



**CITY OF HOUSTON  
HOUSTON AIRPORT SYSTEM**

**REQUEST FOR PROPOSALS (RFP)  
SOLICITATION NO.: H73-CUP-2023-002  
OPERATIONS AND MAINTENANCE (O&M) CENTRAL UTILITY PLANT  
(CUP) FOR HOUSTON AIRPORT SYSTEM (HAS)**

**Date Issued:** July 15, 2022

**Pre-Proposal Conference:** July 29, 2022, 10:00 A.M. (local time)  
Houston Airport System, Supply Chain Management, Room  
113, 18600 Lee Road  
Humble, Texas 77338

**Questions Deadline:** August 11, 2022 @ 12:00 Noon (local time)

**Solicitation Due Date:** September 15, 2022 @ 10:00 A.M. (local time)

**Solicitation Contact Person:** Gabriel Carey  
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**Project Summary:** This is for a three (3) year contract with two (2) one-year options for a maximum five-year contract term for CENTRAL UTILITY PLANT (CUP) which includes (Boilers, Chillers, Cooling Towers, etc.) General – Operation and Maintenance Requirements for HAS building and terminals at IAH and HOU.

**NIGP Code:** 914-50

**M/WBE Goal:** 25%

DocuSigned by:

A blue ink handwritten signature of Jedediah Greenfield.

DS  
CA  
6121834077C41A  
Jedediah Greenfield  
Interim Chief Procurement Officer  
City of Houston

7/13/2022 | 9:17 CDT

Date

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**PART I – GENERAL INFORMATION**

**A. General Information**

The City of Houston (“City”) is currently seeking proposals from qualified contractors to provide Central Utility Plant Operations and Maintenance Services, electrical and plumbing related services for the Houston Airport System.

**B. City of Houston Background**

The City of Houston is the fourth largest City in the United States comprising 23 departments with multiple locations throughout the City. The City has approximately 23,000 employees with approximately 500 employees involved in the procurement and/or contracting process. Contracts where the City must pay in excess of \$50,000 are routed to City Council for approval. The annual volume of contracts and purchase orders issued in the City in the last five years has ranged from 19,000 to 23,000.

**C. Solicitation Schedule**

Listed below are the important dates for this Request for Proposal (RFP).

<b><u>EVENT</u></b>	<b><u>DATE</u></b>
Date of RFP Issued	July 15, 2022
Pre-Proposal Conference	July 29, 2022
Questions from Proposers Due to City	August 11, 2022
Proposals Due from Proposers	September 15, 2022
Notification of Intent to Award ( <i>Estimated</i> )	November 17, 2022
Council Agenda Date ( <i>Estimated</i> )	January 26, 2023
Contract Start Date ( <i>Estimated</i> )	February 23, 2023

## **Part II Scope of Work**

### **SCOPE OF SERVICES**

#### **1.0 PURPOSE**

1.1 The primary purpose of this contract shall be to provide the Central Utility Plant (CUP) Operations & Maintenance Services in support of the HAS Mission and Vision Statements to establish the City of Houston as a 5-Star global service gateway. Activities conducted under this contract should be in support of this goal.

1.2 To achieve our overall purposes, the following core values have been adopted.

##### **1.2.1 MISSION:**

1.2.1.1 We exist to connect the people, businesses, cultures and economies of the world to Houston.

##### **1.2.2 VISION:**

1.2.2.1 Establish Houston as a five-star global air service gateway where the magic of flight is celebrated.

##### **1.2.3 STRATEGIC PRIORITIES:**

1.2.3.1 Make our passengers happy.

1.2.3.2 Act responsibly to achieve social and environmental and economic sustainability.

1.2.3.3 Build the platforms for future success.

1.2.3.4 Invest in our partnerships and our employees.

##### **1.2.4 CORE VALUES (R.I.S.E.)**

1.2.4.1 Relationships: We work together with integrity and treat every individual with courtesy and respect.

1.2.4.2 Innovation: We have the courage and willingness to consider new and unconventional ways of thinking.

1.2.4.3 Service: We WOW our passengers through a “can do” attitude and respond quickly to meet and exceed their expectations.

1.2.4.4 Excellence: We strive for quality and skillful execution without compromise.

#### **1.3 FACILITIES INCLUDED:**

##### **1.3.1 George Bush Intercontinental Airport, Houston (IAH).**

**1.3.1.1** IAH CUP includes supporting assets, all Electrical Transformers, electrical vaults, hydronic delivery and return pipes required to effectively support operations. Refer to Attachment “E” for equipment lists and Attachment “F” for CUP Facilities and Attachment “C” for underground tunnel and pipelines.

**1.3.2** William P. Hobby Airport, Houston (HOU).

**1.3.2.1** HOU CUP (Main Terminal CUP and Satellite Utility Plant) includes supporting assets, all Electrical Transformers, electrical vaults, hydronic delivery and return pipe required to effectively support operations. Refer to Attachment “E” for equipment lists and Attachment “F” for CUP Facilities and Attachment “C” for underground tunnel and pipelines.

**1.3.3** These airport facilities hereinafter may also be referred to jointly as Airports. These facilities are under the supervision of HAS for the City of Houston.

1.3.4 The Equipment list (Attachment “E”) may not be comprehensive and fully inclusive. Contractor will be responsible for all equipment regardless of its inclusion or exclusion on the list.

1.3.5 For lists of HAS equipment, refer to Attachment “E” and for Equipment Building lists, refer to Attachment “F”. In the event of a discrepancy, Attachment “F” shall govern.

1.3.6 The assets installed in the upcoming HAS IAH Central Utility Plant upgrade project are included within this contract, such as new switchgear, transformers, microgrid generators, etc. Reference Attachment “E” for equipment lists, Attachment “F” for CUP Facilities and Attachment “C” for underground tunnel and pipelines.

**1.1 WORK INCLUDED**

1.1.1 Basic Services

1.1.2 Operations & Maintenance (O&M)

1.1.2.1 Best Management Practices

1.1.2.2 Industry Standard

1.1.2.3 Reactive

1.1.3 Systems

1.1.4 Other Work Services

1.2 At a minimum, the Contractor shall provide the following services, but are not limited to:

1.2.1 The contractor shall provide complete maintenance of existing CUP systems as described in Attachment “E” and shall also provide maintenance of additional CUP systems as they are released to the contractor following construction. The contractor shall utilize the City of Houston’s Enterprise Asset Management Systems (EAMS), as described in Section 3.11. The Agreement pricing shall be a monthly fee for each functional element as written in the executed agreement.

1.2.2 Must possess adequate communication and English language skills to accurately provide information to the public and to respond to routine and emergency communications by telephone or radio. The contractor shall be always responsible for the conduct of all the contractor’s personnel.

1.2.3 Contractor’s personnel shall be properly uniformed, displaying their company logo, wearing non-slip shoes, clean and neat in appearance while on duty, and shall deal with members of the public in a prompt, polite and business-like manner.

- 1.2.4 The contractor shall remove from the Airport worksite any contractor's employee, contractor's subcontractor, contractor's consultant, or any other invited person(s) of the contractor, onto the Airport, when the Director notifies the contractor in writing that such person:
  - 1.2.4.1 It is, in the sole opinion of the Director, incompetent, unfit or disorderly; or
  - 1.2.4.2 has used profane or abusive language or behavior towards any person at the Airport. Such person shall not be reassigned to Airport work by the contractor, except with the express written consent of the Director.
- 1.2.5 The contractor shall at all times provide properly trained and competent personnel in the number and classifications necessary to perform its services in an efficient manner and in accordance with the contractor's documents.

## 2.0 **BASIC SERVICES**

### 2.1 **PERFORMANCE STANDARDS**

- 2.1.1 Contractor shall provide all management, supervision, skilled and unskilled labor, tools, service and maintenance materials, equipment, outside services, replacement equipment and parts, components and appurtenances, instruments, expendables, supplies, training, and insurance as required for Operation and Maintenance (O&M) to ensure the Level of Service (LOS) of all Work described in the Agreement for equipment installed in the CUPs at the airports.
- 2.1.2 Operation and Maintenance Requirements for Central Utility Plant (CUP) at IAH and HOU does not include Utilities (Boilers, Chillers, Cooling Towers, etc.) used to heat and cool airport buildings outside the CUPs.
- 2.1.3 Contractor's operation and maintenance of Airports CUP equipment must be in accordance with the highest standards prevailing in the industry, including but not limited to the latest release of the Operations & Maintenance Best Practices developed by the U.S. Department of Energy, recommendations of the OEM, as well as all applicable codes, rules, regulations, and laws of any regulatory or legislative body having jurisdiction over IAH and HOU which include, but are not limited to, State of Texas agencies having jurisdiction over boiler operations, Texas Commission on Environmental Quality (TCEQ) over certain environmental matters, and Federal regulatory bodies, including, but not limited to EPA, OSHA, TSA, and FAA. Contractor shall ensure full compliance and shall bear the cost of any additional work or materials not specified that may be required. Any violation, omission, or question of compliance must be brought to the attention of the Director within five days of Contractor's actual or constructive knowledge.
- 2.1.4 Contractor shall respond to a request from the Director for emergency service to perform all steps reasonably necessary to protect persons and property from risk of harm due to a problem with the system. Priority must be given to requests for emergency service.

### 2.2 **WORK INCLUDED – GENERAL**

- 2.2.1 The Work provided by Contractor under the Agreement includes LOS and Other Work/Services listed in Sections 3.0, 4.0 and 5.0
- 2.2.2 Work does not include Natural Gas piping and equipment upstream of CUP equipment, terminating at the meter. The work includes but not limited to above/underground plumbing (potable and/or chill water) systems, air conditioning condensate drainage pumps and piping, domestic water backflow prevention devices, etc. located in the CUP. Refer to Attachment "E" Equipment List and Attachment "C", IAH & HOU CUP underground utilities

- 2.2.3 Work does include all CUP equipment including domestic water pumps, Solar Panel Farm, and equipment serving and/or located in the CUP and Cooling Towers. Refer to Attachment "E".
- 2.2.4 Repairs and/or replacement of CUP equipment or parts due to contractor's failure to perform proper maintenance as specified will be the responsibility of the contractor at no cost to HAS.
- 2.2.5 Contractor shall bear all costs associated with any repairs or replacement required as the result of contractor's negligence or deliberate act.

### 2.3 **OPERATING STANDARDS**

- 2.3.1 Operating the CUP at the highest level of service, maintaining specified environmental conditions, and cost-effective energy management are of paramount importance in operating and maintenance of the Airport's CUP. Contractor shall observe OEM recommended preventive maintenance and maintenance practices and procedures. Contractor shall comply with applicable Federal, State and Local regulations of Authorities having jurisdiction including regulations of Occupational Safety and Health Act (OSHA), Environmental Protection Agency (EPA) requirements and recommended practices of National Institute for Occupational Safety and Health.
- 2.3.2 The operating procedures used by contractor must be in accordance with OEM instructions contained in applicable manufacturers' manuals for individual items of equipment, including the latest OEM technical/user manuals, service bulletins, service advisories, product/service information updates, and all other such OEM published information pertaining to the maintenance and operation of CUP Systems. Contractor's operating procedures must address overall operation of the plant, considering the interrelationships of various systems to ensure that proper sequences are followed in start-up, shutdown, or in making operating adjustments. All written operating instructions and procedures must be always readily available to operating personnel for reference.
- 2.3.3 It is recognized that contractor has no responsibility regarding design of the facilities, which it will operate and maintain. However, where it is evident that safety, reliability or efficiency can be improved through capital investment in equipment, analyzers, instrumentation, etc., contractor shall bring such matters to the attention of the Director in writing for his consideration and action as the Director deems appropriate.
- 2.3.4 Contractor shall operate and maintain CUP equipment to provide optimum performance, energy usage, and reliability.

### 2.4 **OPERATING PROCEDURES AND MANUALS**

- 2.4.1 Contractor is responsible for obtaining/providing the following manuals for use in the operation and maintenance of CUP.
  - 2.4.1.1 Operations Manual.
  - 2.4.1.2 Equipment Manuals and Equipment Data Sheets.
  - 2.4.1.3 Systems Manual.
- 2.4.2 When available HAS will provide manuals etc. to contractor.
- 2.4.3 HAS will assist in the transfer of available copies of the operations manuals and the equipment manuals to contractor upon HAS issuance of notice to proceed document for each Airport.
- 2.4.4 Updating of the Equipment Manual shall be completed by the end of the first year of the Agreement and shall include development by contractor of Equipment Data forms expanded to include all data pertinent to the normal operation and maintenance of each piece of mechanical and related electrical equipment. Such data shall include in addition to existing data, the sheave and belt sizes, motor data, starter and heater sizes, and the manufacturer's data identifying the equipment or component. Recommended changes in the Operations Manual,



as a result of knowledge and experience with the systems, shall be submitted in writing for the Director's consideration. These suggestions will be taken under advisement by the Director. As required, the suggestions will be reviewed by the Director with contractor. Resulting changes to the Operations Manual shall be the responsibility of contractor. Once finalized and completed by the end of the first year of the Contract, contractor shall maintain and update the documents.

## 2.5 **REGULATORY COMPLIANCE/CODES**

### 2.5.1 **Regulatory Compliance**

2.5.1.1 The contractor shall comply with all applicable Federal, State and local laws, HAS Regulations and policies, standards, ordinances, rules, and regulations pertaining to the performance of the Work specified herein.

2.5.1.2 Licenses, Permits and Bonding: All personnel engaged in the maintenance activities must possess certificates of training, licenses, permits, and bonding as required by the Federal, State, City, County, HAS, and other local authorities having jurisdiction and as specified for each activity they will be directly engaged in or supervise. All certificates of training, licenses, permits and bonds shall be current and valid and available immediately upon request by HAS.

2.5.1.3 The contractor shall obtain and pay for all permits, licenses, certifications and approvals required to perform services under the Agreement.

2.5.1.4 The contractor shall schedule recurring inspections, certifications, and pay all associated fees.

2.5.1.5 The contractor shall obtain any permits required to work on the Airports, including in restricted areas, as defined by Federal, State and local laws, City policies, procedures, ordinances, rules, codes and regulations. Both the contractor's business and the contractor's employees, including contractor's employees, must be certified to work on the Airports property, including restricted areas.

2.5.1.6 The contractor shall be required to provide, as requested and on demand, all licenses, permits, certifications, and other such proof of qualifications for any personnel required to work on the Airports, including restricted areas, for proper execution of the Agreement.

### 2.5.2 **Testing and Reporting Required by TCEQ and Federal Agencies**

2.5.2.1 The contractor shall take all steps necessary to operate and maintain boilers to ensure compliance with all current TCEQ regulations and those stipulated by Federal EPA New Source Performance Standards. Recordkeeping and compliance standards may be different for "new" boilers versus "grandfathered boilers," and contractor shall implement the correct procedures for each. Contractor shall apply standard combustion control techniques such as proper excess air firing, flue gas analysis, and properly maintaining the burner/boiler packages. Within the first 90 days under the Agreement, contractor shall study past stack tests for existing boilers to confirm that these systems are within the limits of the operating permits and the Maximum Allowable Emission Rate Tables furnished by the TCEQ.

2.5.2.2 As new or revised regulations are placed into effect, and HAS performs any replacement, retrofit, and/or reconstruction of the boiler packages to keep them in compliance with the new standard(s), contractor shall modify its operation and maintenance procedures and its testing and reporting procedures to ensure compliance with regulations.

### 2.5.3 **Codes and Standards**

- 2.5.3.1 Except where specified or exceeded by the requirements of the specification, the contractor shall comply with to the latest edition of the following Codes adopted by local code authorities:
  - 2.5.3.1.1 Federal, state, and local building, plumbing, mechanical, electrical, safety and environmental codes, and HAS standards.
  - 2.5.3.1.2 National Electrical Code (NEC), City of Houston and State requirements as stated in Texas Electrical Safety and Licensing Chapter 1305 and Administrative Rules of the Dept. of Licensing and Regulations, 16 Administrative code Chapter 73.
  - 2.5.3.1.3 International Plumbing Code.
  - 2.5.3.1.4 International Mechanical Code.
  - 2.5.3.1.5 International Fire Code.
  - 2.5.3.1.6 International Energy Conservation Code.
  - 2.5.3.1.7 State and Local Building Codes and Ordinances.
  - 2.5.3.1.8 State and Local Fire Codes and Regulations.
  - 2.5.3.1.9 Federal Aviation Standards and Regulations.
  - 2.5.3.1.10 Occupational Safety and Health Administration Regulations.
- 2.5.3.2 Codes and Standards listed above and throughout these specifications are minimum standards.

## 2.6 **WARRANTIES**

- 2.6.1 Contractor warrants that it shall perform all work in a good and workmanlike manner meeting the standards of quality prevailing in Harris County, Texas, for work of this kind. Contractor shall perform all work using trained and skilled persons having substantial experience performing the work required under this Agreement.
- 2.6.2 With respect to any parts, instruments, equipment, and goods it furnishes, contractor warrants:
  - 2.6.2.1 That all items are free of defects in title, design, material, and workmanship.
  - 2.6.2.2 That each item meets or exceeds the manufacturer's specifications and requirements for the equipment, structure, or other improvement in which the item is installed.
  - 2.6.2.3 That each item is new, in accordance with original equipment manufacturer's specifications, and of a quality at least as good as the quality of the item which it replaces (when the item was new).
  - 2.6.2.4 That no items or their use infringe upon any patent, copyright, or other proprietary rights. In the event contractor becomes aware of such an infringement, contractor shall replace the items that are the subject of the infringement with non-infringing items in a timely manner; and
  - 2.6.2.5 That for one year from the date of any installation ("Warranty Period"), contractor shall provide all parts, instruments, equipment, and goods required to complete all Maintenance required under the Agreement at no cost to the City. This warranty is in addition to contractor's obligation to provide O&M Services under the Agreement. When the manufacturer's warranty period for any parts, instruments, equipment, and goods is greater than one year, the longer period prevails.
- 2.6.3 As part of O&M Services, contractor shall manage and enforce on the City's behalf all manufacturer warranties issued before the Effective Date of this Agreement, during the Term of the Agreement, and any extensions. Contractor shall not be entitled to any additional compensation

for the management and enforcement of these manufacturer warranties. If contractor does not exhaust all remedies, including litigation, against a manufacturer who fails to honor all or a part of a warranty, it shall not receive additional compensation from the City for the labor and material costs it incurs to repair or replace the item that otherwise would have been under warranty.

## 2.7 **PERFORMANCE BOND**

2.7.1 The successful contractor shall furnish and maintain throughout the Agreement term a Performance Bond in the amount of 100% of the annual applicable Agreement year. Contractor shall renew this bond for each renewal year of this Agreement in an amount equal to the Agreement amount for the applicable renewal term. The bond shall be conditioned upon contractor's full and timely performance of this Agreement and must be issued by a corporate surety authorized to write surety bonds in the State of Texas.

2.7.2 The Performance Bond shall be in the same form as that distributed by the City, all duly executed by this bidder (as "Principal") and by a corporate surety company licensed to do business in the State of Texas. The surety must be listed on the current list of accepted sureties on federal bonds published by the United States Treasury Department.

## 2.8 **PRICING**

2.8.1 Contractor level of service bid pricing will be effective for the duration of the contract and be defined as "Unit Pricing" if new Facilities or assets are added or subtracted from the contract.

2.8.2 Contractor shall provide annual lump sum bid costs for each line item on the bid form. Line items are organized by Airport (IAH and HOU), Building Type (CUP) and LOS (Level I - Perpetual, Level II - Predictive, & Level III - Reactive). Refer to Attachment "E" for CUP Equipment Lists and Attachment "F" for CUP Facilities.

2.8.3 HAS reserves the right to select any LOS and to reduce or increase LOS as needed throughout the contract term. Changes made after award of contract will be done by Change Order. Contract Change Orders will include a 30-day notice period prior to becoming effective.

## 2.9 **MONTHLY PAYMENTS**

2.9.1 The monthly payments for Airports shall include Operation, Preventative and Corrective Planned Maintenance for all equipment (Refer to Attachments "E" and "F").

2.9.2 The monthly lump sum payments shall include all overtime, after-hours labor, additional staffing, and emergency labor required to meet the CUP's performance standards and Duties of contractor detailed in the Agreement. Refer to Section 2.20, Invoicing.

## 2.10 **RECORDS AND REPORTS**

### 2.10.1 **Documents - Records and Reports:**

2.10.1.1 As part of O&M Services, contractor shall utilize the HAS Enterprise Asset Management System (EAMS) to develop and maintain daily logs, weekly, and monthly reports for operation and maintenance of CUP and equipment as more specifically described in Sections 3.11. The logs and reports shall provide a record of all pertinent operating data and maintenance performed. Contractor's record keeping system must be first approved by the Director in writing prior to implementation by contractor and all required records may be inspected by the Director at any time during normal business hours. The contractor shall provide all maintenance records and history with one hard copy and three (3) HAS approved electronic devices to the Director. Throughout the term of the contract and upon expiration or termination of the Agreement, all manual and automated

records (including software data) produced and maintained on file become the property of HAS; contractor shall submit all maintenance records to Director every 6 months. Contractor may retain all original employee and accounting files, but shall furnish a copy of the accounting files to Director, upon request. Failure to provide this and all additional reports in Section 2.10 will result in the application of liquidated damages in accordance with Section 3.14 of this contract.

2.10.1.2 Within sixty (60) days of the award of contract contractor shall provide preventive maintenance (PM) plans for HAS review and approval. The contractor shall submit the PM plans in a HAS approved format. HAS will generate the approved PM/SM plan in EAMS. Any requested changes by the contractor to PM plans will require HAS review and approval. Once changes are approved, they shall be submitted in a HAS approved format thirty (30) days prior to schedule due date of work to be performed.

2.10.1.3 Corrective Maintenance shall be documented in EAMS.

2.10.1.4 Reports must be signed by the contractor's Project Manager. Such signature is certification that all reports and information are truthful and accurate. Falsification of any records is grounds for termination of the Agreement.

2.10.1.5 Contractor's Logs provided to the Director must document all pertinent operating data and maintenance performed by contractor or its contractors under the Agreement. Contractor shall describe any event or condition not readily discernible from recorded data in a "Remarks" section, including any task required under this Agreement but not performed. Failure to document this can result in the application of liquidated damages in accordance with Section 3.14 of this Agreement.

2.10.1.6 Contractor shall develop and maintain on site records, including but not limited to, Agreement documents, inventory records, accounting and procurement records, system documents and manuals and any other documents necessary to meet reporting requirements or any other documents reasonably required by the Director. Contractor shall coordinate with HAS GIS personnel to provide records of any equipment modifications or additions which will affect the utility plant drawings. The contractor shall provide the GIS manager with the information required to update the drawings within 30 days of completion of any such modifications or additions.

## 2.10.2 Daily Records and Reports

2.10.2.1 Contractor shall develop and maintain an automated Daily Work Log to record CUP and equipment daily operation and maintenance events and to produce a Daily Work Log Summary to be submitted to HAS daily at an agreed upon time. The Daily Work Log must record all pertinent daily operating and maintenance data, including but not limited to date, time, service performed, status or results, and person who performed service or inspection. Relevant events or conditions not readily discernible from the recorded data must be described in a "Remarks" section. The Daily Work Log and Summary must be in a format acceptable to the Director. Additionally, contractor shall provide a daily log of parts/materials used.

## 2.10.3 Weekly Records and Reports

2.10.3.1 Contractor shall submit a weekly report depicting the work completed or performed for each week.

## 2.10.4 Monthly Records and Reports

2.10.4.1 Contractor shall provide a monthly Operation and Maintenance report. The report must provide essentially the following information in a format acceptable to the

Director. A compliance check list of all items required in this section shall be included with the report. The Monthly Operation & Maintenance Report must include, but is not limited to:

- 2.10.4.1.1 Daily Summary Maintenance Log Summary Report.
  - 2.10.4.1.2 Status of Systems and Equipment Report.
  - 2.10.4.1.3 Parts/Material Usage Report. Report shall provide parts/material usage during the month, as well as indicating material replacement stock over the month.
  - 2.10.4.1.4 Summary of Maintenance Work Performed and all work that was scheduled but not performed for any reason.
  - 2.10.4.1.5 The results of inspections and tests conducted (including but not limited to water treatment, harmful organism tests).
  - 2.10.4.1.6 Reliability Centered Maintenance Report based on the LOS.
  - 2.10.4.1.7 Two (2) month schedule of upcoming inspections or tests, and projection of major equipment shutdowns required for maintenance.
  - 2.10.4.1.8 List of Equipment Breakdowns and Repair Time Report.
  - 2.10.4.1.9 Statistical Operating Data Report (including, but not limited to, equipment on-line/standby report).
  - 2.10.4.1.10 Summary of Cooling Tower, Make-up Water, Blow down Reports.
  - 2.10.4.1.11 Summary of monthly Evaporation Credits, recording the sub-meter readings on the Cooling Tower Makeup (consumption) & Blow-Down (discharge) lines, whose monthly volume totals shall be recorded by the contractor with the City of Houston Public Works Department, capturing the water consumed and evaporated in the CUP cooling process.
  - 2.10.4.1.12 Warranty Report.
  - 2.10.4.1.13 Employee Roster Report, maintaining employee monthly attendance by date, title, etc., submitting to the Director monthly to the extent allowed by law.
  - 2.10.4.1.14 Other reports as may be required by the Director (including, but not limited to, filter replacement).
- 2.10.4.2 Monthly maintenance reports must be submitted to the Director by the fifteenth (15th) day following the reported month. Maintenance reports are to be submitted on HAS approved electronic devices.

2.10.5 Other Records and Reports

- 2.10.5.1 Harmful Organism Test Report - Contractor shall report and submit all test results to the Director and maintain a permanent record in the CUP files for future reference.
- 2.10.5.2 Wastewater Report - Due to the loss of water that occurs through evaporation at the cooling towers, additional water must be added to the condenser water system as necessary to maintain the water volume for efficient operation of the . It is also necessary to release water into the City's sewage system to control the amount of total dissolved solids in the system. This results in greater amounts of water being utilized that are not in direct proportion to the amount being released into the City sewage system.

- 2.10.5.2.1 Contractor shall reference for compliance the City of Houston, Public Works Department, Evaporation Credit Ordinance 47-129.
- 2.10.5.2.2 HAS pays a sewage fee based on the amount of water it utilizes unless it provides a method to show that all the water it utilizes does not end up as discharge into the sewage system. Therefore, make-up and blow-down meters have been installed to ensure the HAS does not pay a sewage fee for water that is evaporated during the heating and cooling process.
- 2.10.5.2.3 Contractor shall read the make-up meters and blow-down meters on IAH and HOU cooling towers on the last day of each calendar month and deliver the data to the City of Houston, Water Customer Service, no later than the fifth (5th) day of the following calendar month.
- 2.10.5.2.4 The Director will provide contractor with a form to be used to record the meter readings. Contractor shall be fully responsible for obtaining the required meter readings, completing the form in its entirety and delivering it to the address specified within the time periods specified. Contractor shall keep one copy in its contract files and one copy forwarded to Director for its records. A delivery receipt for this form from the City must be obtained and attached.
- 2.10.5.3 Hazardous Chemical Records - Contractor and its contractor shall provide a completed Safety Data Sheets (SDS) as required by applicable laws for each hazardous chemical as used in performance of the work or stored on City property.
  - 2.10.5.3.1 Any material declared as hazardous by the Texas Department of Health, the EPA or the TCEQ requires an SDS. That Department also will provide standard SDS forms upon request.
  - 2.10.5.3.2 Contractor's Project Manager shall maintain the completed forms. All hazardous chemical records must be made available to the Director for periodic review.
- 2.10.5.4 Damage Reports - In all Instances where any HAS properly or equipment, (i.e., furniture, building, fixtures, etc.,) is damaged by the contractor.
  - 2.10.5.4.1 The damage shall be reported immediately along with a completed written damage report delivered to the contract administrator within 24 hours of the occurrence to include weekends and holidays.
  - 2.10.5.4.2 The report shall explain the circumstances of the accident and the extent of damage to include, at a minimum, date, time, exact location, parties Involved, witnesses, circumstances of occurrence, and photos, if available.
  - 2.10.5.4.3 The contractor shall bear all costs of repairing or replacing damaged property.
- 2.10.5.5 Accident and Damage Reports - The contractor shall comply with all OSHA reporting requirements for recordkeeping and reporting of all accidents resulting in death, injury, occupational disease, or adverse environmental impact.
  - 2.10.5.5.1 An accident and/or damage incident shall be reported Immediately, and a written damage report shall be delivered to the contractor Administrator within 24 hours of its occurrence, to Include weekends and holidays.
  - 2.10.5.5.2 The report shall explain the circumstances of the accident and extent of damage to include, at a minimum, date, time, exact location,

parties involved, witnesses, circumstances of occurrence, photos, if available, root cause analysis, and proper corrective actions to prevent reoccurrence.

