



CITY OF HOUSTON

INVITATION TO BID

Revised: March 23, 2013

Bid Opening:

Sealed bids, in duplicate, will be received by the City Secretary of the City of Houston, in the City Hall Annex, Public Level, 900 Bagby, Houston, Texas 77002 until **10:30 A.M. Thursday, April 18, 2013**, and all bids will be opened and publicly read in the City Council Chamber, City Hall Annex, Public Level, 900 Bagby at 11:00 A.M. on that date for the purchase of:

REMOVE, FURNISH AND INSTALL CENTRIFUGAL PUMPS AND ASSOCIATED EQUIPMENT FOR THE PUBLIC WORKS & ENGINEERING DEPARTMENT

Invitation to Bid No. S12-C24513

NIGP Code: 720-73

Buyer:

Questions regarding this solicitation should be addressed to Martin L. King, Senior Staff Analyst, **by e-mail (preferred method) at martin.king@houstontx.gov or via phone at 832-393-8705.**

Electronic Bidding:

In order to submit a bid for the items associated with this procurement, you must fill in the pricing information on the "PLACE BID" page.

Prebid Conference:

A Pre-Bid Conference will be held for all Prospective Bidders in the PWE, 69th Street Wastewater Treatment Plant Conference Room, 2525 S/Sgt. Macario Garcia, Houston, TX 77020, at **2:00 p.m. on Friday, April 5, 2013.** **The site visits will be scheduled or conducted after the pre-bid conference.**

All Prospective Bidders are urged to be present. It is the bidder's responsibility to ensure that they have secured and thoroughly reviewed all aspects of the solicitation documents prior to the Pre-Bid Conference. Any revisions to be incorporated into this solicitation document arising from discussions before, during and subsequent to the Pre-Bid Conference will be confirmed in writing by Letter(s) of Clarification prior to the bid due date. Verbal responses will not otherwise alter the specifications, terms and conditions as stated herein.

Bidding forms, specifications, and all necessary information should be downloaded from the Internet at www.purchasing.houstontx.gov. By registering and downloading this solicitation document, all updates to this solicitation document will be automatically forwarded via e-mail to any registered bidders. This information may also be obtained from the Supplier Assistance Desk, Strategic Purchasing Division, 901 Bagby, Concourse Level, Houston, Texas 77002.

The place of the bid opening may be transferred in accordance with Paragraph (b), (5) of Section 15-3 of The Code of Ordinances, Houston, Texas. The bid-opening meeting may be rescheduled in accordance with Paragraph (b), (6) of said Section 15-3.

The City reserves the right to reject any or all bids, or to accept any bid or combination of bids deemed advantageous to it.

City employees are prohibited from bidding on this solicitation in accordance with the Code of Ordinances Section 15-1.

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- A. OFFER
- B. SCOPE OF WORK/SPECIFICATIONS
- C. GENERAL, SUPPLEMENTARY CONDITIONS AND BOND FORMS

*NOTE 1: Actual page numbers for each section may change when the solicitation document is downloaded from the Internet or because of letters of clarification. Therefore, bidders must read the solicitation document in its entirety and comply with all the requirements set forth therein.

*NOTE 2: **To be considered for award please submit the electronic bid form and the forms listed in section A, including the signature page, which must be signed by a company official authorized to bind the company and a 10% Bid Bond.**

SECTION A



**FORMAL ONE-TIME BID
REMOVE, FURNISH AND INSTALL CENTRIFUGAL PUMPS AND ASSOCIATED EQUIPMENT
FOR THE PUBLIC WORKS AND ENGINEERING DEPARTMENT
Bid No. S12-C24537
NIGP Code: 890-65/815-81/998-79**

To The Honorable Mayor
and City Council Members
of the City of Houston, Texas (the "City"):

The undersigned hereby offers to provide services necessary to **REMOVE, FURNISH AND INSTALL CENTRIFUGAL PUMPS AND ASSOCIATED EQUIPMENT at the 69th St. Wastewater Treatment Plant, located at 2525 S/Sgt. Macario Garcia Dr., Houston, TX 77020 for the Public Works and Engineering Department.** F.O.B. destination point Houston, Texas, in accordance with the City's Specifications and General Terms & Conditions and/or samples/drawings provided herein. When issued by the City of Houston, Letters of Clarification shall automatically become part of this bid document and shall supersede any previous specifications or provisions in conflict with Letters of Clarification. It is the responsibility of the bidder to ensure that it has obtained all such letters. By submitting a bid on this project, bidder shall be deemed to have received all Letters of Clarification and to have incorporated them into the bid.

The City may accept this bid offer by issuance of a Notice of Award Letter and/or a Purchase Order at any time on or before the 120th day following the day this Official Bid Form is opened by the City. This offer shall be irrevocable for 120 days after bid opening or for 90 days after City Council awards the bid, whichever comes last, but this period may be extended by written agreement of the parties.

The City reserves the right to INCREASE quantities during the twelve-month period following the issuance of the first purchase order subject to agreement in writing by the Prime Contractor/Supplier to honor the same bid price.

