



CITY OF HOUSTON

Sylvester Turner

Mayor



HOUSTON AIRPORT SYSTEM

George Bush Intercontinental ~ William P. Hobby ~ Ellington Airport

Mario C. Diaz
Director of Aviation

September 15, 2022

SUBJECT: Letter of Clarification No. 9

REFERENCE: Request for Competitive Sealed Proposal (CSP) Passenger Loading Bridges Replacement and Maintenance at IAH & HOU; Solicitation No. HJA-HASPLB-2022-016; Project No. 946A & 946B

To: All Prospective Respondents:

This Letter of Clarification (LOC) is issued for the following reason:

I. To Respond to Questions

1. **Question:** Proposers Bond: The Contractor shall be required to provide and submit with their proposal a Proposers Bond in the amount of 10% of the total amount which includes the Pricing Schedule A, B & C. With respect to Schedule D, the total for these items will not be included in calculating the Proposers Bond as the quantity of 0 will remain unchanged. (See Form 00430 Proposer’s Bond) **Please confirm?**

Response: The Proposer Bond is based on the total base proposal price.

2. **Question:** Performance Bond: The successful Contractor shall furnish and maintain a Performance Bond in the amount One hundred Percent (100%) of the annual contract rate conditioned on Contractor's full and timely performance of the Agreement. The bond shall be renewed annually on the anniversary date of the contract award each Agreement Year. The Agreement Term shall be ten years. (See Form 00610 Performance Bond) **Please confirm? Please confirm that the Performance Bond agreement term shall be ten years.** (Reference Letter of Clarification No. 4 – Exhibit “B” – Scope of Services, Item 6.0 Performance Bond)

Response: Yes, the Performance Bond agreement is for ten (10) years renewable annually during the ten (10) years.

3. **Question:** Maintenance Bond: The Contractor shall furnish a maintenance bond in the total (100%) proposers amount in the form required by the City. **Please confirm that the Maintenance Bond is not Required?**

Response: Maintenance Bond is required.

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4. **Question:** Airport Security Bond: The Contractor shall obtain an Airport Customs Security Bond in order to have access to the Federal Inspection Station (FIS) at George Bush Intercontinental Airport (IAH). The bond amount is determined by calculating \$1,000 by the number of employees needed to provide the service. **Please confirm if this solicitation no. HJA-HASPLB-2022-016 requires custom seals for access at IAH Airport for the gate equipment installation and maintenance services?**

Response: Yes, only for employees that are working in the FIS area.

5. **Question:** Please reference "Letter of Clarification No. 4, EXHIBIT "B", SCOPE OF SERVICES, ITEM 1.19 – REPLACEMENT PARTS

REPLACEMENT PARTS:

\$6,500.00 Threshold - Contractor shall provide all replacement parts as per SOW equipment and appurtenances identified in Exhibit A and Appendix "I" that cost \$6,500.00 or less.

The Contractor shall develop a spare parts inventory sufficient to maintain the highest levels of performance and Service. The Contractor furnished parts may include parts recommended by the OEM or selected on the basis of the Contractor's own past experience upon approval of the Director.

- a. The Contractor shall utilize HAS parts first as listed in Appendix 'VI' - Replacement Parts. Parts taken out from HAS inventory shall be replaced at no additional cost to the City.
- b. **Please provide Appendix 'VI' – the HAS Replacement Parts list.**

Response: Please reference Appendix – VI attached.

6. **Question:** Please consider... 3.3.4 Third party damages resulting in replacement part in which the cost exceeds the threshold of \$6,500. Please clarify who will pay for repairs (labor and replacement parts less than \$6,500) of third-party damage.

Response: Contractor is responsible for labor and replacement parts for less than \$6,500.00 regardless of who causes the damage.

7. **Question:** Please consider this question:
Contractor shall request any training or instruction from the Automation Systems vendor to efficiently extract data from 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. Contractor shall be responsible for the costs of training at no cost to HAS. Please provide the name of Automation Systems vendor so that we can obtain a quote for requested training.

Response: Aircraft Support Automation Systems vendor - ADB Safegate.

8. **Question:** Please consider the following question:
Contractor shall assist HAS as requested, each time there is a Capital Project, Tenant Improvement Project, or a Job Order Contract (JOC) project. Contractor shall observe in a non-supervisory capacity, all work relating to Aircraft Support. Contractor shall conduct Reactive walk

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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 interests 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. What is the expected frequency and duration of these projects?

Response: HAS has robust Capital Improvement, Tennant Improvement and Job Order Contract Programs. The frequency and duration of these projects will vary. HAS will inform contractor ahead of time for planning and coordination.

9. **Question:** I was provided additional requests and will respectfully convey them to you...

2.1.15 Functional Requirements.

2.1.15.1 Aircraft support system agreement hours- 24/7, 365 days per year with PM performed as coordinated and directed by the Director without an impact to the operation. Support equipment agreement hours~ 0500-2300, 365 days per year.

Please clarify whether the hours are 24/7 or limited to 0500-2300.

Response: Aircraft Support including Ground Support Equipment is 24 hours a day, 7 days a week, including holidays, 365 days a year. Regular Maintenance and planned outages only between hours 2300 and 0500.

10. **Question:** Please confirm that prevailing wages are not required for the 25-year maintenance services and only required for the building construction & installation gate services.?

