and if, in the opinion of the Chief Engineer's Representative, benches or lines established by the Engineer have been destroyed or disturbed, they shall be replaced at the Contractor's expense.

The cost of establishing working control points and bench marks, and maintaining a field engineering force shall be included in the bid price.

Any deviation from the Contract Drawings not approved by the Chief Engineer, shall be subject to correction at the Contractor's expense.

2-14 MATERIALS BY CONTRACTOR

All materials required for the various items of work shall be furnished by the Contractor.

2-15 CONTRACTOR'S PLANS, SAMPLES AND DATA

The Contractor shall submit for approval, and with such promptness as to cause no delay in his work or in that of the Board, six copies of all shop assembly, erection, Manufacturer's or Fabricator's drawings of materials or equipment, requiring shop or field fabrication, assembly, or erection, together with other information in such detail as will permit the Engineer to judge whether the proposed material, equipment or arrangement will meet the general requirements of the contract drawings and specifications. The Engineer is to return two signed copies and retain four. When these drawings are final, and prior to start of work, the Engineer shall be furnished four copies. All drawings shall measure 24" x 36". All dimensions and quantities shall be in English units.

At least two weeks time shall be allowed for the Engineer to approve the above drawings. However, the Engineer's approval will not relieve the Contractor of responsibility for omissions or correctness of quantities on such lists and diagrams, nor shall an oversight on the part of the Engineer relieve the Contractor of his responsibility relative to compliance with plans and specifications, unless the Contractor mentions in writing, specifically, the manner in which the item of material and/or workmanship does not comply.

2-16 VARIATION IN ESTIMATED QUANTITIES

Where the quantity of a pay item is an estimated quantity and where the actual quantity of such pay item is more than fifteen percent above or below the estimated quantity, an equitable adjustment in

the contract price shall be made upon the demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variations above one hundred fifteen percent or below eighty-five percent of the estimated quantity.

2-17 AS-BUILT DRAWINGS

Upon completion of the contract, the Contractor shall furnish "as-built" drawings consisting of one set of blue line prints, marked up to reflect any and all deviations from the original plans.

2-18 EXTRA WORK

If any extra work is required, the Contractor shall submit along with his cost proposal, any requests for additional contract time that he feels is warranted due to the extra work. Both the cost proposal and requested extra time are subject to review and approval by the Chief Engineer. (See also Section 1.10.)

2.19 HOURS OF OPERATION

The Contractor shall limit his hours of operation to the hours between 7:00 a.m. and 7:00 p.m.

2-20 SEQUENCE OF CONSTRUCTION

The Contractor shall submit his sequence of construction to the Chief Engineer for approval, prior to the commencement of work. His sequence shall take into account the following requirements:

1. The preconstruction survey shall be completed prior to the commencement of work.
2. Along the portion of the canal where there is existing sheet pile, the Contractor shall be allowed to degrade/raise the levee to the required elevation prior to the installation of the required sheet pile. Along the portion of the canal where there is not existing sheet pile, the Contractor shall not be allowed to degrade the levee to the required elevation prior to the installation of the required sheet pile except in accordance with the following: On a day to day basis, the Contractor may degrade the levee to the required elevation for that distance that he expects to drive sheet pile on that day. If the Contractor falls shorts of driving the expected number of sheets, he shall provide temporary flood protection for the distance that was degraded but no sheet pile put in place. (See also Section 4-01.2.)
3. Prior to pulling existing sheet piling, the Contractor shall have the required sheet piling in place for a distance of 250 feet past the sheet piling that is being pulled. (See also Paragraph 5-06.5.4.)
4. Prior to dredging, the Contractor shall have the levees reconstructed, required sheet piling in place, existing sheet piling pulled, and to the extent possible, all items of demolition removed from the canal; all for a distance of 250 feet past the dredging operations.

SECTION 3
DEMOLITION

3-01 STRUCTURES

The Contractor shall remove and dispose of all existing timber pilings, docks, and any other structures or remains of structures which may exist within the limits of work as indicated on the contract drawings and as specified herein. Existing structures are shown on the contract drawing to the best of the Engineer's knowledge. The absence of any existing structure from the contract drawings does not excuse the Contractor from removing it, nor will there be any additional payment for its removal. The Contractor should verify the number, size and location of all existing structures by visiting the site. Timber pilings are to be pulled or cut off no higher than the proposed after-dredging ground line so that they cause no obstruction to the flow of water in the canal at the completion of the project. All products of demolition are to be hauled away and disposed of at a site chosen by the Contractor. The disposal site location shall be submitted to the Chief Engineer for approval.

3-02 OBSTRUCTIONS

The Contractor shall remove and dispose of all brush, trees, trash, sunken boats, appliances, broken concrete, tires, shopping carts, crab traps, oil drums, mattresses and any other obstructions which may exist within the limits of this project. These items are to be hauled away and deposited at a site whose location has been submitted to and approved by the Chief Engineer. The Contractor will be responsible for any damage to levees, streets, sheet pile walls, etc., during demolition and hauling operations.

Regarding the removal of vegetation: In the areas which are to be dredged, the Contractor shall remove all trees and brush including their root systems; in the areas which are not to be dredged, such as the Jefferson side of the canal, the areas around the bridges and the reach of the canal south of the Interstate bridges, the Contractor shall cut down all trees and brush to ground level in a manner that will not disturb the existing ground profile.

It is called to the Contractor's attention that there are two muck retainers in the canal which are to be removed and disposed of. These muck retainers are located on the north side of the Hammond Highway bridge and on the south side of I-10 East bridge, and are shown in the contract drawings.

3-03 SHEET PILE WALL

The Contractor shall remove all of the existing concrete-capped sheet pile wall on the Orleans levee, as indicated on the plans and in accordance with Section 5-05.1 of these specifications. The concrete cap shall be carefully broken off so as not to damage the existing sheet pile, and shall be disposed of at a site submitted to and

approved by the Chief Engineer. Sheet piles are to be pulled, the order and timing of which is specified in the sequence of construction, Section 2-20. Information regarding the configuration of the existing sheet pile wall is located on Drawing No. 19 of the contract drawings.

3-04 MEASUREMENT AND PAYMENT

Payment for demolition will be made at each payment period based upon the percentage of items removed and properly disposed of that period, and applied to the lump sum bid price for Bid Item No. 2. This item will include structures, obstructions and the concrete cap on the existing sheet pile wall. The weighted value of each structure to be removed will be mutually agreed upon by the Contractor and Chief Engineer's Representative prior to the commencement of work.

Payment for pulling the existing sheet pile will be made at the applicable unit price for Bid Item No. 3 and shall include all costs of pulling, cleaning, hauling, and off-loading at either the storage location or coating plant. The length of each pile pulled will be measured to the nearest tenth of a linear foot and units computed to the nearest square foot.

SECTION 4
DREDGING AND LEVEE RECONSTRUCTION

4-01 GENERAL

4-01.1 Definitions

Dredge Material - Between the Hammond Highway bridge and the I-10 West bridge, dredge material is herewith defined as that material removed from below the required levee crown elevation, as called out on the typical sections in the contract drawings. Between the I-10 East bridge and the Southern Railway bridge, none of the material to be removed is considered dredge material.

Excavation Material - Between the Hammond Highway bridge and the I-10 West bridge, excavation material is herewith defined as that material removed from above the required levee crown elevation, as called out on the typical sections in the contract drawings. Between the I-10 East bridge and the Southern Railway bridge, all material to be removed is considered excavation material.

Fill Material - As referenced in these specifications, fill material is herewith defined as that fill required above elevation 1.0 M.S.L. as shown in the contract drawings, and also that fill required in the vacant lot opposite Baseline Station 604+00. Fill shown below elevation 1.0 M.S.L. on the contract drawings is not subject to the requirements specified herein for fill material, however, the Contractor shall be required to fill these areas with adjacent material. This "underwater fill" is not included in the estimated bid quantity and there shall be no direct payment for it.