The City reserves the option, after bids are opened, to adjust the quantities listed on the electronic bid form upward or downward, subject to the availability of funds, and/or make award (s) on a line item basis.

SECTION A

Documents/forms must be downloaded from the City's Website
<http://www.houstontx.gov/purchasing/index.html>

Additional Required Forms to be Included with this bid:

In addition to the electronic Bid Form and the Official Signature Page, the Forms listed in Table 1 **must be completed and submitted to the Office of the City Secretary on or before the date and time the bid is due:**

Table 1
Affidavit of Ownership
Fair Campaign Ordinance
Statement of Residence
Conflict of Interest Questionnaire
Pay or Play Contract Compliance Acknowledgement Form 1a
10% Bid Bond
Contractor References

Table 2 lists other documents and forms that should be viewed/downloaded from the City's website, but are not required to be submitted with the bid. The City will request these forms, as applicable, to be completed and submitted to the City by the recommended/successful bidder:

Table 2
Formal Instructions for Bid Terms
Drug Forms
Insurance Certificates Over \$50,000.00 / Insurance Endorsements
OCP Insurance Certificate Over \$100,000.00
Pay or Play Form 2 / Certification of Agreement to Comply
Performance, Maintenance and Statutory Payment Bonds
2012 Engineering Construction Wage Decision

Questions concerning the Bid should be submitted in writing to: City of Houston, Strategic Purchasing Division, 901 Bagby, Room B506, Houston, TX 77002, Attn: Martin L. King or via fax: 832-393-8759 or via email (preferred method) to martin.king@cityofhouston.net no later than **4:00 PM, Wednesday, March 20, 2013.**

PERMITS:

Successful Contractor shall be responsible for securing any and all permits for proposed work. Any fee charged for these permits should be the responsibility of the Contractor and not the City of Houston.

CITY BUILDING CODES:

All work performed or equipment installed shall be in strict accordance with the City of Houston Building Codes. The Contractor will immediately correct any deficiencies discovered during work or after completion. Failure to correct deficiencies will result in the City having corrections made at the Contractor's expense.

BID BOND:

The bidder shall be required to provide and submit with its bid a Bid Bond in the amount of 10% of the total amount. The Bid Bond shall be in the same form as that distributed by the City, and attached hereto, all duly executed by this Bidder (as "Principal") and by a corporate surety company licensed to do business in the State of Texas, and if the amount of the bond is greater than \$100,000.00 the surety must hold a certificate of authority from the United States Secretary of the Treasury, or a Cashier's or a Certified check in a like amount. Company or personal checks are not acceptable.

PERFORMANCE BOND and PAYMENT BOND:

The successful Contractor(s) shall be required to provide a Performance and Payment Bond in the total amount (100%) of the Contract, if the award is in excess of \$25,000.00.

The Performance and/or Payment Bond shall be in the same form as that distributed by the City, and attached hereto, all duly executed by this bidder (as "Principal") and by an incorporated surety company licensed to do business in the State of Texas. If the amount of the bond is greater than \$100,000.00 the surety must hold a certificate of authority from the United States Secretary of the Treasury.

The Contractor(s) shall be required to provide a Performance and/or Payment Bond as outlined above, which will be delivered to the City Purchasing Agent of the City, on or before the tenth (10th) day following the day the bidder receives notice from the City.

MAINTENANCE BOND:

The Contractor shall furnish a maintenance bond in the total (100%) bid amount in the form required by the City (samples attached). One bond, also referred to as the One Year Maintenance Bond, will be conditioned upon Contractor's repair, replacement or restoration of any work or any portion of the work which is found to be defective or fails in any way to comply strictly with this contract or the plans and specifications for such work within a period of one (1) year from the date of acceptance of such work by the City Council or after the date that the "CO", or its designee in writing, determines, in a written notice to the Contractor, to be the date upon which the project is both substantially complete and available for the full and beneficial occupancy or use of the City.

QUALITY AND WORKMANSHIP:

The bidder must be able to demonstrate upon request that it has performed satisfactorily, services similar to the services specified herein. The bidder will provide records of warranty and repair services performed for others upon request. The City of Houston shall be the sole judge whether the services performed are similar to the scope of services specified herein.

SITE INSPECTION:

The City of Houston reserves the right to inspect the bidder's current place of business to evaluate equipment condition and capabilities, staff experience, training and capabilities, and storage capabilities as they relate to the performance of this contract.

PROTEST:

A protest shall comply with and be resolved, according to the City of Houston Procurement Manual http://purchasing.houstontx.gov/docs/Procurement_Manual.pdf and rules adopted thereunder. Protests shall be submitted in writing and filed with both, the City Attorney and the Solicitation contact person. A pre-award protest of the ITB shall be received five (5) days prior to the solicitation due date and a post-award protest shall be filed within five (5) days after City Council approval of the contract award.