2.10.5.5.3 The contractor shall cooperate with the HAS safety officer, providing written documentation and pertinent information required for their records.

### 3.0 **PERSONNEL REQUIREMENTS**

- 3.1.1 Staffing – Contractor shall provide the appropriate number of qualified personnel required to operate and maintain the CUP equipment at all Airports per the contracted LOS. During the phase-in period, contractor shall develop and implement a full project schedule detailing the responsibilities, skill sets and number of personnel and submit this schedule to the Director for written approval.
- 3.1.2 Should HAS determine that the contractor is not meeting the Agreement responsibilities with the contractor's on-site crew, then upon the Director's request, contractor shall modify/increase its on-site crew in order to meet Agreement obligations. Contractor shall increase its on-site crew at no cost to HAS as required to fulfill the requirements of the Agreement. Should the Director determine that contractor is not meeting Agreement responsibilities; the Director will notify contractor in writing. Contractor shall address and cure performance issues relating to personnel immediately. A plan to cure must be approved in writing by the Director at his sole discretion. If Agreement responsibilities can only be met with additional permanent staff, contractor shall pay for the cost of such additional staff.
- 3.1.3 Contractor shall be responsible for providing additional staffing during irregular operations and inclement weather at no additional cost to the City.
- 3.1.4 All personnel assigned by the contractor to perform in accordance with the terms of the Agreement will not be assigned to any other projects, Other Work Services (OSR), or contracts managed by the contractor, unless approved in writing by HAS.
- 3.1.5 Administrative Tasks – Contractor shall perform certain administrative tasks which includes implementation, operation, and maintenance of data systems, radio communications, security and badging requirements, preparation of work orders and other service requests, generating reports, invoicing, attending meetings, administering a quality control program, and performing certain housekeeping duties.
- 3.1.6 The following job descriptions are intended to address minimum key personnel qualifications and are not intended to establish the level of staffing needed to operate and maintain the contract.
- 3.1.7 Project Manager:
  - 3.1.7.1 The contractor shall designate in writing to the Director a Project Manager (PM) for this Agreement. Such Project Manager must be approved in writing by the Director before commencing performance herein.
  - 3.1.7.2 Contractor shall provide a dedicated PM for all CUPs skilled and experienced in the operation and maintenance of the type of systems/equipment identified in the Agreement, who will be actively included in the system maintenance and who will serve as the main point of contact for contractor.
  - 3.1.7.3 The PM will be exclusively assigned to this Agreement and shall not be reassigned without prior written approval of the Director. Such approval will not be unreasonably withheld if the replacement PM has equal experience, and skilled in a like position with a contract of similar size and scope as described herein.
  - 3.1.7.4 The PM shall be available and on call 24 hour daily.

- 3.1.7.5 The PM shall not be a working technician/mechanic.
- 3.1.7.6 The PM shall office at IAH CUP, subject to change at the Director's discretion, from 8:30 a.m. through 5:30 p.m., Monday through Friday at a minimum.
- 3.1.7.7 If the PM is to be temporarily off-site, the Director must be notified in writing and an acting PM identified and approved by the Director. The acting PM must be able to act for the contractor in all matters.
- 3.1.7.8 If PM is on vacation, sick, etc., he will name a responsible subordinate to act on his behalf with full authority to represent the contractor as if the subordinate was the PM.
- 3.1.7.9 Contractor shall notify Director of holiday/vacation schedules at least fourteen (14) days in advance.
- 3.1.7.10 Contractor shall reply to correspondence via email within 12 hours.
- 3.1.7.11 After execution of the Agreement the Project Manager shall attend a minimum of one meeting every month, or as requested by Director, with the Director to report on the status of the system/equipment and the Work/Services. Contractor shall prepare a typed agenda covering the topics to be discussed, keep minutes of the meetings in a form satisfactory to the Director, and issue copies of the minutes to all attendees within three (3) of each meeting. Liquidated damages may be assessed for failure of contractor to comply with the above requirement.

3.1.8 Project Manager – Minimum Requirements:

- 3.1.8.1 A minimum of 10 years CUP maintenance project experience with verifiable management capability.
- 3.1.8.2 A Class A Texas Air Conditioning and Refrigeration Contractor License with "R" endorsement.
- 3.1.8.3 Minimum of five (5) years Energy Management experience.
- 3.1.8.4 Five (5) years cost forecasting and training and managing personnel.
- 3.1.8.5 Advanced computer skills and knowledge of complex DDC control systems.
- 3.1.8.6 The Project Manager shall communicate with the Director and shall be exclusively assigned to this Agreement.

3.1.9 Administrative Coordinator – Contractor shall provide at least one (1) qualified person to be responsible for administrative needs of this contract, including but not limited to: Completing all required reports, Training schedules the OSR process and warranty reports. Additionally, will keep all labor records and safety incident reports for term of this agreement.

- 3.1.9.1 Minimum 4 years' experience in an O&M administrative environment.
- 3.1.9.2 Excellent typing skills.
- 3.1.9.3 In-depth computer skills.
- 3.1.9.4 Proficiency with MS Office Applications and able to create and maintain spreadsheets.
- 3.1.9.5 Minimum coverage 8 hours a day, 5 days a week.

3.1.10 IAH Contractor's personnel shall include professionals in the following job categories:

- 3.1.10.1 IAH CUP Maintenance Manager – Maintenance Manager shall have at least ten (10) years CUP Facility Maintenance Experience. At a minimum, experience and requirements will include, but not be limited to:

- 3.1.10.1.1 Five 5 years supervisory capacity.



- 3.1.10.1.2 A State of Texas License Class B or higher.
- 3.1.10.1.3 A Universal Recovery Certificate.
- 3.1.10.1.4 Working knowledge of Variable Frequency Drives.
- 3.1.10.1.5 Knowledge of Complex Control Systems, BACNET.
- 3.1.10.1.6 Native language required with graphic capability.
- 3.1.10.1.7 Chemical Treatment knowledge.
- 3.1.10.1.8 Building Pneumatics and Compressors.
- 3.1.10.1.9 Building Chilled Water and Hot Water Pumps.
- 3.1.10.1.10 Working knowledge of Heat Exchangers.
- 3.1.10.1.11 Fundamental Electrical Diagnostic Skills.
- 3.1.10.2 IAH Maintenance Supervisor – [at least one (1) per shift] - Must have a minimum of five (5) years' experience including but not limited to the following requirements:
  - 3.1.10.2.1 Three (3) years supervisory experience.
  - 3.1.10.2.2 Universal Recovery Certificate.
  - 3.1.10.2.3 State of Texas A/C License, Class B or higher.
  - 3.1.10.2.4 Working knowledge of Variable Frequency Drives.
  - 3.1.10.2.5 Excellent Chemical Treatment knowledge.
  - 3.1.10.2.6 Excellent working knowledge of Building Automation System.
  - 3.1.10.2.7 Experience with Pneumatics Control Systems and Compressors.
  - 3.1.10.2.8 Building Chilled Water and Hot Water Repair experience.
  - 3.1.10.2.9 Experience with repair and operation of Heat Exchangers.
  - 3.1.10.2.10 Fundamental Electrical Diagnostic Skills.
- 3.1.10.3 IAH Central Plant Stationary Engineers – must provide 24/7 coverage. Stationary Engineers must have a Stationary Engineer License, Second Grade or higher and have a minimum of five (5) years' experience in Central Plant Operations, 8,000 tons of higher and 50,000 lbs. of steam. At a minimum, four of these positions will be required to be First Grade. Experience and requirements include but not limited to:
  - 3.1.10.3.1 A Universal Freon Recovery Certificate.
  - 3.1.10.3.2 Operation of large tonnage chillers of 2,000 tons or higher.
  - 3.1.10.3.3 Operation of boilers of 40,000 lbs. of steam or higher.
  - 3.1.10.3.4 Heat Exchangers.
  - 3.1.10.3.5 Cooling Towers.
  - 3.1.10.3.6 Plant Automation System.
  - 3.1.10.3.7 Air Compressors.
  - 3.1.10.3.8 Chemical Treatment Systems.
- 3.1.10.4 IAH Plant Maintenance Mechanic - Minimum of ten (10) years' experiences in large plant (15,000) tons or larger experience to include but not limited to:
  - 3.1.10.4.1 Universal recovery certificate.

- 3.1.10.4.2 Centrifugal chillers (2,000 tons or higher).
- 3.1.10.4.3 York Chillers experience a must.
- 3.1.10.4.4 Steam Turbine experience a must.
- 3.1.10.4.5 Pneumatic air systems.
- 3.1.10.4.6 Water treatment programs.
- 3.1.10.4.7 Boiler experience of at least 40,000 lbs. or higher.
- 3.1.10.4.8 Experience on heat exchangers.
- 3.1.10.4.9 Operation and maintenance on cooling towers and pump repairs.
- 3.1.10.5 Electrician (Master) - Electrician Mechanic must have a minimum of three (3) years CUP or electrical experience and possess a master's license.
  - 3.1.10.5.1 Qualifications to perform most maintenance tasks on:
    - 3.1.10.5.1.1 Variable Speed Drives.
    - 3.1.10.5.1.2 High voltage experience.
    - 3.1.10.5.1.3 480 V. 3 ph., switch gear.
    - 3.1.10.5.1.4 Motor starters, transformers.
    - 3.1.10.5.1.5 Buss distribution, buss-ties.
    - 3.1.10.5.1.6 Automatic and manual transfer switches.
- 3.1.10.6 Senior Building Controls Technician – (Controls BACnet Native) - Senior Technician must have a minimum of Ten (10) years continuous experience on BACNET controls, including but not limited to:
  - 3.1.10.6.1 Experience in the measurement, calibration, monitoring, testing and troubleshooting of electronic, pneumatic and electrical control systems.
  - 3.1.10.6.2 Experience must include communication; high speed modems and P.C. based networking systems.
  - 3.1.10.6.3 Capable of system management, repair and upgrades.
  - 3.1.10.6.4 Capable of creating and modifying graphics.
  - 3.1.10.6.5 Minimum of three (3) years in programming.
  - 3.1.10.6.6 Completed at least 400 hours of accredited technical schooling in electronic controls.
  - 3.1.10.6.7 Experience must include a minimum of (5) years of Allerton Systems.
- 3.1.11 HOU Contractor's personnel shall include professionals in the following job categories.
  - 3.1.11.1 HOU Operations Supervisor - The Operations Supervisor shall have a minimum of ten (10) years project or similar CUP experience with verifiable management capability and experience. The Operations Supervisor will report to the Project Manager and shall not be a working technician/mechanic. The Operations Supervisor shall be on duty from 8:30 a.m. through 5:30 p.m., Monday through Friday or as dictated by job requirements.
  - 3.1.11.2 HOU First Grade Stationary Engineers - First Class Operating Engineers shall have a minimum of Five years' operating experience as a First grade.
  - 3.1.11.3 HOU Operations Engineers - Operating Engineer shall have a minimum Second Grade Stationary Engineer's Licenses in conformance with the City of Houston

Codes. Minimum of Five years' operating experience as a Second Grade Stationary Engineer.

- 3.1.11.4 HOU Maintenance Mechanic - Maintenance Mechanic shall have a minimum of ten (10) years' experience in preventive/repair maintenance of CUP equipment in an environment like Houston, Texas. Must have certification of experience on from an accredited source(s) and instructor/training back-ground.
- 3.1.11.5 HOU Building Controls Technician - Must have a minimum of five (5) years continuous experience on BACnet Controls, including but not limited to:
  - 3.1.11.5.1 Experience in the measurement, calibration, monitoring, testing and troubleshooting of electronic, pneumatic and electrical control systems.
  - 3.1.11.5.2 Experience must include communication; high speed modems and P.C. based networking systems.
  - 3.1.11.5.3 Capable of system management, repair and upgrades.
  - 3.1.11.5.4 Capable of creating and modifying graphics.
  - 3.1.11.5.5 A minimum of two (2) years in programming.
  - 3.1.11.5.6 Must have completed minimum of 200 hours of accredited technical schooling in electronic controls.
  - 3.1.11.5.7 Experience must include at least two (2) years of Allerton Systems.

### 3.2 **HOUSEKEEPING DUTIES**

- 3.2.1 Contractor shall maintain all CUP Equipment Rooms free of all trash and debris. Rooms must be cleaned and maintained on a regularly scheduled basis.
- 3.2.2 Contractor shall be responsible for all landscaping services at the CUP and all surrounding facilities (i.e., CUP Administration Building, Cooling Towers, Solar Panel Farm).
- 3.2.3 Contractor shall be responsible for all pest services at the CUP, Green Control Building and all surrounding facilities (i.e., Electrical Vault Room, Cooling Towers).
- 3.2.4 Contractor shall perform all work and provide all materials of the total Central Plants to keep the facilities always clean including but not limited to break rooms, bathrooms, restrooms and control rooms.
- 3.2.5 Contractor shall maintain all parts of all panel boards that have any device serving/affecting heating, ventilating and air conditioning systems.
- 3.2.6 Equipment, parts, supplies, materials, etc., must not be stored in any areas unless specifically authorized in writing by the Director.
- 3.2.7 Central Plant Housekeeping Duties include:
  - 3.2.7.1 Furnishing the appropriate tools, equipment, and supplies.
  - 3.2.7.2 Cleaning, waxing, and maintenance as appropriate: all floors, walls, ceiling, and glass areas on a scheduled basis meeting or exceeding acceptable industry standards for like areas.
  - 3.2.7.3 Maintain the condition of all ceiling, glass, and wall areas to include painting as may be required to maintain a clean and neat appearance.
  - 3.2.7.4 Clean and maintain ceiling tiles and floor tiles in offices.
  - 3.2.7.5 Maintain the lighting in the Central Plant to include, but not limited to electrical, fixtures, and lamps.

- 3.2.7.6 Maintain the Central Plant floor areas, including cleaning and frequent painting. All colors for painting must be approved by the Director. No refuse, trash, etc. is to be left on the Central Plant floor areas. All trash receptacles must be properly maintained, and all refuse removed from the Central Plant daily.
- 3.2.7.7 All equipment, including piping, valves, etc., must be wiped down on a periodic basis to reduce the dust build-up on the equipment and to eliminate potential problems with equipment that may be sensitive to such dust particles.
- 3.2.7.8 All pipe insulation must be painted on a frequent basis as needed to ensure its protection and appearance is maintained. All motors, pumps, valves, and other pieces of equipment must be kept in a painted condition as appropriate for the equipment's use. Color coding must be utilized throughout the Central Plant for ease of identification for piping, motors, valves, etc.
- 3.2.7.9 Maintain all drains, grease traps, toilets, etc., in the Central Plant that become clogged. The Contractor's responsibilities extend from the Central Plant to the sewer line.

### 3.3 **CONTRACTOR SHALL PROVIDE (AT ITS OWN EXPENSE)**

- 3.3.1 All office furniture and incidentals required for contractor's operation of the Central Plant Offices, including but not limited to compatible PC's, copy machines, fax machine, cell phones, office supplies, and miscellaneous equipment. Contractor shall remove all contractor owned furniture and equipment upon termination or expiration of the Agreement.
- 3.3.2 All expendable items required for the proper operation and maintenance of the facilities. Expendable items include, but are not limited to, the following: mops; floor cleaning agents; paper towels; soap; brooms; toilet tissue; paper, etc.
- 3.3.3 All telephone lines will be provided by the City, but all cost for use thereof will be at contractor's expense.
- 3.3.4 Contractor shall, at its own expense, replace damaged or lost material, parts, equipment, etc., and repair damaged parts of the Work or facility.

### 3.4 **UNIFORMS**

- 3.4.1 Contractor's personnel shall present a clean and neat appearance. Contractor's personnel shall wear a contractor furnished uniform with contractor's name clearly displayed on the front of the shirt and seasonal outerwear approved by the Director.

### 3.5 **TRAINING**

- 3.5.1 The contractor shall provide, at its expense, all training for assigned personnel required to fulfill the terms of this Agreement. The contractor shall maintain a training program to ensure that all personnel are continuously trained on all aspects of the CUP equipment installed and operated by HAS.
- 3.5.2 The contractor's training program must be directed towards developing appropriate levels of expertise for skilled trades and management/supervisory personnel in order that they have the expertise to maintain the CUP in accordance with the practices described in the latest release of the Operations & Maintenance Best Practices developed by the U.S. Department of Energy. The training program must include both comprehensive training needs analysis and subsequent training by staff professionals.
- 3.5.3 The contractor shall provide the Director with quarterly and annual training documentation, by employee, with topic and hours. This shall be considered an operational report. Failure to provide this report will result in the application of liquidated damages in accordance with Section 3.14 of this contract. All cost for training must be provide by contractor as part of O&M Services.

- 3.5.4 Training needs analysis and training for skilled trades must include, but not be limited to:
  - 3.5.4.1 Air Condition & Refrigeration
  - 3.5.4.2 All cost for training must be provided by Contractor
  - 3.5.4.3 Applied Mech. Maintenance
  - 3.5.4.4 Applied Welding
  - 3.5.4.5 Fundamental Electricity
  - 3.5.4.6 Fundamental Mechanics
  - 3.5.4.7 Blueprints & schematics
  - 3.5.4.8 Building and grounds maintenance
  - 3.5.4.9 Computer Skills
  - 3.5.4.10 EEO/Mayor's office of business opportunity
  - 3.5.4.11 Employee Counseling
  - 3.5.4.12 Energy Management
  - 3.5.4.13 Electric Troubleshooting
  - 3.5.4.14 Equipment Installation
  - 3.5.4.15 Energy Conservation
  - 3.5.4.16 Electronics
  - 3.5.4.17 Electric Systems
  - 3.5.4.18 Federal State and Local codes
  - 3.5.4.19 General Plant Safety
  - 3.5.4.20 Hydraulic, Pneumatic, Electric Systems
  - 3.5.4.21 Human Resources
  - 3.5.4.22 Job Estimating
  - 3.5.4.23 Labor Relations
  - 3.5.4.24 Lubrication
  - 3.5.4.25 Mathematics and Measurement
  - 3.5.4.26 Preventive Maintenance
  - 3.5.4.27 Safety and PPE

3.6 **FACILITIES AND SERVICES PROVIDED BY HAS**

3.6.1 **Utilities**

- 3.6.1.1 HAS will provide all electricity and natural gas required for the operation of CUP. The existing service and distribution facilities for electricity and natural gas are in place and connected to the equipment.
- 3.6.1.2 HAS will provide water necessary for use in the CUP and for contractor's employees on site.

3.6.2 **480V Electrical Distribution** - HAS' responsibility for power distribution is limited to service to the main 480-volt disconnect switches. Refer to Attachment "E" - Equipment List.

3.6.3 Non-Hazardous Solid Waste Pickup – No contractor waste will be disposed in HAS dumpsters. Disposal of hazardous, unusual (or) heavy items, and filters are the sole responsibility and cost of contractor.

3.6.4 Fire Safety Equipment - HAS will maintain existing fire extinguishers.

3.6.5 Office, Maintenance, and Storage Area – If space is available, HAS may provide an office, maintenance, and storage areas. If space is not available, contract will be responsible for locating space at no additional cost to the City while adhering to all contractual requirements (i.e., response times). Contractor shall provide, at its expense, any additional required facilities. Contractor shall be responsible for all housekeeping of such facilities including, but not limited to, sweeping, washing, cleaning, waxing, painting, dusting, etc., of all areas, fixtures, and equipment.

3.6.6 Access to Work Areas – Subject to HAS rules and regulations, contractor may enter and leave work sites at all reasonable times. Contractor and its employees may use the common areas and roadways at the Airport where the work sites are located. This excludes parking for contractor's personnel. All contractor personnel must be badged. Contractor shall repair any damage it or its employees cause as a result of its use of the common areas.

### 3.7 **COORDINATE PERFORMANCE**

3.7.1 HAS Contact – Contractor shall coordinate its performance with such person(s) as the Director designates in writing to contractor. Contractor shall keep said person(s) currently advised of developments relating to the performance of the Agreement.

3.7.2 Pre-Performance Conference – Thirty (30) days prior to commencing performance under the Agreement, contractor shall attend a pre-performance conference with the Director and other representatives of HAS. The Director shall specify the time and place of such meeting in a written notice to contractor. Representatives of contractor attending the pre-performance conference include, but are not limited to, the Project Manager whom contractor has assigned to the Agreement, together with an officer of contractor who is authorized to bind contractor in matters relating to the pre-performance conference items listed below to the extent the Project Manager is not so authorized to bind contractor. In the above-mentioned notice, the Director may, in his sole discretion, further designate other representatives of contractor who must attend the pre-performance conference and such designated representatives shall attend same. Items to be addressed at the pre-performance conference include, but are not limited to, the following:

3.7.2.1 Phase-in and Start-up schedules.

3.7.2.2 Contract administration.

3.7.2.3 Facilities utilization.

3.7.2.4 Channels of communication.

3.7.2.5 Review of key personnel resumes and certifications.

3.7.2.6 Organization and function charts reflecting the line of management authority.

3.7.2.7 Procedures to be used to ensure Agreement requirements are met (Quality Control Program).

3.7.2.8 Transition Planning, including the existing EAMS and spare parts management.

3.7.3 Coordination Meetings - Throughout the Agreement Term and any extensions hereto, contractor shall meet with the Director to identify and resolve performance issues. Meetings will be scheduled monthly or as determined by the Director. Notice of any such meeting may be given by the Director to contractor either orally or in writing and will designate the time, date, location, contractor attendees, and general purpose. The contractor's designated attendees shall be present at any such performance meeting for its duration and shall prepare a typed agenda

covering the topics to be discussed; keep minutes of the meetings in a form satisfactory to the Director; and issue copies of the minutes to all attendees within three (3) business days of each meeting.

### 3.8 **PHASE-IN/PHASE-OUT SERVICES**

#### 3.8.1 Contractor's Phase-In

- 3.8.1.1 In order to accomplish a smooth and successful transition of operations and maintenance services and at no extra charge to the City, contractor shall provide Phase-in services for up to thirty (30) days prior to Agreement expiration.
- 3.8.1.2 Contractor's Phase-In period begins upon receipt of a "**Start Phase-in Notice**" from the Director and continues until receipt of "official Notice to Proceed" (Start Date of the Contract). The "Start Phase-in Notice" is different than the official Notice to Proceed. Contractor shall have no responsibilities for operating or maintaining the CUP during the Phase-in period.
- 3.8.1.3 During the phase-in period, the successful contractor shall have access to the facilities and areas covered by the Agreement, access to personnel, and allowed to observe all operations.
- 3.8.1.4 The incumbent contractor will perform the duties and services listed in its contract during the contractor's Phase-In period and will be available during the phase in period to answer questions and resolve issues or any misunderstandings.
- 3.8.1.5 The contractor shall provide during Phase-in period, all required deliverables including but not limited to:
  - 3.8.1.5.1 At or within 60 days after "Start Phase-in Notice", contractor shall survey the equipment listed in Attachment "E" and the buildings listed in Attachment "F" and provide a list of discrepancies to HAS in a report titled, "Existing Building/Equipment Discrepancies Report." The Existing Building/Equipment Discrepancies Report will be used to reconcile differences in the contractor's bid items and EAMS.
  - 3.8.1.5.2 At or within 60 days after "Start Phase-in Notice", contractor shall have completed an assessment of the condition of the equipment listed in Attachment "E" and provide a list of specific deficiencies to HAS in a report titled, "Existing Conditions Report". The Existing Conditions Report defines deficiencies, that when corrected, establishes the "baseline" equipment operating condition for the contract. If no report is submitted, it is assumed the existing equipment has no operating condition deficiencies and all deficiencies that occur 60 days after NTP will be the responsibility of the contractor as part of the base bid.
  - 3.8.1.5.3 Arrange to have necessary supervisory, technical, and other personnel on site at the Airports to observe the operation and maintenance of the CUPs.
  - 3.8.1.5.4 Recruit and transfer personnel, train personnel, arrange for security badging.
  - 3.8.1.5.5 Establish management procedures, set up records, ensure adequate parts, tools and equipment in place for systems operation and maintenance.
  - 3.8.1.5.6 Prepare for the assumption of technical control without disruption of operations.
  - 3.8.1.5.7 Develop and implement a full project schedule detailing the responsibilities of assigned personnel and submit it to the Director for

approval. Submit to HAS Preventive Maintenance plans. Refer to Section 3.6.

- 3.8.1.5.8 Coordinate contractor's activities with Director.
- 3.8.1.5.9 Final transition and training plan addressing the contractor staffing strategies in determining the necessary staffing and supervision required for compliance with the specified services.
- 3.8.1.5.10 Emergency phone numbers and verification of cell phones.
- 3.8.1.5.11 Certification of all contractor Personnel requirements and training.
- 3.8.1.5.12 Reporting and approach plans.
- 3.8.1.5.13 Inventory of CUP Assets and supplies, materials, tools, equipment, etc., necessary to start.
- 3.8.1.5.14 Standard Operating Procedures (SOP).
- 3.8.1.5.15 Permits, licenses and certifications.
- 3.8.1.5.16 Security approval and access.
- 3.8.1.5.17 Contractor & contractor agreements in place.
- 3.8.1.6 The Phase-in period will end twenty-four (24) hours prior to the effective contract start date shown in the official Notice to Proceed, at which time contractor shall assume full responsibility for the operation and maintenance of the CUP and related equipment. The contractor shall be prepared to perform fully all Work services upon receipt of notification to proceed document from the Director.
- 3.8.1.7 Within one month after the Agreement start date, the contractor shall certify to the Director in writing that 100% of the contractor's employees (fully trained and experienced) necessary for the effective and timely accomplishment of the contractor's obligations under the Agreement are in place, and all contractors, if any, necessary for the effective and timely performance of the contractor's obligations under the Agreement have been engaged by the contractor and have commenced work under their respective contractors.

### 3.8.2 Contractor's Phase-Out

- 3.8.2.1 At 365 days prior to Agreement expiration, the contractor shall submit a comprehensive close-out plan which will include a complete list of current activities and status, projected activities scheduled and impacts, staffing requirements, summary of the last 12 months of Monthly Reports, and list all aircraft support systems. The listing of equipment must include identification number, description, location, model/serial number, area served, condition, and age of the equipment to the Director.
- 3.8.2.2 At 180 days prior to Agreement expiration, the contractor shall provide a third-party performance audit at contractor's expense. Contractor shall rectify any deficiencies in performance discovered by such audit for which contractor is responsible under this Agreement to the Director's satisfaction at no cost to the City. Further, the contractor shall provide the Director with a written explanation for such deficiency in performance and a plan to prevent future deficiencies with fifteen (15) days of receipt of such notice.
  - 3.8.2.2.1 The cost for third party audits will be at the contractor's expense. An Independent and qualified third-party agency must be selected by the contractor and approved by HAS. All reports must be sent directly to the contractor with copies to HAS.