4-01.2 Maintenance of Flood Protection

The Contractor is required to maintain flood protection during all phases of the project. Any temporary flood protection must be built to an elevation equaling or exceeding the existing level of protection. The length of temporary flood protection must never exceed 250 feet. The Contractor must submit any plans for temporary flood protection to the Chief Engineer for approval prior to the commencement work.

4-02 DREDGING

4-02.1 Method and Operations

Dredging shall be conducted as described in these specifications and to the limits shown in the contract drawings.

Bucket dredging shall be the only method of dredging allowed within the limits of work shown on the contract drawings. The bucket size shall not exceed 3 cubic yards.

Dredging shall not be permitted from the levees. Instead, it is recommended that dredging be performed from a system of flex-float barges. The Contractor shall submit his proposed dredging system to the Chief Engineer prior to the commencement work. (See Section 2-20 for the allowable sequence of dredging.)

No dredging will be permitted while Pump Station No. 6 is in operation. Dredging may resume when the Chief Engineer's Representative has determined that all flow in the canal has ceased.

The Contractor shall be required to initially deposit all dredge material onto a barge that is designed to allow excess water to drain from the dredge material. Only after sufficient drainage has occurred shall the Contractor be allowed to load the dredge material into lined trucks for hauling to the approved dredge material disposal site. Trucks used for hauling dredge material shall only be loaded at designated locations and shall not be allowed to travel on the levees outside of these loading locations. The designated loading locations are as follows: (1)

(2) Immediately north of the I-10 West bridge, and (3) Immediately south of the I-10 East bridge.

All dredge material shall be hauled to an approved disposal site in accordance with Section 4-04.2.2.

4-02.2 Silt Screens

Silt screens shall be placed within 200 feet downstream and upstream of the dredging operation to prevent silt travel, and shall meet the approval of the Chief Engineer with respect to type, manufacturer, and usage. Dredging shall not be allowed if the silt screens are not in place.

4-02.3 Character of Material to be Dredged

The material to be removed from the canal within the specified limits may include sand, silt, clay, shell, logs, stumps, snags, debris, brush, riprap, sunken boats and other obstructions. Bidders shall examine the site and after investigation decide for themselves the character of the material as stated in Section B-4.01.

4-02.4 Theoretical After-Dredging Section

Between the Hammond Highway and Veterans Highway bridges, and between the Veterans Highway and I-10 West bridges, an after-dredging cross-section is herewith established which shall have a 25'-0" bottom width. The bottom elevation from Hammond Highway to Veterans Highway shall be -18.5 M.S.L. and from Veterans Highway to I-10 West shall be -17.5 M.S.L. Dredging of six inches of allowable overdepth below the required profile grade (bottom elevation) will be permitted. Side slopes shall be 1 vertical on 3 horizontal with no allowable overdepth. The 1V:3H slope on the west side of the canal shall extend from the west toe of slope up to the location where it intersects with the existing canal bottom. The baseline offset to this location (west top of slope) shall be computed from the Contractor's original survey. On the east side of the canal, the 1V:3H slope shall extend from the east toe of slope up to the elevation of the horizontal shelf on the canal side of the required sheet pile wall from Hammond Highway to Station 636+00, or up to the required levee crown elevation from Station 636+00 to I-10 West. From Hammond Highway to Station 636+00, there shall be a horizontal shelf on the canal side of the required sheet pile wall, at an elevation lower than that of the

required sheet pile wall, with no allowable overdepth. The elevation and width of the shelf vary as shown on the typical sections in the contract drawings.

The required stability of the levees and sheet pile walls under design loads is dependent on the theoretical sections described above and shown in the contract drawings. With few exceptions, any deviations from these sections will adversely affect the stability. To gain acceptance, sections must be dredged to the specified profile grade, bottom width, side slopes and horizontal shelf elevation. As stated above, the only allowable overdepth is six inches in the required profile grade. Under no circumstances shall the Contractor dredge beyond the limits shown in the contract drawings on the west side of the canal. The baseline offset to the west toe of slope shall at no point be less than that given in the tables on the plan and profile drawings, nor shall the offset to the west top of slope be less than that computed from the Contractor's original survey.

No dredging is required or allowed underneath any bridges, between the Interstate bridges, nor south of the I-10 East bridge.

4-03 LEVEE RECONSTRUCTION

4-03.1 General

Levee reconstruction shall be conducted as described in these specifications in order to reshape the levees to coincide with the cross-sections shown in the contract drawings.

The Contractor's attention is called to the close proximity of various fences and outbuildings along the Orleans levee. The Contractor shall take the necessary precautions to prevent any spillage of levee material onto the adjacent structures. Any costs that may be incurred in preventing spillage shall be taken into account in the Contractor's bid price for levee work as no additional payment will be made.

4-03.2 Theoretical Reconstructed Section

The required levee configuration varies along the length of the canal with respect to crown elevation and width. There are six typical sections shown in the contract drawings to define these parameters and the reach of the canal in which each typical section applies. Within each of these six reaches the crown elevation is constant, however the crown width is continuously varying and is a function of the existing levee configuration. In the reaches where excavation of the existing levee crown is required, the required crown width is that width which results from degrading the levee to the required crown elevation. In the one reach where fill is required on the existing levee crown, the required crown width is that width which results from placing fill up to the required crown elevation while maintaining the existing backslope up the fill material. There is no earthwork to be performed on the existing backslope anywhere along the canal.

A description of the required levee configuration on the canal side of the required sheet pile is given in Section 4-02.4 as this will be shaped using the dredge equipment. The exception to this is the fill required above elevation 1.0 M.S.L. on the canal side of the wall. The specifications for the type of material to be used and the method of placement shall be in accordance with the Section 4-03.4.

The levee cross-sections shall be reconstructed to not less than the required crown elevations. The levee crown and the horizontal shelf shall be graded such that they drain away from the required sheet pile wall. A tolerance of three-tenths of one foot above the prescribed grade will be permitted in the final dressing provided there are no abrupt humps or depressions. Any unreasonable roughness of surface shall be dressed out.

4-03.3 Levee Excavation

Excess excavation material shall be hauled in trucks to the designated site south of the Civil Defense Shelter in accordance with Section 4-04.

Only trucks used for hauling levee excavation material shall be allowed to travel on the levees.

4-03.4 Levee Fill

4-03.4.1 Fill Material

Only suitable material may be used for fill in levee construction and for fill in the vacant lot opposite Baseline Station 604+00. Fill material shall be free from roots, grass, concrete, and other objectionable material and must meet the approval of the Chief Engineer. Excavation material as defined in Section 4-01.1 may be used as fill where needed if it is free of objectionable material. Dredge material as defined in Section 4-01.1 may not be used as fill.

4-03.4.2 Equipment

1. Tamping Rollers - shall consist of one or more units. Each unit shall consist of cylindrical drum not less than 48 inches in length and not less than 40 inches in diameter. The drums shall be water or sand and water ballasted. Each drum shall have staggered feet uniformly spaced over the cylindrical surfaces such as to provide approximately 3 tamping feet for each 2 square feet of drum surface. The tamping feet shall be 7 to 9 inches in clear projection from the cylindrical surface of the roller, and shall have a face area of not less than 5 or more than 14 square inches. The units shall be equipped with a suitable device for cleaning the feet. The rolling units of multiple-type tamping rollers shall be pivoted on the main frame in a manner which will permit the units to adapt themselves to uneven ground surfaces and to rotate independently. The weight of the roller shall not be less than 1150 pounds per linear foot of drum length weighted, and shall not be more than 675 pounds per foot of drum length empty. The roller shall be pulled by a tractor at a speed not to exceed 3.5 miles per hour.

