



CITY OF HOUSTON

Administration and Regulatory Affairs Department
Strategic Purchasing Division

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February 5, 2013

Subject: Letter of Clarification No. 3 to Invitation to Bid No. S50-C24450 to Remove, Furnish and Install a Blower System and Associated Equipment for the Public Works and Engineering Department

To: All Prospective Bidders:

This letter of Clarification is being issued for the following reasons:

- **To extend the bid opening and revise SECTION "B" Scope of Work/Technical Specifications:**

1.) **NOTICE TO BIDDER:**

The bid opening date has changed from 10:30 A.M. February 7, 2013 to 10:30 A.M., February 21, 2013.

2.) Remove pages 9, 11 & 12 of 22 and replace with pages 9, 11 & 12 of 22 marked, **REVISED 2/4/2013.**

Note: No further questions will be accepted after the publication of this Letter of Clarification.

When issued, Letter(s) of Clarification shall automatically become a part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with The Letter(s) of Clarification. All revisions, responses, and answers incorporated into the Letter(s) of Clarification are collaboratively from both the Strategic Purchasing Division and the applicable City Department(s). It is the responsibility of the bidder/respondent to ensure that it has obtained all such letter(s). By submitting a bid on this project, bidders/respondents shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this solicitation and resulting bid.

Furthermore, it is the responsibility of each Contractor to obtain any previous Letter of Clarification associated with this solicitation.

Arturo Lopez

Arturo Lopez
Senior Procurement Specialist
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Attachments: Revised pages: 9, 11 & 12 of 22.

Partnering to better serve Houston

**S50-C24450 / Letter of Clarification No. 3
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for the Public Works and Engineering Department**

REVISED 2/4/2013

**SECTION B
SCOPE OF WORK**

1.0 SUMMARY OF WORK

1.1 The Contractor shall be required to provide all supervision, labor, materials, equipment, tools, transportation and ancillary items necessary to remove the existing, temporary centrifugal blower number four and spot piping connected to the common air header at the Northeast Wastewater Treatment Plant (NEWWTP), located at 655 Maxey Road, Houston, TX and deliver to the storage facility at the Cullen Service Center located at, 7440 Cullen Blvd, Houston, TX 77051. The Contractor shall also be required to furnish and install a new high speed turbo blower system and associated equipment. In addition, the Contractor shall be required to provide and install new piping that matches the remaining three blowers, all associated instrumentation, control panels and auxiliary equipment, wiring, fittings, etc., to connect the new blower system to the City's Supervisory Control and Data Acquisition (SCADA) system at the aforementioned location.

1.2 ***The Contractor shall be required to provide and install all necessary equipment to ensure that the new TURBO BLOWER shall be able to operate as a fully coordinated member of the 4-blower team along with the existing three 16# IGC-V single stage centrifugal blowers. The new blower system must be installed on the existing outdoor pad, with no/minimal modifications to the existing infrastructure. Any minimal modification required to install the new blower system to the existing infrastructure shall be the responsibility of the Contractor with no additional cost to the City.***

2.0 PERFORMANCE TIME:

2.1 ***The Contractor shall have 170 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 blower system 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.

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TECHNICAL SPECIFICATIONS *REVISED 2/4/2013*

1.0 Equipment:

BLOWER, MOTOR, PIPING AND CONTROLS

Make: ROOTS

Model: Model No. RH400T **or City Approved Equal**

1.1 Summary of Requirement:

1.1.1 The Contractor shall be required to provide and install the blower system and all fittings, parts and modifications required for, ROOTS, Model No. RH400T or City approved equal for the Northeast Wastewater Treatment Plant (NEWWTP), located at 655 Maxey Road, Houston, TX.

1.1.2 The blower system shall be rated for wastewater applications.

1.1.3 ***The Turbo Blower System shall be rated at 400 HP, 3 PH, 60 CY. The new Turbo Blower System can have any motor voltage and any RPM required for its successful operation. However, the voltage currently available on the site of the existing blower/motor is 2300 Volts. Therefore, any voltage transforming equipment, variable frequency drives (VFD's) or any other necessary equipment needed to run the new Turbo Blower System at the existing 2300V facility, in conformance with the existing site conditions shall be the responsibility of the supplier.***

1.1.4 ***The new Turbo Blower System shall be able to operate as a fully coordinated member of the 4-blower team where the other three blowers are NON-TURBO whose major performance parameters are given in Section 1.1.5 below:***

1.1.5 Major Performance Parameters of the Existing Blower Systems:

Compressor:

Size and Type Unit-----	16" IGC-V
Gas Handled-----	Air
Molecular Weight-----	28.474
Ratio of Specific Heats-----	1.395
Relative Humidity (%) -----	7.0
Compressibility Factors-----	1.0
Barometer (PSIA) -----	14.7
Inlet Capacity (ACFM) -----	8700
Inlet Temperature (Degrees F) -----	100
Inlet Pressure (PSIA) -----	14.6
Discharge Pressure (PSIA) -----	22.3
Discharge Temperature (Est. Degrees F) -----	193
Brake Horsepower (+ or - 4%) -----	337
Operating Sped (RPM) (Input) -----	3570
Gear Ratio -----	4.037

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Driver:

Brake Horsepower Rating-----400w/1.15 SF
Speed -----3600 RPM
Electrical Characteristics -----3 PH, 60 CY, 2300 V

System Lube Oil:

Rust, oxidation and foam inhibited premium grade turbine or hydraulic oil:
Viscosity rating-----150-200 SSU at 100 degrees F
Sump Capacity-----25 Gallons

2.0 *Operation and Maintenance Manuals, Drawings, Training, and Follow-up:*

- 2.1 *The Contractor shall be required to provide four copies of the Operations and Maintenance Manual for the new Turbo Blower System.***
- 2.2 *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 operations and maintainance of the new Turbo Blower System.***
- 2.3 *The Contractor shall be available to answer questions or follow-ups of equipment training for the first three months after final acceptance of the new Turbo Blower System.***