- 3.8.2.2.2 Any deficiencies discovered by third party audits which are the responsibility of contractor, must be rectified by the contractor at no cost to the City. Correction/Work shall commence within thirty (30) working days of receipt of the notice of any such deficiency. Contractor shall provide the Director with a written explanation for such deficiency in performance and a plan to prevent future such deficiencies within fifteen (15) days of receipt of such notice.
- 3.8.2.2.3 Failure of contractor to correct deficiencies covered under the terms of the Agreement may be used by the Director as grounds for application of liquidated damages or termination of the Agreement within the meaning of the general provisions entitled "Default.". Refer to Term and Termination. within the executed Agreement after award.
- 3.8.2.3 At 90 days prior to Agreement expiration, the contractor shall certify in writing to the Director that all deficiencies have been corrected.
- 3.8.2.4 **Equipment Condition at Expiration** - Prior to expiration of the Agreement, the contractor shall repair any equipment not in acceptable maintenance condition and perform scheduled PM work on all equipment up to the then current date in accordance with approved PM schedules.
- 3.8.2.5 Prior to expiration of the Agreement, the contractor shall repair any equipment not in acceptable maintenance condition and perform scheduled PM work on all equipment up to the then current date in accordance with approved PM schedules.
- 3.8.2.6 In order to accomplish a smooth and successful transition of operations and maintenance services and at no extra charge to the City, the Contractor shall provide Phase-out services for up to thirty (30) calendar days following the successor's receipt of "Start Phase-in Notice" from the Director and continue until successor's receipt of "official Notice to Proceed". Phase-out orientation comprises a maximum of 30 working days, 8 hours per day for successor's personnel. Orientation includes, but is not limited to, system operations and maintenance procedures, record keeping, reports, and procurement procedures, etc. Contractor shall be totally responsible for providing the services under this Agreement during its Phase-out period. Incumbent contractor shall cooperate with its successor contractor in allowing as many personnel as practical to remain on the job in order to enhance the continuity and consistency of the services in the executed Agreement.
- 3.8.2.7 Contractor shall disclose necessary personnel records and allow its successor to conduct on-site interviews with its employees, provided Contractor obtains the consent of said employees to disclose their records and to conduct such interviews and provided such disclosure and interviews are conducted in accord with all applicable laws, statutes, rules, regulations, and ordinances, which have been passed, enacted or promulgated by any governmental body having jurisdiction over such matters. The contractor shall provide all required deliverables including, but not limited to:
  - 3.8.2.7.1 List of qualified employees working at the Airport.
  - 3.8.2.7.2 Reporting requirements.
  - 3.8.2.7.3 Inventory of supplies, materials, tools and equipment.
  - 3.8.2.7.4 Current Standard Operating Procedures.
  - 3.8.2.7.5 Permits, licenses, and certifications.
  - 3.8.2.7.6 Detailed transitions plan.

- 3.8.2.7.7 Deficiency status list and summary of all open maintenance work orders for all equipment covered by the agreement as documented in the HAS EAMS.
- 3.8.2.8 Contractor must have a Third-Party Audit of equipment specified by the Director performed during contractor phase out. In addition, HAS may at its discretion, request a third-party audit, no more than once a year. A third-party audit company must be approved by the Director.
- 3.8.2.9 Third Party Audits must verify Operation and Maintenance of all Aircraft Support Systems to include, but not limited to:
  - 3.8.2.9.1 Operation & maintenances of all assets.
  - 3.8.2.9.2 Preventive Maintenance.
  - 3.8.2.9.3 Condition of equipment.
  - 3.8.2.9.4 Water Testing and Backflow Preventer Inspection Programs.
  - 3.8.2.9.5 Proficiency/accuracy of work performed by contractor's employees.
  - 3.8.2.9.6 Housekeeping.
- 3.8.2.10 Prior to the expiration of the Agreement, after selection of a successor contractor, the incumbent contractor and the successor contractor shall jointly prepare a mutually agreeable detailed plan for approval by the Director for the phase-out of the incumbent contractor and the phase-in of the successor contractor.

3.9 **NOTICE TO PROCEED (NTP) REQUIREMENTS**

- 3.9.1 Within thirty (30) days after the NTP, the contractor shall submit an emergency procedure plan for the Director's approval. This plan shall contain procedures in advance for all foreseeable emergency situations including but not limited to, personal injuries, sickness, vandalism, intoxication, fire, smoke, power outage, etc. Emergency procedures shall include communications with the Airports and coordination with Airport emergency procedures.
- 3.9.2 Within thirty (30) days after the NTP, the contractor shall certify to the Director in writing that 100% of the contractor's employee (fully trained and experienced) necessary for the effective and timely accomplishment of the contractor's obligations under the agreement are in place, and all contractors, if any, necessary for the effective and timely performance of the contractor's obligations under the agreement have been engaged by the contractor and have commenced work under their respective contracts.
- 3.9.3 Within sixty (60) days after the NTP, the contractor shall provide a list of the proposed tools, instruments, and equipment, including test/calibration/diagnostic equipment, tools, and supplies etc., to be provided and used as part of the Agreement.

3.9.4 **SECURITY AND BADGING**

- 3.9.4.1 Contractor shall comply with all applicable Federal rules governing security at the Airport, as may be amended from time to time.
- 3.9.4.2 All on-site personnel of contractor, including contractors, who perform services under the Agreement, are required to undergo a fingerprint-based criminal history records check. Fingerprints are collected at the Airport Badging Office and submitted electronically for investigation. The Project Manager shall have additional training at HAS to approve badging requests for contractor personnel.
- 3.9.4.3 Contractor shall obtain HAS security badges for its personnel performing services on-site, including its contractor's personnel. On-site personnel shall always wear identification badges while on Airport property. Costs for the fingerprint-based criminal history records check are reflected in the cost of the badges. Contractor is

responsible for the cost of badges, including replacements thereof. Contractor personnel losing badges will be charged for replacement badges at the then current rate.

3.9.4.4 Contractor acknowledges that fines or penalties associated with non-compliance with security regulations must be reimbursed to HAS.

3.9.4.5 Airport Customs Security Area Bond: Contractor shall obtain an Airport Customs Security Area Bond in order to have access to the Federal Inspection Services (FIS) located at George Bush Intercontinental Airport (IAH) and William P. Hobby Airport (HOU).

### 3.10 **Invoicing**

3.10.1 Contractor shall submit its invoices for work completed on a form(s) and format approved in advance by the Director; invoices must be accompanied by support documents requested by the Director.

3.10.2 Each invoice submitted must be in duplicate and each copy must include required attachments. The invoice must be identified by the Agreement name and Agreement number. All invoices are to be delivered or mailed to the following location:

City of Houston  
Houston Airport System  
Finance Division/Accounts Payable  
P.O. Box 60106  
Houston, Texas 77205-0106

3.10.3 Invoicing:

3.10.3.1 The Houston Airport system will accept invoices submitted electronically along with required support information, such as Outline Agreement Number(s), Service Release Orders (SRO) Numbers, etc. Each invoice should be in an electronic format. Multiple invoices can be submitted in a single email.

3.10.3.2 Requirements are as follows:

3.10.3.2.1 Submit to [has.accountspayable@houstontx.gov](mailto:has.accountspayable@houstontx.gov)

3.10.4 Invoices submitted for services performed as the result of Change Orders shall require copies of the applicable Change Order attached to the original invoice.

3.10.5 Invoices submitted for services performed as the result of Other Work/Services shall include a copy of the Director's written request.

### 3.11 **TRANSPORTATION AND PARKING**

3.11.1 Contractor shall park its vehicles in areas designated by Director at its own cost. All transportation activities of contractor or its contractor necessary to perform under the Agreement must be provided by contractor.

3.11.2 All of contractor's vehicles, including those owned by its employees and contractors, must be clearly marked with identification indicating contractor's name. Such identification must be placed on both sides of each vehicle and may be removable, e.g., magnetic.

### 3.12 **SAFETY**

3.12.1 Contractor shall not require any person to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to their health or safety. Contractor shall comply with all provisions of the Occupational Health and Safety Act (OSHA) and HAS safety standards.

3.12.2 Contractor shall be completely familiar with, and shall enforce all HAS, City, State of Texas and Federal OSHA regulations and requirements as applicable, including, but not limited to, the following:

3.12.2.1 Contractor personnel must always wear applicable personal protection equipment

3.12.2.2 Contractor personnel operating equipment or handling materials must be fully trained in the safe operation of the equipment or materials.

3.12.2.3 Contractor personnel shall follow and apply safety practices prevailing in their applicable industry.

3.12.2.4 Contractor shall develop, implement and maintain an on-going safety program concerned with equipment, maintenance work, and related procedures. Contractor should present a written Safety Program (including contractors' services) to Director for approval no later than 60 days after Notice to Proceed. This shall include Security Identification Display Area (SIDA) training for IAH and HOU. Contractor shall post safety warnings on equipment as necessary to ensure safe operations. Contractor shall not operate, install, or test any equipment in an unsafe condition. Contractor shall properly operate and maintain all safety equipment associated with its services.

3.12.2.5 When contractor becomes aware of a hazardous or potentially hazardous condition during the course of performing services, contractor shall verbally notify HAS. Contractor shall immediately make such notification upon detection of the condition. Contractor shall detail conditions along with non-hazardous conditions and recommendations in its quarterly report.

### 3.13 **SAFETY DATA SHEETS (SDS)**

3.13.1 The contractor shall furnish to each HAS designee on all SDS, (OSHA Form 174), for each product used in each facility. A Safety Data Sheets must accompany each product shipment to the facilities. SDS should be stored and displayed per OSHA standards.

### 3.14 **CONTROL OF PREMISES**

3.14.1 Access to the CUP:

3.14.1.1 Contractor equipment brought into the facilities must not exceed the engineered floor load capacities of the facilities. Operations and maintenance areas must be limited to contractor's personnel and HAS employees. Access to the premises must be strictly controlled and contractor shall keep a record of all keys distributed to its personnel. Officers, employees or agents of contractor shall never enter restricted or operational areas of the Airport without the express permission of the Director or any other governmental bodies having jurisdiction, and contractor hereby assumes full liability arising from any such unauthorized incursions.

3.14.1.2 All equipment PM sheets, schedules, and other records must be available in EAMS at for inspection by HAS personnel. All documents generated or obtained by contractor that pertain to the operation and maintenance of the CUP and equipment shall become HAS property upon Agreement expiration or termination. All such documents shall be transferred to the Director within ten (10) days of expiration or termination. All records must also be available in EAMS.

### 3.15 **INCLUSION/EXCLUSION**

3.15.1 Adjustment to the Fee Schedule shall be allowed only when the cumulative change is greater or less than 10% of the contract value of the total O&M services at all three airports with the contractor being responsible to monitor and value the changes to determine when the threshold is met. Historically the cost has been less than ½ percent the value of total O&M services at all

three airports.

### 3.15.2 Contractor Valuation Process

- 3.15.2.1 The EAMS will establish the required Preventive Maintenance / Corrective Maintenance baseline labor hours by type of equipment which must be approved in writing by the Director.
- 3.15.2.2 If no EAMS historical data is available, the accepted source is Facilities Maintenance & Repair Cost Data, latest edition R.S. Means Company or later version and/or another HAS approved source.
- 3.15.2.3 Baseline staff hours will be based on productive hours. Assuming 2080 total hours per year productive hours equal 2080 with actual tool time at 65% or 1352 hours per year.
- 3.15.2.4 Additions or deletions of equipment that equal labor at or above the trigger point of 1352 hour / year indicating that a fulltime equivalent will be required or in excess of service delivery requirement.
- 3.15.2.5 Contractor Labor cost will be adjusted based on actual labor cost (addition/deletion) x 1.35%.
- 3.15.2.6 Additions: Contractor shall accurately document materials used and project costs for a 12-month period following additions, to be verified by HAS. The contract amount will be adjusted for the remainder of the contract term following the verification by HAS.
- 3.15.2.7 Deletions: Contract will be decreased by an amount equal to the total cost expended by the contractor for the prior 12 months or applicable measurable period.
- 3.15.2.8 In the case of a large addition or deletion of 250,000 square feet of conditioned space both parties agree to negotiate cost based on the above criteria.

## 4.0 OPERATIONS & MAINTENANCE (O&M) SERVICES

4.1 Three different LOS are described below. They include, Level I (Perpetual, Best Management Practices), Level II (Predictive, Industry Standard), and Level III (Reactive, Routine Service). Refer to the latest release of the Operations and Maintenance Best Practice manual (developed by the U.S. Department of Energy) for additional guidelines. In the event of a conflict between Scope of Work and the DOE Best Practices manual, Scope of Work shall govern.

### 4.2 LEVEL I - PERPETUAL – BEST MANAGEMENT PRACTICES LOS

- 4.2.1 Individual assets or systems included in the Level LOS will be maintained through Reliability-Centered Maintenance (RCM) protocols. As part of Level I LOS, the contractor shall maintain the individual asset and/or system to a level in which it retains its' original Day One expected life cycle. In other words, the life cycle for the asset and/or individual system never declines when a Level I LOS is maintained.
- 4.2.2 Contractor shall provide continuous on-site supervision and on site staffing necessary to provide specified CUP operation and maintenance services to include:
  - 4.2.2.1 IAH – Twenty-four (24) hours-per-day, seven (7) days per week, 365 days per year, including holidays.
  - 4.2.2.2 HOU – Twenty-four (24) hours-per-day, seven (7) days-per-week, 365 days per year, including holidays.
  - 4.2.2.3 Upon appropriate HAS notification, on-site response time of fifteen (15) minutes or

less for critical systems and two (2) hours or less for non-critical systems is required.

#### 4.2.3 Implementation of Reliability Centered Maintenance protocols.

- 4.2.3.1 Utilize the HAS Enterprise Asset Management System (EAMS) including maintenance trending and tracking to reduce repair costs and optimize system operation efficiency (Refer to Section 2.10, Records and Reports). The contractor is responsible for training and familiarization of HAS current Enterprise Asset Management System (EAMS) software. For the duration of the contract, the contractor is also required to attend HAS EAMS training regarding the EAMS hierarchy familiarization, user/security rights, and other HAS approved workflow processes. HAS EAMS training includes 4-8 hours per EAMS user. Contractor shall comply with HAS standards, policies and procedures to include, but not limited to: HAS EAMS Policy and Procedures, HAS Design Standards, and HAS Sustainability/Sustainable Asset Management Policy.
- 4.2.3.2 Performance penalties assessed for non-attainment of service (Refer to Section 3.14, Liquidated Damages).
- 4.2.3.3 Preventive and Planned Maintenance Programs (Refer to Section 3.6, Preventive Maintenance and Section 3.15, Reliability Centered Maintenance (RCM)).
- 4.2.3.4 Documented routine corrective maintenance (Refer to Section 2.10, Records and Reports).
- 4.2.3.5 Perform Preventive and planned maintenance to reduce O&M costs and unplanned system outages (Refer to Section 3.6).

#### 4.2.4 Implementation of Best Practices

- 4.2.4.1 Contractor shall implement industry best practices service through use of documented policies, procedures, processes, and employee training programs in accordance with the latest release of the Operations & Maintenance Best Practices developed by the U.S. Department of Energy.
- 4.2.4.2 Contractor's industry best practices shall include, but not be limited to the following:
  - 4.2.4.2.1 A central Help Desk to provide a focal point for operations planning, scheduling, communications with contractor's customers, and control of all contract activities; and provide an integrating function for all CUP program activities including a priority response system and fail-safe process to ensure the Contractor responds in the allotted time.
  - 4.2.4.2.2 Efficient deployment and optimum use of all modules and capabilities of the EAMS that includes electronic documentation and reporting of all CUP activities.
  - 4.2.4.2.3 An organizational model and work schedules that integrate all elements of strategic site leadership, field supervisory, customer service, and technical responsiveness.
  - 4.2.4.2.4 A model and management approach that considers and fosters internal departmental and external process handoffs, communications, teamwork, and process improvements.
  - 4.2.4.2.5 A Reliability Centered Maintenance (RCM) strategy.
  - 4.2.4.2.6 Level 1 LOS should include performance measurement governed by the methodologies and techniques defined in the current revision of the International Performance Measurement and Verification

Protocol (IPMVP).

- 4.2.4.2.7 Employee-training program that ensures contractor's employees remain highly skilled and proficient.
- 4.2.4.2.8 Contractor's continuous improvement that incorporates the latest advances in Quality and Customer Satisfaction programs.
- 4.2.4.2.9 Utilize Sustainable practices including retro-commissioning and measurement and verification to return systems back to optimum operations.

4.2.5 Capital Projects, Tenant Improvement Projects (TIPS), and Job Order Contract (JOC)

- 4.2.5.1 Contractor shall assist IAH and HOU as requested, each time there is a Capital Project, Tenant Improvement Project, or a Job Order Contract (JOC). Contractor shall observe in a non-supervisory capacity, all work relating to the CUP. Contractor shall conduct routine walk-through from time to time and report back to the Airport any work that is not compliant to applicable codes or in the contractor's opinion not in the best interest of the Airport. At completion of project, the contractor shall do a final walk-through with project contractor's representative and notify the Director in writing of any deficiencies.
- 4.2.5.2 Contractor to assist with any 3<sup>rd</sup> party audits, assessments and retro-commissioning by providing escort access to all areas of the CUP as needed.

4.3 **LEVEL II (PREDICTIVE) - INDUSTRY STANDARD**

- 4.3.1 Individual assets or systems included in the Level II LOS will be maintained through the conduct of planned and Preventive Maintenance (PM) recommended by Original Equipment Manufacturer (OEM). The primary objective of the Level II LOS is to provide ongoing planned, Preventive and corrective maintenance on the asset and/or individual system such that the original life cycle is achieved.
- 4.3.2 Contractor shall provide continuous on-site supervisor and staffing necessary to provide specified operation and maintenance services to include:
  - 4.3.2.1 IAH – Twenty-four (24) hours-per-day, seven (7) days per week, 365 days per year, including holidays.
  - 4.3.2.2 HOU – Twenty-four (24) hours-per-day, seven (7) days-per-week, 365 days per year, including holidays.
  - 4.3.2.3 Upon appropriate HAS notification, on-site response time of fifteen (15) minutes or less for critical systems and two (2) hours or less for non-critical systems is required.
- 4.3.3 Perform only Level I planned and Level II/corrective maintenance.
- 4.3.4 Utilize the HAS Enterprise Asset Management System (EAMS) including maintenance trending and tracking to reduce repair costs and optimize system operation efficiency (Refer to Section 2.10, Records and Reports). The contractor is responsible for training and familiarization of HAS current Enterprise Asset Management System (EAMS) software. For the duration of the contract, the contractor is also required to attend HAS EAMS training regarding the EAMS hierarchy familiarization, user/security rights, and other HAS approved workflow processes. HAS EAMS training includes 4-8 hours per EAMS user. Contractor shall comply with HAS standards, policies and procedures to include, but not limited to: HAS EAMS Policy and Procedures, HAS Design Standards, and HAS Sustainability/Sustainable Asset Management Policy.
- 4.3.5 Capital Projects, Tenant Improvement Projects (TIPS), and Job Order Contract (JOC)

4.3.5.1 Contractor shall assist IAH and HOU as requested, each time there is a Capital Project, Tenant Improvement Project, or a Job Order Contract (JOC), Contractor shall observe in a non-supervisory capacity, all work relating to the CUP. Contractor shall conduct routine walk-through from time to time and report back to the Airport any work that is not compliant to applicable codes or in the contractor's opinion not in the best interest of the Airport. At completion of project, the contractor shall do a final walk-through with project contractor's representative and notify the Director in writing of any deficiencies.

4.3.5.2 Contractor to assist with any 3<sup>rd</sup> party audits, assessments and retro-commissioning, by providing escort access to mechanical rooms, above and/or underground utilities, and supervised access to all areas of the CUP as needed.

#### 4.4 **LEVEL III (REACTIVE) - ROUTINE SERVICE**

4.4.1 Individual assets or systems included in the Level III LOS will be maintained operational through the conduct of required Level III/corrective maintenance only.

4.4.2 Contractor shall provide continuous on-site supervisor and staffing necessary to provide specified operation and maintenance services to include:

4.4.2.1 IAH - Twenty-four (24) hours-per-day, seven (7) days per week, 365 days per year, including holidays.

4.4.2.2 HOU - Twenty-four (24) hours-per-day, seven (7) days-per-week, 365 days per year, including holidays.

4.4.2.3 Upon appropriate HAS notification, on-site response time of fifteen (15) minutes or less for critical systems and two (2) hours or less for non-critical systems is required.

4.4.3 Contractor to assist with any 3<sup>rd</sup> party audits, assessments and retro-commissioning by providing escorts and access to mechanical rooms and supervised access to CUP as needed.

4.4.4 Provide Level III/Corrective Service maintenance.

4.4.5 Utilize the HAS Enterprise Asset Management System (EAMS) including maintenance trending and tracking to reduce repair costs and optimize system operation efficiency (Refer to Section 2.10, Records and Reports). The contractor is responsible for training and familiarization of HAS current Enterprise Asset Management System (EAMS) software. For the duration of the contract, the contractor is also required to attend HAS EAMS training regarding the EAMS hierarchy familiarization, user/security rights, and other HAS approved workflow processes. HAS EAMS training includes 4-8 hours per EAMS user. Contractor shall comply with HAS standards, policies and procedures to include, but not limited to: HAS EAMS Policy and Procedures, HAS Design Standards, and HAS Sustainability/Sustainable Asset Management Policy.

#### 4.5 **DUTIES OF CONTRACTOR - O&M SERVICES**

4.5.1 Division of Responsibility – Level I, Level II, & Level III

4.5.1.1 Contractor shall make all routine operation and maintenance decisions. Changes in operation and maintenance philosophy, schedules, and the existing preventive maintenance program must be mutually agreed to in writing by the Director and the contractor.

4.5.1.2 The Director reserves the right to make final decisions related to CUP operation and maintenance. If the Director chooses to override the contractor's decisions, the Director shall inform contractor in writing.

4.5.2 Direct Digital Control System – Level 1, Level II & Level III



- 4.5.2.1 Contractor shall operate, maintain, and repair direct digital control systems (BACnet and Allerton, etc.) where applicable at all Airports.
- 4.5.2.2 Contractor shall be responsible for the Level 1, Level II, & Level III maintenance services of the Building Automation System (BAS) system CPU/executive controllers, hardware and software to include system software upgrades within current generation software revision levels. Contractor shall perform Level 1, Level II, & Level III maintenance services of all ancillary components such as input-output devices, unitary controllers, and sensors.
- 4.5.2.3 Contractor shall maximize the use of the BAS to minimize the consumption of energy and to ensure environmental conditions are appropriate as required herein for the various space and areas within the Airport's facilities. Contractor shall use the BAS for building operational strategies, monitoring, and diagnostics. Contractor shall ensure all components – software and hardware – of the BAS are fully operational and the system is maintained in accordance with the manufacturer's requirements.
- 4.5.2.4 Fully qualified and certified technicians with experience on the same or similar type systems shall perform all preventive and repair maintenance on the BAS systems. All maintenance on the BAS must be accomplished in accordance with the original equipment manufacturers (OEM) specifications and recommendations as documented in the BAS Operations Manual and attendant notices and amendments. Daily operation of the system must be in accordance with the OEM operations manual and controls strategies. Routine daily operational checks and tests of the system must be performed by personnel who are trained on the operation of the system and any anomalies or malfunctions as a result of the checks/tests or experienced during normal operation must be addressed immediately. Daily operational tests and checks must be documented.
- 4.5.2.5 The BAS shall utilize data trending and storage capabilities to log key performance variables to summarize energy efficiency and operational performance. Performance variables shall be trended on 60-minute intervals to provide adequate granularity of data for energy use and operational trend analysis. Recommended performance variable BAS points to be trended include but are not limited to:
  - 4.5.2.5.1 Primary energy meters to track and trend utility data (Electric, Natural Gas, Steam, Water, or other services; consumption or volume on all meters, interval demand on electric meters) where applicable.
  - 4.5.2.5.2 Energy sub-meters to track and trend utility data (Electric, Natural Gas, Water, Heating Btu, Cooling Btu, Steam, or other services; consumption or volume on all meters, interval demand on electric meters) dedicated to specific systems, building segments, plants or equipment where applicable.
  - 4.5.2.5.3 Chilled water supply and return temperatures (equipment and/or system specific).
  - 4.5.2.5.4 Chilled water supply flow rate (equipment and/or system specific).
  - 4.5.2.5.5 Chiller power (kilowatts, equipment and/or system specific).
  - 4.5.2.5.6 Chiller plant distribution loop differential pressure (system).
  - 4.5.2.5.7 Chiller load (Tons, equipment and/or system specific, calculated or provided by chiller control panel).
  - 4.5.2.5.8 Chiller efficiency (kW/Ton, calculated or provided by chiller control panel).

- 4.5.2.5.9 Hot water, chilled water, condenser water, steam control valve positions (Trend can be on 15-minute interval),
  - 4.5.2.5.10 Hot water supply and return temperatures (equipment and/or system specific),
  - 4.5.2.5.11 Hot water supply flow rate (equipment and/or system specific),
  - 4.5.2.5.12 Primary, secondary, tertiary heating and/or cooling pump motor operating status (ON/OFF, start/stop),
  - 4.5.2.5.13 Primary, secondary, tertiary heating and/or cooling pump motor VSD feedback (Hz, % speed, etc.).
  - 4.5.2.5.14 Outside air temperature.
  - 4.5.2.5.15 Outside air humidity.
  - 4.5.2.5.16 Zone air temperatures.
  - 4.5.2.5.17 Zone air humidity.
  - 4.5.2.5.18 Boiler load.
  - 4.5.2.5.19 Boiler efficiency.
  - 4.5.2.5.20 Makeup water to heating, cooling, and condenser water systems.
- 4.5.2.6 BAS database maintenance shall be performed by the contractor on a monthly basis or more frequently as necessary to ensure that trended data storage will not compromise the computer, BAS software or system performance. Trend data files shall be archived using writable compact disk, external hard drives or tape backup system.
- 4.5.2.7 At no cost to HAS, contractor shall request any training or instruction from the BAS vendor to efficiently extract data from the BAS in electronic format for use in common spreadsheet or database software applications such as Microsoft Excel. Development of pre-formatted templates used for summarizing and periodic reporting of energy use and operational trends is the responsibility of the contractor.
- 4.5.2.8 Energy and operational summaries and calculations developed either in the BAS or software templates are the responsibility of the contractor. Energy and operational data should be compiled in a manner, so data retrieved from the BAS or field measured data can be assessed relative to predetermined energy and operational efficiency goals as established by the City and/or contractor.
- 4.5.2.9 Utility rates used to quantify the value of energy use should be consistent with current utility service rate (current City of Houston Utility Rates) for evaluating energy and operational cost savings.
- 4.5.2.10 The Senior Building Controls Technician or the next highest supervisor shall be responsible for the day-to-day review of these logs.
- 4.5.2.11 The BAS systems are included in Contractor's Reliability Centered Maintenance methodology. The BAS preventive and repair maintenance plan must be incorporated into and administered through the EAMS.
- 4.5.3 Water Treatment Program - Level 1, Level II, & Level III
- 4.5.3.1 Contractor shall provide the water treatment program specified in the HAS Water Treatment Manual, Volumes I, II and III, which are incorporated herein by reference (Refer to Attachment "D", Corrosion Test Requirement). Contractor

shall make necessary adjustments for minor differences between the Airports water treatment programs.