2. Self-Propelled Tamping Roller - At the option of the Contractor, self-propelled tamping rollers conforming to the requirements of Paragraph 4-05.2(1) above may be used in lieu of tractor-drawn tamping rollers. Self-propelled rollers exceeding the empty weight requirements may be used provided that, by the substitution of tamping feet having a face area not exceeding 14 square inches, the foot pressure on the tamping feet of the self-propelled roller can be adjusted to approximately the foot pressure of the towed roller for the particular working condition. In no case shall the foot areas for self-propelled tamping rollers be less than those specified for the towed rollers. For self-propelled rollers in which steering is accomplished through the use of rubber-tired wheels, the tire pressure shall not exceed 40 pounds per square inch. The roller shall be operated at a speed of not more than 3.5 miles per hour.

3. Rubber-Tired Rollers - Rubber-tired rollers shall have a minimum of four wheels equipped with pneumatic tires. The tires shall be of such size and ply as to be capable of being operated at tire pressures between 80 and 100 pounds per square inch at a 25,000 pound wheel load. The roller wheels shall be located abreast and so designed that each wheel will carry approximately equal load in traversing uneven ground. The spacing of the wheel will be such that the distance between the nearest edges of adjacent tires will not be greater than 50 percent of the rated tire width of a single tire. The roller shall have a rigid steel frame provided with a body suitable for ballast loading such that the load per wheels may be varied, as directed by the Chief Engineer, from 18,000 to 24,000 pounds. The roller shall be towed at speeds not to exceed 5 miles per hour.

4. Crawler-Type Tractors - Crawler-type tractors used for spreading or compaction shall weigh not less than 20,000 pounds, shall exert a unit tread pressure of not less than 6 pounds per square inch, and shall be operated at a speed not to exceed 3.5 miles per hour.

5. Sprinkling Equipment - Sprinkling equipment shall consist of tank trucks, pressure distributors, or other equipment designed to apply water uniformly and in controlled quantities to variable widths of surface.

6. Miscellaneous Equipment - Scarifiers, disks, spring tooth or spike tooth harrows, spreaders, power tampers, and other equipment shall be of types suitable for construction of levee embankment.

4-03.4.3 Embankment Foundation Preparation

Immediately prior to the placement of fill material, the entire earth surface on or against which fill is to be placed shall be thoroughly broken to a depth of 6 inches. If for any cause this broken surface becomes compacted in such a manner that, in the opinion of the Chief Engineer, a plane of seepage or weakness might be induced, it shall again be adequately scarified before the depositing of material thereon. All scarifying and breaking of ground surface shall be done parallel to the centerline of the levee. All of the foregoing work shall be completed at least 200 feet in advance of the embankment construction.

4-03.4.4 Embankment Construction

Prior to placement of backfill, the existing levee crown should be stripped of all vegetation, loose topsoil and debris. The subgrade should be scarified to a depth of 6 to 8 inches and recompact.

Backfill material shall be spread in 8 to 10-inch thick layers. Layers shall be started full out to the slope stakes and shall be carried substantially horizontal with sufficient crown or slope to provide satisfactory drainage during construction. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the succeeding layer is placed thereon.

Each layer should be compacted to at least 95 percent of the maximum dry density at optimum water content in accordance with ASTM D698 or 90 percent of ASTM D1557. If the material, as removed from other levee areas, is too wet to obtain the desired density, it may be stockpiled and allowed to drain before it is placed in the embankment cross section, or the wet material may be processed by disking and harrowing, if necessary, until the moisture content is reduced sufficiently. No stockpiling will be allowed on the levees and all stockpile areas must be submitted to the Chief Engineer for approval. If the material is too dry to obtain the desired density, the Contractor will be required to pre-wet the material in the borrow area, or to uniformly distribute sufficient moisture in each layer before rolling to permit the desired compaction.

When the moisture content and condition of the spread layers are satisfactory, each layer shall be compacted by any of the following methods at the option of the Contractor:

1. Tamper-Type Roller - Four complete passes over each layer will be required. If tamping rollers are used in tandem, not more than two rows will be permitted and, in such case, one trip of the tandem rollers over any surface will be considered as two passes. When tamping rollers are used in tandem, the tamper foot spacing shall be offset so that the circumferential rows on the rear drums are in line with the midpoint of the circumferential rows of the forwarded drums. Each pass of the tamping roller shall overlap the preceding or adjacent pass by not less than one foot.

2. Rubber-Tired Roller - Two complete passes over each layer will be required.

3. Crawler-Type Tractor - Three complete passes over each layer will be required.

A pass shall consist of one complete coverage of the surface of a layer by the treads of the roller, tractor, or other compacting equipment. Portions of the embankment which the compacting equipment cannot reach for any reason shall be compacted by an approved method to the density at least equal to the surrounding embankment.

If, in the opinion of the Chief Engineer, the desired compaction of any portion of the embankment cannot be secured by the minimum number of passes specified, additional complete passes shall be made over the surface area of such designated portion until the desired compaction has been obtained.

The water content and density of the compacted backfill material will be verified by an independent testing lab retained by the Board. The testing will be performed by the Troxler nuclear density method in accordance with ASTM D 2922 with periodic confirmation by the drive cylinder method in accordance with ASTM D 2937.

4-04 DISPOSAL

4-04.1 General

All hauling shall be done in accordance with Section 2-10 of these specifications.

4-04.2 Dredge Material

4-04.2.1 Disposal Site

All dredge material including debris, shall be hauled in lined trucks to an approved disposal site. The disposal site shall be a non-wetland area. It shall be the Contractor's responsibility to locate an appropriate site and obtain written approval of the site from the U.S. Army Corps of Engineers prior to dredging. This written approval shall state all conditions stipulated by the Corps in granting their approval. Absolutely no dredging will be allowed until the Chief Engineer has received two copies of the written approval from the Corps. The Contractor shall also supply the Owner of the site with a copy of the approval prior to dredging, so that the Owner is aware of all conditions that the Corps has placed on the Contractor in granting their approval of the site.

It is highly recommended that the Contractor contact Mr. Lloyd Baehr's office (862-2259) of the Army Corps of Engineers for a judgement on the disposal site prior to bidding.

In addition, the Contractor shall have a written agreement with the Owner of the disposal site stating all conditions stipulated by the Owner in granting permission for his property to be used as the disposal site. The agreement shall also state that the Owner is aware of the consistency and quantity of the material which is to be disposed of on his property and that he has received a copy of the Corps' approval from the Contractor. Two copies of the Contractor's agreement with the Owner shall be submitted to the Chief Engineer prior to dredging.

If the Contractor chooses to use more than one disposal site, the above requirements shall apply to each site.

No dredge material shall be deposited anywhere other than the approved disposal site(s).

4-04.2.2 Hauling in Lined Trucks

Dredge material shall only be hauled in lined trucks in order to assure that no dredge material escapes while in route to the approved disposal site(s). The trucks are to be lined with 6 mil polyethylene or any alternative method acceptable to both the Contractor and Chief Engineer. The linings are to be inspected to ensure water tightness prior to each loading and shall be replaced at the sign of any potential leakage.

As state in Section 4-02.1, trucks used for hauling dredge material shall only be loaded in the designated loading areas and shall not be allowed to travel on the levees except in these designated areas, regardless of whether they are loaded or empty.

4-04.2.3 Grading of Disposal Site

After all dredge material has been hauled to the approved disposal site, it shall be graded to the satisfaction of the Chief Engineer and in accordance with any requirements set forth in the Corps' approval and the Owner's agreement. If the disposal site is nearer than 2,500 feet to a residential area, the graded dredge material shall be covered by a minimum of one foot of clean fill and then regraded. If there is any question as to whether an area is considered residential, it shall be left up to the decision of the Chief Engineer. An area need not necessarily be zoned residential to be considered residential.