A protest shall include the following:

- The name, address, e-mail, and telephone number of the protester;
- The signature of the protester or its representative who has the delegated authority to legally bind its company;
- Identification of the ITB description and the ITB or contract number;
- A detailed written statement of the legal and factual grounds of the protest, including copies of relevant documents, etc.; and
- The desired form of relief or outcome, which the protester is seeking

INTERLOCAL AGREEMENTS:

Under the same terms and conditions hereunder, the Contract may be expanded to other government entities through inter-local agreements between the City of Houston and the respective government entity that encompass all or part of the products/services provided under this contract. Separate contracts will be drawn to reflect the needs of each participating entity.

QUIET PERIOD/NO CONTACT:

Starting on the date proposals to an RFP (or bids to an ITB) are due and expiring on the date the City Secretary publicly posts notice of any City Council agenda containing the applicable award ("Quiet Period"), actual and prospective respondents or bidders (including their representatives or persons acting on their behalf) are prohibited from contacting members of City Council or any City employees other than the contracting officer, in any manner regarding the issued RFP or ITB. Actual and prospective respondents or bidders include those respondents or bidders who have received notice that they have not been chosen as finalists for any solicitation. Actual and prospective respondents or bidders (including their representatives or persons acting on their behalf) are expressly prohibited from offering, presenting or promising gratuities, favors, or anything of value to any member of an evaluation committee or any appointed or elected official or employee of the City of Houston, their families or staff members.

Notwithstanding the foregoing, the following types of communication only are exempt and shall be permitted by respondents and bidders during the Quiet Period:

- Respondent's formal response to the RFP;
- Communications publically made during the official pre-bid conference;
- Written requests for clarification during the period officially designated for such purpose by the contracting officer; and
- Communications during an oral interview, scheduled at the request of and for the benefit of the City's evaluation committee, if any.

During the Quiet Period, the solicitation contact person shall serve as the sole point of contact for any actual or prospective respondents. Nothing in this section shall prevent the respondent from making public statements to the City Council after the Quiet Period.

As part of their bid or RFP responses, respondents or bidders shall attest that they understand and agree not to contact any members of City Council or City employees—other than the solicitation contact person—during the Quiet Period and acknowledge that any such contact shall be grounds for disqualification from the bid or RFP process.

HIRE HOUSTON FIRST:

Designation as a City Business or Local Business

To be designated as a City or Local Business for the purposes of the Hire Houston First Program, as set out in Article XI of Chapter 15 of the Houston City Code, a bidder or proposer must submit the **Hire Houston First Application and Affidavit (“HHF Affidavit”)** to the Director of the Mayor’s Office of Business Opportunities and receive notice that the submission has been approved prior to award of a contract. Bidders are encouraged to secure a designation prior to submission of a bid or proposal if at all possible.

Download the HHF Affidavit from the Office of Business Opportunities Webpage at the City of Houston e-Government Website at the following location:

<http://www.houstontx.gov/hbsc/hirehoustonfirstaffidavit.pdf>

Award of a Procurement of \$100,000 or More for Purchase of Goods:

THE CITY WILL AWARD THIS PROCUREMENT TO A “CITY BUSINESS,” AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES (“THE CODE”)

- IF THE BID OF THE CITY BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A CITY BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER.

Award of Procurement under \$100,000 for Purchase of Goods:

THE CITY WILL AWARD THIS PROCUREMENT TO A ” CITY BUSINESS,” AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES (“THE CODE”)

- IF THE BID OF THE CITY BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 5% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A CITY BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER

Award of Procurement that may be More or Less than \$100,000 for Purchase of Goods:

THE CITY WILL AWARD THIS PROCUREMENT TO A ” CITY BUSINESS,” AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES (“THE CODE”)

- IF THE BID OF THE CITY BUSINESS IS LESS THAN \$100,000 AND IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 5% OF THE LOWEST BID RECEIVED, OR
- IF THE BID OF THE CITY BUSINESS IS MORE THAN \$100,000 AND IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A CITY BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER.

Award of Procurement of \$100,000 or More for Purchase of Non-Professional Services , Including Construction Services:

THE CITY WILL AWARD THIS PROCUREMENT TO A " CITY BUSINESS," AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES ("THE CODE")

- IF THE BID OF THE LOCAL BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A LOCAL BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER

Award of Procurement under \$100,000 Purchase of Non-Professional Services Including Construction Services:

THE CITY WILL AWARD THIS PROCUREMENT TO A "LOCAL BUSINESS," AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES

- IF THE BID OF THE CITY BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 5% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED N SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A LOCAL BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER

Award of Procurement that may be More or Less than \$100,000 for Purchase of Non-Professional Services, Including Construction Services:

THE CITY WILL AWARD THIS PROCUREMENT TO A " LOCAL BUSINESS," AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES ("THE CODE")

- IF THE BID OF THE LOCAL BUSINESS IS LESS THAN \$100,000 AND IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 5% OF THE LOWEST BID RECEIVED, OR
- IF THE BID OF THE LOCAL BUSINESS IS MORE THAN \$100,000 AND IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A LOCAL BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER

CONTRACTOR'S QUESTIONNAIRE:

In order to receive bid award consideration, the bidder must be able to demonstrate that they are currently providing or have had at least one contract, for **removing, furnishing and installing CENTRIFUGAL PUMPS AND ASSOCIATED EQUIPMENT** that is similar in size and scope to this contract. **Bidder must have references documenting that it has removed, furnished and installed CENTRIFUGAL PUMPS AND ASSOCIATED EQUIPMENT.** The reference(s) should be included in the space provided below. Please attach another piece of paper if necessary. If references are not included with the bid, the bidder shall be required to provide such references to the City of Houston within five working days from receipt of a written request from the City of Houston to do so. **Bidder's capability and experience shall be a factor in determining the Contractor's responsibility.**

1. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

2. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

3. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

4. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

SECTION B
SCOPE OF WORK

1.0 SUMMARY OF WORK

- 1.1 **Line Item No. 1.** The Contractor shall be required to provide all supervision, labor, materials, equipment, tools, transportation and ancillary items necessary to remove and dispose of as directed by the City, twenty four existing centrifugal wastewater pumps at the City's 69th Street Wastewater Treatment Plant, located 2525 S/Sgt. Macario Garcia Drive, Houston, Texas 77020. Subsequent to the removal of the pumps, the contractor shall be required to provide all labor, supervision, equipment, materials, tools, transportation and ancillary items necessary and required to furnish and install a total of twenty four new centrifugal wastewater pumps at the aforementioned location. The referenced Manufacturer for the new pumps is Flowserve. (See Part II for the Technical Specifications for the new centrifugal wastewater pumps.)
- 1.2 Contactor needs to install existing hubs and drive shafts to newly provided pumps, and re-align the motor and pump.
- 1.3 The new pumps must be able to operate as a fully coordinated member of the wastewater treatment facility's valve control system.
- 1.4 The pumps shall be rated for wastewater applications.
- 1.5 The pumps furnished and installed by the contractor shall require no alterations/modifications to the facility or existing equipment.

2.0 PERFORMANCE TIME:

- 2.1 The Contractor shall have **160 calendar days** to complete all work associated with this project after receipt of the Notice – To – Proceed.

3.0 WARRANTY:

- 3.1 The Contractor shall provide a minimum of one (1) year for all labor, materials and workmanship. The warranty period for the pumps shall commence the day the City officially accepts the complete work at the site. All warranty work is to be completed, without cost to the City, within fifteen (15) days after notification of a service problem.

4.0 SPECIFIED EQUIPMENT OR EQUIVALENT:

- 4.1 Wherever in the specifications any materials or processes are indicated or specified by patent of proprietary name and/or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating descriptions of the performance, materials and/or processes desired and shall be deemed to be followed by the words, "or equivalent", if not so stated in the specifications herein.
- 4.2 The burden of proof shall rest with the bidder, in the course of a technical evaluation, to prove that the proposed item(s) are equivalent to the performance, materials, processes, or articles specified. DETERMINATION AS TO WHETHER THE ITEM (S) BID IS (ARE) EQUIVALENT TO THOSE SPECIFIED SHALL REST SOLELY WITH THE CITY PURCHASING AGENT AND THE RECEIVING DEPARTMENT.

5.0 BRAND NAME OR TRADE NAME:

- 5.1 Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing the general quality level, design and performance desired. Such references are not intended to limit or restrict bidding by other Contractors/Suppliers, but are intended to approximate the quality design or performance that is desired. Any bid that proposes like quality, design or performance, will be considered. Equivalent products will be considered, provided a complete description and product literature is provided. Unless a specific exception is made, the assumption will be that the item bid is exactly as specified on the Invitation to Bid.

6.0 DELIVERY INSTRUCTIONS:

- 6.1 The final delivery and installation details shall be coordinated with Mr. Gurdip Hyare, Managing Engineer, Plant Operations, Wastewater Operations Branch, 2525 S/Sgt. Macario Garcia, Houston, Texas 77020 (69th St WWTP), Phone # 832-395-5459.

END OF SECTION

TECHNICAL SPECIFICATIONS

PART II

LINE ITEM NO. 1 – Centrifugal Wastewater Pumps.

1.0 Reference Manufacturer: Flowserve RAS, Model No. 20MNZ24 or City approved equal.

2.0 Wastewater Pump Specifications: (See Exhibit A for diagram of centrifugal pumps).

2.0.1 Casing:

2.0.1.1 The casing shall be designed for handling raw sewage and shall be of pressure component cast iron, ASTM A48, Class 30 of sufficient thickness to withstand all stresses and strains of service at full operating pressure.

2.0.1.2 Pumps with maximum impellers of 30 inch or larger and capable of 65 psi or greater hydro test must have integrally cast ribs on the exterior.

2.0.1.2 The casing shall be designed to permit the removal of the rotating assembly without disturbing the suction or discharge connections.

2.0.1.2 A handhole shall be provided in the casing to provide convenient access to the impeller and interior parts of the pumps. The inner contours of the handhole cover shall match the contours of the casing which it fits.