Response: City prevailing wage rate is required for the 10-year maintenance agreement while the Davis Bacon wage rate is required for construction that is federally funded.

11. **Question:** Related to the requested quotation for MAINTENANCE, please provide:

List of qualified employees working at the Airport (on the current maintenance service).

Reporting requirements.

Inventory of supplies, materials, tools, and equipment.

Current Standard Operating Procedures.

Permits, licenses, and certifications (that will or may apply).

Detailed transitions plan. (Phasing from current maintenance provider to the next).

Deficiency status list and summary of all open maintenance work orders for all equipment covered by the agreement as documented in the HAS EAMS

Response: Reporting requirements and transition planning are described in the Sample Agreement. It is expected that proposers would be familiar with the supplies, materials, tools, equipment, Standard Operating Procedures, permits, licenses, and certifications required for this scope of work. Neither a list of qualified employees working at the Airport (on the current maintenance service), nor a deficiency status list and summary of all open maintenance work orders are available.

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12. **Question:** Related to the same maintenance program for the same project... Who are the current minority partners?

Response: This information is not available.

13. **Question:** We require and respectfully request specifications, O&M Manual, etc. for the following to determine that which will be required for PM and repairs.

2.4.2 Aircraft Support Automation Systems - Best Management Practices, Industry Standard, and Reactive Services.

Response: Aircraft Support Automation Systems vendor - ADB Safegate.

14. **Question:** Also, regarding the EAMS Maintenance Management System, will we have any yearly licensing cost requirements for this software or is HAS supplying it free of charge?

Response: Access is provided by HAS.

15. **Question:** Our bonding company is having some difficulties understanding the bonding requirements and could potentially delay our proposal bid bond. In the original solicitation document for HJA-HASPLB-2022-016, Section 15.0 BONDS it states the required bonds; Proposers Bond (10% of the total bid amount), Performance Bond and Payment Bond (100% of the total amount), and Maintenance Bond (100% of total amount).

Response: Proposer's bond is required when you submit your proposal. Performance and Payment bonds (100% of total base amount) are required by State statute for construction projects. Maintenance bond is required for maintenance services from the awardee.

16. **Question:** Unfortunately, the letter of clarification does not include **Exhibit "VIII"**. Our bonding company is asking for a copy of Exhibit "VIII" and the confusion is that the solicitation indicates the 25-year maintenance term and in LOC 4 states the term shall be ten years and that the bond will be renewed annually. Our bonding company wants to know if an annual bond form is acceptable. The Letter of Clarification No. 2 – posted on July 8, 2022, provided the Agreement for Aircraft Support Systems Operation and Maintenance Services with Exhibit "I" (Page 49) – Performance Bond Form.

The Letter of Clarification No. 4 – posted on July 21, 2022, provided Exhibit "B" Scope of Services, under Section 6.0 – Performance Bond it states:

6.0 PERFORMANCE BOND

6.1 The successful Contractor shall furnish and maintain a Performance Bond in the amount One-hundred Percent (100%) of the annual contract rate conditioned on Contractor's full and timely performance of the Agreement. The bond shall be renewed annually on the anniversary date of the contract award each Agreement Year. The Agreement Term shall be ten years.

6.2 The Performance Bond shall be in the same form as that distributed by the City, and attached hereto as Exhibit "VIII," 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.

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Response: The proposer should provide the Performance Bond and name it as Exhibit I in responding to the CSP. Exhibit "B" Scope of Services, under Section 6.0 should have included reference to Exhibit I to reference the Sample Performance Bond issued in ATTACHMENT H (LOC No. 2).

17. **Question:** We noted discussion of requirements for "buses" and "mobile stairs" and a reference to Appendix II which would contain additional information about additional equipment to be maintained. We have Appendix I which describes the type of GSE equipment we anticipated needing maintenance, but we don't have Appendix II. Please provide Appendix II so we may confirm whether additional equipment, outside of GSE, requires maintenance. This is the section discussing the maintenance of vehicles and operating of passenger buses, that was listed on LOC 4. Please clarify about the buses and mobile stairs as well.

| | | |
|--------------------------------|---|--|
| Support Equipment Agents | all applicable certifications and licenses for the area assigned. High School Diploma or GED, 1-3 months related experience Commercial Driver's License DOT Medical Certificate. | Operate and maintain vehicles. Assist Passengers, specialized training in operating passenger bus(es) and mobile stairs. |
| Ground Service Equipment (GSE) | High School Diploma or GED. | Repair and Maintain GSE equipment. |

Response: Please see Appendix II attached. Requirements for buses and mobile stairs applies.

18. **Question:** Assume we will be required to man the site 24/7. Please confirm?

Response: Correct, Aircraft Support is a 24/7 Operation, 365 Days, including holidays.

19. **Question:** Since TK will be responsible for all material under \$6,500, we need to see the past records to try and determine the current condition. Also, we need a list of any materials that HAS will supply as a starting inventory.

Response: Materials, parts, labor below \$6,500.00 are the responsibility of the contractor. Records are managed by contractor.

20. **Question:** EAMS Maintenance Management System – will we have any yearly licensing cost for this software or is HAS supplying free of charge?

Response: Please reference the response provided in question #14.