4-04.3 Excavation Material

4-04.3.1 Disposal Site

All excess excavation material shall be hauled by truck to the following designated disposal site: the area located south of the Civil Defense Shelter and north of Polk Street, between Pontchartrain Boulevard and West End Boulevard. The exact placement will be as specified by the Orleans Levee Board. This material shall be free of debris, trees, brush, roots, etc.

4-04.3.2 Hauling in Trucks

Trucks hauling excavation material will not require lining, and while these trucks will be allowed to travel on the levees, it is advised that the Contractor keep this travel to a minimum.

4-04.3.3 Grading of Disposal Site

After all excess excavation material has been hauled to the designated disposal site, it shall be spread uniformly over the area, not exceeding two feet in depth. It shall be fertilized and seeded in accordance with Section 6 - Turfing.

4-05 QUANTITY SURVEYS

The Contractor will be responsible for making original and final surveys to be used in the computation of quantities for the determination of the contract price for Bid Item 4, Dredging; Bid Item 5, Excavation; and Bid Item 6, Fill. All quantity surveys shall be made under the direction of the Chief Engineer's Representative.

Cross-sections to be used for the purposes of quantity computations are to be taken at a maximum of 50 feet along the baseline. Final cross-sections shall be taken at the same locations as the original cross-sections. In the vacant lot requiring fill opposite Baseline Station 604+00, two cross-sections shall be taken as directed by the Chief Engineer's Representative. Soundings/level rod readings are to be taken at a maximum of 10-foot intervals normal to the baseline, beginning approximately 10 feet west of the west water's edge and proceeding to the fenceline on the back side of the Orleans levee. In the final survey, soundings shall also be taken at the baseline offset to each required toe of slope and top of slope. Horizontal distances will be measured to the nearest foot and elevations to the nearest tenth of a foot. Soundings for the original and final quantity surveys are to be taken with a twelve pound mushroom weight having a six-inch diameter base.

A canal segment shall hereby be defined as a minimum length of 250 feet of completed dredging as detailed in the contract drawings. A levee segment shall hereby be defined as a minimum length of 250 feet of completed levee reconstruction as detailed in the contract drawings.

Original quantity surveys may be made at any time prior to the dredging and levee reconstruction of a particular segment.

Final surveys for payment of levee reconstruction shall be made only after the Chief Engineer's Representative has determined that the work in a particular levee segment is completed. Final surveys for payment of dredging shall be made only after the Chief Engineer's Representative has determined that the dredging in a particular canal segment is completed and the dredging operations are a minimum of 100 linear feet from that segment.

4-06 MEASUREMENT AND ACCEPTANCE

The total amount of work to be paid for under Bid Item 4, Dredging; Bid Item 5, Excavation; and Bid Item 6, Fill, shall be based on the actual quantity of material removed or put in place as indicated by the Contractor's original and final surveys, and in accordance with the following: (1) Payment will be for the six inches of allowable overdepth below profile grade if removed; (2) Payment will not be made for any overdepth on the Orleans side slope or horizontal shelf; (3) Payment will not be made for any excavation material removed below the required crown elevation; (4) Payment will be made for up to 0.3 feet of fill material placed above the required crown elevation within the limits of the theoretical crown width; (5) Payment will not be made for any fill material placed above the required horizontal shelf elevation; (6) Payment will not be made for any fill required below elevation 1.0 M.S.L.

Regarding material dredged from the west side of the canal, it is recognized that during dredging operations, there may be some shifting of loose canal material (muck) from areas beyond the limits of dredging into the areas to be dredged. If the Contractor removes this additional material in the process of achieving the required profile

grade, he will be paid for the removal of this additional material. The quantity will be computed from the Contractor's original and final surveys. The Contractor is reminded of the critical nature of the limits of dredging on the west side of the canal as stated in the second paragraph of Section 4-02.4.

In computing quantities for payment, areas will be computed to the nearest tenth of a square foot and volumes will be computed to the nearest cubic yard.

Payment for a particular canal segment or levee segment will be made at the applicable unit price only after it has been determined by the final quantity survey as described in Section 4-05, that the entire canal segment has been dredged or the entire levee segment has been reconstructed to the required cross-section.

4-07 PAYMENT

Payment for Bid Item No. 4, Dredging; Bid Item No. 5, Excavation; and Bid Item No. 6, Fill, will be made at the applicable contract unit price per cubic yard based upon quantity surveys and in accordance with Section 4-06, after acceptance of each particular segment. Payment for the dredging item shall include removal of dredge material, silt screens, hauling, grading and any other work incident thereto. Payment for the excavation item shall include removal of excavation material, hauling, grading and any other work incident thereto. Payment for the fill item shall include placement of fill material, preparing, compacting and dressing embankment, and any other work incident thereto. As there shall be no direct payment for quantity surveys or temporary flood protection measures, the Contractor shall take these items into account in preparing Bid Item Nos. 4-6.

SECTION 5
STEEL SHEET PILING

5-01 SCOPE

The work covered by this section consists of furnishing all plant, equipment, labor and materials and performing all operations in connection with the painting and installation of new sheet piling, and the pulling, cleaning, painting and reinstallation of existing sheet piling, in accordance with these specifications and applicable drawings.

5-02 APPLICABLE PUBLICATIONS

The following American Society for Testing and Materials (ASTM) standards of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

A 328	PZ-22
A 36	Angles for Fabricated Sheet Pile Sections
A 325	Bolts for Fabricated Sheet Pile Sections

5-03 SUBMITTALS

5-03.1 Equipment Descriptions

The Contractor shall submit complete descriptions of pile driving equipment, including hammers, extractors, protecting caps and other appurtenances to the Chief Engineer for approval prior to commencement of work.

5-03.2 Sheet Pile Layout

Any variations in the sheet pile layout, i.e., the location of starting points, turning points, and/or ending points, shall be submitted for approval with the sheet pile shop drawings. If foreign sheet pile is to be used, the Contractor shall notify the manufacturer that English units (not metric units) are to be used in submittals. (See also, Section 2-15).

5-04 MATERIALS

Steel for new sheet piling shall be hot-rolled and conform to the requirements of ASTM A 328. Special fabricated sections shall be fabricated from angles or bent plates conforming to the requirements of ASTM A 36. High-strength bolts (ASTM A 325) shall be used for the fabricated sections. Welding will not be allowed for fabricated sections. Sheet piling, including special fabricated sections, shall be of the type indicated on the drawings, have a nominal web thickness and section modulus not less than that shown in the following table and be of a design such that when in place they will be continuously interlocked throughout their entire length. All piling shall be provided with standard pulling holes located approximately 4 inches below the top of the pile, unless otherwise shown or directed. Piling shall have the properties equivalent to those listed in the following table.

Type of Section	Nominal Web Thickness (Inches)	Section Modulus Per Lin Ft of Wall (In)	Weight Per Sq Ft of Wall (Lbs)	Weight Per Lin Ft of Pile (Lbs)
PZ 22	3/8	18.1	22	40.3

5-05 PULLING AND CLEANING EXISTING SHEET PILE

5-05.1 Pulling Existing Sheet Pile

As shown in the contract drawings, the existing sheet pile is PMA 22, 20' long.

All sheet piling designated on the plans to be removed, shall be pulled utilizing extractors of sufficient size and type as to minimize damage to the pile. As the sheets are pulled, they will be separated into two groups. One group will be piles that are suitable for reuse between Stations 626+65 and 639+13 and between Stations 642+35 and 670+63. Only the number of sheets needed shall go into this group. Additional sheets, though suitable, shall go into a second group along with any unsuitable sheets. The suitability of individual sheets for reuse will be left to the decision of the Chief Engineer's Representative. The group of piling to be reused will be hauled to a coating plant, and the other group will be hauled, off-loaded, and stacked on wooden blocks at the Orleans Levee Board's property located at 6920 Franklin Avenue.