- 4.5.3.2 Based on contractor's submittal of its Water Treatment Program, the Director and contractor shall establish a mutually agreed-upon testing schedule. Schedules are required for daily, weekly and monthly testing. Each test or function must be assigned a standard or acceptable range with acceptable maximum or minimum, plus (+) or minus (-) deviation, based on accepted industry standards for equipment, chemicals, etc., utilized in the Water Treatment Program. These tests and task schedules, once established, may be changed only upon agreement by both parties and must be supported by appropriate documentation such as published bulletins from equipment manufacturers, chemical companies, etc. that have evidence to support such recommended changes in the industry standards (Refer to Attachment "D").

4.6 **PREVENTIVE MAINTENANCE – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

- 4.6.1 EAMS Maintenance Management System driven schedule of planned maintenance actions on in accordance with OEM equipment manufacturer's instructions and in accordance with the best preventive maintenance industry practices for the prevention of equipment breakdowns and failures. Contractor shall develop a PM schedule to complete PMs on equipment within the manufacture's recommendations and contracted LOS.

- 4.6.2 The proper implementation of PM and Pd.M. is to be utilized to ensure productive remedial maintenance, reduction of system down time, and effective cost control of system components by the timely planned replacement of components. Conditions to be addressed include, but are not limited to:

- 4.6.2.1 Control Air losses
- 4.6.2.2 Damage Insulation
- 4.6.2.3 Degraded Painting
- 4.6.2.4 Dirty Coils
- 4.6.2.5 Dirty Fans / Vents
- 4.6.2.6 Dirty Filters
- 4.6.2.7 Duct Leaks including Insulation
- 4.6.2.8 Exercise isolation valves on Six-month rotations
- 4.6.2.9 Equipment Shutdown
- 4.6.2.10 Equipment Failure
- 4.6.2.11 Excess Vibration
- 4.6.2.12 False Trips
- 4.6.2.13 Loose Belts
- 4.6.2.14 Loose Wiring
- 4.6.2.15 No Belts
- 4.6.2.16 Plugged Strainers
- 4.6.2.17 Poor Calibration
- 4.6.2.18 Pipe Rust

4.6.3 **CUP Air Cooled Chiller Condenser Coils - Perpetual, Predictive, & Reactive**

- 4.6.3.1 Inspect air cooled chiller condenser coils quarterly and clean coils.

4.6.4 **Cooling Tower Cleaning - Perpetual, Predictive, & Reactive**

- 4.6.4.1 Contractor must clean the cooling towers at IAH and HOU once per year.

- 4.6.4.2 During cooling tower scheduled cleanings, contractor shall ensure that all water and/or sediment discharged from the tower into storm or sanitary drains is in compliance with all state and federal EPA and/or TCEQ regulations controlling such discharges and any subsequent changes to these regulations that may occur during the Agreement Term. Contractor shall keep the Director informed of such changes and the effect on the operation of the tower(s) involved.
  - 4.6.4.3 Contractor shall, at its expense, remove and dispose of all sediment and materials from the cooling towers and cooling tower filtration systems, whether by approved discharge into existing sanitary sewage drains or physical removal and disposal off site at approved dumping locations. Approved as specified above means approved by EPA and, if applicable, the TCEQ. All permits associated with the removal; discharge/disposal is at contractor's expense.
  - 4.6.4.4 Failure of contractor to fully comply with regulations established by the EPA and TCEQ for disposal of specified materials that result in fines or penalties to the City shall be reimbursed to City by contractor within 30 days of receipt of an invoice from the City for such fines or penalties.
  - 4.6.4.5 Harmful Organisms – test for the presence of potentially harmful organisms in accordance with local, state, or federal agencies regulation controlling such test. Testing shall be required monthly by contractor and quarterly by a water treatment professional, approved in advance by Director, notwithstanding any additional regulations. The results of these tests are to be retained in accordance with the appropriate agency or current industry standards. The findings shall be considered an operational report and shall be reported to the Director immediately upon completion.
- 4.6.5 Cooling Tower Lightning Protection System – Level I (Perpetual) & Level II (Predictive)
- 4.6.5.1 Contractor shall visually inspect and pair as necessary the Lightning Protection System on the cooling towers annually, as well as:
    - 4.6.5.1.1 Following work on, expansion, modification, addition or other changes to the underlying protected structure(s) that requires disturbing the system (NFPA 780, B.5).
    - 4.6.5.1.2 After relocation of components supporting the system.
    - 4.6.5.1.3 Upon finding damaged system components.
    - 4.6.5.1.4 After major electrical storms, hurricanes & tropical storms (or other high wind events), earthquakes, known lightning discharges to the system or other occurrences that may affect the system.
  - 4.6.5.2 Inspection shall verify:
    - 4.6.5.2.1 The system is in good repair and all components are in good condition and securely attached and connected as designed and originally installed.
    - 4.6.5.2.2 There have been no changes or modifications to the system
    - 4.6.5.2.3 There are no loose connections that might result in high-resistance joints.
    - 4.6.5.2.4 No part of the system has been weakened by corrosion or vibration.
    - 4.6.5.2.5 All down conductors and grounding electrodes are intact (non-severed).
    - 4.6.5.2.6 All conductors and system components are fastened securely to their mounting surfaces and are protected against accidental mechanical displacement as required.

- 4.6.5.2.7 There have not been additions or alterations to the protected structure that would require additional or modified protection.
- 4.6.5.2.8 The system complies with the applicable standards (NFPA 780, B.5)
- 4.6.5.3 Inspection shall be recorded annually when completed or as necessary per 3.6.5.1.1 – 3.6.5.1.4 on monthly report.
- 4.6.6 CUP Backflow Preventers – Level I (Perpetual) & Level II (Predictive)
  - 4.6.6.1 Contractor shall certify annually all CUPs backflow preventers.
- 4.6.7 CUP & Underground Tunnel Mechanical Equipment Room Cleaning - Level I (Perpetual) & Level II (Predictive)
  - 4.6.7.1 Thoroughly clean all Mechanical Equipment Rooms (MERs) in all facilities throughout the Agreement. This includes floors, walls, mechanical and electrical equipment housings, panels, ductwork, piping, etc.
- 4.6.8 Utility Tunnel from IAH Central Plant to Terminal B – Level I (Perpetual) & Level II (Predictive)
  - 4.6.8.1 Contractor shall ensure the utility tunnel from the IAH Central Plant to Terminal B, containing the chilled and primary hot water piping for the terminal facilities, is free of all trash and debris and is properly maintained on a regularly scheduled basis. All piping insulation must be coated or painted as appropriated for maintenance and appearance. Contractor shall also maintain the lighting in the IAH utility tunnel to include, but not be limited to electrical, fixtures, and lamps.
- 4.6.9 CUP Air Handling Unit Drain Pans – Level 1 (Perpetual) & Level II (Predictive)
  - 4.6.9.1 Install an anti-bacteria agent in the drain pans of all air handlers. (Replenish the substance as needed).
- 4.6.10 CUP Register Cleaning – Level I (Perpetual)
  - 4.6.10.1 Contractor shall create a register cleaning schedule for both CUPs within this contract. One complete cleaning every Six months. To include all supply grilles and vents and return grilles.
- 4.6.11 Painting – Level I (Perpetual)
  - 4.6.11.1 Contractor shall apply the same type of paint system that currently exists on floors, walls, equipment, piping systems, accessories etc. in accordance with paint manufacturer's recommendations. All unpainted mechanical room floors must be painted or sealed with industrial floor sealant. Contractor shall provide documentation as requested by the Director upon completion.
  - 4.6.11.2 All mechanical room floors, equipment, and piping systems, which are currently painted, must be maintained.
  - 4.6.11.3 The following paint systems are recommended by HAS; however, the contractor must obtain the Director's approval of the painting system to be applied prior to performing the Work.
  - 4.6.11.4 Concrete Floors
    - 4.6.11.4.1 Epoxy – Benjamin Moore (M36/M39) Hi-Build Gloss Coating or City approved equal.
    - 4.6.11.4.2 Oil/Alkyd – Benjamin Moore (C112) Alkyd Porch & floor Enamel, or City approved equal.
  - 4.6.11.5 Walls (where applicable)

4.6.11.5.1 Latex – Benjamin Moore (276) Latex Semi-Gloss Enamel or City approved equal.

4.6.11.5.2 Oil/Alkyd – Benjamin Moore (271) Alkyd Semi-Gloss Enamel or City approved equal.

4.6.11.6 Metal

4.6.11.6.1 Benjamin Moore (M29) Acrylic Semi-Gloss or City approved equal.

4.7 **CONTRACTOR PARTS/MATERIALS – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE & LEVEL III (REACTIVE))**

4.7.1 Disposal of Used Parts – Contractor shall dispose of all worn/defective scrap parts and waste or hazardous materials resulting from the work under the Agreement at contractor's expense. Handling, transport, and disposal of worn/defective scrap parts and waste or hazardous materials must be done in such a manner as to ensure the highest level of safety to the environment and to public health and in compliance with all applicable laws and governmental regulations. Contractor shall assume full responsibility and liability for and act prudently in all aspects of handling, transport, and disposal of any hazardous materials, securing all licenses and permits required by law and ensuring that any disposal facilities to which any scrap, waste, or hazardous materials may be moved are in full compliance with federal, state, and local laws and regulations at no additional cost to the City. Worn or defective parts must not be stored on Airport premises. Contractor shall notify the Director when these parts are to be removed from HAS property. Used parts at each Airport at the commencement of the Term of this Agreement are the property of HAS and shall remain at each Airport unless contractor is instructed otherwise by HAS.

4.7.2 Parts Inventory - if the existing contractor has an existing replacement parts inventory, and the incumbent contractor is willing to sell all or a part of such inventory, then any arrangements by contractor to purchase such inventory shall be solely the responsibility of contractor and HAS shall have no obligations with respect to such purchase. If contractor does arrange to make such purchase, then upon receipt of the Notice to Proceed, the contractor shall immediately make arrangements to take possession of the incumbent CUP contractor's replacement parts inventory. Contractor shall be responsible for knowledge of condition, usability and inventory accuracy of parts purchased from the existing contractor. Any relocation or storage costs associated with this inventory will be the contractor's responsibility. This inventory shall become the full responsibility of the contractor as to its use and disposition. At the end of the Agreement Term, all inventory as referenced shall have been used or remain the property of the contractor.

4.7.3 Parts Storage - The spare parts inventory is the responsibility of contractor. If available, HAS will provide storage rooms.

4.7.4 Obsolescence

4.7.4.1 When a part or component of the Central Utility Plant system is deemed obsolete by the OEM, the contractor shall make all attempts to repair the obsolete components and return it to normal operating conditions. If the contractor is unable to repair the part or component, the contractor shall take the following actions:

4.7.4.1.1 Contractor shall request an Other Services Request to replace the obsolete component inclusive of parts, labor, and contractor services.

4.7.4.1.2 HAS shall decide in all instances of obsolescence when a part or component meets the definition of an obsolete part. HAS Decision will be final.

4.7.4.1.3 All modifications to equipment are subject to HAS approval.

4.8 **TOOLS, INSTRUMENTS, AND EQUIPMENT – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

- 4.8.1 As a part of O&M Services, the contractor shall provide all supplies, materials, equipment, instruments, and tools required for the Work at contractor's expense. Materials and equipment shall be of the type and quality used in large-scale airport operations and shall meet the requirements specified herein. The contractor shall provide a list of the proposed equipment, including test/calibration/diagnostic equipment, tools, and supplies etc., as part of the Agreement.
- 4.8.2 Contractor shall have available "on-site" at all times, test/calibration equipment required to perform testing specified in the Agreement.
- 4.8.3 Contractor shall provide lifts to service and maintain CUP assets.
- 4.8.4 Contractor equipment brought into the facilities must not exceed the engineered floor load capacities of the facilities. It is the contractor's responsibility to provide properly sized/rated equipment to perform all services specified.
- 4.8.5 All contractor tools and hand tools must have identification numbers attached / engraved on them and must be removed by contractor at the termination or expiration of the Agreement.

4.9 **CUP FILTER REPLACEMENT – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

- 4.9.1 As part of O&M Services, contractor shall inspect and replace filters, as required with the frequency of inspection based upon excessive differential pressure.
- 4.9.2 Contractor shall monitor all filters affected by construction projects and notify HAS of any deficiencies.
- 4.9.3 Contractor shall collect this data and incorporate it into contractor's filter maintenance schedule in EAMS as part of its normal operations and maintenance responsibilities

4.10 **ENVIRONMENTAL CONDITIONS – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

- 4.10.1 As a part of O&M Services, contractor shall maintain the following environmental conditions within occupied conditioned spaces, unless otherwise specified in the Agreement or requested by the Director.

<b><u>IAH, HOU, EFD</u></b>	<b><u>Summer</u></b>	<b><u>Winter</u></b>
Cooling Temperature	74°F ± 2°F	74°F ± 2°F
Design Day	97°Fdb and 80°Fwb	22°Fdb
Humidity	55% ± 5%	40% max.
Heating Temperature	74°F ± 2°F	74°F ± 2°F

4.11 **HAS ENTERPRISE ASSET MANAGEMENT SYSTEM (EAMS) – LEVEL I (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

4.11.1 General Description

- 4.11.1.1 As part of Basic Services, immediately after receipt of Notice to Proceed, the contractor shall comply with HAS' Technology policies and best practices regarding the use of HAS infrastructure, technology assets, and HAS Enterprise Asset

Management System (currently an INFOR-based Enterprise Asset Management system).

- 4.11.1.2 As part of the O&M services, contractor shall utilize the Houston Airport's Enterprise Asset Management System (EAMS). The contractor shall comply with HAS' policies and best practices regarding the use of HAS infrastructure, technology assets, and HAS Enterprise Asset Management solution. The condition and disposition of all CUP related assets supported, on behalf of HAS, shall be documented and maintained in HAS' EAMS which includes scheduled preventive, corrective maintenance, and all other work order activity. Documented assets shall be in alignment with HAS asset hierarchy principles, location and asset naming convention. Technologies utilized as a result of this agreement are subjected to HAS governance, security, and life cycles.
- 4.11.1.3 HAS will retain all right, title, interest and full ownership of any work, invention, and all Agreement documents including all software, computer applications, preliminary plans, reports, or any modifications or improvements to the data at all times.
- 4.11.1.4 Contractor shall notify HAS of any changes to EAMS asset inventory data due to commissioning/decommissioning of assets related to this contract. Contractor shall submit the inventory changes in an approved HAS format. Throughout the contract, contractor will replace HAS barcodes/QR codes on maintained assets as needed (missing, unreadable, new/replaced asset). The HAS barcodes/QR codes will comply with HAS EAMS standards.
- 4.11.1.5 Utilize EAMS including maintenance trending and tracking to reduce repair costs and optimize system operation efficiency. The contractor is responsible for training and familiarization of HAS current EAMS software. For the duration of the Agreement, the contractor is also required to attend HAS EAMS training regarding the EAMS hierarchy familiarization, user/system rights, and other HAS approved work flow processes. HAS EAMS training includes 4-8 hours by EAMS user. Contractor shall comply with HAS Design Standards and HAS sustainability/Sustainable Asset Management Policy.
- 4.11.1.6 EAMS Maintenance Management System driven schedule of planned maintenance actions on the Central/Satellite Utilities Plants (CUP) Operations and Maintenance Services Agreement in accordance with OEM equipment manufacturer's instructions and in accordance with the best preventive maintenance industry practices for the prevention of equipment breakdowns and failures. Contractor shall develop a PM schedule so as to complete PM's on equipment within the manufacture's recommendations and the Agreement's Level of Service (LOS).
- 4.11.1.7 Contractor shall notify HAS of any changes to EAMS asset inventory data due to commissioning / decommissioning of assets related to this Agreement. Contractor shall submit the inventory changes in an approved HAS format. Throughout the Agreement, Contractor will replace HAS barcodes/QR codes on maintained assets as needed (missing, unreadable, new/replaced asset). The HAS barcodes/QR codes will comply with HAS EAMS standards.
- 4.11.1.8 At or within sixty (60) days after "Start Phase in Notice", contractor shall survey the equipment and parts listed in Attachment "E" and buildings listed in Attachment "F," providing a list of discrepancies to HAS in a report titled, "Existing Building/Equipment Discrepancies Report." The Existing Building/Equipment Discrepancies Report will be used to reconcile differences in the contractor's bid items and EAMS.



- 4.11.1.9 Within sixty (60) days of the award of Agreement contractor shall provide preventive maintenance (PM) plans for HAS review and approval. The contractor shall submit the PM/SM plans in a HAS approved format. HAS will generate the approved PMSM plan in EAMS. Any requested changes by the contractor to PM/SM plans will require HAS review and approval. Once changes are approved, they shall be submitted in a HAS approved format thirty (30) days prior to schedule due date of work to be performed.
- 4.11.1.10 One year prior to the expiration of the Agreement Term, contractor shall certify to the Director a complete equipment listing in EAMS of all CUP equipment. Listing must include identification number, description, location, model/serial number, area served, condition, and year unit was placed in service.
- 4.11.1.11 All equipment PM sheets, schedules, and other records must be available in EAMS for inspection by HAS personnel. All documents generated or obtained by contractor that pertain to the operation and maintenance of the Agreement and equipment shall become HAS property upon Agreement expiration or termination. All such documents shall be transferred to the Director within ten (10) days of expiration or termination. All records must also be available in EAMS.
- 4.11.1.12 The EAMS will establish the required Preventive Maintenance / Corrective Maintenance baseline labor hours by type of equipment which must be approved in writing to the Director.
- 4.11.1.13 If no EAMS historical data is available, the accepted source is Facilities Maintenance & Repair Cost Data, latest edition R.S. Means Company or later version and/or another HAS approved source.
- 4.11.1.14 Corrective Maintenance shall be documented in EAMS.

4.12 **CFC REFRIGERANTS – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

- 4.12.1 Contractor shall comply with Title VI, Clean Air Act of 1990, together with any amendments thereto, and together with any other applicable governmental regulations related to the use of CFC Refrigerants. The City strictly prohibits the discharge of CFC Refrigerants into the atmosphere resulting from the installation, repair, maintenance, or any condition requiring the release of CFC Refrigerants from any City-owned equipment, system, etc., new or existing.
- 4.12.2 Contractor shall ensure the necessary procedures and safeguards are in place to prevent the occurrence of a CFC Refrigerant discharge into the atmosphere.
- 4.12.3 All costs associated with removal of CFC Refrigerants for the purpose of recovery, recycling, or reclamation is at contractor's sole expense and is included in contractor's costs for O&M Services. No additional compensation will be allowed.
- 4.12.4 The use of new (unused), recovered, recycled or reclaimed refrigerant by contractor shall be permitted under these specifications. However, contractor must provide a written statement indicating which it will utilize; new (unused), recovered, recycled or reclaimed and will warrant the refrigerant by any of these methods, to be within the nine (9) physical properties standards set by: ARI Standard 700-88, Table 1 - Physical Properties of Fluorocarbon Refrigerant and Maximum Contaminated Levels.
- 4.12.5 Any refrigerant that has been reclaimed must meet the current ARI Standard 700-88 before it may be introduced into any City system. Appropriate test results must be submitted supporting

the reclaimed refrigerant as being within the established maximums. Contractor shall attest to the test results as being applicable to the recycled refrigerant presented for use in the specified system in accordance with ARI Standard 700-88.

4.12.6 Contractor shall be responsible and wholly liable, for any and all fines, penalties, taxes, judgments, settlements or liabilities arising out of any violation or infraction of the Clean Air Act of 1990, any amendments thereto, or any other applicable governmental regulations related to the use of CFC Refrigerants.

4.13 **CONTRACTOR'S RESPONSIBILITY DURING IMPLEMENTATION OF NEW FACILITIES AND EQUIPMENT – LEVEL I (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

4.13.1 As part of the O&M Services, contractor shall work with HAS and construction contractor to meet operational and capacity requirements during renovations, upgrades, expansion, and demolitions for any future projects. Contractor shall provide optimum system operations during any construction /project work to meet additional cooling and heating load requirements from on-line facilities, systems, and equipment as new systems and equipment are being readied to come online for full cooling and heating operating service.

4.13.2 Upon issuance of a certificate of substantial completion and/or beneficial use and the equipment is put into revenue service the contractor shall take full responsibility of equipment maintenance and manage any warranties in effect.

4.13.3 **System Upgrades/Modifications Testing and Acceptance**

4.13.3.1 Acceptance Tests. New system modifications and upgrades performed by the contractor will be subject to individual thirty (30) day Acceptance Test(s) to verify successful startup and proper performance and functionality in an operational environment. Unless specified in a change order or otherwise, the following items are the necessary elements of an Acceptance Test:

4.13.3.1.1 After startup the contractor will operate the new equipment for thirty (30) days as the initial step in the Acceptance Test(s).

4.13.3.1.2 Test procedures shall determine whether the equipment is fully operational and performing in accordance with product specifications and performance requirements provided in this Agreement. The Airport, at its sole option and expense, may perform additional acceptance testing to verify that the equipment is installed correctly and functioning in accordance with the terms of the Agreement. In the event that Airport conducts its own tests, the contractor will be given advance written notification and will be afforded the opportunity to witness and observe the Airport tests. Notwithstanding any Airport test(s), the Airport shall be entitled to rely on results obtained and recommendations made by the contractor regarding the operation and performance of new equipment. Testing by Airport shall not relieve the contractor of its obligations to test and determine that the equipment is properly installed, adjusted, and functioning. Neither observations by the Airport nor inspections, tests, or approvals by others shall relieve the contractor from its obligations to perform in accordance with this Agreement.

4.13.3.1.3 During the thirty-day acceptance test period, the contractor shall notify the Director in writing within twenty-four (24) hours of the occurrence of any downtime. Equipment downtime will be computed according to the following guidelines:

- 1.3.6.1.1.1 Downtime will accumulate during any period when the equipment is not able to perform its scheduled function or meet performance requirements, as specified, due to a failure of hardware or software.
        - 1.3.6.1.1.2 Downtime will not accumulate if a failure occurs due to Force Majeure.
  - 4.13.3.1.4 If no more than a cumulative total of three hours of system downtime occurs within the thirty-day period, the new equipment will be deemed to have passed the Acceptance Test.
  - 4.13.3.1.5 If more than three hours of system downtime occurs at any point during the thirty-day Acceptance Test, the Airport may, at its sole option, require the contractor to conduct a new thirty-day Acceptance Test.
  - 4.13.3.1.6 If more than a cumulative total of seven hours of system downtime occur during the thirty-day acceptance period, the Airport may elect to:
    - 4.13.3.1.6.1 Request the contractor to begin a new thirty (30) day Acceptance Test within seven days; or
    - 4.13.3.1.6.2 Notify the contractor that the specific modification or upgrade is not acceptable and seek remedy through the contractor's Performance Bond or other available remedies. The contractor shall remove the failed new component or equipment. Title to the failed item(s) will then be transferred to the contractor and Airport will not be responsible for the condition of, or any loss or damage to, the said item(s); or Waive the defect(s) and accept the item, if the demonstrated operation of the equipment is such that reliable and efficient operation and performance of the Airport systems and all associated Warranties shall not be compromised. The contractor shall bear all direct costs attributable to Airport's performance evaluation and determination to waive any defect and accept equipment (such costs to be approved by Airport as to reasonableness and to include, but not be limited to: fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs, the Airport shall be entitled to an appropriate negotiated decrease in the Agreement Price. If the acceptance occurs after such recommendation, a written Change Order will be issued, and an appropriate amount will be paid by the contractor to Airport.
  - 4.13.3.1.7 The contractor shall be responsible for all costs associated with the Acceptance Test(s) including the costs for any independent tests or certifications (except as noted above).
- 4.13.3.2 Notice of Acceptance. If the new equipment passes the Acceptance Test, the Airport will provide written notice of acceptance within five (5) working days following the completed thirty consecutive day Acceptance Test period. The official date of acceptance shall be the first day following successful completion of the acceptance test.

4.13.3.3 Title - Risk of Loss. For items provided or furnished by contractor, title to any new upgrade or modification component of the Airport systems or equipment will vest in the Airport upon date of installation; however, the obligation to pay the contractor remaining progress payments will not accrue until the date of acceptance by the Airport.

4.13.3.4 The Warranty Period shall begin to run upon Airport's date of acceptance.

4.14 **LIQUIDATED DAMAGES – LEVEL I (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

4.14.1 In addition to the termination rights, Article V, Section C and D, and all other legal and equitable remedies, Director shall have the discretionary right to assess liquidated damages in amounts not to exceed the amounts set forth below on a per occurrence basis and as may be described in other sections of this Agreement. Contractor and City stipulate and agree that any such assessment shall not be construed as a penalty; rather, contractor and City stipulate that the damages resulting from any such violation will be difficult to measure and ascertain and as such the necessity of liquidated damages. Contractor shall pay any assessment of liquidated damages by the Director to City within ten days of receipt of an invoice for such damages. Multiple Liquidated Damages may be applicable. It is the intent of this contract to require the contractor to have personnel on staff 24 7 to meet a response time to service request of 30 minutes or less (Perpetual), one (1) hour or less (Predictive), or two (2) hours or less (Reactive).

4.14.2 **Liquidated Damages Matrix - Perpetual**

Performance	Liquidated Damage
Failure to maintain equipment in operational condition. Contractor may be issued Liquidated Damages for equipment that is out of operational service in excess of eight, (8) hours. Exception is if contractor notifies HAS in writing, reason for excessive downtime and the Director determines it to be out of the contractor's control. Contractor will make all reasonable and necessary attempts to bring equipment back to usable service. If the director determines it to be the fault of the contractor damages in the amount of \$3,000 will be assessed per occurrence.	\$3,000.00 per occurrence
Failure to deliver adequate chilled water (temperature, flow, and pressure), more than three (3) times during any 30-day period (call backs).	\$500.00 per occurrence
Failure to perform other work services (OSR) in the time period specified in the OSR.	\$250.00 per 48-hour period
Failure to provide a written OSR proposal within five (5) days of receipt of Director's request for an OSR.	\$150.00 per 48-hour period
Contractor fails to meet the minimum staffing levels as agreed for two (2) consecutive weeks.	\$1,000.00 per person per 48-hour period
Failure to meet response times as defined in the Agreement.	\$500.00 per occurrence
Contractor fails to complete the PMs per the schedule for more than two (2) weeks in a 6-month period.	\$1,000.00 per PM violation
Contractor fails to provide reports/ accurate operational data to HAS within defined reporting times.	\$250.00 per day until report is provided

#### 4.14.3 Liquidated Damages Matrix - Predictive

Performance	Liquidated Damage
Failure to maintain equipment in operational condition. Contractor may be issued Liquidated Damages for equipment that is out of operational service in excess of eight, (8) hours. Exception is if contractor notifies HAS in writing, reason for excessive downtime and the Director determines it to be out of the contractor's control. Contractor will make all reasonable and necessary attempts to bring equipment back to usable service. If the director determines it to be the fault of the contractor damages in the amount of \$2,250 will be assessed per occurrence.	\$2,250.00 per occurrence.
Failure to deliver adequate chilled water (temperature, flow and pressure), more than three (3) times during any 30-day period (call backs).	\$375.00 per occurrence
Failure to perform other work services (OSR) in the time period specified in the OSR.	\$250.00 per 48-hour period
Failure to provide a written OSR proposal within five (5) days of receipt of Director's request for an OSR.	\$150.00 per 48-hour period
Contractor fails to meet the minimum staffing levels as agreed for two (2) consecutive weeks.	\$750.00 per person per 48-hour period
Failure to meet response times as defined in the Agreement.	\$375.00 per occurrence
Contractor fails to complete the PMs per the schedule for more than two (2) weeks in a 6-month period.	\$750.00 per PM violation
Contractor fails to provide reports/accurate operational data to HAS within defined reporting times.	\$250.00 per day until report is provided

#### 4.14.4 Liquidated Damages Matrix - Reactive

Performance	Liquidated Damage
Failure to maintain equipment in operational condition. Contractor may be issued Liquidated Damages for equipment that is out of operational service in excess of eight, (8) hours. Exception is if contractor notifies HAS in writing, reason for excessive downtime and the Director determines it to be out of the contractor's control. Contractor will make all reasonable and necessary attempts to bring equipment back to usable service. If the director determines it to be the fault of the contractor damages in the amount of \$1,500 will be assessed per occurrence.	\$1,500.00 per occurrence.
Failure to deliver adequate chilled water (temperature, flow, and pressure), more than three (3) times during any 30-day period (call backs).	\$250.00 per occurrence
Failure to perform other work services (OSR) in the time period specified in the OSR.	\$250.00 per 48- hour period
Failure to provide a written OSR proposal within five (5) days of receipt of Director's request for an OSR.	\$150.00 per 48-hour period

Contractor fails to meet the minimum staffing levels as agreed for two (2) consecutive weeks.	\$500.00 per person per 48-hour period
Failure to meet response times as defined in the Agreement	\$250.00 per occurrence
Contractor fails to complete the PMs per the schedule for more than two (2) weeks in a 6-month period.	\$500.00 per PM violation
Contractor fails to provide reports/accurate operational data to HAS within defined reporting times.	\$250.00 per day until report is provided

4.14.5 Notwithstanding the foregoing, the Director shall not be entitled to assess Liquidated Damages under any of the following circumstances:

4.14.5.1 Force Majeure.

4.14.5.2 Upgrades/modifications set forth in the Agreement.

4.14.5.3 Damage to CUP or equipment that is caused solely by the acts of the City.

4.14.5.4 Unplanned material changes to energy requirements not caused by contractor. However, this exception is available to contractor only at the sole discretion of the Director assessment of Liquidated Damages must never be construed as an exclusive remedy for any other damage incurred as the result of the breach of any other covenants, conditions, or obligations contained in the Agreement, and the City will always have the right to avail itself of other remedies available to it in law or equity.