21. **Question:** In addition to the material storage locations indicated in the spec, are they providing any office/locker areas for our personnel? If so, is any cost associated for space and/or utilities? Is internet available? Where will our employees park and is there a charge?

Response: Office/locker areas will be available for personnel at no additional cost for the space and/or utilities. Free public internet is available. Employee parking is available. Contact New South Parking (spgiparking.com) @ 281.233.7107 for information.

22. **Question:** Please provide current staffing and shift schedules of the incumbent?

Response: This information is not available.⁵

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Project No. 946A & 946B

23. **Question:** Please provide pictures of the existing storage areas. Are any industrial shelves available in these areas or will the successful respondent be required to supply?

Response: Pictures of the existing storage areas are not available. Space will be provided by HAS. Required shelving will be the responsibility of the successful respondent.

When issued, a Letter of Clarification (LOC) shall automatically become part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the LOC. The LOC will be incorporated into the Agreement as applicable. It is the responsibility of the respondents(s) to ensure that it has obtained all such LOC(s). By submitting a response on this project, respondents shall be deemed to have received all LOC(s) and to have incorporated them into their submittal.

If further clarification is needed regarding this solicitation, please contact Jorge Ardines, Sr. Procurement Specialist, via email at jorge.ardines@houstontx.gov.

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DocuSigned by:
Cathy Vander Plaats
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DS
AO

Cathy Vander Plaats
Aviation Procurement Officer
Houston Airport System

- Attachments:
1. Revised Attachment C – Pricing
 2. Appendix – I (Exhibit B Aircraft Support Scope of Services)
 3. Appendix – II (Exhibit B Aircraft Support Scope of Services)
 4. Appendix – VI (Exhibit B Aircraft Support Scope of Services)

cc: Alfredo Oracion
Dallas Evans
Solicitation File

(REVISED) TOTAL PROPOSAL PRICE (HOU + IAH): \$ _____

(Add Totals for Stipulated Price, Base Unit Price, Extra Unit Price, Cash Allowance, and All Alternates, if any)

SIGNATURES: By signing this Document, I agree that I have received and reviewed all Letter of Clarifications and considered all costs associated with the Letter of Clarifications in calculating the Total Proposal Price.

Proposer: _____
(Print or type full name of your proprietorship, partnership, corporation, or joint venture.*)

** By: _____
Signature Date

Name: _____
(Print or type name) Title

Address: _____
(Mailing)

(Street, if different)

Telephone and Fax Number: _____
(Print or type numbers)

* If Proposal is a joint venture, add additional Proposal Form signature sheets for each member of the joint venture.

** Proposer certifies that the only person or parties interested in this offer as principals are those named above. Proposer has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of a free competitive proposal.

Note: This document constitutes a government record, as defined by § 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in § 37.10 of the Texas Penal Code.

Footnotes for Tables A through D:

- (1) Fixed Unit Price determined prior to Proposal. **Cannot** be adjusted by the Proposer.
- (2) Minimum Proposal Price determined prior to Proposal. Can be increased by the Proposer, but not decreased, by crossing out the Minimum and inserting revised price on the line above. **Cannot** be decreased by the Proposer.
- (3) Maximum Proposal Price determined prior to Proposal. Can be decreased by the Proposer, but not increased, by crossing out the Maximum and inserting revised price on the line above. A Proposal that increases the Maximum Proposal Price may be found non-conforming and non-responsive. **Cannot** be increased by the Proposer.
- (4) Fixed Range Proposal Price determined prior to Proposal. Unit Price can be adjusted by Proposer to any amount within the range defined by crossing out prices noted and noting revised price on the line above.

TOTAL PROPOSAL PRICE (HOU + IAH): \$ _____

ATTACHMENT C - PRICING (REVISED)

Proposal Price Form

Houston Airport System (HAS)
 William P. Hobby Airport (HOU)
 George Bush Intercontinental Airport (IAH)
 Passenger Loading Bridge Replacement Project
HAS PN946A IAH and PN946B HOU

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with Halford Busby
 Revised: 8/25/2022

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.

| PROPOSAL SUMMARY | AMOUNT |
|---|---------------------|
| Base Proposal Schedule A - Total | \$ - |
| Base Proposal Schedule A1 Demolition / Installation - Total | \$ 21,122.34 |
| Base Proposal Schedule B - Total | \$ - |
| Base Proposal Schedule B1 Demolition / Installation - Total | \$ 21,669.00 |
| Base Proposal Schedule C - Total | \$ - |
| TOTAL ALL BASE PROPOSAL ITEMS | \$ 42,791.34 |
| | |
| Additive Alternate A - Total | \$ - |
| Additive Alternate D - Total | \$ - |
| TOTAL ALL ADDITIVE ALTERNATE ITEMS | \$ - |
| | |
| Economy of Scale Discount if Awarded all Components | \$ - |
| PROPOSAL TOTAL | \$ 42,791.34 |

Houston Airport System (HAS)
 William P. Hobby Airport (HOU)
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 Passenger Loading Bridge Replacement Project
 HAS PN946A IAH and PN946B HOU

Proposal Price Form - (REVISED)

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with Halford Busby
 Revised: 8/25/2022

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.
 * HAS reserves the right to purchase an additional quantity of the materials listed below at the escalated unit price for a period of five (5) years.