In the unlikely event that there are not enough existing sheet piles suitable for reuse between the stations given above, the Contractor shall be required to furnish new sheet piles to make up the difference. He shall provide the new piles at the applicable unit price of Bid Item No. 7 for New Sheet Pile.

5-05.2 Cleaning Existing Sheet Pile

All pulled piles shall be cleaned prior to leaving the job site. Cleaning shall be to the extent that the piles are reasonably free from earth and other foreign material so as to easily facilitate redriving. Cleaning shall be to the satisfaction of the Chief Engineer's Representative.

5-06 PAINTING AND INSTALLING NEW AND REUSED SHEET PILE

5-06.1 Placing and Driving

5-06.1.1 Placing

Piling shall be carefully located as shown on the drawings or as direct by the Chief Engineer. Piles shall be placed in a plumb position with each pile interlocked with adjoining piles for its entire length, so as to form a continuous diaphragm throughout the length of each run of wall. Interlocks shall be properly engaged with the thumb of each pile gripped by the thumb and finger of the adjacent pile. All piles shall be placed as true to line as possible. Suitable temporary wales or guides structures shall be provided to insure that the piles are driven to correct alignment.

5-06.1.2 Driving

All piles shall be driven to the depths shown on the drawings and shall extend to the elevation indicated for the top of piles. A tolerance of 3 inches above the indicated top elevation will be permitted. All piles shall be trimmed to the elevation shown on the plans after completion of driving. Piles shall be driven by approved methods in such a manner as not to subject the piles to serious damage and to insure proper interlocking throughout the length of the piles. Pile hammers shall be maintained in proper alignment during driving operations by use of suitable leads or by guides attached to the hammer. A protecting cap shall be employed in driving, when required, to prevent damage to the tops of piles. All piles shall be driven without the aid of a water jet unless otherwise authorized. Adequate precautions shall be taken to insure that piles are driven plumb. If at any time the forward or leading edge of the pile wall is found to be out of plumb in the plane of the wall, the piles already assembled and partly driven shall be driven to full depth and the Contractor shall provide and drive tapered piles to interlock with the out of plumb leading edge or take other corrective measures to insure the plumbness of succeeding piles. The maximum permissible taper for any tapered pile will be one-eighth of an inch per foot of length. Each run of piling shall be driven to grade progressively from the start and no pile shall be driven to a lower grade than those behind it in the same run except when the piles behind it cannot be driven deeper. If the pile next to the one being driven tends to follow below final grade, it may be pinned to the next adjacent pile. There will be no direct payment for the additional labor and materials necessitated by such changes. Piles driven out of innerlock with adjacent piles or otherwise damaged shall be removed and replaced by new piles at the Contractor's expense.

5-06.2 Cutting and Splicing

The existing 20' PMA 22 piles which are being reused are longer than is required. The Contractor has the option of cutting these piles to the required length or driving the extra length. Since all piles have to be cut off to the required grade after driving as stated below, the Contractor might take that opportunity to cut the reused piles to their required length so as not to have to cut the piles twice or drive the extra length. If the Contractor chooses to do this, he shall make sure that the required length of coal tar epoxy specified in Section 5-06.4 is applied along the correct portion of the pile. In other words, the length of application shall be measured from the point that will be the top of pile after cut off, not before.

Piles in excess of the specified elevation shall be cut off to required grade. Piles driven below the elevations indicated for the top of piles and piles which because of damaged heads have been cut off to permit further driving, and are then too short to reach the required top elevation, shall be extended to the required elevation by welding an additional length, when directed, without cost to the Board. Should splicing of piles be necessary, the splice shall be made by an approved butt weld making full penetration of the web. Piles adjoining spliced piles shall be full length piles. The Contractor shall trim the tops of piles excessively damaged during

driving, when directed to do so, at no cost to the Board. Cut-offs shall become the property of the Contractor and shall be removed from the work.

5-06.3 Pulling and Re-driving

The Contractor may be required to pull certain selected piles after driving, for test and inspection, to determine the conditions of the piles. Any pile so pulled and found to be damaged to such extent as would impair its usefulness in the structure shall be removed from the work and the Contractor shall furnish and drive a new/different pile to replace the damaged pile at no cost to the Board. Piles pulled and found to be in a satisfactory condition shall be redriven. Payment shall be in accordance with Section 5-07.2.3.

5-06.4 Coal Tar Epoxy Polyamide Painting

All sheet piling shall receive Coal Tar Epoxy Paint on both sides of the sheet for the upper portion of the pile given in the following table. A two coat system with each coat measuring a minimum of 8 mils shall be used. The portion of piling to be painted shall be cleaned by blast cleaning in accordance with the Near White Blast Cleaning Method, prior to painting.

<u>Station</u>	<u>Length of Application Measured from Top of Pile Elevation</u>
553+12 to 615+00	14.0'
615+00 to 624+93	12.0'
626+65 to 636+00	11.5'
636+00 to 639+13	6.5'
642+35 to 663+00	4.5'
663+00 to 670+63	5.5'

Coal Tar Epoxy Polyamide Paint shall be applied in conformance with Louisiana Standard Specifications 811 and shall conform to La. Std. Spec. 1008.08 and Corps of Engineers Specification C-200.

5-06.5 Vibration Monitoring

5-06.5.1 Scope

This work consists of having an independent testing lab perform vibration monitoring during all pile driving operations. If more than one pile driving rig is in operation at any time, each rig shall be independently monitored.

5-06.5.2 Qualifications of Testing Lab

The independent testing lab whom the Contractor chooses to perform the vibration monitoring shall have at least five years experience in this area. Proof of the lab's experience shall be submitted for verification and approval by the Chief Engineer prior to the commencement of any pile driving operations.

5-06.5.3 Reporting Reading

At the end of pile driving operations each day, the technician operating the vibration monitoring equipment shall be required to fill out a brief summary form of that day's activities furnished by the Chief Engineer's Representative, and shall leave the form with the Representative each day. In addition, the testing lab shall submit in duplicate, on a weekly basis, typed daily reports.

5-06.5.4 Additional Work

At this time, it is not anticipated that the pile pulling operations will be monitored, except for possibly the first day of these operations, to verify that the vibration readings are suitably low. The Board reserves the right, however, to require that all or any part of the pulling operations be monitored. Any monitoring of pulling operations shall only be done at the direction of the Chief Engineer's Representative and shall be done so at the same unit price as for monitoring pile driving. If monitoring is performed, the Contractor shall be required to have the existing concrete cap broken out for a sufficient distance ahead of the pulling operations, so as not to cause any delays that would result in unnecessary costs for "idle" time of the monitoring technician.

5-07 MEASUREMENT AND PAYMENT

5-07.1 Measurement

5-07.1.1 Piles

The length of each pile driven will be measured to the nearest tenth of a linear foot and units computed to the nearest square foot. No deduction will be made for holes cut for utilities, in computing the area for payment.

5-07.1.2 Vibration Monitoring

Vibration monitoring activities will be measured from the time pile driving operations begin each day until the time they are finished. The number of hours recorded for billing each day will be measured to the nearest half hour. If pile driving operations cease for more than two hours at any given time, the down time will not be measured for payment. Down time of less than two hours will be measured for payment so long as the technician remains on the job site during that time.

5-07.2 Payment

5-07.2.1 New Sheet Piling

Payment for new steel sheet piling will be made at the contract unit price for Bid Item No. 7, and shall include all costs associated with providing new steel sheet piling in place in accordance with the contract plans and specifications. These costs include furnishing, blasting, painting, transporting, driving, trimming and all other material and work incident thereto.

5-07.2.2 Reused Sheet Piling

Payment for reusing steel sheet piling will be made at the contract unit price for Bid Item No. 8, and shall include all costs associated with providing reused steel sheet piling in place in

accordance with the contract plans and specifications. These costs shall include blasting, painting, transporting back to the job site, driving, trimming and all other material and work incident thereto.