4.15 **RELIABILITY CENTERED MAINTENANCE (RCM) – LEVEL I (PERPETUAL)**

4.15.1 As a part of O&M Services throughout the term of the Agreement, the contractor shall provide Reliability Centered Maintenance (RCM) on CUP at minimum life-cycle costs.

4.15.2 Contractor must use the RCM to determine the most effective approach to maintenance and what must be done to ensure that the CUP continues to perform as designed by the OEM within the present operating context. RCM is an ongoing process in which the contractor gathers data from the CUP performance and uses this data for future maintenance and/or recommend design changes.

4.15.3 RCM must employ all Maintenance techniques in an integrated manner to increase the probability that the CUP will function in the required manner over their design life cycle.

4.15.4 RCM requires that the contractor make maintenance decisions based on maintenance requirements supported by sound technical and economic justification. RCM includes, but is not limited to:

4.15.4.1 Obtaining the highest level of performance and safety for the occupants and employees maintaining the Agreement.

4.15.4.2 Providing maximum functionality, availability, safety and reliability performance of CUP at the lowest cost.

4.15.4.3 Identifying and implementing the most cost-effective actions that reduce the probability of CUP failure.

4.15.4.4 Provide statistical method of optimizing all maintenance programs for CUP.

- 4.15.4.5 Establish and identify issues of personnel performance and make any required corrections.
- 4.15.4.6 Restore equipment to the required levels of performance when deterioration occurs, but before failure. "Required" shall be defined as a serviceable condition, not necessarily equal to new condition, which will allow the equipment to operate safely and at design capacity without any known deficiencies.
- 4.15.4.7 Collect the data, during the life of the Agreement and/or equipment, to change the workflow or design of the equipment in order to improve its reliability. Data to be collected and archived in EAMS.
- 4.15.4.8 Report monthly progress and areas of improvement in performance, personnel, equipment, and process in enough detail to cover the items specified above related to RCM. This report shall be provided to the Director monthly. Failure to provide this report will result in the application of liquidated damages in accordance with Section 3.14 of the Agreement.

4.16 **THIRD PARTY AUDITS – LEVEL I (PERPETUAL)**

- 4.16.1 Contractor must have a Third-Party Audit of equipment specified by the Director performed during contractor phase out. In addition, HAS may at its discretion, request a third-party audit, no more than once a year. A third-party audit company must be approved by the Director.
- 4.16.2 Third Party Audits must verify Operation and Maintenance of CUP to include but not limited to:
  - 4.16.2.1 Operation & maintenance of CUP.
  - 4.16.2.2 Operation of Thermal Utility Generation Systems
  - 4.16.2.3 Operation & Maintenance of DDC Systems.
  - 4.16.2.4 Preventive Maintenance.
  - 4.16.2.5 Condition of equipment.
  - 4.16.2.6 Energy Management, including analysis of energy usage data.
  - 4.16.2.7 Water Treatment Programs.
  - 4.16.2.8 Proficiency/accuracy of Work performed by contractor's employees.
  - 4.16.2.9 House Keeping.
- 4.16.3 The cost for third party audits will be at the contractor's expense. An Independent and qualified third-party agency must be selected by the contractor and approved by HAS. All reports must be sent directly to the contractor with copies to HAS.
- 4.16.4 Any deficiencies discovered by third party audits which are the responsibility of contractor, must be rectified by the contractor at no cost to the City. Correction/Work shall commence within thirty (30) working days of receipt of the notice of any such deficiency. Contractor shall provide the Director with a written explanation for such deficiency in performance and a plan to prevent future such deficiencies within fifteen (15) days of receipt of such notice.
- 4.16.5 Failure of the contractor to correct deficiencies covered under the terms of the Agreement may be used by the Director as grounds for application of liquidated damages or termination of the Agreement within the meaning of the general provisions entitled "Default." Refer to Section V – Term and Termination, Subsection D. – "Termination for Cause by City."

4.17 **CORROSION TESTS – LEVEL I (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

4.17.1 As a part of O&M Services, contractor shall test and monitor corrosion rates for the steam, heating water, and chilled water, condensate and condenser water systems and report findings as specified in the Agreement and detailed in Attachment "D". Failure to provide this and other O&M Service Test Reports upon completion of the associated task will result in the application of liquidated damages in accordance with Section 3.14 of this Agreement.

4.18 **OTHER O&M SERVICES TESTS – LEVEL I (PERPETUAL)**

4.18.1 Other tests shall include, but not be limited to, the following:

4.18.1.1 Hydro Static Test – perform hydro static test on applicable boiler tubes once every 5 years on each boiler.

4.18.1.2 Oil/Refrigerant Analysis– perform oil/refrigerant analysis, on all chillers, per manufacture recommendations

4.18.1.3 VFDs - All VFDs will be inspected annually for proper operation and a report shall be submitted to the director.

5.0 **SYSTEMS – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

5.1 **PERFORMANCE STANDARDS**

5.1.1 Contractor's operation and maintenance of Airport's CUP and equipment must be in accordance with the highest standards prevailing in the industry, including but not limited to the latest release of the Operations & Maintenance Best Practices developed by the U.S. Department of Energy, recommendations of the OEM, as well as all applicable codes, rules, regulations, and laws of any regulatory or legislative body having jurisdiction over IAH and HOU which include, but are not limited to, State of Texas agencies having jurisdiction over boiler operations, Texas Commission on Environmental Quality (TCEQ) over certain environmental matters, and Federal regulatory bodies, including, but not limited to EPA, OSHA, TSA, and FAA. Contractor shall ensure full compliance and shall bear the cost of any additional work or materials not specified that may be required. Any violation, omission, or question of compliance must be brought to the attention of the Director within five days of contractor's actual or constructive knowledge.

5.1.2 Contractor shall respond immediately to a request from the Director for emergency service to perform all steps reasonably necessary to protect persons and property from risk of harm due to a problem with the system. Priority must be given to requests for emergency service.

5.2 **IAH PERFORMANCE REQUIREMENTS SYNOPSIS**

5.2.1 The IAH Chilled Water System is a primary-secondary variable pumping system. The primary pumps, chillers and the automatic pressure bypass are located in the CUP. Secondary pumps are located in Terminals A, B, C, D, and FIS are not part of the CUP contract.

5.2.2 For the IAH CUP to deliver adequate chilled water (flow and pressure), it is imperative that the design chilled water rise (15°F) be maintained during all cooling load conditions. The IAH CUP is designed for a 40°F leaving water temperature. All existing air handling equipment (under a separate contract) is adjusted for 42°F entering water temperature and leaving air temperature and air quantity at the coils to provide for a 15°F chilled water rise. All new equipment is being designed for 42°F entering water temperature and a 15°F chilled water rise.

5.2.3 For the IAH CUP to deliver adequate heating water, it is imperative that the design heating water rise (40°F) be maintained during all heating load conditions. The IAH CUP is designed for a 190°F leaving water temperature. All existing air handling equipment (under a separate contract) is adjusted for an appropriate entering water temperature, leaving air temperature and air quantity at the coils to provide for a 40°F heating water rise. All new equipment is being designed for a 40°F heating water rise. The Director shall be notified if deficiencies still exist after cleaning and repair.



### 5.3 **HOU PERFORMANCE REQUIREMENTS SYNOPSIS**

5.3.1 HOU existing chilled water system is a primary variable pumping system. The primary pumps and chillers are located in the CUP. Booster pumps exist at some AHUs (not in the CUP). The new HOU chilled water system is a primary-secondary system with all pumps in the CUP. Secondary pumps are scheduled for variable speed drives. CW set points is designed at 42°F.

### 5.4 **SYSTEMS OPERATION**

5.4.1 As a part of O&M Services throughout the term of the Agreement, contractor shall operate all CUP equipment and related systems for IAH and HOU.

5.4.2 The Solar farm is included in this contract.

5.4.3 Within the CUPs, the contractor shall maintain all plumbing systems back to the main line.

5.4.4 Within the CUPs, contractor shall clean, inspect, maintain and repair the electrical distribution components as necessary from the point where the power comes from the transformers into the building. All electrical apparatus inside the CUP is the proposer's responsibility. Electrical apparatus includes motor starters, breaker panels, 4,160-volt starter panels for the electric chillers and all other electrical devices. This also includes the UPS system in the main building and in the control building.

5.4.5 The main vault located across the street, from the IAH CUP main building is a shared resource. The 13,600-volt main switch gear is the responsibility of HAS, approximately fifteen (15) enclosures from 15-BT-8 to 15 BT -7. There are approximately two (2) 4,160 panels and twenty-three (23) 480-volt panels. These are the contractor's responsibility. This also includes any 480-volt transformers inside this building.

5.4.6 All transformers listed as T1 through T11 are included in this contract. The feeder cables from the medium (4,160 volt) and low voltage (480 volt) transformers are included in this contract.

5.4.7 IAH - Existing high/low temperature sensor alarms located in the telecommunication equipment/switch rooms located in Terminals A and Aviation Administration Building are monitored from the CUP via Aviation provided cabling. Contractor is not responsible for the cabling of the sensors to the CUP. In the event of a problem associated with the cable, the Director shall be notified.

5.4.8 Replace lamps, ballast, sockets, photocells, etc., in the CUPs (interior and exterior).

### 5.5 **ENVIRONMENTAL CONDITIONS**

#### 5.5.1 IAH – CUP Reserve Capacities

5.5.1.1 As part of the O&M Services, contractor shall operate the (IAH) CUP facilities in such a manner as to have available capacity to meet 100% of the projected loads plus one redundant piece of equipment on the heating and cooling systems. Exceptions to this requirement will be allowed for disruptions to electric, water, or natural gas service, which do not result from contractor's actions. Equipment will be permitted to be taken offline to perform preventive maintenance or needed repairs. Preventive maintenance and service should be scheduled during times of reduced load and when service will not be interrupted.

#### 5.5.2 HOU – CUP Reserve Capacities

5.5.2.1 As part of the O&M Services, contractor shall operate the (HOU) CUP facilities in such a manner as to have available capacity to meet 100% of the projected loads plus one redundant piece of equipment on the heating and cooling systems. Exceptions to this requirement will be allowed for disruptions to electric, water, or natural gas service, which do not result from contractor's actions. Equipment will be permitted to be taken offline to perform preventive maintenance or needed

repairs. Preventive maintenance and service should be scheduled during times of reduced load and when service will not be interrupted.

## 5.6 **SYSTEM OVERVIEW: PERFORMANCE REQUIREMENT SYNOPSIS**

### 5.6.1 IAH CUP

- 5.6.1.1 As part of O&M Services, contractor shall operate and maintain all mechanical, electrical, and plumbing systems in or associated with the CUP. A detailed listing of CUP Equipment is provided in SOW Equipment List Attachment "E".
- 5.6.1.2 The IAH CUP houses all of the major equipment providing closed loop chilled/hot water services to Terminals A, B, C, D and FIS Building. The major systems include, but are not limited to, the following:
  - 5.6.1.2.1 Air Distribution, Heating, Ventilating and Exhaust Systems.
  - 5.6.1.2.2 Auxiliary Systems.
  - 5.6.1.2.3 Chilled Water Systems.
  - 5.6.1.2.4 Compressed Air Systems.
  - 5.6.1.2.5 Condenser Water System.
  - 5.6.1.2.6 Electrical Equipment, including emergency and backup power.
  - 5.6.1.2.7 Solar Panels Farm.
  - 5.6.1.2.8 Refrigeration Units.
  - 5.6.1.2.9 Service Water Systems.
  - 5.6.1.2.10 Steam Generating Systems.
  - 5.6.1.2.11 Hot Water Systems.
- 5.6.1.3 High Voltage Transformers for Chillers and Motor Control Centers (transformers located adjacent to the Central Plant building) and across the street in the electrical sub-station.
- 5.6.1.4 The primary heating and cooling mediums are conveyed from the CUP via tunnel to Terminal B and underground chilled water connecting west of Terminal C where distribution is accomplished to the rest of the complex.
- 5.6.1.5 The CUP complex also houses the Administration Offices for contractor and the repair facilities for the contractor's 24-hour on-site staff complete with break and restroom/shower facilities.
- 5.6.1.6 Contractor shall operate and maintain all mechanical, electrical, and plumbing systems in or associated with the CUP. A detailed listing of CUP Equipment is provided in SOW Equipment List Attachment "E".
- 5.6.1.7 Operation and maintenance of CUP related piping systems, and appurtenances from the CUP to the Terminals are under this contract.
- 5.6.1.8 Contractor shall maintain all domestic water components from the meter that supports the CUP functions (i.e. cooling towers, makeup water, standpipes, fill pipes, backflow preventers, and domestic water within the plant).
- 5.6.1.9 Maintenance of the chilled and hot water piping from the CUP to all demarcation points (i.e. all other IAH distribution side chilled and hot water) are under this contract.

### 5.6.2 HOU CUP and Satellite Utility Plant

- 5.6.2.1 As part of O&M Services, contractor shall operate and maintain all mechanical, electrical, and plumbing systems in or associated with the CUP and Satellite Utility Plant. A detailed listing of CUP Equipment is provided in SOW Equipment List Attachment "E". The major systems include, but are not limited to, the following:
  - 5.6.2.1.1 Hot Water System.
  - 5.6.2.1.2 Refrigeration Units.
  - 5.6.2.1.3 Chilled Water System.
  - 5.6.2.1.4 Condenser Water System.
  - 5.6.2.1.5 Service Water System.
  - 5.6.2.1.6 Compressed Air System.
  - 5.6.2.1.7 Air Distribution, Cooling and Heating Air Systems.
  - 5.6.2.1.8 Make-up Air, Ventilating and Exhaust Systems.
  - 5.6.2.1.9 Control Systems.
  - 5.6.2.1.10 Auxiliary Systems.
- 5.6.2.2 The Terminal Building is supplied primary heating and cooling mediums from the CUP facility. The systems are designed to maintain 74 °F + 2°F indoor temperature through wide variations of outdoor temperature utilizing chilled and hot water. The mediums are conveyed through various piping throughout the terminal. Design performance requirements for chilled and heated hot water systems are as follows: The system can supply chilled water at 42°F on demand with no less than 42.5°F at the coil with a 15°F differential temperature rise. Hot water can be delivered at a temperature of 165°F with a 45°F differential temperature rise. Hot water for domestic use and kitchen use is converted by shell and tube heat exchangers and supplied at 140°F. Contractor shall maintain all primary water, air, and secondary air systems to meet design performance requirements
- 5.6.2.3 Chiller Controls
  - 5.6.2.3.1 Chiller controls should follow manufacturer's guidelines.
  - 5.6.2.3.2 Control panel is able to control the chiller's operation through diagnostics and diagnostic history that are time/date stamped. Diagnostics include among many others (1) sensor and switch faults, (2) excessive purge activity, (3) overload trips, (4) loss of flows, (5) high motor winding temperature.
  - 5.6.2.3.3 The control panel is able to communicate with a BACnet Compatible Building Automation System.
- 5.6.2.4 Pump Control
  - 5.6.2.4.1 The BACnet Compatible Energy Management and Control System for the primary variable speed pump operation will be capable of performing the following:
    - 5.6.2.4.1.1 Alternating pumps.
    - 5.6.2.4.1.2 Staging pumps.
    - 5.6.2.4.1.3 Controlling VFD speed.
    - 5.6.2.4.1.4 Monitoring of motor performance.
    - 5.6.2.4.1.5 PID functions and set point modifications.

## 5.6.2.4.1.6 Energy management through a de-coupled system.

**6.0 OTHER WORK/SERVICES (OSR's) – LEVEL 1 (PERPETUAL), LEVEL II (PREDICTIVE) & LEVEL III (REACTIVE)**

6.1 Within the general scope of the Agreement, Other Work/Services may be required to meet desired conditions and/or services not covered in O&M Services. Contractor shall perform Other Work/Services in accordance with all provisions of the Agreement plus any special provisions issued with authorization for work, so long as the specific provisions are consistent with, and related to the scope of the Agreement. Except for Emergency Service Requests or Urgent Service Requests, where a request may be verbal and followed immediately in writing, all requests for Other Work/Services will be in writing in the form of an Other Service Request (OSR) provided by the Director and signed by the Director or his/her designated representative. Contractor shall perform Other Work/Services to the same standards required for O&M Services.

**6.2 PERFORMING OTHER WORK/SERVICES**

- 6.2.1 Other Work/Services shall be performed in accordance with the Agreement.
- 6.2.2 Other Work/Services shall be performed in accordance with all provisions of the Agreement and any special provisions issued with the Other Service/Request (OSR).
- 6.2.3 Before issuing an OSR, the Director will first issue a written notice to the contractor detailing the specific OSR to be performed by the contractor.
- 6.2.4 In response to any such written notice, the contractor shall provide the Director with a written proposal within five (5) to seven (7) business days of receipt of OSR. Contractor must include a description of the services to be performed, applicable labor rates, estimated labor hours, performance schedule, total estimated cost, and other requirements set forth in the written notice to the contractor.
- 6.2.5 Contractor shall not contract work to companies affiliated with the contractor without prior written approval from the Director
- 6.2.6 Contractor shall furnish all materials, labor, tools, equipment, transportation, and incidentals for accomplishing these described services or as otherwise specified by Director. Travel, lodging, meals, and rental cars that may be incurred in the performance of Other Work Services shall have no additional cost to HAS. Director will not approve an OSR without a specified completion date. Contractor shall complete all such Other Work/Services within the time specified in the OSR. Contractor can request in writing an extension to the completion date. However, Director may or may not allow the extension. Director's decision is final.
- 6.2.7 Upon receipt of the contractor's proposal, the Director has the option to reject the contractor's proposal, require resubmission with revised or additional information, or issue an OSR. Should the Director reject the contractor's Proposal and require resubmission, the contractor shall resubmit a modified proposal within five (5) to seven (7) business days of the rejection.
- 6.2.8 Upon approval by Director of the modified proposal, an OSR will be issued. Contractor shall commence work as stated in the OSR. Contractor shall diligently work to completion in accordance with the terms and conditions of this Agreement, and the approved OSR.
- 6.2.9 Labor cost must not exceed the rate stated in the "Attachment B - Fee Schedule." Labor is inclusive of supervision, tools, and expendables.
- 6.2.10 Prices for equipment, parts, supplies, and sub-contracted work, which may be required for authorized Other/Work Services, shall be the contractor's actual cost-plus percent (%) mark-up proposed on the "Price Sheet" (*Mark-up excludes Freight and Travel*). Copies of invoices from the contractor's suppliers for these items must be submitted with contractor's invoices at the time of submittal to the City for payment. The mark-up percentages stated shall not increase during the term of the Agreement. The quantity of equipment, parts, and supplies will depend on the needs of the HAS.

- 6.2.11 \$25,000.00 Threshold - Contractor shall provide all replacement parts as per SOW equipment/appurtenances identified in Attachments "E" and "F" that cost \$25,000.00 or less. Such cost will not take into account contractor's labor cost, rather just the actual cost of the parts which must be documented to the satisfaction of the Director. By way of example, if a compressor requires replacement, contractor shall not be responsible for the cost, assuming that the cost of such compressor is over \$25,000.00 and the replacement is not due to contractor's negligence. However, if only the fan motor of the compressor requires replacement and assuming the cost of the fan motor is \$25,000.00 or less, it shall be replaced at contractor's sole cost. In other words, the contractor will not be able to represent that the compressor is the part if only the fan motor requires replacement. Any dispute regarding the \$25,000.00 threshold shall be resolved at the sole discretion of the Director whose decision shall be final.
- 6.2.12 If the OSR work is over \$5,000.00, the contractor shall obtain three (3) itemized bids/estimates within five (5) to seven (7) business days from separate/different vendors/ suppliers for the required equipment, parts, supplies, and contractor works. Contractor shall submit the bids/estimates to Director and obtain written approval from Director before proceeding with the work. Any bids/estimates obtained from vendors/suppliers affiliated with the contractor shall have written approval from the Director. Contractor shall be compensated at "Bid Cost" plus percent (%) mark-up proposed on the Price Sheet/Fee Schedule.
- 6.2.13 If the OSR work is under \$5,000.00, the contractor shall obtain one (1) itemized bid/estimate from vendor/supplier within five (5) to seven (7) business days, for the required equipment, parts, supplies, and contractor works. Contractor shall submit the bid/estimate to the Director and obtain written approval from the Director before proceeding with the Work. Contractor shall be compensated at "Bid Cost" plus percent (%) mark-up proposed on the Price Sheet/Fee Schedule.
- 6.2.14 A copy of the approved OSR must accompany the monthly invoice for payment.
- 6.2.15 While performing work on any OSR, if hidden damage or additional cost is discovered, Contractor shall notify the Director immediately. After determining the extent of hidden damage, a supplemental OSR proposal must be submitted to the Director.
- 6.2.16 Contractor shall submit to Director, copies of original purchase orders and invoices evidencing contractor's acquisition costs.
- 6.2.17 In the case of emergency service, the contractor may perform Other Work/Services upon the verbal approval of the Director. However, during the next business day, the Director will submit a written Emergency Service Request to the contractor and the same process for non-emergency OSRs will apply.
- 6.2.18 If it is subsequently determined this Scope of Work should be covered under O&M Services, any amount paid to the contractor under Other/Services Request will be reimbursed to the City by the contractor within thirty days of such determination. The City does not waive any of its rights and remedies whether by statute, at law, in equity, or under this Agreement.
- 6.2.19 If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, the contractor shall not receive additional compensation for their labor.

### 6.3 **OTHER WORK/SERVICES CATEGORIES**

- 6.3.1 Other Work/Services (OSR's) may include, but are not limited to the following categories:
- 6.3.1.1 Systems and Equipment Upgrades/Modifications.
  - 6.3.1.2 Special Energy Retrofits.
  - 6.3.1.3 Hazard Materials Testing and Removal.
  - 6.3.1.4 Systems and Equipment damaged by force majeure or vandalism.

**NOTE: Work included in OEM normal routine maintenance (ex. yearly/minor/major overhaul) or under warranty is excluded from the above OSR categories list.**

**6.4 USE OF ON-SITE - EXTRA WORK**

6.4.1 When the contractor's on-site crew performs extra or changed work covered by Change Orders or Other Work/Services during normal hours, contractor shall not be relieved of its other performance responsibilities herein. Contractor shall provide time sheets and verification of such service.

**7.0 PERSONNEL REQUIREMENTS, Perpetual - Best Management Practices and Predictive - Industry Standard**

7.1.1 Staffing – Contractor shall provide the necessary number of qualified personnel required to operate and maintain the and CUP equipment at all Airports per the contracted Level of Service (LOS). During the phase-in period, contractor shall develop and implement a full project schedule detailing the responsibilities, skill sets and number of personnel and submit this schedule to the Director for written approval.

7.1.2 Should HAS determine that the contractor is not meeting the Contract contracted responsibilities with the contractor's on-site crew, then upon the Director's request, contractor shall modify/increase its on-site crew in order to meet Contract LOS obligations. Contractor shall increase its on-site crew at no cost to HAS as required to fulfill the requirements of the Contract. Should the Director determine that contractor is not meeting Contract responsibilities; the Director will notify contractor in writing. Contractor shall address and cure performance issues relating to personnel immediately. A plan to cure must be approved in writing by the Director at his sole discretion. If Contract responsibilities can only be met with additional permanent staff, contractor shall pay for the cost of such additional staff.

7.1.3 Contractor shall provide a dedicated Project Manager for all of HAS, skilled and experienced in the operation and maintenance of the type of systems/equipment identified in the Contract, who will be actively included in the system maintenance and who will serve as the main point of contact for contractor. The Project Manager shall not be a working technician/mechanic. The Project Manager shall office at IAH, subject to change at the Director's discretion, from 8:30 a.m. through 5:30 p.m., Monday through Friday at a minimum. If Project Manager is on vacation, sick, etc., he will name a responsible subordinate to act on his behalf with full authority to represent the contractor as if the subordinate was the Project Manager. Contractor shall answer correspondence via email within 12 hours.

7.1.4 The Project Manager shall attend a minimum of one meeting every month, or as requested by Director, with the Director to report on the status of the system/equipment and the Work/Services. Contractor shall prepare a typed agenda covering the topics to be discussed, keep minutes of the meetings in a form satisfactory to the Director, and issue copies of the minutes to all attendees within four (4) business days of each meeting. Liquidated damages may be assessed for failure of contractor to comply with the above requirement.

7.1.5 The Project Manager shall be the communications contact with the Director and shall be exclusively assigned to this project. The Project Manager shall not be reassigned from this project without prior approval of the Director. Contractor shall provide a toll-free telephone number if the Project Manager resides outside of the 713, 832, or 281 Area Codes.

7.1.6 The Project Manager, Administrative Coordinator, Senior Controls Technician, and Maintenance Manager shall not be reassigned and or be replaced from this Contract without prior written approval of the Director.

7.1.7 Contractor shall notify Director of holiday/vacation schedules at least fourteen (14) days in advance.

7.1.8 **The following job descriptions are intended to address minimum key personnel qualifications and are not intended to establish the level of staffing needed to operate and maintain the CONTRACT**

8.0 **SPECIAL CONDITIONS**

8.1 **Additional Instructions, Notifications and Information**

8.1.1 Proposers who provide false or misleading information, whether intentional or not, in any documents presented to the City for consideration in the selection process shall be excluded. Any false or misleading information in these documents would in effect, render the entire document suspect and therefore useless.

8.1.2 Proposers shall not offer any gratuities, favors, or anything of monetary value to any official or employee of the City of Houston for the purposes of influencing this selection. Any attempt by the Proposer to influence the selection process by any means, shall be grounds for exclusion from the selection process.

8.1.3 CONTRACT NEGOTIATIONS - This solicitation is not to be construed as a contract or as a commitment of any kind. If this solicitation results in a contract offer by the City; a specific scope of work, fees, insurance coverages, and other contractual matters will be determined during contract negotiations. To ensure that the appropriate staff is assigned to the project the City may include a "key persons" clause during contract negotiations.