| Base Proposal Schedule A William P. Hobby Airport (HOU) - PLB, GPU, AND PCA Equipment (Gates 28, 29, 30, 31, 32) - FY 2022 | | | | | | | | | |
|---|-----------------|--|------|----------|------------------|-----------------------|------------------|----------------------|----------|
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| A-00 | 34 77 13 | FY 2022 - HOU - Provide PLB, GPU, Potable Water, and PCA - Five Gates | | | | | 0% | | |
| A-01 | 34 77 13 | PLB AT3-58/116 or TB 35.0/17.5-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A-02 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 3 | \$ - | - \$ | - \$ | - \$ | |
| A-03 | 34 77 13 | PLB AT3-65/133 or TB 43.0/20.5-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A-04 | 34 77 13 | GPU 90 KVA Model | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| A-05 | 34 77 13 | PCA Class III | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| A-06 | | Base Proposal Schedule A - Total | | | | | | \$ | - |

| Base Proposal Schedule A1 Demolition / Installation William P. Hobby Airport (HOU) - PLB, GPU, AND PCA Demo / Install (Gates 28, 29, 30, 31, 32) - FY 2022 | | | | | | | | | |
|---|----------|--|------|----------|------------------|-----------------------|------------------|----------------------|---------------|
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| A1-00 | | FY 2022 - HOU - PLB, GPU, Potable Water, and PCA Demo / Install - Five Gates | | | | | 0% | | |
| A1-01 | 22 00 00 | Route Condensate from PC Air Unit Back to Existing Drain | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-02 | 22 00 00 | Reestablish Potable Water Service | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-03 | 26 00 00 | Three new Disconnect Switches: (1) 400A/225F/3P, (1) 200A/200F/3P, (1) 30A/20F/3P | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-04 | 26 05 00 | Demo Disconnect Switch Serving 400HZ GPU and PLB, Existing Circuit to be made safe for Reconnection to New Disconnect Switch | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-05 | 26 05 00 | Demo Disconnect Switch Serving PCA, Existing Circuit to be made safe for Reconnection to New Disconnect Switch | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-06 | 26 05 00 | Demo Disconnect Switch Serving Potable Water Cabinet, Existing Circuit to be made safe for Reconnection to New Disconnect Switch | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-07 | 34 77 13 | Passenger Loading Bridge and all Gate Equipment to be Removed and Replaced w/ New - Labor (10.8%) | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-08 | DIV 01 | General Conditions | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-09 | DIV 01 | Contractor Fees | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-10 | DIV 01 | Insurance | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-11 | DIV 01 | Maintenance of Traffic | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-12 | DIV 01 | Salvage | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| A1-13 | DIV 01 | Permit | Ls. | 1 | \$ 21,122 | - \$ | 21,122 \$ | 21,122 \$ | |
| A1-14 | | Base Proposal Schedule A1 Demolition / Installation - Total | | | | | | \$ | 21,122 |

Houston Airport System (HAS)
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 George Bush Intercontinental Airport (IAH)
 Passenger Loading Bridge Replacement Project
 HAS PN946A IAH and PN946B HOU

Proposal Price Form - (REVISED)

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with Halford Busby
 Revised: 8/25/2022

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.

| Base Proposal Schedule B | | | | | | | | | |
|--|-----------------|---|------|----------|------------------|-----------------------|------------------|----------------------|-------------|
| George Bush Intercontinental Airport (IAH) - PLB, GPU, POTABLE WATER, AND PCA Equipment (Terminal A - Gates A10, A12, A15, A27, A30) - FY 2022 | | | | | | | | | |
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| B-00 | 34 77 13 | FY 2022 - IAH - Provide PLB, GPU, Potable Water, and PCA - Terminal A Five Gates | | | | | 0% | | |
| B-01 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 5 | \$ - | - \$ | - \$ | - | |
| B-02 | 34 77 13 | GPU 90 KVA Model | Ea. | 5 | \$ - | - \$ | - \$ | - | |
| B-03 | 34 77 13 | PCA Class III | Ea. | 5 | \$ - | - \$ | - \$ | - | |
| B-04 | 34 77 13 | Potable Water Cabinet | Ea. | 5 | \$ - | - \$ | - \$ | - | |
| B-05 | | Base Proposal Schedule B - Total | | | | | | \$ - | \$ - |

| Base Proposal Schedule B1 Demolition / Installation | | | | | | | | | |
|--|----------|---|------|----------|------------------|-----------------------|------------------|----------------------|------------------|
| George Bush Intercontinental Airport (IAH) - PLB, GPU, AND PCA Demo / Install (Terminal A - Gates A10, A12, A15, A27, A30) - FY 2022 | | | | | | | | | |
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| B1-00 | | FY 2022 - IAH - PLB, GPU, Potable Water, and PCA Demo / Install - Terminal A Five Gates | | | | | 0% | | |
| B1-01 | 34 77 13 | Passenger Loading Bridge and all Gate Equipment to be Removed and Replaced w/ New - Labor (10.8%) | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-02 | DIV 01 | General Conditions | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-03 | DIV 01 | Contractor Fees | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-04 | DIV 01 | Insurance | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-05 | DIV 01 | Maintenance of Traffic | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-06 | DIV 01 | Salvage | Ls. | 1 | \$ - | - \$ | - \$ | - | |
| B1-07 | DIV 01 | Permit | Ls. | 1 | \$ 21,669 | - \$ | 21,669 \$ | 21,669 | |
| B1-08 | | Base Proposal Schedule B1 Demolition / Installation - Total | | | | | | \$ 21,669 | \$ 21,669 |