Pulling and cleaning of existing sheet piling, along with transporting to and off-loading at either the coating plant or the Board's storage location, shall be paid under Bid Item No. 3.

5-07.2.3 Piles Pulled After Driving

Piles which are directed to be pulled and found to be in good condition will be paid for at the applicable contract price for providing the piles in place, plus an additional amount for pulling and re-driving. The additional amount for pulling will be based on the contract unit price for pulling existing sheet piling (Bid Item No. 3). The additional amount for re-driving will be based on the contract unit price for providing reused sheet pile in place (Bid Item No. 8). The full sheet length will be used for computing quantities.

When piles which are directed to be pulled are found to be damaged, no payment will be made for originally providing the pile in place, nor for the operation of pulling. Piles replacing damaged piles will be paid for at the applicable contract unit for providing the pile in place.

5-07.2.4 Vibration Monitoring

Payment for vibration monitoring will be made at the contract unit price for Bid Item No. 15 and shall include equipment, monitoring, reports, and all other materials and work incident thereto.

SECTION 6
TURFING

6-01 SCOPE

The work provided for herein consists of furnishing all plant, labor, equipment, and materials, and performing all operations necessary for finished dressing, fertilizing, seeding, and mulching areas as specified herein and as indicated on the drawings. The establishment of turf shall be performed upon completion of embankment construction in minimum lengths of 500 feet. The period of the year in which the establishment of turf is done on a particular length of embankment will determine the method indicated in Table I which shall be followed for that particular length of embankment. Only one of the methods listed in Table I will be required for that particular length of embankment.

6-02 AREAS TO BE TREATED

Turf shall be established on all disturbed and regraded areas along the Orleans Levee from the fenceline on the land side of the levee to the normal waterline on the canal side of the levee, on the fill in the vacant lot opposite Baseline Station 604+00 and on any other areas within the project limits so directed by the Chief Engineer's Representative. In addition, the disposal site for excess excavation material shall be turfed.

6-03 COMMENCEMENT, PROSECUTION AND COMPLETION

6-03.1 General

Preparation of the ground surface, fertilizing, seeding and mulching operations shall be accomplished during the applicable growing season as specified in Table I.

6-03.2 Sequence of Work

The sequence of operations for work prescribed in this section, except mowing, shall be as follows:

1. Preparation of ground surface.
2. Preparation of slurry consisting of fertilizer, seed, and wood cellulose fiber mulch.
3. Application of slurry.
4. Watering.
5. Post-fertilizing

6-04 MATERIALS

6-04.1 Fertilizer, During Mulching Operations

The Contractor will be required to supply representative samples of levee material to the Louisiana Cooperative Extension Service to determine the quantity of fertilizer and lime to be used. This service will take a period of approximately three weeks to obtain results.

Fertilizer shall be uniform in composition and free-flowing. The fertilizer may be delivered to the site in bags or other convenient containers or delivered in bulk. If delivered in bags or containers, the fertilizer shall be fully labeled in accordance with the applicable State fertilizer laws and shall bear the name, tradename or trademark, and warranty of the producer. The fertilizer shall meet the requirements for commercial fertilizer and shall contain a minimum of 100 pounds of available nitrogen per acre, a minimum of 100 pounds of available phosphorus per acre, and a minimum of 100 pounds of available potassium per acre, or the amount determined by the Louisiana Cooperative Extension Service. Should the commercial fertilizer be furnished in bulk, the Contractor shall furnish certified weight tickets and a certified quantitative analysis report, in triplicate, from a recognized testing laboratory certifying the nutrient ratio of the materials. In the event the commercial mixture is delivered to the job site in the original containers, unopened, the analysis report will not be required.

6-04.2 Fertilizer, Postplanting

The fertilizer shall meet all of the requirements of 6-04.1 above except that it shall contain a minimum of 50 pounds of available nitrogen per acre, or the amount determined by the Louisiana Cooperative Extension Service.

6-04.3 Soil for Repairs

For fill of areas to be repaired, soil shall be of a quality at least equal to that which exists in areas adjacent to the area to be repaired. Soil used shall be free from roots, stones, and other materials that hinder grading, planting, and maintenance operations and shall be free from objectionable weed seeds and toxic substances.

6-04.4 Seed

Seed labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act shall be furnished by the Contractor. Seed shall be furnished in sealed, standard containers unless written exception is granted. Seed that is wet or moldy or that has been otherwise damaged in transit or storage will not be acceptable. The specifications for seeds shall conform to the following and shall be seeded at the following rates:

TABLE I

SEEDING PERIOD AND GRASSES TO BE USED	MINIMUM PURITY%	MINIMUM GERMINATION %	MINIMUM RATE LBS/ACRE
<u>2 March - 14 September</u>			
Hulled Common Bermuda Grass	95	87	40
<u>15 September - 31 December</u>			
Unhulled Common Bermuda Grass	95	87	60
Rye	97	82	55
<u>1 January - 1 March</u>			
Unhulled Common Bermuda Grass	95	87	30
Hulled Common Bermuda Grass	95	87	30
Rye Grass	97	82	55

6-04.5 Water

Water shall be free from oil, acid, alkali, salt, and other substances harmful to the growth of grass. Lake Pontchartrain water is not acceptable. Water from the 17th Street Canal is not acceptable.

6-04.6 Mulch

Wood fiber mulch shall be furnished and applied by the Contractor. Materials that contain noxious grass or weed seeds that might be detrimental to the turfing being established or to adjacent land will not be acceptable.

6-04.7 Wood Cellulose Fiber Mulch

Wood cellulose fiber mulch for use with hydraulic application equipment, shall consist of specially prepared wood cellulose fiber mixed with a nontoxic, organic tackifier. It shall be processed to contain no growth or germination inhibiting factors, and dyed an appropriate color to facilitate visual metering of the application of materials. The mulch material shall be supplied in packages having a net weight not in excess of 100 pounds. The wood cellulose fiber shall contain not in excess of 10 percent moisture, air dry weight basis. The wood cellulose fiber shall be manufactured so that after addition and agitation in slurry tanks, with fertilizer, grass seed, water, and any other additives, the fibers in the material will become uniformly suspended to form a homogeneous slurry; and that when hydraulically sprayed on the ground, the material will form a blotter-like ground cover which, after application, will allow the absorption of moisture and allow rainfall or mechanical watering to percolate to the underlying soil. The Contractor shall be prepared to submit, on request, certification from the supplier that laboratory and field testing of the product has been accomplished, and that the product meets the foregoing requirements.

6-05 SAMPLING AND TESTING

6-05.1 General

Sampling and testing shall be the responsibility of the Contractor and shall be performed at no additional cost. Sampling and testing shall be performed by a recognized commercial testing laboratory or may be performed by the Contractor. Tests shall be performed in sufficient number to insure that materials meet the specified requirements. Signed copies of the test results shall be furnished to the Chief Engineer.

6-05.2 Material Testing

1. Fertilizer - Duplicate signed copies of invoices from suppliers shall be furnished. Invoices shall show quantities and percentages of nitrogen, phosphorous, and potassium for the preplanting fertilizer and percentage of nitrogen for the postplanting fertilizer. Upon completion of the project, a final check of the total quantity of fertilizer used will be made against the total area treated, and if minimum rates of application have not been met, an additional quantity of material sufficient to make up the minimum application rate shall be distributed as directed.

2. Seed - The Chief Engineer shall be furnished duplicate signed copies of statements certifying that each container of seed delivered is labeled in accordance with the Federal Seed Act and is at least equal to the requirements specified in 6-04.4. This certification shall be obtained from the supplier and shall be furnished on or with all copies of seed invoices.