8.1.4 CONFIDENTIAL INFORMATION - All responses shall be held confidential from other parties by the City to the extent allowable by law until after the selection process is completed. Proposers should be aware that at the completion of the selection process the contents of their RFP are subject to the provisions of the Texas Open Records Act and may be made public. CONFIDENTIAL or SENSITIVE information should not be included in the responses to the solicitation.

8.1.5 This RFP is not to be construed as a contract or a commitment of any kind, nor does it commit the City of Houston to pay for any cost incurred in the preparation of a submittal or of any costs incurred prior to the execution of a final contract.

8.1.6 In the event that a mutually agreeable contract cannot be negotiated between the contractor and the City, then the City reserves the right to select an alternate contractor.

8.1.7 The City reserves the sole right to:

8.1.7.1 Evaluate submittals

8.1.7.2 Waive any irregularities therein

8.1.7.3 Request supplemental or additional information as necessary

8.1.7.4 Contact others to verify information provided in the submittal

8.1.7.5 Cancel the solicitation and/or reject any and all submittals, should it be deemed at the best interest of the City of Houston

8.1.8 No debriefings by the City staff to unsuccessful Proposers will occur until after the award of a contract by the Houston City Council to the successful firm.

8.1.9 The Mayor's Drug Detection and Deterrence Procedures for Contractors (Executive Order 1-31, Revised 3/1/95) requires that all contractors who are awarded City contracts for labor or services comply with the compliance with the Executive Order (EO) and will have to file the following documents with the Aviation Department's Contract Compliance Officer for Drug Testing (CCODT) prior to award.

8.1.9.1 A copy of the Proposer's drug-free workplace policy

- A Drug Policy Compliance Agreement substantially in the format described in the EO, together with a designation of safety impact positions.
- If applicable, a Certification of No Safety Impact Positions substantially in the format described in the EO.

8.1.9.2 The successful firm will have to complete an Affidavit of Ownership or Control prior to completion of contract negotiations. The affidavit certifies that the firm is not delinquent in any debt owed to the City of Houston (taxes, fines, fees, etc.).

## 8.2 **No Contact Period**

8.2.1 Neither bidder(s) nor any person acting on bidder(s)'s behalf shall attempt to influence the outcome of the award by the offer, presentation or promise of gratuities, favors, or anything of value to any appointed or elected official or employee of the City of Houston, their families or staff members. All inquiries regarding the solicitation are to be directed to the designated City Representative identified on the first page of the solicitation ("City Representative"). Upon issuance of the solicitation through the pre-award phase and up to the date the City Secretary publicly posts notice of any City Council agenda containing the applicable award, aside from bidder's formal response to the solicitation, through the pre-award phase, written requests for clarification during the period officially designated for such purpose by the City Representative, neither bidder(s) nor persons acting on their behalf shall communicate with any appointed or elected official or employee of the City of Houston, their families or staff through written or oral means in an attempt to persuade or influence the outcome of the award or to obtain or deliver information intended to or which could reasonably result in an advantage to any bidder. However, nothing in this paragraph shall prevent a bidder from making public statements to the City Council convened for a regularly scheduled session after the official selection has been made and placed on the City Council agenda for action, or to a City Council committee convened to discuss a recommendation regarding the solicitation.

8.2.1.1 Guidance - Interested parties shall always contact the designated City Representative regarding the substance of this procurement. It is permissible to also contact the following, based on the specific circumstances:

8.2.1.2 Questions regarding programs administered by the Office of Business Opportunity (OBO) may be submitted directly to OBO without going through the City Representative for this procurement.

8.2.1.3 Questions regarding the process in general or that the City Representative may not be able to answer may be submitted to the Chief Procurement Officer.

8.2.1.4 Communications with the city legal department regarding contract terms after notification of intent to award are permissible.



### 8.3 **Security and Badges (As Applicable to this Project)**

- 8.3.1 The Proposer shall comply with all applicable Federal rules governing security at the Airport.
  - 8.3.1.1 All on-site personnel of Proposer, including contractors, who perform services under the Agreement inside the AOA fence or in secure areas of the Airport, are required to undergo a fingerprint-based criminal history records check. Fingerprints are collected at the Airport Badging Office and submitted electronically for investigation.
  - 8.3.1.2 The Proposer shall obtain HAS security badges for its personnel performing services on- site, including its contractors' personnel, as required by HAS. On-site personnel within the AOA or in secure areas of the Airport shall wear identification badges at all times while on Airport property. The cost of badges, which is subject to change, is currently \$55.00 each at IAH/HOU and \$16.00 at EFD. Costs for the fingerprint-based criminal history records check are reflected in the cost of the badges. The Proposer is responsible for the cost of badges, including replacements thereof. The Proposer personnel losing badges will be charged for replacement badges at the then current rate. Badge yearly renewal cost is currently \$16.00.
  - 8.3.1.3 The Proposer acknowledges that fines or penalties associated with non-compliance with security regulations shall be reimbursed to HAS.

### 8.4 **Certificate of Interested Parties**

- 8.4.1 In accordance with Texas Gov't Code §2252.908, the successful Proposer must complete Form 1295, Certificate of Interested Parties.
  - 8.4.1.1 The successful Proposer must use the application to enter the required information on Form 1295 and print a copy of the completed form, which will include a certification of filing that will contain a unique certification number.
  - 8.4.1.2 No later than 30 days after the contract's effective date, the City will upload the successful Proposer's completed Form 1295. The Texas Ethics Commission will post the contractor's completed Form 1295 within seven business days of receipt.
  - 8.4.1.3 For your reference, Form 1295 is attached as part of this document.

### 8.5 **Compliance With Certain State Law Requirements**

- 8.5.1 Anti-Boycott of Israel. Contractor certifies that contractor is not currently engaged in and agrees for the duration of this agreement not to engage in the boycott of Israel as defined by Section 808.001 of the Texas Government Code.
- 8.5.2 Anti-Boycott of Energy Companies. Contractor certifies that contractor is not currently engaged in and agrees for the duration of this agreement not to engage in the boycott of energy companies as defined by Section 809.001 of the Texas Government Code.
- 8.5.3 Anti-Boycott of Firearm Entities of Firearm Trade Associations. Contractor certifies that contractor does not have a practice, policy, guidance, or directive that discriminates

against a firearm entity or firearm trade association or will not discriminate against a firearm entity or firearm trade association for the duration of this agreement, as defined by Section 2274.001 of the Texas Government Code.

- 8.5.4 Certification of No Business with Foreign Terrorist Organizations. For purposes of Section 2252.152 of the Code, contractor certifies that, at the time of this agreement neither contractor nor any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of contractor, is a company listed by the Texas Comptroller of Public Accounts under Sections 2252-153 or 2270-0201 of the Code as a company known to have contracts with or provide supplies or to a foreign terrorist organization.
- 8.5.5 Executive Order 1-56 Zero Tolerance for Human Trafficking in City Service Contracts and Purchasing. The City has a zero tolerance for human trafficking, and, per Executive Order 1-56, city funds shall not be used to promote human trafficking. City vendors are expected to comply with this Executive Order and notify the City's Chief Procurement Officer of any information regarding possible violation by the vendor or its contractors providing services or good to the City. The Executive Order is available on the City's website: <http://www.houstontx.gov/execorders/1-56.pdf>.
- 8.5.6 SB 943 – Public Information and Disclosure of Certain Contracting Information. “The requirements of Subchapter J, Chapter 552, Government Code (<http://statutes.capitol.texas.gov/Docs/GV/htm/GV.552.htm#552>), may apply to this (include “bid” or “contract” as applicable) and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.”

## 8.6 Protest

An interested party may file a protest on the basis that the City has failed to comply with applicable federal or state law or with City ordinances as set forth in City of Houston Administrative Policy 5-12. <http://www.houstontx.gov/policies>

## **PART III – EVALUATION AND SELECTION PROCESS**

An evaluation committee shall evaluate Proposers' submissions in accordance with the evaluation criteria listed in Part VI. Upon completion of the evaluation, the committee may develop a short list of Proposer(s) meeting the technical competence requirements. The shortlisted Proposer(s) may be scheduled for a structured oral presentation, demonstration, interview and negotiations. Following these City-to-Proposer(s)' meetings, the evaluation team will summarize their findings and recalculate their scores, if needed. However, the evaluation committee reserves the right to issue letter(s) of clarification when deemed necessary to any or all Proposer(s). The oral presentations, demonstrations and/or interviews may be recorded and/or videotaped.

### **A. Interviews/Oral Presentations/Demonstrations**

The City reserves the right to request that Proposer(s) provide a final presentation handout of its Proposal at their scheduled meeting. No Proposer may attend presentations of any other Proposer. If necessary, Proposers may be scheduled for more than one presentation, demonstration, or interview.

### **B. Selection Process**

Upon review of all information provided by Proposers, the evaluation committee will make a recommendation for selection to City officials. The City reserves the right to check references on any

projects performed by the Proposer, whether provided by the Proposer or known by the City. Selected Proposal shall be submitted for approval by the appropriate City officials. The City of Houston intends to select a Proposal that best meets the needs of the City and that provide the best overall value. Upon approval of the selected Proposer, a contract shall be executed by the appropriate City officials.

### C. Evaluation Criteria

<b>Evaluation Criteria Table</b>	<b>Max Score</b>
<b>Technical/Design Approach Management Plan</b>	<b>15</b>
<b>Personal Staffing Requirements</b>	<b>20</b>
<b>Proposal Pricing</b>	<b>30</b>
<b>Qualification Experience</b>	<b>15</b>
<b>Efficiency/Sustainability/Energy Saving/Training</b>	<b>10</b>
<b>Computerized Maintenance Management System (CMMS)</b>	<b>10</b>
<b>Total</b>	<b>100</b>
<b>Financial Capabilities</b>	<b>Pass/Fail</b>
<b>MWBE Compliance</b>	<b>Pass/Fail</b>
<b>Minimum Required Experience</b>	<b>Pass/Fail</b>

#### I. QUALIFICATIONS (PASS/FAIL)

##### 1. **Financial Capabilities – Pass/Fail**

- a. Financial Capabilities, submit audited financial statement for the last two years. Provide a brief statement of the Proposer's bonding ability to fulfill obligations.

##### 2. **MWBE Compliance – Pass/Fail**

- a. MWBE Compliance, as referenced in PART III, Section R., MWBE and Local Participation Plan and City required documents listed as Exhibits, and Attachments.

##### 3. **Minimum Required Experience – Pass/Fail**

- a. Successful as the company (or prime contractor) in the previous or current experience in which they were (or are) responsible for the contracted operation and maintenance services of Heating, Ventilating, and Air Conditioning (HVAC) at large campuses such as airports, college/universities, hospitals, sports arenas and convention centers with multiple customer serving facilities that have at least one building and/or a service area with a combined square footage greater than 900,000 square feet.
- b. Successful as the company (or prime contractor) in the previous or current experience in which they were (or are) responsible for the operation and maintenance of a hybrid Central Utilities Plant(s) (CUP) with a minimum capacity of 20,000 tons of industrial cooling, and 50,000 lb/hour of industrial steam boiler operation. The CUP operation and maintenance experience must also include experience with operating and maintaining a Low-Medium Voltage Central Plant Electrical

System and equipment with a minimum of 10MW. Experience in hybrid CUP operations and maintenance experience must include:

- i. Cooling Tower Operation
- ii. Industrial Centrifugal Chiller Operation
- iii. Steam Turbine Driven Chiller Operation
- iv. Hydronic Pump System Operation
- v. Industrial High Temperature Water Heating Boilers
- vi. Condensing Boilers
- vii. Constant Speed and VFD Drive Operation
- viii. Plant-Building Automation System

## **II. TECHNICAL APPROACH/MANAGEMENT PLAN (15 points)**

1. Describe the proposer's overall understanding of the HAS requirements provided in the Scope of Work (SOW).
2. Define the proposer's approach to managing, operating, and maintaining systems and CUP as described in the SOW.
  - a. Detailed plans for managing the contracted services, including contractors, and plans for meeting requirements for each level of service (LOS) described in the SOW.
  - b. Detailed quality control/assurance plan and methodology to ensure compliance with, and achievement of, the SOW.
3. Provide the proposer's approach and methodology for phase-in transition, and how it will meet the requirements provided in the SOW.
4. Provide a narrative describing the proposer's understanding of Reliability Centered Maintenance (RCM) requirements, and processes.
  - a. Describe how the proposer plans to differentiate RCM from Preventive and Scheduled Maintenance.
  - b. Provide the proposer's approach, and plan, to implement RCM to meet the requirements of the SOW.
5. Describe the proposer's plan for providing and managing spare parts, replacement parts, equipment, expendables, and consumables to meet the requirement in the SOW.

## **III. PERSONNEL/STAFFING REQUIREMENTS (20 points)**

1. Detail the proposer's overall approach to recruiting staff that will meet the requirements provided in the SOW. Provide staffing approach for each of the stated LOS.
  - a. Describe the proposer's proposed full service 24/7, three-hundred and sixty-five days (365) days per year schedule detailing the responsibilities of assigned team member personnel to meet the described LOS.
  - b. Describe the proposer's approach to meeting on-site response time requirements described in the SOW.
2. Detail background and experience of the proposer's proposed contractor and team member personnel, including proposed contractor personnel; rationale for selection of team members and their assigned roles. Both the contractor, and its contractor(s), key personnel shall have a minimum of 5 years verifiable experience in Operations and Maintenance of Systems at large campus facilities similar to those described in the SOW, and CUP with a capacity greater than 20,000 tons of industrial cooling and 50,000 lb/hour of industrial steam boiler and heating operations.
  - a. Provide copies of key personnel resumes, certifications and state licenses required for the operation and maintenance of systems and CUP assets.
  - b. Provide detail of personnel's years of experience, training, education, and other qualifications that are required to operate and maintain the systems and CUP at each of the LOS defined in the SOW.

- c. Provide organizational chart detailing key personnel, and team members, for proposed staffing levels to meet the requirements of the SOW.
  - d. Provide a chart showing corporate organization starting from the CEO to the Project Manager, and indicate how this organization will interface with HAS.
3. Describe the experience of the individual selected as primary on-site Project/Operations Manager of the contracted work; rationale for his/her selection. If an individual has not been selected at time of proposal, the Contractor must submit a detailed job description, including minimum qualifications, for this position.

#### **IV. PRICING (30 points)**

1. Describe the Proposer's overall understanding of the LOS bid pricing. **(5 Points)**
2. Describe the Proposer's methodology and approach to providing the bid price for each LOS. **(10 Points)**
  - a. Describe the Proposer's plan to adjust for possible HAS decisions to increase, or decrease, LOS for selected buildings.
  - b. Lowest total price gets Maximum Points. Formula:  $\frac{\text{Lowest Total Price}}{\text{Proposer's Total Price}} \times \text{Maximum Points (15)} = \text{Evaluation Score}$

#### **V. QUALIFICATION/ AND CUP EXPERIENCE (15 points)**

1. Describe the proposer's company experience in the services requested in the SOW.
2. Description of a minimum of two (2) and a maximum of five (5) and CUP Operation and Maintenance contracts performed by the proposer's company that are similar in type, scope, cost and magnitude of that described in the SOW. Description should include at a minimum the location, owner, client (name, title, phone number and email), sub-contractors, and further description of what services that the proposer's company was contracted to perform.
  - a. Similar service contracts include those from large campuses such as airports, college/universities, hospitals, sports arenas and convention centers.
  - b. Related experience includes at a minimum, campuses with multiple customer serving facilities with at least one building that has a square footage greater than 900,000 sf<sup>2</sup>.
  - c. Related experience includes at a minimum hybrid CUP with a capacity minimum of 20,000 tons of cooling, and 50,000 lb/hour of steam boiler operation. Also includes experience with Low-Medium Voltage Central Plant Electrical Operation with a minimum of 10MW.
3. Describe whether the proposer has ever been terminated early from a service contract, and has ever not been selected for renewal of a service contract. Identify each occurrence. Proposer to explain why for both scenarios if they apply.
4. Provide references from the owners of at least two of the campuses in which the proposer's company was contracted to maintain facilities that are similar in type, scope, cost and magnitude of that described in the SOW.

#### **VI. EFFICIENCY/SUSTAINABILITY/ENERGY SAVINGS/TRAINING (10 points)**

1. Explain the proposer's company strategy to enhancement/efficiency programs such evaluating energy usage, and identifying opportunities for efficiencies and savings.
  - a. Describe how these programs have been performed by the proposer's company within the past five (5) years at facilities similar to those described in the SOW.
2. Explain the proposer's approach to Sustainability and how the proposer's company would apply that approach to this contract.

3. Describe the proposer's training program including, but not limited to, procedures and checklists for ensuring personnel, including newly hired workers, are familiar with all work of systems and CUP Operations.

**VII. COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEMS (CMMS) (10 points)**

1. Describe the proposer's overall understanding of the HAS requirements for HAS – Enterprise Asset Management System (EAMS) as it is provided in the SOW.
2. Describe the proposer's experience with CMMS
3. Provide example of a proposed Preventive Maintenance (PM) plan (including PM schedules, tasks and checklist), and the proposer's approach to integrating that information into a CMMS.

**E. ADDITIONAL RELATED SERVICES**

1. In submitting Proposal, Proposer(s) shall indicate a willingness to negotiate future potential additional services deemed appropriate for the scope of services, as provided herein, or deemed necessary and/or desirable by the City.

**F. INTERLOCAL CONTRACT:**

1. Under the same terms and conditions hereunder, the Contract may be expanded to other government entities through inter-local contracts 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.
2. The City requires timely and accurate accounting and billing information.

**G. BEST AND FINAL OFFER ("BAFO")**

The City reserves the right to request a BAFO from finalist Proposer(s), if necessary.

**PART IV – SUBMISSION OF PROPOSAL**

**A. Instructions for Submission**

1. Number of Copies. Submit **five (7)** copies of the Proposal, including one (1) printed originals signed in BLUE ink, and five (5) electronic thumb drives sealed in a separate envelope bearing the assigned solicitation number (located on the first page of this RFP document) to:

Cathy Vander Plaats  
Aviation Procurement Officer  
Supply Chain Management  
18600 Lee Road  
Humble, Texas 773382

The City of Houston shall bear no responsibility for submitting responses on behalf of any Proposer. Proposer(s) may submit their Proposal to the Supply Chain Management/ any time prior to the stated deadline.

2. Time for Submission. Proposals shall be submitted no later than the date and time indicated for submission in this RFP. Late submittals will not be considered and will be returned unopened.
3. Format. Proposal must be left-bound with information on both sides of the page when appropriate. Material should be organized following the order of the submission requirements separated by labeled tabs, and shall be securely bound. Submission materials will not be returned to Proposers.

4. Complete Submission. Proposers are advised to carefully review all the requirements and submit all documents and information as indicated in this RFP. Incomplete proposals may lead to a proposal being deemed non-responsive, meaning that non-responsive proposals will not be considered.
5. Packaging and Labeling. The outside wrapping/envelope shall clearly indicate the RFP title, date, and time for submission. It shall also indicate the name of the proposer. The Price Proposal shall be submitted in a separate sealed envelope. The envelope shall clearly identify the content as "Price Proposal." Thumb drives shall be submitted in yet another sealed envelope and marked accordingly. All other submission requirements shall be included with the Proposer's Technical Proposal.
6. Timely Delivery of Proposals. The Proposal, including the Technical Proposal, Fee Schedule and signed Offer and Submittal form must be delivered by hand or mailed by one's preferred courier to the address shown on the cover sheet of this RFP. Include the RFP number on any package delivered or sent to Supply Chain Management, 18600 Lee Road, Humble Texas 77338 and on any correspondence related to the Proposal. If using an express delivery service, the package must be addressed and delivered specifically to Supply Chain Management, 18600 Lee Road, Humble Texas 77338. Packages delivered by express mail services to other locations may not be re-delivered to its final destination by the deadline hour.
7. Late Proposals. Proposers remain responsible for ensuring that its Proposal is received at the time, date, place, and office specified. The City assumes no responsibility for any Proposal not received, regardless of whether the delay is caused by the U.S. Postal Service, a courier delivery service, or some other act or circumstance.

## **B. Submission Requirements**

1. Cover Letter. The cover letter shall be signed by an authorized representative of the Proposer. The letter should indicate the Proposer's commitment to provide the services proposed, and contain evidential information supporting that your firm exists within Harris County.
1. Executive Summary: The executive summary should include a brief overview of the solution proposed, the overall strategy for implementation, the key personnel who will be responsible for seeing the project through completion.
2. Offer and Submittal Form: See Exhibit I
3. General Company Information: Provide the name of your company (including the name of any parent company), business address, e-mail address, Federal Tax ID number, telephone number, and fax number. *(At a minimum qualification, company must possess an office within Harris County, Texas.)*
  - 2.1 Key Personnel: Identify the key personnel that will be committed to the project. The City reserves the right to reject any key personnel proposed if it is determined in the City's best interest. All key personnel must be committed to the project at the appropriate time level. Proposer understands that the qualifications and experience of key personnel proposed will be factored into the evaluation process; therefore, key personnel must not be replaced without the approval of the City. Any approved substitutions must be with personnel of equal or better qualifications. In addition, any other commitments must not conflict with the level of commitment proposed for this project.
    - 2.1.1 Provide names and titles of key personnel and an organizational chart of your proposed project team. Provide professional resumes of all key personnel. At a minimum, key personnel must possess current professional certifications as indicated below for:

#### 2.1.1.1 Field Inspectors and Field Manager

4. M/WBE Participation: Identify an M/WBE contractor and submit a signed-off "M/WBE Letter of Intent" form identifying the role of each contractor for this implemented project.
5. Financial Stability: a) Provide the audited financial statements for the past two years; and b) submit either the Federal Tax Forms filed to the Internal Revenue Service (IRS) for the past two fiscal years (or) your firm's Dunn & Bradstreet Report. (At a minimum, include the letter of opinion, balance sheet, schedules, and related auditor's notes.)
6. Exceptions to Standard Contract: Submit any Exceptions to the standard contract and include the rationale for taking the Exception. Provide rationale for objections to the Article. Such Exceptions will be considered when evaluating the Proposer's response to this RFP. If you are proposing alternate language, include the proposed language for consideration, along with the corresponding Article Nos. within the RFP.
7. Legal Actions: Provide a list of any pending litigation and include a brief description of the reason for legal action.
8. Conflict of Interest: Provide information regarding any real or potential conflict of interest. Failure to address any potential conflict of interest upfront may be cause for rejection of the Proposal.
9. Other: Submit any information the Proposer deems pertinent to demonstrating its qualifications to perform the services being requested, such as memberships in any professional associations, documents, examples, etc.
10. Forms and Certifications: Complete all forms and certifications attached, as appropriate.

### **Part V – EXCEPTIONS TO TERMS AND CONDITIONS**

All exceptions included with the Proposal shall be submitted in a clearly identified separate section of the Proposal in which the Proposer clearly cites the specific paragraphs within the RFP where the Exceptions occur. Any Exceptions not included in such a section shall be without force and effect in any resulting contract unless such Exception is specifically referenced by the Chief Procurement Officer or designee, City Attorney, Director(s) or designee in a written statement. The Proposer's preprinted or standard terms will not be considered by the City as a part of any resulting contract.

All Exceptions that are contained in the Proposal may negatively affect the City's Proposal evaluation based on the evaluation criteria as stated in the RFP, or result in possible rejection of Proposal.

### **Part VI – SPECIAL CONDITIONS**

#### **A. No Contact Period**

Neither Proposer(s) nor any person acting on Proposer(s)'s behalf shall attempt to influence the outcome of the award by the offer, presentation or promise of gratuities, favors, or anything of value to any appointed or elected official or employee of the City of Houston, their families or staff members. All inquiries regarding the solicitation are to be directed to the designated City Representative identified on the first page of the solicitation. Upon issuance of the solicitation through the pre-award phase and up to the date the City Secretary publicly posts notice of any City Council agenda containing the applicable award, aside from proposer's formal response to the solicitation, through the pre-award phase, written requests for clarification during the period officially designated for such purpose by the City Representative, neither Proposers(s) nor persons acting on their behalf shall communicate with any



appointed or elected official or employee of the City of Houston, their families or staff through written or oral means in an attempt to persuade or influence the outcome of the award or to obtain or deliver information intended to or which could reasonably result in an advantage to any proposer. However, nothing in this paragraph shall prevent a proposer from making public statements to the City Council convened for a regularly scheduled session after the official selection has been made and placed on the City Council agenda for action, or to a City Council committee convened to discuss a recommendation regarding the solicitation.

## **B. Minority and Woman Business Enterprises (M/WBE)**

Contactors shall comply with the City's Minority and Women Business Enterprise ("MWBE") programs as set out in Chapter 15, Article V of the City of Houston Code of Ordinances. Contractor shall make good faith efforts to award contractors or supply contracts in at least the value stated in this Contract to MWBE's. Contractor acknowledges that it has reviewed the requirements for good faith efforts on file with the City's Office of Business Opportunity (OBO) and will comply with them.

## **PART VII – INSTRUCTIONS TO PROPOSERS**

### **A. Pre-Proposal Conference**

A Pre-Proposal Conference will be held at the date, time, and location as indicated on the first page of the RFP document. Interested Proposer(s) are encouraged to attend. It will be assumed that potential Proposer(s) attending this meeting have reviewed the RFP in detail and are prepared to bring up any substantive questions not already addressed by the City.

### **B. Additional Information and Specification Changes**

Requests for additional information and questions should be addressed to Gabriel Carey at Houston Airport System, by telephone: (281) 230-8030; or by the preferred e-mail method to [gabriel.carey@houstntx.gov](mailto:gabriel.carey@houstntx.gov) no later than 5:00, CST by Thursday August 11, 2022. The City of Houston shall provide written responses to all questions received by Proposers prior to the RFP submittal deadline. Questions received from all Proposer(s) shall be answered by the City and sent to Proposer(s) who are listed as having obtained the RFP. Proposer(s) shall be notified in writing of any changes in the specifications contained within this RFP.

### **C. Letter(s) of Clarification**

1. All Letters of Clarification and interpretations to this Solicitation shall be in writing. Any Letter of Clarification(s) or interpretation that is not in writing shall not legally bind the City of Houston. Only information supplied by the City of Houston in writing or in this RFP should be used in preparing Proposal responses.
2. The City does not assume responsibility for the receipt of any Letters of Clarification sent to Proposer(s).

### **D. Examination of Documents and Requirements**

1. Each Proposer shall carefully examine all RFP documents and familiarize themselves with all requirements prior to submitting a Proposal to ensure that the Proposal meets the intent of this RFP.
2. Before submitting a Proposal, each Proposer shall be responsible for making all investigations and examinations that are necessary to ascertain conditions and affecting the requirements of this RFP. Failure to make such investigations and examinations shall not relieve the Proposer from obligation to comply, in every detail, with all provisions and requirements of the RFP.

## **F. Post-Proposal Discussions with Proposer(s)**

It is the City's intent to commence final negotiation with the Proposer(s) deemed most advantageous to the City. The City reserves the right to conduct post-Proposal discussions with any Proposer(s).