| Additive Alternate A | | | | | | | | | |
|---|----------|---|------|------------|------------------|-----------------------|------------------|----------------------|-------------|
| William P. Hobby Airport (HOU) - Gate Equipment Replacement (Electrical Improvements - Contingency) - FY 2022 | | | | | | | | | |
| Line No. | Section | Description | Unit | Quantity * | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| ALT-A-00 | | FY 2022 - HOU - Additive Alternate A (Electrical Improvements - Contingency) | | | | | 0% | | |
| ALT-A-01 | 26 00 00 | Remove and Replace 400HZ GPU 150A Circuit, includes cleaning conduits | Ls. | 1 | \$ - | \$ - | \$ - | \$ - | |
| ALT-A-02 | 26 00 00 | Remove and Replace PLB 60A Circuit, includes cleaning conduits | Ls. | 1 | \$ - | \$ - | \$ - | \$ - | |
| ALT-A-03 | DIV 01 | Contractor Fees | Ls. | 1 | \$ - | \$ - | \$ - | \$ - | |
| ALT-A-04 | | Additive Alternate A - Total | | | | | | \$ - | \$ - |

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 William P. Hobby Airport (HOU)
 George Bush Intercontinental Airport (IAH)
 Passenger Loading Bridge Replacement Project
 HAS PN946A IAH and PN946B HOU

Proposal Price Form - (REVISED)

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with Halford Busby
 Revised: 8/25/2022

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.

| Base Proposal Schedule B | | | | | | | | | |
|--|-----------------|---|------|----------|------------------|-----------------------|------------------|----------------------|-------------|
| George Bush Intercontinental Airport (IAH) - PLB, GPU, POTABLE WATER, AND PCA Equipment (Terminal A - Gates A10, A12, A15, A27, A30) - FY 2022 | | | | | | | | | |
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| B-00 | 34 77 13 | FY 2022 - IAH - Provide PLB, GPU, Potable Water, and PCA - Terminal A Five Gates | | | | | 0% | | |
| B-01 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| B-02 | 34 77 13 | GPU 90 KVA Model | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| B-03 | 34 77 13 | PCA Class III | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| B-04 | 34 77 13 | Potable Water Cabinet | Ea. | 5 | \$ - | - \$ | - \$ | - \$ | |
| B-05 | | Base Proposal Schedule B - Total | | | | | | \$ - | \$ - |

| Base Proposal Schedule B1 Demolition / Installation | | | | | | | | | |
|--|----------|---|------|----------|------------------|-----------------------|------------------|----------------------|------------------|
| George Bush Intercontinental Airport (IAH) - PLB, GPU, AND PCA Demo / Install (Terminal A - Gates A10, A12, A15, A27, A30) - FY 2022 | | | | | | | | | |
| Line No. | Section | Description | Unit | Quantity | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price | |
| B1-00 | | FY 2022 - IAH - PLB, GPU, Potable Water, and PCA Demo / Install - Terminal A Five Gates | | | | | 0% | | |
| B1-01 | 34 77 13 | Passenger Loading Bridge and all Gate Equipment to be Removed and Replaced w/ New - Labor (10.8%) | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-02 | DIV 01 | General Conditions | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-03 | DIV 01 | Contractor Fees | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-04 | DIV 01 | Insurance | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-05 | DIV 01 | Maintenance of Traffic | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-06 | DIV 01 | Salvage | Ls. | 1 | \$ - | - \$ | - \$ | - \$ | |
| B1-07 | DIV 01 | Permit | Ls. | 1 | \$ 21,669 | - \$ | 21,669 \$ | 21,669 \$ | |
| B1-08 | | Base Proposal Schedule B1 Demolition / Installation - Total | | | | | | \$ 21,669 | \$ 21,669 |

Houston Airport System (HAS)
 William P. Hobby Airport (HOU)
 George Bush Intercontinental Airport (IAH)

Proposal Price Form - (REVISED)

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with
 Halford Busby

Passenger Loading Bridge Replacement Project

Revised: 8/25/2022

HAS PN946A IAH and PN946B HOU

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.