3. Mulch - Representative samples of the materials proposed for use shall be submitted for approval.

6-06 SPECIAL EQUIPMENT

Wood Cellulose Fiber Mulch Spreader

Hydraulic equipment used for the application of slurry that contains fertilizer, grass seed, and wood cellulose fiber, shall have a built-in agitation system with an operating capacity sufficient to agitate, suspend, and homogeneously mix a slurry containing up to 300 pounds of fiber, plus an amount of fertilizer and grass seeds to supply the rates specified in 6-04.1 and 6-04.4, respectively, for each 1,000 gallons of water. The slurry distribution lines shall be large enough to prevent stoppage. The discharge line shall be equipped with hydraulic spray nozzels that will provide even distribution of the slurry on the various slopes to be mulched. The slurry tank shall have a minimum capacity of 1,000 gallons and shall be mounted on a traveling unit, which may be either self-propelled or drawn by a separate unit, that will place the slurry tank and spray nozzles near the areas to be mulched so as to provide uniform distribution without waste. The Chief Engineer may authorize equipment with a smaller tank capacity provided that the equipment has the necessary agitation system and sufficient pump capacity to spray the slurry in a uniform coat over the surface of the area to be mulched.

6-07 PREPARATION OF GROUND SURFACE

6-07.1 General

Equipment, in good condition, shall be provided for the proper preparation of the ground and for handling and placing all materials. Equipment shall be approved by the Chief Engineer before work is started.

6-07.2 Clearing

Prior to grading and tilling, vegetation and debris that may interfere with turfing operations shall be mowed, grubbed, and raked; and shall be disposed of off the site as specified in Section 4-04.

6-07.3 Grading

Previously established grades and/or slopes shall be maintained in a true and even condition on the areas to be turfed. Necessary repairs to previously graded areas shall be with suitable material placed as prescribed in Section 4 and on the contract drawings.

6-07.4 Tillage

After the areas required to be turfed have been brought to the specified grades, the soil shall be tilled to a depth of at least 2 inches by plowing, disking, harrowing, or other approved operations until the condition of the soil is acceptable. The work shall be performed only during periods when, in the opinion of the Chief Engineer,

beneficial results are likely to be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped when directed. Undulations or irregularities in the surface to be turfed shall be dressed before the next specified operation.

6-08 APPLICATION OF FERTILIZER

6-08.1 Fertilization of Areas to be Wood Cellulose Fiber Mulch

Fertilizer meeting the requirements of 6-04.1 shall be distributed uniformly and applied simultaneously with the grass seed and wood cellulose fiber mulch.

6-08.2 Postplanting Fertilization

From 30 to 60 days after fertilization, seeding and mulching, fertilizer meeting the requirements of 6-04.2 shall be applied uniformly over the areas fertilized, seeded and wood cellulose fiber mulched. Fertilizer shall be applied when grass blades are dry to minimize burning.

6-09 SEEDING

6-09.1 General

The application seed shall be sown at the rate and time as indicated on Table I, unless otherwise directed in writing. A satisfactory method of sowing shall be employed, using approved hydraulic seeders or other approved methods. When delays in operations extend the work beyond the most favorable planting season for the species designated, or when conditions are such by reason of drought, high winds, excessive moisture, or other factors, that satisfactory results are not likely to be obtained, work shall be halted as directed, and resumed only when conditions are favorable or when approved alternative or corrective measures and procedures have been effected. If inspection, either during seeding operations or after there is a show of green, indicates that strips wider than the space between rows planted have been left unplanted, or other areas have been skipped, then additional seed fertilizer and/or mulch shall be applied if so directed.

6-09.2 Hydraulic Seeding

Seeding shall be combined with fertilizer and wood cellulose fiber mulch, and applied uniformly with equipment meeting the requirements of 6-06.

6-09.3 Damage to Seeding

The Contractor shall be fully responsible for any damage to the seeded areas caused by his operations. Areas that become damaged as a result of poor workmanship or failure to meet the requirements of the specifications may be ordered to be repaired and reseeded and/or mulched to specification requirements, without additional cost to the Board.

6-10 APPLYING AND ANCHORING MULCH

The application of the wood cellulose fiber mulch slurry shall be made with the hydraulic equipment specified in 6-06. The mulch shall be applied at the rate of 2,200 pounds per acre in combination with water, fertilizer, and grass seed, and shall be sprayed uniformly over the areas to be mulched and seeded.

6-11 WATERING

The Contractor will be required to water the area planted, sufficiently to promote growth. Relying solely on rainfall will not be an acceptable method of watering.

6-12 MOWING

The seeded areas shall be mowed with approved mowing equipment to a height of 3 to 4 inches, whenever the height of vegetation becomes 6 to 8 inches. When the amount of grass is heavy, it shall be removed to prevent destruction of the underlying turf. The Contractor shall be responsible for mowing until the physical completion of all items of the contract.

6-13 MAINTENANCE

Maintenance shall consist of watering and mowing as specified in 6-11 and 6-12, and any other work incidental to proper maintenance. Maintenance will be required until the contract is completed.

6-14 REPAIR

When the surface to be turfed becomes gullied or otherwise damaged, or when previously placed turfing is damaged, the affected area shall be repaired to re-establish the condition prior to injury, as directed. Repair work required because of faulty operations or negligence on the part of the Contractor, shall be performed without additional cost.

6-15 INSPECTION AND ACCEPTANCE

Final acceptance will be made on completion of the contract. Acceptance of the established turf will be determined by visual inspection. Existence of erosion problems, or dead or dying turf will not be acceptable. Payment will not be made until turf is in an acceptable condition.

6-16 MEASUREMENT

Establishment of turf by fertilizing, seeding, mulching and post fertilizing, will be measured for payment by the acre. Acreage will be determined from the surface areas computed from the theoretical gross cross-section of embankment fertilized, seeded, mulched, and post fertilized. Measurement will be to the nearest foot and units computed to the nearest one-hundredth of an acre.

6-17 PAYMENT

Payment for establishment of turf by fertilizing, seeding, mulching and post fertilizing, will be made at the contract unit price per acre for Bid Item No. 9, and shall constitute full compensation for furnishing all plant, labor, materials and equipment, and performing all operations necessary in accordance with these specifications.

SECTION 7
MISCELLANEOUS SPECIFICATIONS

7-01 MOBILIZATION AND DEMOBILIZATION

7-01.1 Payment

All costs connected with the mobilization and demobilization of all of the Contractor's plant and equipment will be paid for at the contract lump sum price for this item, Bid Item No. 1. Sixty percent of this amount will be paid to the Contractor upon the completion of his mobilization at the work site. The remaining forty percent will be paid to the Contractor upon completion of his demobilization from the work site.

7-02 STONE REVETMENT UNDER BRIDGES

7-02.1 Scope

This work consists of furnishing and constructing stone revetments underneath and adjacent to the Hammond Highway, Veterans Highway, I-10 West, I-610 East and I-10 East bridges. Revetments shall be constructed in accordance with these specifications, in conformity with the details shown on the contract drawings, and as directed by the Chief Engineer's Representative.

7-02.2 Materials

7-02.2.1 Stone

Stone revetments shall consist of natural stone that will not disintegrate upon exposure to the elements or be easily broken from handling, and shall be reasonably free from earth and other foreign materials. When tested in accordance with AASHTO Designation: T 85, the solid weight of stone shall be at least 150 pounds per cubic foot (based on bulk specific gravity) and the absorption shall not exceed 2 percent. Samples of stone from a source not previously approved shall be taken under supervision of the Chief Engineer and submitted for testing and approval prior to delivery to the project. The least dimension of an individual stone shall be at least 1/3 its maximum dimension, and each shipment of stone shall be reasonably well graded within the specified limits.

Control of gradation will be by visual inspection either at the source or project site or both, at the Chief Engineer's option.

Any difference of opinion between the Chief Engineer and Contractor shall be resolved by checking the gradation of 2 random truckloads (or equivalent size samples). Equipment, labor and sorting site shall be furnished by the Contractor at his expense.