## **PART VIII – REQUIRED FORMS TO BE SUBMITTED WITH PROPOSAL**

- A. Offer and Submittal, List of References, and List of Proposed Contractors (Exhibit I)
- B. Signed M/WBE Forms: Attachment "A" Schedule of M/WBE Participation, Attachment "B," Notice of Intent, Attachment "C," Certified M/WBE Contractor Terms, Attachment "D," Office of Business Opportunity and Contract Compliance M/WBE Utilization Report (Exhibit II)
- C. Fair Campaign Ordinance Form "A" (Exhibit III)
- D. Affidavit of Ownership or Control (Exhibit IV)
- E. Anti-Collusion Statement (Exhibit V)
- F. Proposer's Statement of Residency (Exhibit VI)
- G. Conflict of Interest Questionnaire (Exhibit VII)

## **PART IX – REQUIRED FORMS TO BE SUBMITTED BY RECOMMENDED VENDOR ONLY**

Required forms shall be supplied to the Contractor after the award recommendation:

- A. Insurance Requirements and Sample Insurance Certificate
- B. Drug Compliance Contract Attachment "A," Drug Policy Compliance Declaration Attachment "B," and Contractor's Certification of No Safety Impact Positions Attachment "C" and "D"
- C. City Contractors' Pay or Play Acknowledgement Form (POP-1) <http://www.houstontx.gov/obo/payorplay/pop1.pdf> and Pay or Play Certificate of Compliance (POP-2) <http://www.houstontx.gov/obo/payorplay/pop2.pdf> (Exhibit IX)
- D. Hire Houston First Affidavit (Download Copy at <http://www.houstontx.gov/obo/hirehoustonfirst.html> and submit to Office of Business Opportunity, Houston Business Solutions Center by e-mail to [houstonbsc@houstontx.gov](mailto:houstonbsc@houstontx.gov), or fax to 832-393-0650, or submit copy with proposal
- E. Requested information outlined in the scope of work and other additional relevant/supporting information, or alternate Proposal.

## ATTACHMENT A DEFINITIONS

As used in this Agreement, the following terms have the meanings set out below:

**"Acceptable"** means that services, equipment, or performance, meet or exceed the requirements of this Agreement.

**"Acceptance"** shall be determined by the Director and occurs when the Director determines that the unit of Work specified under the Agreement is complete and acceptable.

**"Acceptable Equivalent"** means any equipment, part or product that complies with existing industry standards governing its manufacture or use, and that is a functional equivalent of any equipment, part, product or specification described herein, or, which functionally satisfies an approved, negotiated or specified use made a part hereof.

**"Agreement"** means the Agreement and written amendments authorized by City Council and Contractor or OSRs/change orders authorized by this Agreement between the City and Contractor whereby Contractor shall provide all specified Work in connection with the Agreement, in the manner provided by the Agreement.

**"Air Operations Area (AOA)"** means any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operations area shall include such paved and unpaved areas that are used or intended to be used for unobstructed movement of aircraft in addition to its associated runway, taxiway or apron.

**"Airport(s)"** means George Bush Intercontinental Airport/Houston (IAH) and William P. Hobby Airport (HOU).

**"BAS"** means Building Automated System.

**"Basic Services"** means those services described in the Performance/Work Statement set forth in Exhibit "A".

**"Business Days"** means any calendar day except Saturdays, Sundays, and full-day holidays for employees of the City (as designated by City Council).

**"CFM"** means a unit of measure for discharged air in cubic feet per minute.

**"Central Utilities Plant (CUP)"** means all supporting assets and locations.

**"Chief Procurement Officer" (CPO)** means the Chief Procurement Officer of the City of Houston, as set forth in Chapter 15 of the Houston Code of Ordinances.

**"City"** means The City of Houston, Texas; this includes its successors and assigns.

**"Contract or Agreement"**- means The Contract and written amendments authorized by City Council and Contractor or change orders authorized by this Contract between the City and Contractor whereby Contractor shall provide all specified Work in connection with the Contract, in the manner provided by the Contract.

**"Contractor"** means Company who is authorized to do business in Texas includes its successors and assigns.

**"Corrective Maintenance (CM)"** means repair of equipment and systems with parts, materials, and labor to restore performance to the designed function in the event of any breakdown or stoppage of equipment or system where the equipment or system is unable to perform its designed function. CM includes repairs and

replacement of related components, parts, and appurtenances that have failed, no longer perform reliably, or have worn beyond safe tolerances.

**“Critical Systems”** is critical to HAS operations and requires an additional level of maintenance and shorter response time for repairs.

**“DDC”** means direct digital control for CUP devices

**"Director"** means the Director of the Houston Airport System or his designee in writing. The Agreement designates certain functions to be performed by the Director.

**“Documents”** mean notes, manuals, notebooks, plans, computations, computer databases and diskettes, software, tabulations, exhibits, reports, underlying data, charts, analyses, maps, letters, models, forms, photographs, the original tracings of all drawings and plans, and other work products (and any modifications or improvements to them) that Contractor prepares or provides under this Agreement.

**“DX”** means direct expansion system that uses refrigerant instead of chilled water.

**“Emergency”** means a sudden, unexpected event requiring immediate action due to potential threat to health and safety, the environment, or property.

**“Emergency Service Request”** means a request from the Director to Contractor to perform remedial maintenance or other work services due to a Major Failure or services deemed necessary by the Director. Contractor must respond to in accordance with the Response Times in the Scope of Work.

**“Enterprise Asset Management System (EAMS)”** means the Houston Airport’s computerized maintenance management system.

**"Equipment"** means all machinery, together with the necessary supplies for upkeep and maintenance, and all tools and apparatus necessary for the proper and acceptable completion of the specified Work.

**“Expendable Items”** means items normally required during scheduled maintenance. The items are either consumed during use, used up during repeated use, or are not useable after one usage. They typically include, but not limited to, oils, lubricants, filters, gaskets, cleaning agents, paints, brooms, brushes, light bulbs, etc. **“Force Majeure”** means events beyond the reasonable control of a party to this Agreement act, which is limited to acts of God, explosions, acts of the public enemy, fires, floods, earthquakes, tornadoes, epidemics, quarantine restrictions, work stoppages (except for work stoppages resulting from practices of the Contractor which are the subject of a finding of unfair labor practices by an administrative law judge of the National Labor Relations Board and except further for foreseeable work stoppages for which the Contractor has not reasonably prepared to minimize the harm or loss that is occasioned by such work stoppage). Acceptable evidence of the occurrence (photographic, witness report, video etc.) is required from the Contractor. Any dispute regarding Force Majeure shall be resolved at the sole discretion of the Director whose decision shall be final.

**"Furnish"** means to supply and deliver to the appropriate Airport site, ready for unloading, unpacking, assembly, installation, use, etc., as applicable in each instance, except as otherwise defined in greater detail.

**“Geographic Information System (GIS)”** means a system to capture, store, manipulate, analyze, manage and present spatial or geographic data.

**“HOU”** means William P. Hobby Airport.

**"Houston Airport System (HAS)"** means the property and facilities of the City of Houston Department of Aviation which include, but are not limited to, George Bush Intercontinental Airport/Houston (IAH), William P. Hobby Airport (HOU), Ellington Airport (EFD), and the Houston Airport System Administration Buildings.

**"HVAC SYSTEMS"** means heating, ventilating, air conditioning systems and all associated plumbing, electrical, and control systems.

**"IAH"** means George Bush Intercontinental Airport.

**"Include and Including"** means words of similar import, shall be deemed to be followed by words "without limitation".

**"Level I, Perpetual - Best Management Practices"** means Individual assets or systems included in the Level I, Perpetual - Best Management Practices Level of Service (LOS) will be maintained through Reliability-Centered Maintenance (RCM) protocols in addition to the planned and Preventive Maintenance (PM) recommended by original equipment manufacturer (OEM). As part of Level 1 Service, the contractor shall maintain the individual asset and/or system to a level in which it retains its original Day One expected life cycle. In other words, the life cycle for the asset and/or individual system never declines when a Perpetual - Best Management Practice LOS is maintained.

**"Level II, Predictive - Industry Standard"** means individual assets or systems included in the Level II service shall be maintained by the contractor through the planned and Preventive Maintenance (PM) recommended by original equipment manufacturer (OEM). The primary objective of the Predictive - Industry Standard LOS is to provide ongoing planned, preventive, and corrective maintenance on the asset and/or individual system such that the original life cycle is achieved.

**"Level III, Reactive, Routine Services"** means individual assets or systems included in the Level III, Reactive Contractor Services LOS are maintained on an on-call basis and through authorized Other Services Request (OSR) by HAS. The normal Reliability Centered Maintenance, and Corrective Maintenance for these assets will be performed by HAS.

**"Liquidated Damages"** means a clause that specifies a predetermined amount of money that must be paid as damages for failure to perform under this Agreement.

**"LOS"** means Level of Service.

**"Maintenance Facilities"** means the shop and office facilities the City provides to the Contractor as described in Sections 1.3 and 2.16 of Scope of Work. Such facilities are provided at IAH and HOU.

**"Maintenance Service"** means Preventive Maintenance (PM), Predictive Maintenance (PdM), Reliability Centered Maintenance (RCM) and Remedial Maintenance (RM).

**"Major Equipment"** means large mechanical and electrical machinery or apparatus including specifically electric and steam driven chillers, steam condensers, boilers, cooling towers, steam/hot water converters, deaerators, chilled and condenser water pumps within Central Utilities Plant systems, and related electrical switchboards and motor control centers, plus major parts of the above including, but not limited to, compressors, speed reducers and increasers, motors, heat exchangers, and related electrical switches and starters. For the purpose of providing Major Equipment Failure Insurance coverage pursuant to the terms of this Agreement, major equipment shall specifically exclude other mechanical and electrical machinery powered by motors of less than 100 horsepower, other heat exchangers and systems components, and appurtenances.

**"Manufacturer"** means the original manufacturer or producer of a part or component.

**"Materials"** means any substance specified for use in the accomplishment of the Work.

**“Must/Shall/Will”** means a mandatory requirement.

**"Notice to proceed"** means a written communication from the Director to Contractor instructing Contractor to begin performance.

**"Obsolete Part"** means any part of the CUP system that is proven by the Contractor to be out of production by the OEM where a similar part cannot be obtained to provide the same function, or whose operation has been discontinued due to regulatory requirements, or whose continued operation constitutes a hazard to safety.

**"OEM"** means the Original Equipment Manufacturer.

**“Operation or Operational”** means the equipment is maintained at the level necessary to ensure that it is in a state of readiness for its intended use or full functional status and maintained in such condition for the use for which it is intended.

**"Other Service Request (OSR)"** is the form used to request Other Work/Services within the general scope of this Agreement but not expressly set forth in the Scope of Work.

**"Other Work/Services"** means those services described in Performance/Statement of Work and Attachment “B” – Fee Schedule as Other Work/Services and other services related to operations and maintenance services, other than Basic Services. Such services are only provided by Contractor upon the Director’s written request.

**“Personnel”** is defined being any person assigned to perform under this Agreement, no matter how slight their contribution may be, including but not limited to Contractor’s employees and its Subcontractor’s employees providing janitorial services under this Agreement.

**"Predictive Maintenance (Pd.M.)"** – Predictive Maintenance (Pd.M.) is a carefully planned system of machinery analysis and diagnostics. This includes measurements that detect the onset of system degradation, thereby allowing casual stressors to be eliminated or controlled prior to any significant deterioration in the component physical state. (Pd.M.) provides machinery "health condition: information, which prompts timely, corrective action". The expected result: optimum machine productivity, extended machine life, and reduced repair costs.

**"Preventive Maintenance (PM)"** is any action performed on a time or run-hour based schedule that is designed to detect, preclude, or mitigate degradation of a component or system with the aim of sustaining or extending its useful life through controlling degradation to an acceptable level. PM includes proper inspections, proper lubrication, belts, filter changes, proper fastening procedures, determined by regularly scheduled work, etc. Preventive maintenance activities should be at least 95% of all planned and scheduled PMs shall be completed within the monthly schedule as described in Section 3.6.

**"Provide"** means furnish and install, complete, and ready for intended use, as applicable in each instance, except as otherwise defined in greater action.

**“Quality Control”** means a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the contract.

**"Reliability Centered Maintenance (RCM)"** – The application of Pd.M. and PM data to the preventive maintenance tasks. The process provides statistical method (s) of optimizing PM and Pd.M. programs for the CUP in which the Contractor gathers data from the CUP performance and uses this data for the future maintenance and /or recommended design changes to increase the probability that the CUP will function in the required manner over their design life-cycle.

**"Remedial Maintenance (RM)"** means repair of equipment and systems with parts, materials, and labor to restore performance to the designed function in the event of any breakdown or stoppage of equipment or system where the equipment or system is unable to perform its designed function. RM includes repairs and replacement of related components, parts, and appurtenances that have failed, no longer perform reliably, or have worn beyond safe tolerances.

**"Repair"** means to restore to good or sound working condition.

**"Repair Time"** means the interval of time between issuance of corrective maintenance work order and return of the system to operation.

**"Replacement Equipment"** means equipment of similar capacity to existing equipment provided when the primary equipment is out of service.

**"Replacement Parts"** means any item which by its installation becomes part of the CUP System or equipment.

**"Response Time"** means the maximum elapsed time in which Contractor must respond to an Emergency Service Request. The maximum elapsed time is measured from Contractor's receipt of an Emergency Service Request to Contractor's arrival at the specified work site.

**"Routine"** means those services that do not require emergency condition.

**"Scheduled Maintenance"** means any task that is given a deadline and assigned to a technician or mechanic. It can either be a recurring task done at regular intervals or a one-time task. Scheduled maintenance includes inspections, adjustments, regular service, and planned shutdowns.

**"SCM"** means Supply Chain Management Division located at 18600 Lee Rd., Humble TX. 77338

**"Service"** means to provide the labor, tools, equipment, and all items required to minimize maintenance requirements and ensure proper systems and equipment performance based on manufacturer's recommended procedures.

**"Statement of Work" (SOW)** is the performance/work statement described in this RFP.

**"Subcontractor"** shall include all subcontractors and sub-subcontractors no matter how far removed from the prime Contractor they are. The provisions of this Agreement may not be circumvented through the addition of multiple layers of contracting.

**"Third Party Damage"** means equipment damages and/or failures resulting from, but not limited to, uncontrollable events or conditions, accidents/damages, misuse of equipment, vandalism/abuse, and/or other causes that directly or indirectly affect the operation of the equipment, and which have not been caused by the Contractor's employees or its subcontractors. Acceptable evidence of the occurrence (photographic, witness report, video etc.) is required from the Contractor.

**"Threshold"** means for OSR parts that exceeds a preestablished costs as described in Section 5.2.10 Contractor shall provide all replacement O&M parts where the unit cost is equal to or falls below the established threshold. Such cost will not take into account Contractor's labor or shipping cost, but actual cost of the replacement part. Contractor shall provide all replacement O&M parts where the unit cost is equal to or falls below the established threshold as described in Section 5.2.10. Such cost will not take into account Contractor's labor or shipping cost, but actual cost of the replacement part.

**"Upgrade"** means a new, improved version of a previously written software program or an enhancement to hardware components, such as a math coprocessor added to an existing computer chip to speed up numeric processing.

**“Urgent Service Request”** means a non-remedial maintenance request for immediate action. An urgent service request may be issued outside of Normal Business Hours, in which case additional labor charges will apply.

**“VFD”** means Variable Frequency Drive. A system for controlling the rotational speed of an alternating current (AC) electric motor by controlling the frequency of the electrical power supplied to the motor.

**"Work"** means all services to be provided by the Contractor under this Agreement, specifically, without limitation.



**ATTACHMENT B  
FEE SCHEDULE – LEVELS OF SERVICE**

<b>FACILITIES UNIT PRICING FEE SCHEDULE</b>			
<b>LEVELS OF SERVICE</b>			
<b>Notes:</b>			
1. Reference Performance/Work Statement, Attachment "E" Equipment Lists, Attachment "F" Buildings and Attachment "C" Site Maps.			
2. Contractor's level of service bid pricing will be effective for duration of contract and be defined as "Unit Pricing" if Central Plant Facilities and Assets are added or subtracted from this Contract.			
<b>AIRPORT/BUILDING TYPE</b>	<b>ANNUAL LUMP SUM COST</b>		
<b>YEAR 1</b>	<b>Level I</b>	<b>Level II</b>	<b>Level III</b>
	<b>PERPETUAL</b>	<b>PREDICTIVE</b>	<b>REACTIVE</b>
	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>
<b>IAH CUP/FACILITIES</b>			
Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
CUP Control Building	\$ -	\$ -	\$ -
CUP Electrical Vault	\$ -	\$ -	\$ -
CUP Cooling Towers #2 & #3	\$ -	\$ -	\$ -
CUP Solar Panels	\$ -	\$ -	\$ -
Electrical Plant @ Admin Bldg on JFK	\$ -	\$ -	\$ -
<b>YEAR 1 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>HOU CUP/FACILITIES</b>			
HOU/Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
HOU/Satellite Utilities Plant (SUP)	\$ -	\$ -	\$ -
<b>YEAR 1 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 1 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>AIRPORT/BUILDING TYPE</b>	<b>ANNUAL LUMP SUM COST</b>		
<b>YEAR 2</b>	<b>Level I</b>	<b>Level II</b>	<b>Level III</b>
	<b>PERPETUAL</b>	<b>PREDICTIVE</b>	<b>REACTIVE</b>
	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>
<b>IAH CUP/FACILITIES</b>			
Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
CUP Control Building	\$ -	\$ -	\$ -
CUP Electrical Vault	\$ -	\$ -	\$ -
CUP Cooling Towers #2 & #3	\$ -	\$ -	\$ -
CUP Solar Panels	\$ -	\$ -	\$ -
Electrical Plant @ Admin Bldg on JFK	\$ -	\$ -	\$ -
<b>YEAR 2 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>HOU CUP/FACILITIES</b>			
HOU/Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
HOU/Satellite Utilities Plant (SUP)	\$ -	\$ -	\$ -
<b>YEAR 2 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 2 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
YEAR 3	Best Management Practice	Industry Standard	Routine Service

**IAH CUP/FACILITIES**

Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
CUP Control Building	\$ -	\$ -	\$ -
CUP Electrical Vault	\$ -	\$ -	\$ -
CUP Cooling Towers #2 & #3	\$ -	\$ -	\$ -
CUP Solar Panels	\$ -	\$ -	\$ -
Electrical Plant @ Admin Bldg on JFK	\$ -	\$ -	\$ -
<b>YEAR 3 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

HOU/Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
HOU/Satellite Utilities Plant (SUP)	\$ -	\$ -	\$ -
<b>YEAR 3 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>YEAR 3 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
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AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
YEAR 4	Best Management Practice	Industry Standard	Routine Service

**IAH CUP/FACILITIES**

Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
CUP Control Building	\$ -	\$ -	\$ -
CUP Electrical Vault	\$ -	\$ -	\$ -
CUP Cooling Towers #2 & #3	\$ -	\$ -	\$ -
CUP Solar Panels	\$ -	\$ -	\$ -
Electrical Plant @ Admin Bldg on JFK	\$ -	\$ -	\$ -
<b>YEAR 4 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

HOU/Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
HOU/Satellite Utilities Plant (SUP)	\$ -	\$ -	\$ -
<b>YEAR 4 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>YEAR 4 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
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AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
<b>YEAR 5</b>	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>
<b>IAH CUP/FACILITIES</b>			
Central Utilities Plant (CUP)	\$ -	\$ -	\$ -
CUP Control Building	\$ -	\$ -	\$ -
CUP Electrical Vault	\$ -	\$ -	\$ -
CUP Cooling Towers #2 & #3	\$ -	\$ -	\$ -
CUP Solar Panels	\$ -	\$ -	\$ -
Electrical Plant @ Admin Bldg on JFK	\$ -	\$ -	\$ -
<b>YEAR 5 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>HOU CUP/FACILITIES</b>			
HOU/Central Utilities Plant (CUP)	\$	\$	\$
HOU/Satellite Utilities Plant (SUP)	\$	\$	\$
<b>YEAR 5 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 5 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**ATTACHMENT B  
FEE SCHEDULE – LEVELS OF SERVICE**

**Notes:**

1. Contractor level of service bid pricing will be effective for duration of contract and be defined as "Unit Pricing" if Central Plant Facilities and Assets are added or subtracted from this Contract.

2. Costs for additional Cup Facilities/Assets are to be reflected as "Unit Price Per Square Foot"

<b>IAH UNIT PRICE</b>	<b>Level I</b>	<b>Level II</b>	<b>Level III</b>
	<b>PERPETUAL</b>	<b>PREDICTIVE</b>	<b>REACTIVE</b>
	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>
<b>Additional CUP Facilities/Assets</b>	<b>\$/SF</b>	<b>\$/SF</b>	<b>\$/SF</b>
Year 1	\$	\$	\$
Year 2	\$	\$	\$
Year 3	\$	\$	\$
Year 4	\$	\$	\$
Year 5	\$	\$	\$
<b>HOU UNIT PRICE</b>	<b>Level I</b>	<b>Level II</b>	<b>Level III</b>
	<b>PERPETUAL</b>	<b>PREDICTIVE</b>	<b>REACTIVE</b>
	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>
<b>Additional CUP Facilities/Assets</b>	<b>\$/SF</b>	<b>\$/SF</b>	<b>\$/SF</b>
Year 1	\$	\$	\$
Year 2	\$	\$	\$
Year 3	\$	\$	\$
Year 4	\$	\$	\$
Year 5	\$	\$	\$

### ATTACHMENT B FEE SCHEDULE – BASIC SERVICES

IAH CUP  BASIC SERVICES	Level I		Level II		Level III	
	PERPETUAL LOS		PREDICTIVE LOS		REACTIVE LOS	
	(Best Management Practice)		(Industry Standard)		(Routine)	
Year of Service	Monthly	Annually	Monthly	Annually	Monthly	Annually
Year 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>

IAH Electrical Feed Bldg  BASIC SERVICES	Level I		Level II		Level III	
	PERPETUAL LOS		PREDICTIVE LOS		REACTIVE LOS	
	(Best Management Practice)		(Industry Standard)		(Routine)	
Year of Service	Monthly	Annually	Monthly	Annually	Monthly	Annually
Year 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>

HOU CUP  BASIC SERVICES	Level I		Level II		Level III	
	PERPETUAL LOS		PREDICTIVE LOS		REACTIVE LOS	
	(Best Management Practice)		(Industry Standard)		(Routine)	
Year of Service	Monthly	Annually	Monthly	Annually	Monthly	Annually
Year 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>

HOU SUP  BASIC SERVICES	Level I		Level II		Level III	
	PERPETUAL LOS		PREDICTIVE LOS		REACTIVE LOS	
	(Best Management Practice)		(Industry Standard)		(Routine)	
Year of Service	Monthly	Annually	Monthly	Annually	Monthly	Annually
Year 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Year 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>	<b>Total</b>	<b>\$ -</b>
	IAH & HOU LEVEL 1, PERPETUAL LOS		IAH & HOU LEVEL 1, PREDICTIVE LOS		IAH & HOU LEVEL 1, REACTIVE LOS	
	<b>Grand Total \$ -</b>		<b>Grand Total \$ -</b>		<b>Grand Total \$ -</b>	

Unit Price Per Square Foot		
<b>IAH Unit Pricing</b>	<b>\$/SF</b>	<b>\$/SF</b>
Additional Central Plant Facilities and Assets	\$	\$

Unit Price Per Square Foot		
<b>HOU Unit Pricing</b>	<b>\$/SF</b>	<b>\$/SF</b>
Additional Central & Satellite Utilities Plant Facilities and Assets	\$	\$

## ATTACHMENT B FEE SCHEDULE – IAH (OTHER WORK SERVICES)

<b>OTHER WORK SERVICES (OSR'S) - IAH LEVEL I, PERPETUAL LOS</b>												
<b>LEVEL I, PERPETUAL LOS (Best Management Practice)</b>	<b>Contract Hours</b>	<b>Year 1 Cost Per Hour</b>	<b>Year 1 Costs</b>	<b>Year 2 Cost Per Hour</b>	<b>Year 2 Costs</b>	<b>Year 3 Cost Per Hour</b>	<b>Year 3 Costs</b>	<b>Year 4 Cost Per Hour</b>	<b>Year 4 Costs</b>	<b>Year 5 Cost Per Hour</b>	<b>Year 5 Costs</b>	<b>Total Costs Years 1 - 5</b>
<b>CUP Maintenance Mechanic</b>												
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DDC Maintenance Mechanic</b>												
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DX Maintenance Mechanic</b>												
Normal Work Hours	140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Hours Costs (Years 1 - 5)</b>	1,000		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
<b>Cost Materials</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00	
<b>Proposed % Mark-Up</b>			0%		0%		0%		0%		0%	
<b>Costs Materials + Mark-Up</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00	\$ 1,125,000.00
<b>Hours &amp; Materials Costs (Years 1 - 5)</b>			<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>	<b>\$ 1,125,000.00</b>

<b>OTHER WORK SERVICES (OSR'S) - IAH LEVEL II, PREDICTIVE LOS</b>												
<b>LEVEL II, PREDICTIVE LOS (Industry Standard)</b>	<b>Contract Hours</b>	<b>Year 1 Cost Per Hour</b>	<b>Year 1 Costs</b>	<b>Year 2 Cost Per Hour</b>	<b>Year 2 Costs</b>	<b>Year 3 Cost Per Hour</b>	<b>Year 3 Costs</b>	<b>Year 4 Cost Per Hour</b>	<b>Year 4 Costs</b>	<b>Year 5 Cost Per Hour</b>	<b>Year 5 Costs</b>	<b>Total Costs Years 1 - 5</b>
<b>CUP Maintenance Mechanic</b>												
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DDC Maintenance Mechanic</b>												
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DX Maintenance Mechanic</b>												
Normal Work Hours	140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Hours Costs (Years 1 - 5)</b>	1,000		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
<b>Cost Materials</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00	
<b>Proposed % Mark-Up</b>			0%		0%		0%		0%		0%	
<b>Costs Materials + Mark-Up</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00	\$ 1,125,000.00
<b>Hours &amp; Materials Costs (Years 1 - 5)</b>			<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>		<b>\$ 225,000.00</b>	<b>\$ 1,125,000.00</b>



## ATTACHMENT B FEE SCHEDULE – HOU (OTHER WORK SERVICES)

<b>OTHER WORK SERVICES (OSR'S) - HOU LEVEL I, PERPETUAL LOS</b>													
<b>LEVEL I, PERPETUAL LOS (Best Management Practice)</b>	<b>Contract Hours</b>	<b>Year 1 Cost Per Hour</b>	<b>Year 1 Costs</b>	<b>Year 2 Cost Per Hour</b>	<b>Year 2 Costs</b>	<b>Year 3 Cost Per Hour</b>	<b>Year 3 Costs</b>	<b>Year 4 Cost Per Hour</b>	<b>Year 4 Costs</b>	<b>Year 5 Cost Per Hour</b>	<b>Year 5 Costs</b>	<b>Total Costs Years 1 - 5</b>	
<b>CUP Maintenance Mechanic</b>													
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DDC Maintenance Mechanic</b>													
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DX Maintenance Mechanic</b>													
Normal Work Hours	140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Hours Costs (Years 1 - 5)</b>	1,000		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
<b>Cost Materials</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00
<b>Proposed % Mark-Up</b>			0%		0%		0%		0%		0%		0%
<b>Costs Materials + Mark-Up</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 1,125,000.00
<b>Hours &amp; Materials Costs (Years 1 - 5)</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 1,125,000.00

<b>OTHER WORK SERVICES (OSR'S) - HOU LEVEL II, PREDICTIVE LOS</b>													
<b>LEVEL II, PREDICTIVE LOS (Industry Standard)</b>	<b>Contract Hours</b>	<b>Year 1 Cost Per Hour</b>	<b>Year 1 Costs</b>	<b>Year 2 Cost Per Hour</b>	<b>Year 2 Costs</b>	<b>Year 3 Cost Per Hour</b>	<b>Year 3 Costs</b>	<b>Year 4 Cost Per Hour</b>	<b>Year 4 Costs</b>	<b>Year 5 Cost Per Hour</b>	<b>Year 5 Costs</b>	<b>Total Costs Years 1 - 5</b>	
<b>CUP Maintenance Mechanic</b>													
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DDC Maintenance Mechanic</b>													
Normal Work Hours	300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>DX Maintenance Mechanic</b>													
Normal Work Hours	140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
After Normal Work Hours	60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Hours Costs (Years 1 - 5)</b>	1,000		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -
<b>Cost Materials</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00
<b>Proposed % Mark-Up</b>			0%		0%		0%		0%		0%		0%
<b>Costs Materials + Mark-Up</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 1,125,000.00
<b>Hours &amp; Materials Costs (Years 1 - 5)</b>			\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 225,000.00		\$ 1,125,000.00





**ATTACHMENT B  
FEE SCHEDULE – FACILITIES EQUIPMENT EXCLUSIONS**

**Notes:**

1. Reference Performance/Work Statement, Attachment "E" Equipment Lists, Attachment "F" Buildings and Attachment "C" Site Maps.