| Base Proposal Schedule C | | | | | |
|---|----------|---|------|---|----------------------|
| Aircraft Support Systems 25-Year Operation and Maintenance Services (IAH 30 PLBs) | | | | | |
| Line No. | Section | Description | Unit | Quantity | Total Proposal Price |
| OM-00 | | FY 2022 - FY 2046 - Aircraft Support System 25-Year O&M (IAH 30 Gates) | | | |
| OM-01 | 34 77 13 | FY 2022 O&M | CFF | 1 | \$ - |
| OM-02 | 34 77 13 | FY 2023 O&M | CFF | 1 | \$ - |
| OM-03 | 34 77 13 | FY 2024 O&M | CFF | 1 | \$ - |
| OM-04 | 34 77 13 | FY 2025 O&M | CFF | 1 | \$ - |
| OM-05 | 34 77 13 | FY 2026 O&M | CFF | 1 | \$ - |
| OM-06 | 34 77 13 | FY 2027 O&M | CFF | 1 | \$ - |
| OM-07 | 34 77 13 | FY 2028 O&M | CFF | 1 | \$ - |
| OM-08 | 34 77 13 | FY 2029 O&M | CFF | 1 | \$ - |
| OM-09 | 34 77 13 | FY 2030 O&M | CFF | 1 | \$ - |
| OM-10 | 34 77 13 | FY 2031 O&M | CFF | 1 | \$ - |
| OM-11 | 34 77 13 | FY 2032 O&M | CFF | 1 | \$ - |
| OM-12 | 34 77 13 | FY 2033 O&M | CFF | 1 | \$ - |
| OM-13 | 34 77 13 | FY 2034 O&M | CFF | 1 | \$ - |
| OM-14 | 34 77 13 | FY 2035 O&M | CFF | 1 | \$ - |
| OM-15 | 34 77 13 | FY 2036 O&M | CFF | 1 | \$ - |
| OM-16 | 34 77 13 | FY 2037 O&M | CFF | 1 | \$ - |
| OM-17 | 34 77 13 | FY 2038 O&M | CFF | 1 | \$ - |
| OM-18 | 34 77 13 | FY 2039 O&M | CFF | 1 | \$ - |
| OM-19 | 34 77 13 | FY 2040 O&M | CFF | 1 | \$ - |
| OM-20 | 34 77 13 | FY 2041 O&M | CFF | 1 | \$ - |
| OM-21 | 34 77 13 | FY 2042 O&M | CFF | 1 | \$ - |
| OM-22 | 34 77 13 | FY 2043 O&M | CFF | 1 | \$ - |
| OM-23 | 34 77 13 | FY 2044 O&M | CFF | 1 | \$ - |
| OM-24 | 34 77 13 | FY 2045 O&M | CFF | 1 | \$ - |
| OM-25 | 34 77 13 | FY 2046 O&M | CFF | 1 | \$ - |
| OM-26 | | | | Base Proposal Schedule C - Total | \$ - |

Houston Airport System (HAS)
 William P. Hobby Airport (HOU)
 George Bush Intercontinental Airport (IAH)
 Passenger Loading Bridge Replacement Project
 HAS PN946A IAH and PN946B HOU

Proposal Price Form - (REVISED)

Date: XXXXXXXXXXXXX

Prepared By: Jacobs Engineering Group Inc., in association with Halford Busby
 Revised: 8/25/2022

Houston Airport Systems reserves the right to award HOU scope separately from IAH scope and does not guarantee either combined airport nor maintenance contract award.
 * HAS reserves the right to purchase an additional quantity of the materials listed below at the escalated unit price for a period of five (5) years. Installation may be negotiated via Change Order.

| Additive Alternate D PLB, GPU, POTABLE WATER, AND PCA Equipment Only - FY 2022 | | | | | | | | |
|---|-----------------|---|------|--------------------------|------------------|-----------------------|-------------------------------------|----------------------|
| Line No. | Section | Description | Unit | Quantity * | Unit Price (Ea.) | Annual Escalation (%) | Total Unit Price | Total Proposal Price |
| ALT-D-00 | 34 77 13 | FY 2022 - Provide PLB, GPU, Potable Water, and PCA | | Quantity 1 to 10 | | 0% | | |
| ALT-D-01 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D-02 | 34 77 13 | PLB AT3-65/133 or TB 43.0/20.5-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D-03 | 34 77 13 | GPU 90 KVA Model | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D-04 | 34 77 13 | PCA Class III | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D-05 | 34 77 13 | Potable Water Cabinet | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D1-00 | 34 77 13 | FY 2022 - Provide PLB, GPU, Potable Water, and PCA | | Quantity 11 to 20 | | 0% | | |
| ALT-D1-01 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D1-02 | 34 77 13 | PLB AT3-65/133 or TB 43.0/20.5-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D1-03 | 34 77 13 | GPU 90 KVA Model | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D1-04 | 34 77 13 | PCA Class III | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D1-05 | 34 77 13 | Potable Water Cabinet | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D2-00 | 34 77 13 | FY 2022 - Provide PLB, GPU, Potable Water, and PCA | | Quantity 21+ | | 0% | | |
| ALT-D2-01 | 34 77 13 | PLB AT3-61/127 or TB 39.0/19.0-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D2-02 | 34 77 13 | PLB AT3-65/133 or TB 43.0/20.5-3 | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D2-03 | 34 77 13 | GPU 90 KVA Model | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D2-04 | 34 77 13 | PCA Class III | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D2-05 | 34 77 13 | Potable Water Cabinet | Ea. | 1 | \$ - | - \$ | - \$ | - \$ |
| ALT-D-06 | | | | | | | Additive Alternate D - Total | \$ - |