2.0.1.2 The casing shall be provided with tapped and plugged (removable) vent, drain, and gauge connections. Suction and discharge connections shall be 125 lb ANSI standard flat face flanges.

2.0.1.2 No stationary guides will be permitted on either the suction or discharge sides of the casing. Twin or double volute casings for pumps smaller than 20 inch are not acceptable.

2.0.2 Impeller:

2.0.2.1 Impellers shall be bronze.

2.0.2.2 Impeller shall be cast in one piece, shall have a minimum of 2 vanes, and shall be dynamically balanced.

2.0.2.3 The design of the impeller and the shape of the blades shall minimize clogging and still promote efficiency.

2.0.2.4 The impeller shall be keyed to the shaft and firmly held in place by a streamlined Type 316 stainless steel fastener.

2.0.2.4.1 The arrangement shall be such that the impeller cannot be loosened by torque from either forward or reverse rotation.

2.0.2.4.1 The impeller bore shall be concentric to avoid requirement for sleeve nuts.

2.0.3 Wear Rings:

2.0.3.1 Removable hardened stainless steel wearing rings shall be provided for both the suction and the impeller, with the wearing surfaces nominal to the axis of rotation to accommodate the adjustment feature specified further herein.

2.0.3.2 Radial wear rings are not an acceptable alternate.

2.0.3.3 Rings shall be securely fastened to prevent any relative motions and designed for easy replacement.

2.0.3.4 Both wearing rings shall be hardened 400 series stainless steel, with the impeller ring hardened to 200 to 250 Brinell and the casing ring hardened to 300 to 350 Brinell, designed to compensate for a minimum of 1/4-in wear.

2.0.4 Pump Backhead:

2.0.4.1 The pump backhead shall be of the same material as the casing with an integrally cast stuffing box. Its construction shall permit the use of either a mechanical seal or packing rings without special machining.

2.0.5 Pump Packing and Stuffing:

2.0.5.1 A large opening shall be provided adjacent to the stuffing box to facilitate packing or mechanical adjustment and replacement. A renewable throat bushing shall be installed in the bottom of the stuffing box to minimize the amount of clean water injected into the box.

2.0.5.2 Each pump shall be equipped with non-asbestos packing, a conventional teflon lantern ring and a split bronze gland.

2.0.5.3 Proprietary stuffing box sealing systems are not acceptable.

2.0.6 Pump Elbow/Nozzle:

2.0.6.1 The pump suction elbow or nozzle, as shown in Exhibit A, shall be of the same material as the casing with 125 Lbs. ANSI flanges.

2.0.6.2 The elbow or nozzle shall have a handhole. The inner contours of the hand hole cover shall match the contours of the elbow.

2.0.6.3 The suction elbow or nozzle shall be part of the pump and shall contain the suction wear ring. Standard or fabricated commercial fittings are not an acceptable substitute.

2.0.7 Pump Shaft:

2.0.7.1 The pump shaft shall be made from heat treated grade 1045 steel, rigid shaft type, of sufficient size to transmit the full driver horsepower with a liberal safety factor, accurately machined over its entire length and free from any harmful or damaging vibrations.

2.0.7.2 The shaft sleeves shall be made of renewable ASTM A 743 hardened stainless steel extending from the impeller hub through the stuffing box shall be provided.

2.0.8 Bearings/Bearing Frame:

- 2.0.8.1 Each pump shall be provided with bearings both radial and thrust, of the tapered spherical roller type, and of ample size to carry all loads imposed under continuous operation without overheating.
- 2.0.8.2 All bearings shall be accessible while the pump is in operation. Bearing frame shall be designed so that the complete rotating element can be removed from casing without disconnecting piping.
- 2.0.8.3 Bearings shall be designed in accordance with the ABMA standards for a minimum L 10 life of 100,000 hours, without the addition of external cooling.
- 2.0.8.4 The bearing frame shall be of one piece ASTM A48 Class 30 cast iron construction, rigidly fixed to the backhead, shoulder fitted and accurately centered. Fabricated bearing housings are not acceptable.
- 2.0.8.5 The pump bearing frame shall be equipped with a bearing system designed to accept all thrust loadings and the radial loads imposed by the pump impeller.
- 2.0.8.6 Each bearing frame shall be designed so that the complete rotating element can be removed from the casing without disconnecting the piping.
- 2.0.8.7 The bearing frame shall contain external provisions for the axial adjustment of the rotating element to maintain clearance between the impeller and suction cover wearing rings as the rings wear.
- 2.0.8.8 A coded shim pack shall be provided to aid in maintaining parallel faces. Pumps without this feature are not acceptable.
- 2.0.8.9 The bearings shall be grease lubricated, and a relief plug shall be provided so that excessive grease pressure will not damage the bearings.