The stone shall be graded within the following limits.

<u>Percent By</u> <u>Weight</u>	<u>Stone Weight</u> <u>(Pounds)</u>
10 maximum	26 to 36
40 to 60	9 to 14
20 to 40	4 to 9
15 maximum	Spalls under 4

7-02.2.2 Plastic Filter Cloth

Filter cloth shall conform to the requirements Section 1018.15 of the Louisiana Standard Specifications for Roads and Bridges (1982 Edition) as required for riprap, except that the permeability factor and abrasion resistance criteria are not required.

7-02.3 Construction Requirements

7-02.3.1 Plastic Filter Cloth

Placement of filter cloth shall be to the north and south limits shown in the contract drawings. The approximate east and west limits are shown, however the exact limits will be as specified by the Chief Engineer's Representative. Filter cloth shall be required in between the piles of each bridge bent that falls within the limits shown. Adjacent strips of filter cloth shall be lapped at least 10 inches and the laps pinned at 5-foot maximum intervals. Care shall be taken to prevent damage to filter cloth during its placement and during the placement of revetment material. Damaged filter cloth will be replaced at the Contractor's expense.

After the filter cloth is in place and prior to the final placement of revetment material, the Board reserves the right to conduct a diver's inspection at their own expense to verify proper placement of the filter cloth.

7-02.3.2 Stone Placement

Stone shall be dumped into place in such a manner that smaller stones will be uniformly distributed throughout the mass. On sloped surfaces, placement shall proceed from the bottom of slope to the top of slope.

The north and south limits of stone placement shall be as shown on the contract drawings. The approximate east and west limits are shown, however the exact east and west limits shall be as directed by the Chief Engineer's Representative.

After final placement of revetment material, the Board reserves the right to conduct a diver's inspection at their own expense to verify uniform distribution of stones before the work is accepted.

7-02.4 Quantity Surveys

The Contractor shall be responsible for taking cross-sections prior to placing stone revetment, to be used in the computation of the design areas for the determination of payment for Bid Item No. 10, Stone Revetment. Cross-sections shall be made under the supervision of the Chief Engineer's Representative.

Cross-sections shall be taken at the locations directed by the Chief Engineer's Representative. The approximate number of cross-sections will be: at Hammond Highway - 7; at Veterans Highway - 10; at Interstate - 15. Soundings and level rod readings are to be taken at a maximum of 10-foot intervals normal to the baseline. Horizontal distances will be measured to the nearest foot and elevations to the nearest tenth of a foot. Sounding are to be taken using electronic sounding equipment and a twelve pound mushroom weight having a six-inch diameter base.

After the stone revetment is in place, baseline offsets to the east and west limits of the revetment shall be measured at the same stations that the cross-sections were taken. The north and south limits are as specified in the contract drawings.

7-02.5 Measurements

Quantities of revetment for payment will be based on the computed surface area between the north, south, east and west limits of the stone placement, determined using the before-revetment cross-sections. Areas will be calculated to the nearest square yard. Plastic filter cloth will not be measured for payment.

7-02.6 Payment

Stone revetments will be paid for under Bid Item No. 10 at the contract unit price per square yard and shall include furnishing and placing the stone and filter cloth, performing quantity surveys, and all other materials and work incident thereto.

7-03 CONCRETE REVETMENT

7-03.1 Scope

This work consists of furnishing and constructing a cast-in-place concrete revetment on the Orleans levee south of the Hammond Highway bridge, and performing some minor demolition of a concrete cap. The revetment shall be constructed in accordance with these specifications and in conformity with the details shown on the contract drawings.

7-03.2 Materials

7-03.2.1 Concrete

Concrete for cast-in-place revetment shall be Class R conforming to Section 902 of the Louisiana Standard Specifications for Roads and Bridges (1982 Edition).

7-03.2.2 Reinforcing Steel

Reinforcing steel may be either Grade 40 or 60 deformed bars. Bars shall be either Billet Steel conforming to ASTM A 615 and its supplementary requirements, or Rail Steel conforming to ASTM A616.

7-03.2.3 Compacted Fill

Compacted fill of the same specifications as for levee fill shall be required to bring the existing grade up to the required grade for construction of the concrete revetment.

7-03.3 Demolition

The Contractor shall be required to remove part of a concrete cap which was constructed in 1965 in the same location as an already existing cap which was constructed in 1962. It is believed that a cold joint exists between the part to be removed and the part to remain, which should facilitate a clean break between the two. Should any dowel bars be exposed after the demolition, the Contractor shall burn them off, flush with the top of the remaining cap.

The Contractor shall perform the demolition prior to constructing the required revetment. The concrete shall be disposed of in the same manner as the rest of the existing sheet pile wall cap.

7-03.4 Payment

The concrete revetment shall be paid for under Bid Item No. 11 per lump sum, and shall include demolition and removal of the existing concrete cap, compacted fill, construction of the concrete revetment, and all other materials and work incident thereto.

7-04 RELOCATION OF FIBER OPTIC LINE

7-04.1 Scope

This work consists of relocating a U.S. Sprint fiber optic line that passes through the Orleans levee south of I-10 East, and coordinating with U.S. Sprint representatives in performing the relocation, in accordance with these specifications and as detailed in the contract drawings.

7-04.2 Procedure

The procedure for performing all work associated with the relocation is specified on Drawing No. 20, Relocation of Fiber Optic Line, in the contract drawings.

7-04.3 Measurement and Payment

Payment for relocation of the U.S. Sprint fiber optic line will be made at the contract lump sum price for Bid Item No. 12, and shall include trenching, backfilling, compacting, providing and maintaining shell cover, installing the fiber optic line through the required sheet pile wall, and all other materials and work incident thereto.

7-05 PRECONSTRUCTION SURVEY

7-05.1 Scope

This work consists of having a preconstruction survey of residential properties performed by an independent party prior to the commencement of work.

7-05.2 Items to be Surveyed

The items to be surveyed shall include all buildings and appurtenances on the properties adjacent to the Orleans levee from Hammond Highway to the Southern Railway. These buildings and appurtenances include but are not limited to houses, garages, sheds, carports, cabanas, constructed play houses, etc.; pools, spas, hot tubs, etc; fences, retaining walls, free standing walls, etc.; steps, constructed barbeque pits and slabs.

It is estimated that there are 176 residences within the limits stated above with 31 being multi-family units.

7-05.3 Qualifications of Surveyor

The independent party whom the Contractor chooses to perform the preconstruction survey shall have at least five years experience in the field of performing residential surveys for the purpose of documenting the structural condition and integrity of visible components of residential buildings and appurtenances. Proof of the Surveyor's experience shall be submitted for verification and approval by the Chief Engineer prior to the commencement of the survey.

7-05.4 Extent of Survey

For each property, the survey shall include photos of both interior and exterior structural damage, as applicable, as well as a brief expose stating the findings of the survey. In examining buildings and appurtenances especially close to the levee, the Surveyor shall use his judgement and experience to determine areas of possible concern based on the nature of work to be performed under this contract, and shall photograph these areas also.

It shall be the responsibility of the Surveyor to contact each property owner/renter and schedule a time that is agreeable to the owner/renter for his property to be surveyed. Each property owner/renter will have been previously notified by the Board concerning the nature of and reasons for the survey. Should there be a property owner/renter who chooses not to allow the Surveyor to enter his residence, the Surveyor shall request that the owner/renter sign a document stating such. The Surveyor shall request that the owner/renter sign a document stating such. The Surveyor shall still be required to examine the exterior of all buildings and appurtenances.

The Surveyor shall prepare a report consisting of the photos and exposes, and shall submit two copies to the Chief Engineer.

7-05.5 Measurement and Payment

Payment for the preconstruction survey will be made at the contract lump sum price for Bid Item No. 13, and shall include scheduling, preparing reports, and all other materials and work incident thereto.