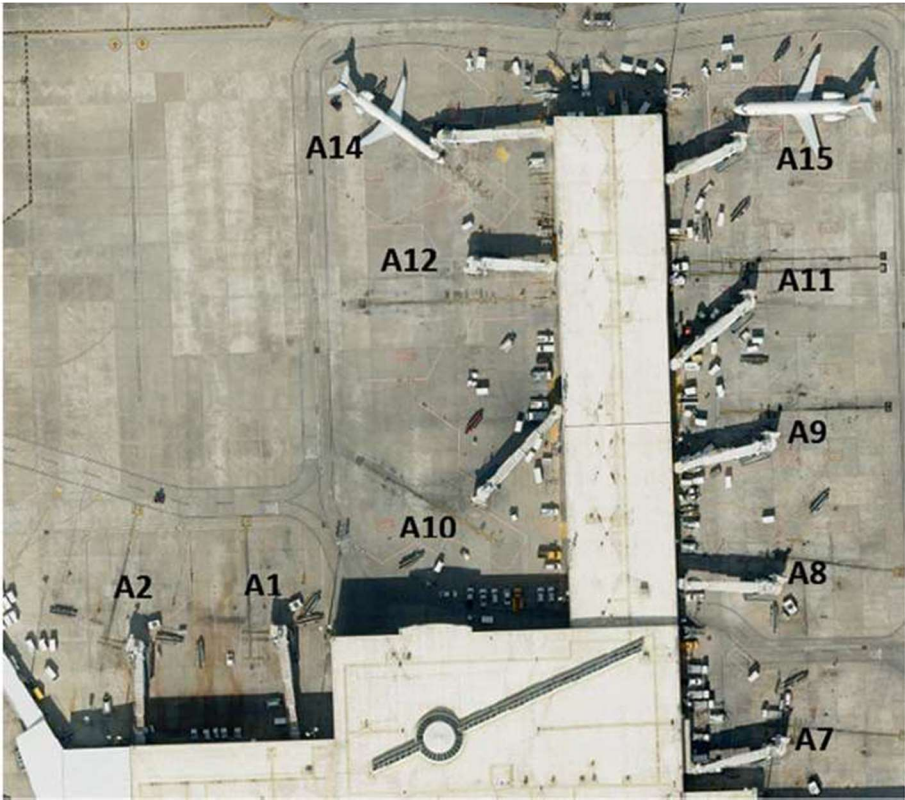
APPENDIX "I"
AIRCRAFT SUPPORT SYSTEM DESCRIPTION

TERMINAL "A" GATE LOCATIONS
ALL GATES COVERED UNDER AIRCRAFT SUPPORT SYSTEMS MAINTENANCE CONTRACT

Terminal A South



Terminal A North



Terminal A Passenger Boarding Bridge (PBB) & Gate Equipment List

| Gate | Equipment | Manufacturer | Model | Back Flow Preventer | Serial | Install Year |
|------------|-----------|--------------|-----------------|---------------------|-------------|--------------|
| A1 | PBB | JETWAY | AD3 60/119-125R | YES | 38961 | Jan-00 |
| | PWC | FMC | JF300 | | 38961 | |
| | GPU | FCX | PFC072-H-40-FM | | 9026 | |
| | GPU 28V | Hobart | 6T28-600CL | | 111PS16213 | |
| | PCA | INET | PDX25S | | 98-6125-015 | |
| | RTU | TRANE | TCDO49C400BD | | R37100764D | |
| A2 | PBB | JETWAY | AD3 60/119-125R | YES | 38962 | Sep-00 |
| | PWC | FMC | JF 301C | | 38962 | |
| | GPU | FCX | PFC072-H-40-FM | | 90002 | |
| | GPU28V | HOBART | 6T28-600CL | | 111PS16215 | |
| | PCA | INET | POX 25S | | 98-6122-011 | |
| | RTU | TRANE | TCDO49C400BD | | R35102986D | |
| A7 | PBB | JETWAY | AD3 60/119-125R | YES | 38959 | Sep-00 |
| | PWC | FMC | JF 300 | | 38959 | |
| | GPU | FCX | PFC072-H-40-FM | | 90024 | |
| | GPU28V | HOBART | 6T28-600CL | | 111PS6217 | |
| | PCA | INET | 25S | | 98-6122-008 | |
| | RTU | TRANE | TCCO48F400BC | | UNKNOWN | |
| AS | PBB | JETWAY | AD3 60/119-125R | YES | 38960 | Sep-00 |
| | PWC | FMC | JF301C | | 38960 | |
| | GPU | FCX | PFC072-H-40-FM | | 90027 | |
| | GPU28V | HOBART | 6T28-600CL | | 111PS16212 | |
| | PCA | INET | 25S | | 98-6122-009 | |
| | RTU | TRANE | TCCO48F400BC | | UNKNOWN | |
| A9 | PBB | JETWAY | AD3 60/119-125R | YES | 38963 | Sep-00 |
| | PWC | FMC | JF301C | | 38963 | |
| | GPU | FCX | PFC072-H-40-FM | | 89818 | |
| | PCA | INET | 25S | | 98-6122-016 | |
| | RTU | TRANE | TCDO49C400BD | | R35102953D | |
| | | | | | | |
| A10 | PBB | JETWAY | AD3 68/141-125R | YES | 38973 | Sep-00 |
| | PWC | FMC | JF301C | | 38973 | |
| | GPU | FCX | PFCO72-H-40-FM | | UNKNOWN | |
| | PCA | INET | PDX25S | | 98-6122-010 | |
| | RTU | TRANE | TCDO49C400BD | | R37100764D | |
| | | | | | | |