3.0 Major Performance Parameters:

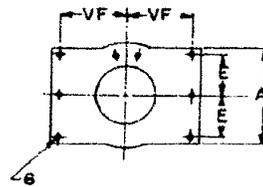
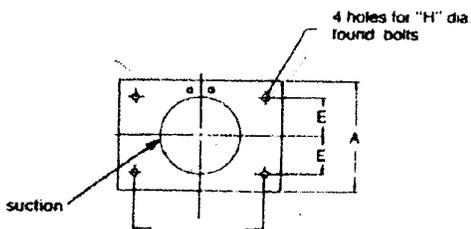
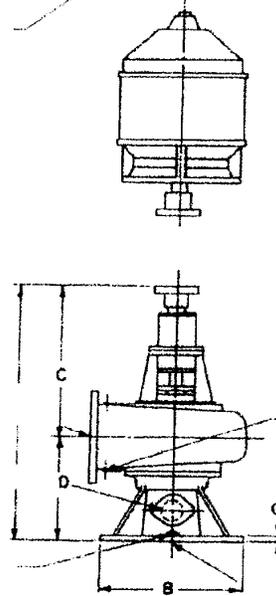
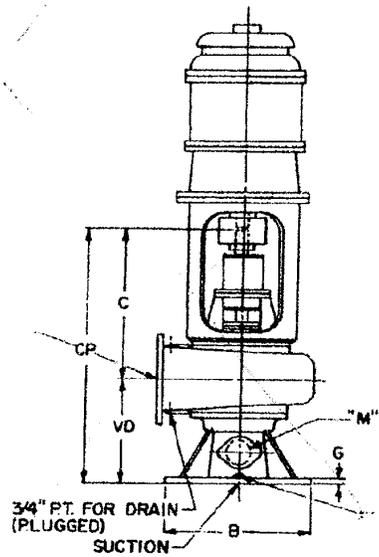
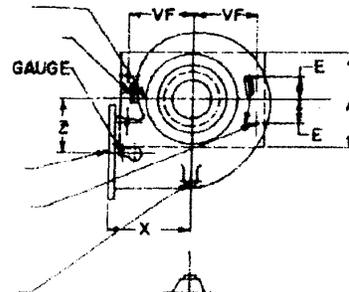
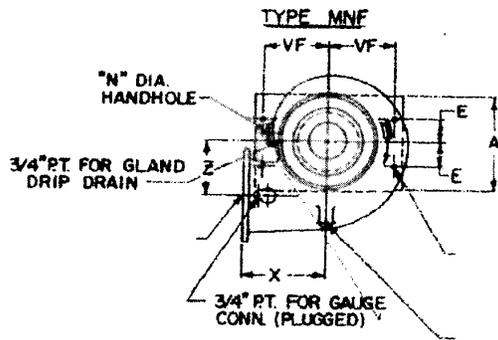
- 3.1 The Contractor shall be required to provide all labor, equipment, facilities, materials, parts, tools, supervision and transportation necessary to remove and install the pump and volute for each pump station within strict accordance with the manufacturer's recommended standards.
- 3.2 The Contractor shall oversee and be responsible for all necessary system checks prior to pumping systems startup.

4.0 Training:

- 4.1 The Contractor shall be required to provide eight hours of training. The City will determine if the training hours will be provided in one eight-hour session or two four-hour sessions for the valves and actuator operations and maintenance.
- 4.2 The Contractor shall be available to answer questions or follow-ups of equipment training for the first three months after final acceptance of the equipment.

END OF SECTION

EXHIBIT A



**SECTION C
ENGINEERING WAGE SCALE**

A PDF version of the Engineering Wage Scale can be viewed on the following web link
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C24513>

GENERAL CONDITIONS

A PDF version of the General Conditions can be viewed on the following web link:
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C24513>

Document 00800

SUPPLEMENTARY CONDITIONS

The following Paragraphs amend and supplement the 2011 edition of General Conditions. Unaltered portions of General Conditions remain in effect.

ARTICLE 3 - THE CONTRACTOR

3.5 *LABOR: Insert the following Paragraph 3.5.3.1.1.*

3.5.3.1.1 Contractor shall make good faith efforts to comply with the City ordinances regarding Minority and Women Business Enterprises (MWBE) and Persons with Disabilities Business Enterprises (PDBE) participation goals which are as follows:

- .1 the MWBE goal is 3 percent, and
- .2 the PDBE goal is 0 percent.

3.28 CONTRACTOR DEBT

3.28.1 IF CONTRACTOR, AT ANY TIME DURING THE TERM OF THIS AGREEMENT, INCURS A DEBT, AS THE WORD IS DEFINED IN SECTION 15-122 OF THE HOUSTON CITY CODE OF ORDINANCES, IT SHALL IMMEDIATELY NOTIFY CITY CONTROLLER IN WRITING. IF CITY CONTROLLER BECOMES AWARE THAT CONTRACTOR HAS INCURRED A DEBT, IT SHALL IMMEDIATELY NOTIFY CONTRACTOR IN WRITING. IF CONTRACTOR DOES NOT PAY THE DEBT WITHIN 30 DAYS OF EITHER SUCH NOTIFICATION, CITY CONTROLLER MAY DEDUCT FUNDS IN AN AMOUNT EQUAL TO THE DEBT FROM ANY PAYMENTS OWED TO CONTRACTOR UNDER THIS AGREEMENT, AND CONTRACTOR WAIVES ANY RECOURSE THEREFORE.