2. Contractor's level of service bid pricing will be effective for duration of contract and be defined as "Unit Pricing" if Central Plant Facilities and Assets are added or subtracted from this Contract.

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
	Best Management Practice	Industry Standard	Routine Service
<b>YEAR 1</b>			
<b>IAH CUP/FACILITIES</b>			
Exclusion of Nebraska Steam Boiler 4	\$ -	\$ -	\$ -
Exclusion of Nebraska Steam Boiler 5	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 6	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 8	\$ -	\$ -	\$ -
Exclusion of Cooling Tower 4	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
<b>YEAR 1 SUBTOTAL - IAH</b>	\$ -	\$ -	\$ -
<b>HOU CUP/FACILITIES</b>			
Exclusion of Central Utilities Plant (CUP)	\$	\$	\$
	\$	\$	\$
<b>YEAR 1 SUBTOTAL - HOU</b>	\$ -	\$ -	\$ -
<b>YEAR 1 GRAND TOTAL - IAH &amp; HOU</b>	\$ -	\$ -	\$ -

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
<b>YEAR 2</b>	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>

**IAH CUP/FACILITIES**

Exclusion of Nebraska Steam Boiler 4	\$ -	\$ -	\$ -
Exclusion of Nebraska Steam Boiler 5	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 6	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 8	\$ -	\$ -	\$ -
Exclusion of Cooling Tower 4	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
<b>YEAR 2 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

Exclusion of Central Utilities Plant (CUP)	\$	\$	\$
	\$	\$	\$
<b>YEAR 2 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 2 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
<b>YEAR 3</b>	<b>Best Management Practice</b>	<b>Industry Standard</b>	<b>Routine Service</b>

**IAH CUP/FACILITIES**

Exclusion of Nebraska Steam Boiler 4	\$ -	\$ -	\$ -
Exclusion of Nebraska Steam Boiler 5	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 6	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 8	\$ -	\$ -	\$ -
Exclusion of Cooling Tower 4	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
<b>YEAR 3 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

Exclusion of Central Utilities Plant (CUP)	\$	\$	\$
	\$	\$	\$
<b>YEAR 3 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 3 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
YEAR 4	Best Management Practice	Industry Standard	Routine Service

**IAH CUP/FACILITIES**

Exclusion of Nebraska Steam Boiler 4	\$ -	\$ -	\$ -
Exclusion of Nebraska Steam Boiler 5	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 6	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 8	\$ -	\$ -	\$ -
Exclusion of Cooling Tower 4	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
<b>YEAR 4 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

Exclusion of Central Utilities Plant (CUP)	\$	\$	\$
	\$	\$	\$
<b>YEAR 4 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 4 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

AIRPORT/BUILDING TYPE	ANNUAL LUMP SUM COST		
	Level I	Level II	Level III
	PERPETUAL	PREDICTIVE	REACTIVE
YEAR 5	Best Management Practice	Industry Standard	Routine Service

**IAH CUP/FACILITIES**

Exclusion of Nebraska Steam Boiler 4	\$ -	\$ -	\$ -
Exclusion of Nebraska Steam Boiler 5	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 6	\$ -	\$ -	\$ -
Exclusion of York Steam Chiller 8	\$ -	\$ -	\$ -
Exclusion of Cooling Tower 4	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
<b>YEAR 5 SUBTOTAL - IAH</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**HOU CUP/FACILITIES**

Exclusion of Central Utilities Plant (CUP)	\$	\$	\$
	\$	\$	\$
<b>YEAR 5 SUBTOTAL - HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>YEAR 5 GRAND TOTAL - IAH &amp; HOU</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**EXHIBIT I**  
**OFFER AND SUBMITTAL, REFERENCES, PROPOSED CONTRACTORS**

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**EXHIBIT I  
OFFER AND SUBMITTAL**

NOTE: PROPOSAL MUST BE SIGNED AND NOTARIZED BY AN AUTHORIZED REPRESENTATIVE(S) OF THE PROPOSER, WHICH MUST BE THE ACTUAL LEGAL ENTITY THAT WILL PERFORM THE CONTRACT IF AWARDED AND THE TOTAL FIXED PRICE CONTAINED THEREIN SHALL REMAIN FIRM FOR A PERIOD OF ONE-HUNDRED EIGHTY (180) DAYS.

"THE RESPONDENT WARRANTS THAT NO PERSON OR SELLING AGENCY HAS BEEN EMPLOYED OR RETAINED TO SOLICIT OR SECURE THIS CONTRACT UPON AN CONTRACT OR UNDERSTANDING FOR A COMMISSION, PERCENTAGE, BROKERAGE, OR CONTINGENT FEE, EXCEPTING BONA FIDE EMPLOYEES. FOR BREACH OR VIOLATION OF THIS WARRANTY, THE CITY SHALL HAVE THE RIGHT TO ANNUL THIS CONTRACT WITHOUT LIABILITY OR, AT ITS DISCRETION, TO DEDUCT FROM THE CONTRACT PRICES OR CONSIDERATION, OR OTHERWISE RECOVER THE FULL AMOUNT OF SUCH COMMISSION, PERCENTAGE, BROKERAGE OR CONTINGENT FEE."

Respectfully Submitted:

\_\_\_\_\_  
(Print or Type Name of Contractor – Full Company Name)

City of Houston Vendor No. (If already doing business with City):  
\_\_\_\_\_

Federal Identification Number:  
\_\_\_\_\_

By: \_\_\_\_\_  
(Signature of Authorized Officer or Agent)

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Address of Contractor:  
\_\_\_\_\_  
Street Address or P.O. Box  
\_\_\_\_\_  
City – State – Zip Code

Telephone No. of Contractor: (\_\_\_\_\_) \_\_\_\_\_

Signature, Name and title of Affiant:  
\_\_\_\_\_

\_\_\_\_\_  
(Notary Public in and for)

\_\_\_\_\_  
Texas \_\_\_\_\_ County,

My Commission Expires: \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_\_

**EXHIBIT I  
REFERENCES  
LIST OF PREVIOUS CUSTOMERS**

1. Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contract Award Date: \_\_\_\_\_ Contract Completion Date: \_\_\_\_\_  
Contract Name/Title: \_\_\_\_\_  
Email: \_\_\_\_\_  
System Description: \_\_\_\_\_  
\_\_\_\_\_

2. Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contract Award Date: \_\_\_\_\_ Contract Completion Date: \_\_\_\_\_  
Contract Name/Title: \_\_\_\_\_  
Email: \_\_\_\_\_  
System Description: \_\_\_\_\_  
\_\_\_\_\_

3. Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contract Award Date: \_\_\_\_\_ Contract Completion Date: \_\_\_\_\_  
Contract Name/Title: \_\_\_\_\_  
Email: \_\_\_\_\_  
System Description: \_\_\_\_\_  
\_\_\_\_\_

4. Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contract Award Date: \_\_\_\_\_ Contract Completion Date: \_\_\_\_\_  
Contract Name/Title: \_\_\_\_\_  
Email: \_\_\_\_\_  
System Description: \_\_\_\_\_





**EXHIBIT II  
ATTACHMENT "A"  
SCHEDULE OF MWBE PARTICIPATION**

DATE OF REPORT: \_\_\_\_\_

BID NO.: \_\_\_\_\_

FORMAL BID TITLE: \_\_\_\_\_

NAME OF MINORITY/WOMEN CONTRACTOR	OFFICE OF BUSINESS OPPORTUNITY CERTIFICATION NO.	STREET ADDRESS AND CITY, STATE, ZIP CODE	TELEPHONE NO.	SCOPE OF WORK	AGREED PRICE
TOTAL.....					\$_____
MWBE PARTICIPATION AMOUNT.....					\$_____%
TOTAL BID AMOUNT.....					\$_____

IF YOU HAVE USED YOUR BEST EFFORTS TO CARRY OUT THE CITY'S MWSBE POLICY BY SEEKING CONTRACTORS AND SUPPLY CONTRACTS WITH MINORITY AND WOMEN BUSINESS ENTERPRISES, YET FAILED TO MEET THE STATED PERCENTAGE GOAL OF THIS BID DOCUMENT, LIST BELOW YOUR GOOD FAITH EFFORTS FOR COMPLIANCE (DEFINITION OF REQUIREMENTS CAN BE OBTAINED THROUGH THE OFFICE OF BUSINESS OPPORTUNITY AT (713) 837-9000).
THE UNDERSIGNED WILL ENTER INTO A FORMAL CONTRACT WITH THE MINORITY AND/OR WOMEN CONTRACTORS AND SUPPLIERS LISTED IN THIS SCHEDULE CONDITIONED UPON AWARD OF A CONTRACT FROM THE CITY.
<b>NOTE:</b> ALL FIRMS LISTED ABOVE MUST BE CERTIFIED (OR ELIGIBLE FOR CERTIFICATION) BY THE OFFICE OF BUSINESS OPPORTUNITY. THIS SCHEDULE OF MWSBE PARTICIPATION SHOULD BE RETURNED, IN DUPLICATE, WITH THE BID FORM.

\_\_\_\_\_  
**PROPOSER COMPANY NAME**

\_\_\_\_\_  
**SIGNATURE OF AUTHORIZED OFFICER OR AGENT OF PROPOSER**

\_\_\_\_\_  
**NAME (TYPE OR PRINT)**

\_\_\_\_\_  
**TITLE**

**EXHIBIT II  
ATTACHMENT "B"  
OFFICE OF BUSINESS OPPORTUNITY AND  
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

**NOTICE OF INTENT**

**THIS CONTRACT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.**

To: City of Houston  
Administering Department

Date: \_\_\_\_\_

Project Name and Number \_\_\_\_\_

Bid Amount: \_\_\_\_\_ M/W/BE Goal: \_\_\_\_\_

\_\_\_\_\_, agrees to enter into a contractual contract with  
Prime Contractor

\_\_\_\_\_, who will provide the following goods/services in connection  
MWBE Contractor

with the above-referenced contract:

\_\_\_\_\_

for an estimated amount of \$ \_\_\_\_\_ or \_\_\_\_\_ % of the total contract value.

\_\_\_\_\_ is currently certified with the City of Houston's Office of Business  
(M/W/BE Contractor) Opportunity to function in the aforementioned capacity.

\_\_\_\_\_ Intend to  
Prime Contractor M/W/BE Contractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

\_\_\_\_\_  
Signed (Prime Contractor)

\_\_\_\_\_  
Signed (M/W/BE Contractor)

\_\_\_\_\_  
Printed Signature

\_\_\_\_\_  
Printed Signature

\_\_\_\_\_  
Title Date

\_\_\_\_\_  
Title Date

**EXHIBIT II  
ATTACHMENT "C"  
CERTIFIED MWBE CONTRACTOR TERMS**

**CITY OF HOUSTON CERTIFIED MWBE CONTRACTOR TERMS**

Contractor shall ensure that all contractors with M/WBE contractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. \_\_\_\_\_(M/WBE contractor) shall not delegate or contractor more than 50% of the work under this contractor to any other contractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. \_\_\_\_\_(M/WBE contractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the contractor, and 2) inspections of all places where work is to be undertaken in connection with this contractor. Contractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this contractor. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this contractor, Contractor (prime contractor) and Contractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE contracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7<sup>th</sup> Floor, Houston, Texas 77002.

**EXHIBIT II  
ATTACHMENT "D"  
OFFICE OF BUSINESS OPPORTUNITY AND  
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

**Report Period:** \_\_\_\_\_

**PROJECT NAME & NUMBER:** \_\_\_\_\_

**AWARD DATE:** \_\_\_\_\_

**PRIME CONTRACTOR:** \_\_\_\_\_

**CONTRACT NO.:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CONTRACT AMOUNT:** \_\_\_\_\_

**LIAISON/PHONE NO.:** \_\_\_\_\_

**MWBE GOAL:** \_\_\_\_\_

MWBE SUB/VENDOR NAME	DATE OF OBO CERTIFICATION	DATE OF CONTRACTOR	CONTRACTOR AMOUNT	% OF TOTAL CONTRACT	AMOUNT PAID TO DATE	% OF CONTRACT TO DATE

Use additional pages if needed. Submit by the 15th day of the following month.  
 Provide support documentation on all revenues paid to end of the report period to:  
 MWBE's to reflect up/down variances on Contract amount.

Office of Business Opportunity  
 ATTN: Carlecia Wright 713-837-9000  
 611 Walker, 7<sup>th</sup> Floor  
 Houston, Texas 77002

**EXHIBIT III  
FAIR CAMPAIGN ORDINANCE**

The City of Houston Fair Campaign Ordinance makes it unlawful for a Contractor to offer any contribution to a candidate for City elective office (including elected officers and officers-elect). All respondents to this invitation to bid must comply with Houston Code of Ordinances Chapter 18 as amended relating to the contribution and solicitation of funds for election campaigns. Provisions of this ordinance are provided in part in the paragraphs that follow. Complete copies may be obtained from the office of the City Secretary.

Candidates for city office may neither solicit nor receive contributions except during a period commencing 270 calendar days prior to an election date for which a person is a candidate for such office and ending 90 calendar days after the election date, including run-off elections if such candidate is on the ballot.

Further, it shall be unlawful either for any person who submits a Bid or Proposal to contribute or offer any contribution to a candidate or for any candidate to solicit or accept any contribution from such person for a period commencing at the time of posting of the City Council Meeting Agenda including an item for the award of the Contract and ending upon the 30th day after the award of the Contract by City Council.

For the purposes of this Ordinance, a **Contract** is defined as each Contract having a value in excess of \$30,000 that is let by the City for professional services, personal services, or other goods or services of any other nature whether the Contract is awarded on a negotiated basis, request for Proposal basis, competitive Proposal basis or formal sealed competitive Bids. The term **Contractor** includes proprietors of proprietorships, partners having an equity interest of 10% or more of partnerships, (including limited liability partnerships and companies), all officers and directors of corporations (including limited liability corporations), and all holders of 10% or more of the outstanding shares of corporations.

**A STATEMENT DISCLOSING THE NAMES AND BUSINESS ADDRESSES EACH OF THOSE PERSONS WILL BE REQUIRED TO BE SUBMITTED WITH EACH BID OR PROPOSAL FOR A CITY CONTRACT.**

Completion of the attached form entitled "**Contractor Submission List**" will satisfy this requirement. Failure to provide this information may be just cause for rejection of your Bid or Proposal.

**EXHIBIT III  
FORM "A": FAIR CAMPAIGN**

**CONTRACTOR SUBMISSION LIST  
CITY OF HOUSTON FAIR CAMPAIGN ORDINANCE**

By submitting a bid or proposal to the City of Houston for a Contract in excess of \$50,000 or for which a request is presented to City Council for approval, all respondents agree to comply with Chapter 18 of the Code of Ordinances.

Pursuant to Section 18-36 of the Code of Ordinances, it is unlawful either for any contractor to contribute or offer any contribution to a candidate, or for any candidate to solicit or accept any contribution from a contractor for a period commencing at the time of posting of the City Council Meeting Agenda including an item for the award of the Contract and ending upon the 30th day after the award of the Contract by City Council, or a determination by City Council of the Mayor that the contract will not be awarded to a contractor.

The term "contractor" means any person who has received the award of a contract, has submitted a bid or proposal in any form for the award of a contract, or has been proposed to be awarded the contract in an item placed upon the City Council agenda, including any other person who seeks the award of the contract and is contesting, appealing, or protesting the award of the contract as proposed.

This list is submitted under the provisions of Section 18-36(b) of the City of Houston Code of Ordinances in connection with the attached Bid/Proposal of:

Firm or Company Name: \_\_\_\_\_

Firm or Company Address: \_\_\_\_\_

The firm/company is organized as indicated below. Check one as applicable and attach additional pages if needed to supply the required names and addresses.

SOLE PROPRIETOR

Name \_\_\_\_\_  
Proprietor Address

A PARTNERSHIP

LIST EACH PARTNER HAVING EQUITY INTEREST OF 10% OR MORE OF PARTNERSHIP  
(IF NONE STATE "NONE")

Name \_\_\_\_\_  
Partner Address

Name \_\_\_\_\_  
Partner Address

A LIMITED LIABILITY COMPANY

LIST EACH MEMBER OR MANAGER (IF NO MEMBERS) HAVING EQUITY INTEREST OF

10% OR MORE IN THE LIMITED LIABILITY COMPANY (IF NONE, STATE "NONE")

Name \_\_\_\_\_  
Member/Manager Address

Name \_\_\_\_\_  
Member/Manager Address

Name \_\_\_\_\_  
Member/Manager Address

[ ] A CORPORATION

LIST ALL DIRECTORS OF THE CORPORATION (IF NONE STATE "NONE")

Name \_\_\_\_\_  
Director Address

Name \_\_\_\_\_  
Director Address

Name \_\_\_\_\_  
Director Address

LIST ALL OFFICERS OF THE CORPORATION (IF NONE STATE "NONE")

Name \_\_\_\_\_  
Officer Address

Name \_\_\_\_\_  
Officer Address

Name \_\_\_\_\_  
Officer Address

LIST ALL INDIVIDUALS OWNING 10% OR MORE OF OUTSTANDING SHARES OF STOCK OF THE CORPORATION (IF NONE STATE "NONE")

Name \_\_\_\_\_  
Owner Address

Name \_\_\_\_\_  
Owner Address

Name \_\_\_\_\_  
Owner Address



I certify that I am duly authorized to submit this list on behalf of the firm, that I am associated with the firm in the capacity noted below, and that I have knowledge of the accuracy of the information provided herein.

---

Signature

---

Printed Name

---

Title

Note: This list constitutes a government record as defined by § 37.01 of the Texas Penal Code.

12/15/2016

**EXHIBIT IV:  
CONTRACTOR OWNERSHIP DISCLOSURE ORDINANCE**

City Council requires knowledge of the identities of the owners of entities seeking to Contract with the City in order to review their indebtedness to the City prior to entering Contracts. Therefore, all respondents to this Invitation to Bid must comply with Houston Code of Ordinances Chapter 15, as amended (Sections 15-122 through 15-126) relating to the disclosure of owners of entities bidding on, proposing for or receiving City contracts. Provisions of this ordinance are provided in part in the paragraphs that follow. Complete copies may be obtained from the office of the City Secretary.

Contracting entity means a sole proprietorship, corporation, non-profit corporation, partnership, joint venture, limited liability company, or other entity that seeks to enter into a contract requiring approval by the Council but excluding governmental entities.

A contracting entity must submit at the time of its Bid or Proposal, an affidavit listing the full names and the business and residence addresses of all persons owning five percent or more of a contracting entity or, where a contracting entity is a non-profit corporation, the full names and the business and residence addresses of all officers of the non-profit corporation.

Completion of the "**Affidavit of Ownership or Control**," included herein, and submitted with the Official Bid or Proposal Form will satisfy this requirement. Failure to provide this information may be just cause for rejection of your Bid or Proposal.



**BOXES FOR ANY ADDRESS. INCLUSION OF E-MAIL ADDRESSES IS OPTIONAL, BUT RECOMMENDED. ATTACH ADDITIONAL SHEETS AS NEEDED.]**

**Contracting Entity**

Name: \_\_\_\_\_

Business Address **[NO./STREET]** \_\_\_\_\_

**[CITY/STATE/ZIP CODE]** \_\_\_\_\_

Telephone Number (\_\_\_\_\_) \_\_\_\_\_

Email Address **[OPTIONAL]** \_\_\_\_\_

Residence Address **[NO./STREET]** \_\_\_\_\_

**[CITY/STATE/ZIP CODE]** \_\_\_\_\_

Telephone Number (\_\_\_\_\_) \_\_\_\_\_

Email Address **[OPTIONAL]** \_\_\_\_\_

**10% Owner(s) or More (IF NONE, STATE "NONE.")**

Name: \_\_\_\_\_

Business Address **[NO./STREET]** \_\_\_\_\_

**[CITY/STATE/ZIP CODE]** \_\_\_\_\_

Telephone Number (\_\_\_\_\_) \_\_\_\_\_

Email Address **[OPTIONAL]** \_\_\_\_\_

Residence Address **[NO./STREET]** \_\_\_\_\_

**[CITY/STATE/ZIP CODE]** \_\_\_\_\_

Telephone Number (\_\_\_\_\_) \_\_\_\_\_

Email Address **[OPTIONAL]** \_\_\_\_\_

**7. Optional Information**

Contracting Entity and/or \_\_\_\_\_ [***NAME OF OWNER OR NON-PROFIT OFFICER***] is actively protesting, challenging or appealing the accuracy and/or amount of taxes levied against \_\_\_\_\_ [***CONTRACTING ENTITY, OWNER OR NON-PROFIT OFFICER***] as follows:

Name of Debtor: \_\_\_\_\_

Tax Account Nos. \_\_\_\_\_

Case or File Nos. \_\_\_\_\_

Attorney/Agent Name \_\_\_\_\_

Attorney/Agent Phone No. (\_\_\_\_\_) \_\_\_\_\_

Tax Years \_\_\_\_\_

Status of Appeal [***DESCRIBE***] \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Affiant certifies that he or she is duly authorized to submit the above information on behalf of the Contracting Entity, that Affiant is associated with the Contracting Entity in the capacity noted above and has personal knowledge of the accuracy of the information provided herein, and that the information provided herein is true and correct to the best of Affiant's knowledge and belief.

\_\_\_\_\_  
Affiant

**SWORN TO AND SUBSCRIBED** before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

(Seal)

\_\_\_\_\_  
Notary Public

**NOTE:**

This affidavit constitutes a **government record** as defined by Section 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in Section 37.10 of the Texas Penal Code. Attach additional pages if needed to supply the required names and addresses.

**EXHIBIT V  
ANTI-COLLUSION STATEMENT**

**Anti-Collusion Statement**

The undersigned, as Proposer, certifies that the only person or parties interested in this Proposal as principals are those named herein; that the Proposer has not, either directly or indirectly entered into any Contract, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the award of this Contract.

\_\_\_\_\_

Date

\_\_\_\_\_

Proposer Signature

**EXHIBIT VI  
PROPOSER'S STATEMENT OF RESIDENCY**

The City may not award a contract for general construction, services, or purchases to a Nonresident Proposer unless Nonresident's Bid is lower than the lowest Bid submitted by a responsible Texas Resident Proposer by the same amount that a Texas Resident proposer would be required to underbid the Nonresident Proposer to obtain a comparable contract in the state in which Nonresident's principle place of business is located.

1. This certifies that the Proposer, \_\_\_\_\_, is a State of Texas Resident Proposer as defined in TEX. GOVT. CODE ANN. § 2252.001(4) (Vernon 2016).

\_\_\_\_\_  
Signature Title

"Texas Resident Proposer" means a proposer whose principal place of business is in this State, and includes a Contractor whose ultimate parent company or majority owner has its principal place of business in this State. *When proposer cannot sign 1, above, proceed to 2.*

2. a. \_\_\_\_\_ is a resident of \_\_\_\_\_ and is a Nonresident Proposer as defined in TEX. GOVT. CODE ANN. § 2252.001(3) (Vernon 2016).

\_\_\_\_\_  
Signature Title

"Nonresident Proposer" means a proposer whose principal place of business is not in this State, but excludes a contractor whose ultimate parent company or majority owner has its principal place of business in this State.

b. The State of \_\_\_\_\_ [does/does not] \_\_\_\_\_ have a state statute giving preference to resident proposers.

\_\_\_\_\_  
Signature Title

If the answer to 2.b is that your state does have a statute giving preference to resident proposers, then you must provide a copy and proceed to 3.

3. A copy of the State of \_\_\_\_\_ statute is attached.

\_\_\_\_\_  
Signature Title  
\_\_\_\_\_  
Date

\*\*\*\*\*

*Note to Specifier - Do not include this form if the Project will receive federal funding in whole or in part. If used, include reference in Document 00210 - Supplementary Instructions to Proposers.*

*States that currently penalize out-of-state proposers include, but may not be limited to, Colorado, Illinois, Iowa, Minnesota, Montana, North Dakota, Pennsylvania, and Wyoming. If Low Proposer is a resident of one of these states, consult the City of Houston Legal Department in adjusting the Bid Amount.*

\*\*\*\*\*

## EXHIBIT VII CONFLICT OF INTEREST QUESTIONNAIRE

### **CONFLICT OF INTEREST QUESTIONNAIRE:**

Chapter 176.006 of the Local Government Code (“the code”) requires a Vendor/Contractor to file a Conflict of Interest Questionnaire (CIQ) with the City.

**NOTE:** Vendors/Contractors or Agents should **not** complete the CIQ if a conflict, as described below, **does not exist. Only Vendors/Contractors or Agents that actually have a conflict, as described below, must file a CIQ.**

### **Who must file a CIQ?**

A Vendor/Contractor or Agent of a Vendor/Contractor does not have to file a CIQ unless they intend to enter or is considering entering into a contract with the City or:

1. has an employment or other business relationship with the Local Government Officer/Family Member; or
2. has given the Local Government Officer/Family Member one or more gifts with the aggregate value exceeding \$250.00.

### **When must the Vendor/Contractor or Agent file a CIQ?**

The completed CIQ must be filed with the City Chief Procurement Officer not later than the 7<sup>th</sup> business day after the date the Vendor/Contractor or Agent:

1. begins discussions or negotiations to enter into a contract with the City;
2. submits an application to the City in response to a request for proposals or bids, correspondence, or any other writing related to a potential contract with the City;
3. becomes aware of an employment or other business relations with the Local Government Officer/Family Member;
4. becomes aware that he/she has given one or more gifts to the Local Government Officer/Family Member that exceeds \$250.00; or
5. an event that would make the CIQ incomplete or inaccurate.

### **What is a business relationship?**

Under Chapter 176, business relationship means a connection between two or more parties based on the commercial activity of one of the parties. The term does not include:

1. a transaction that is subject to a rate or fee regulation by a governmental entity;
2. a transaction conducted at a price and subject to terms available to the public; or
3. a purchase or lease of goods or services from a person who is chartered by a state or federal agency and is subject to regular examination and reporting to that agency.

The Conflict of Interest Questionnaire is available for downloading from the Texas Ethics Commission’s website at <http://www.ethics.state.tx.us/forms/CIQ.pdf>.

T

he Original Conflict of Interest Questionnaire shall be filed with the Administration and Regulatory Affairs Department’s Record Administration (Lourdes Coss, City Chief Procurement Officer, 901 Bagby, Concourse Level, Houston, Texas 77002). Vendors and Contractors required to file shall include a copy of the form as part of the BID/Proposal package. **Any questions about filling out this form should be directed to your attorney.**



**EXHIBIT VII  
CONFLICT OF INTEREST QUESTIONNAIRE**

**FORM CIQ**

**CONFLICT OF INTEREST QUESTIONNAIRE**

**For vendor or other person doing business with local governmental entity**

This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.

A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

**OFFICE USE ONLY**

Date Received

**1** Name of person who has a business relationship with local governmental entity.

**2**  Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

**3** Name of local government officer with whom filer has employment or business relationship.

\_\_\_\_\_  
Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

Yes       No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

Yes       No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

Yes       No

D. Describe each employment or business relationship with the local government officer named in this section.

**4**

\_\_\_\_\_  
Signature of person doing business with the governmental entity

\_\_\_\_\_  
Date