ARTICLE 8 - TIME

8.1 *PROGRESS AND COMPLETION: Delete Paragraph 8.1.6. and replace with the following 8.1.6.*

- 8.1.6.1 Contractor shall credit the City by Change Order for inspection services for overtime work or work performed on Sundays or Legal Holidays. The amount Contractor credits the City will be **\$50.00 per hour** per inspector for inspection services.

ARTICLE 9 - PAYMENTS AND COMPLETION

- 9.1 *UNIT PRICE WORK: Delete Section 9.1 in its entirety and insert the following Section 9.1.*
- 9.1 References to Unit Prices in individual Specification sections are not applicable to the Contract. Include payment for portions of the Work required by these sections in the Stipulated Price for the Contract.
- 9.12 LIQUIDATED DAMAGES: Insert the following Paragraph 9.12.1.1.**
- 9.12.1.1 *The amount of liquidated damages provided in General Conditions Paragraph 9.12.1 payable by Contractor or Surety for each and every day of delay beyond Contract Time, are \$.00 per day.***

ARTICLE 11 - INSURANCE AND BONDS

- 11.2 *INSURANCE TO BE PROVIDED BY CONTRACTOR: Delete Paragraph 11.2.8. and replace with the following 11.2.8.*
- 11.2.1.4 Contractor shall provide Owners and Contractor's Protective Liability Insurance only if the contractor's bid price is equal to or greater than \$100,000.00.
- 11.2.8 *Endorsement of Primary Insurance:* Each policy except Workers' Compensation Insurance must contain an endorsement that the policy is primary insurance to any other insurance available to additional insured with respect to claims arising under the Contract.

ONE-YEAR MAINTENANCE BOND

THAT WE, _____, as Principal, hereinafter called Contractor, and the other subscriber hereto, _____, as Surety, do hereby acknowledge ourselves to be held and firmly bound to the City of Houston, a municipal corporation, in the sum of \$_____, for the payment of which sum well and truly to be made to the City of Houston and its successors, the said Contractor and Surety do bind themselves, their heirs, executors, administrators, successors, jointly and severally.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, the Contractor has on or about this day executed a Contract in writing with the City of Houston for _____, all of such work to be done as set out in full in said Contract documents therein referred to and adopted by the City Council, all of which are made a part of this instrument as fully and completely as if set out in full herein.

NOW THEREFORE, if the said Contractor shall comply with the provisions of Paragraph 11.5.1 of the General Conditions, and correct work not in accordance with the Contract documents discovered within the established one-year period, then this obligation shall become null and void, and shall be of no further force and effect; otherwise, the same is to remain in full force and effect.

Notices required or permitted hereunder shall be in writing and shall be deemed delivered when actually received or, if earlier, on the third day following deposit in a United States Postal Service post office or receptacle, with proper postage affixed (certified mail, return receipt requested), addressed to the respective other party at the address prescribed in the Contract documents, or at such other address as the receiving party may hereafter prescribe by written notice to the sending party.

IN WITNESS THEREOF, the said Contractor and Surety have signed and sealed this instrument on the respective dates written below their signatures and have attached current Power of Attorney.

ATTEST, SEAL: (if a corporation)

WITNESS: (if not a corporation)

Name of Contractor

By: _____
Name:
Title:

By: _____
Name:
Title:
Date:

ATTEST/SURETY WITNESS:

Full Name of Surety

(SEAL)

Address of Surety for Notice

Telephone Number of Surety

By: _____
Name:
Title:
Date:

By: _____
Name:
Title: Attorney-in-Fact
Date:

This Ordinance or Contract has been reviewed as to form by the undersigned legal assistant and have been found to meet established Legal Department criteria. The Legal Department has not reviewed the content of these documents.

Legal Assistant

Date

PERFORMANCE BOND

THAT WE, _____, as Principal, (the "Contractor"), and the other subscriber hereto, _____, as Surety, do hereby acknowledge ourselves to be held and firmly bound to the City of Houston (the "City"), a municipal corporation, in the penal sum of \$_____ for the payment of which sum, well and truly to be made to the City, its successors and assigns, Contractor and Surety do bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, the Contractor has on or about this day executed a Contract in writing with the City for _____, all of such work to be done as set out in full in said Contract documents therein referred to and adopted by the City Council, all of which are made a part of this instrument as fully and completely as if set out in full herein.

NOW THEREFORE, if the said Contractor shall faithfully and strictly perform the Contract in all its terms, provisions, and stipulations in accordance with its true meaning and effect, and in accordance with the Contract documents referred to therein and shall comply strictly with each and every provision of the Contract and with this Bond, then this obligation shall become null and void and shall have no further force and effect; otherwise the same is to remain in full force and effect. Should the Contractor fail to faithfully and strictly perform the Contract in all its terms, including but not limited to the indemnifications thereunder, the Surety shall be liable for all damages, losses, expenses and liabilities that the City may suffer in consequence thereof, as more fully set forth herein.

It is further understood and agreed that the Surety does hereby relieve the City or its representatives from the exercise of any diligence whatever in securing compliance on the part of the Contractor with the terms of the Contract, and the Surety agrees that it shall be bound to take notice of and shall be held to have knowledge of all acts or omissions of the Contractor in all matters pertaining to the Contract. The Surety understands and agrees that the provision in the Contract that the City will retain certain amounts due the Contractor until the expiration of 30 days from the acceptance of the Work is intended for the City's benefit, and the City will have the right to pay or withhold such retained amounts or any other amount owing under the Contract without changing or affecting the liability of the Surety hereon in any degree.

It is further expressly agreed by Surety that the City or its representatives are at liberty at any time, without notice to the Surety, to make any change in the Contract documents and in the Work to be done hereunder, as provided in the Contract, and in the terms and conditions thereof, or to make any change in, addition to, or deduction from the Work to be done hereunder; and that such changes, if made, shall not in any way vitiate the obligation in this Bond and undertaking or release the Surety there from.

It is further expressly agreed and understood that the Contractor and Surety will fully indemnify and save harmless the City from any liability, loss, cost, expense, or damage arising

out of Contractor's performance of the Contract.

If the City gives Surety notice of Contractor's default, Surety shall, within 45 days, take one of the following actions:

1. Arrange for Contractor, with consent of the City, to perform and complete the Contract; or
2. Take over and assume completion of the Contract itself, through its agents or through independent contractors, and become entitled to the payment of the balance of the Contract Price.

If the Surety fails to take either of the actions set out above, it shall be deemed to have waived its right to perform and complete the Contract and receive payment of the balance of the Contract Price and the City shall be entitled to enforce any remedies available at law, including but not limited to completing the Contract itself and recovering any cost in excess of the Original Contract Price from the Surety.

This Bond and all obligations created hereunder shall be performable in Harris County, Texas. This Bond is given in compliance with the provisions of Chapter 2253, Texas Government Code, as amended, which is incorporated herein by this reference.

Notices required or permitted hereunder shall be in writing and shall be deemed delivered when actually received or, if earlier, on the third day following deposit in a United States Postal Service post office or receptacle, with proper postage affixed (certified mail, return receipt requested), addressed to the respective other Party at the address prescribed in the Contract documents, or at such other address as the receiving party may hereafter prescribe by written notice to the sending party.

EXECUTED in multiple originals this _____ day of _____, 20_____.

ATTEST/SEAL: (if a corporation)
WITNESS: (if not corporation)

(Name of Principal)

(Address of Principal)

By: _____
Name:
Title:
Date:

By: _____
Name:
Title:
Date:

ATTEST/SEAL
SURETY WITNESS:

(Name of Surety)

(Address of Surety)

By: _____
Name:
Title:
Date:

By: _____
Name:
Title:
Date:

REVIEWED:

This Bond has been reviewed as to form by the undersigned Paralegal and has been found to meet established Legal Department criteria.

Date

Paralegal

STATUTORY PAYMENT BOND

THAT WE, _____, as Principal, hereinafter called Contractor and the other subscriber hereto, _____, as Surety, do hereby acknowledge ourselves to be held and firmly bound unto the City of Houston, a municipal corporation, in the sum of \$_____ for the payment of which sum, well and truly to be made to the City of Houston, and its successors, the said Contractor and Surety do bind themselves, their heirs, executors, administrators, successors, jointly and severally.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, the Contractor has on or about this day executed a contract in writing with the City of Houston for _____

_____ all of such work to be done as set out in full in said Contract documents therein referred to and adopted by the City Council, all of which are made a part of this instrument as fully and completely as if set out in full herein;

NOW, THEREFORE, if the said Contractor shall pay all claimants supplying labor and materials to him or a Subcontractor in the prosecution of the Work provided for in the Contract, then, this obligation shall be void; otherwise the same is to remain in full force and effect;

PROVIDED HOWEVER, that this Bond is executed pursuant to the provisions of Chapter 2253, Texas Government Code, as amended, and all liabilities on this Bond shall be determined in accordance with the provisions of said Article to the same extent as if it were copied at length herein.

IN WITNESS THEREOF, the said Contractor and Surety have signed and sealed this instrument on the respective dates written below their signatures and have attached current Power of Attorney.

I

ATTEST, SEAL: (if a corporation)
WITNESS: (if not a corporation)

Name of Contractor

By: _____
Name:
Title:

By: _____
Name:
Title:
Date:

ATTEST/SURETY WITNESS:

(SEAL)

Full Name of Surety

Address of Surety for Notice

Telephone Number of Surety

By: _____
Name:
Title:
Date:

By: _____
Name:
Title: Attorney-in-Fact
Date:

This Ordinance or Contract has been reviewed as to form by the undersigned legal assistant and have been found to meet established Legal Department criteria. The Legal Department has not reviewed the content of these documents.

Legal Assistant

Date