Terminal A Passenger Boarding Bridge (PBB) & Gate Equipment List

| Gate | Equipment | Manufacturer | Model | Back Flow Preventer | Serial | Install Year |
|------------|-----------|--------------|--------------------|---------------------|-------------|--------------|
| A11 | PBB | JETWAY | AD3 64/131-125R | Yes | 38971 | Sep-00 |
| | PWC | FMC | JF301C | | 38971 | |
| | GPU | FCX | PFC072-H-40-FM | | 89810 | |
| | PCA | INET | 25S | | 98-6122-013 | |
| | RTU | TRANE | TCDO49C400BD | | R38102703D | |
| A12 | PBB | JETWAY | AD3 60/119-125R | YES | 38964 | Sep-00 |
| | PWC | FMC | JF301C | | 38964 | |
| | GPU | FCX | PFCO072-H-40-FM | | 90021 | |
| | PCA | INET | PDX25S | | 98-6122-012 | |
| | RTU | TRANE | TCDO49C400BD | | R37104005D | |
| A14 | PBB | JETWAY | AD3 60/119-125R | YES | 38966 | Sep-00 |
| | PWC | FMC | JF301C | | 38966 | |
| | GPU | FCX | PFC072-H-40-FM | | 90023 | |
| | PCA | INET | PDX25S | | 98-6122-014 | |
| | RTU | TRANE | TCDO49C400BD | | UNKNOWN | |
| A15 | PBB | JETWAY | AD3 60/119-125R | YES | 38965 | Sep-00 |
| | PWC | FMC | JF301C | | 38965 | |
| | GPU | FCX | PFC072-H-40-FM | | 90025 | |
| | PCA | INET | 25S | | 98-6122-007 | |
| | RTU | TRANE | TCDO49C400BD | | R35102497D | |
| A17 | PBB | JETWAY | AD3 58/110-125R | YES | 38244 | Oct-12 |
| | PWC | FMC | JF-201C | | 1078-PB | |
| | GPU | JP2 | J-090-115-B1-001 | | PA-6899 | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | 63984 | |
| | RTU | TRANE | TCCO48F400BB | | UNKNOWN | |
| A18 | PBB | JETWAY | A3 58/110-125R | YES | 38243 | Jul-15 |
| | PWC | FMC | JF-201-C | | 1074-PB | |
| | GPU | JP2 | J-090-115-B1-001 | | PA-6898 | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | 64695 | |
| | RTU | TRANE | TCCO48F400BB | | UNKNOWN | |
| A19 | PBB | JETWAY | A3 58/110-125R | YES | 38242 | Jan-16 |
| | PWC | FMC | JF-201C | | 1077-PB | |
| | GPU | JP2 | J-090-115-B1-001 | | UNKNOWN | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | 64802 | |
| | RTU | TRANE | TCCO48F400BB | | UNKNOWN | |

Terminal A Passenger Boarding Bridge (PBB) & Gate Equipment List

| Gate | Equipment | Manufacturer | Model | Back Flow Preventer | Serial | Install Year |
|------------|-----------|--------------|--------------------|---------------------|----------------|--------------|
| A24 | PBB | JETWAY | A3 58/110-125R | YES | 38241 | Jul-15 |
| | PWC | FMC | JF-201C | | 1076-PB | |
| | GPU | JP2 | J-090-115-BI-001 | | PA-6896 | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | 64696 | |
| | RTU | TRANE | TCCO48F400BB | | UNKNOWN | |
| A25 | PBB | THYSSEN | 41-245-2R | NO | 757 | Aug-99 |
| | PWC | SEMLER | N/A | | 11918 | |
| | GPU | FCX | PFC072-H-40-FM | | 89815 | |
| | GPU28V | HOBART | 6T28-600CL | | 111PS16214 | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | UNKNOWN | |
| RTU | RUUD | ULKA-A048DL | 5670F219712845 | | | |
| A26 | PBB | THYSSEN | 35/21-2R | NO | 759 | Jan-16 |
| | PWC | SEMLER | N/A | | 11917 | |
| | GPU | FCX | PFC072-H-40-FM | | 89811 | |
| | GPU28V | HOBART | 6T28-600CL | | 111PS16216 | |
| | PCA | JETAIRE | XPC 6013-113-17-40 | | 64803 | |
| RTU | RUUD | ULKA-A048DL | 11917 | | | |
| A27 | PBB | THYSSEN | 35/21-2R | NO | 102 | Aug-99 |
| | PWC | SEMLER | N/A | | 11916 | |
| | GPU | FCX | PFC072-H-40-FM | | 89820 | |
| | PCA | INET | 25S | | 98-6112-001 | |
| | RTU | RUUD | ULKA-A048DL | | 5670F159913342 | |
| A29 | PBB | THYSSEN | 35/21-2R | NO | 760 | Aug-99 |
| | PWC | SEMLER | N/A | | 11913 | |
| | GPU | FCX | PFC072-H-40-FM | | UNKNOWN | |
| | PCA | INET | 25S | | 98-6122-002 | |
| | RTU | RUUD | ULKA-A048DL | | 5670F159913341 | |
| A30 | PBB | THYSSEN | 35/21-2R | NO | 761 | Aug-99 |
| | PWC | SEMLER | N/A | | 11915 | |
| | GPU | FCX | PFC02-H-40-FM | | 8986 | |
| | PCA | INET | 25S | | 98-6122-004 | |
| | RTU | RUUD | ULKA-A048DL | | 5670F319934956 | |

A B C D E

- GATE ND3 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBB AND WALKWAY
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT

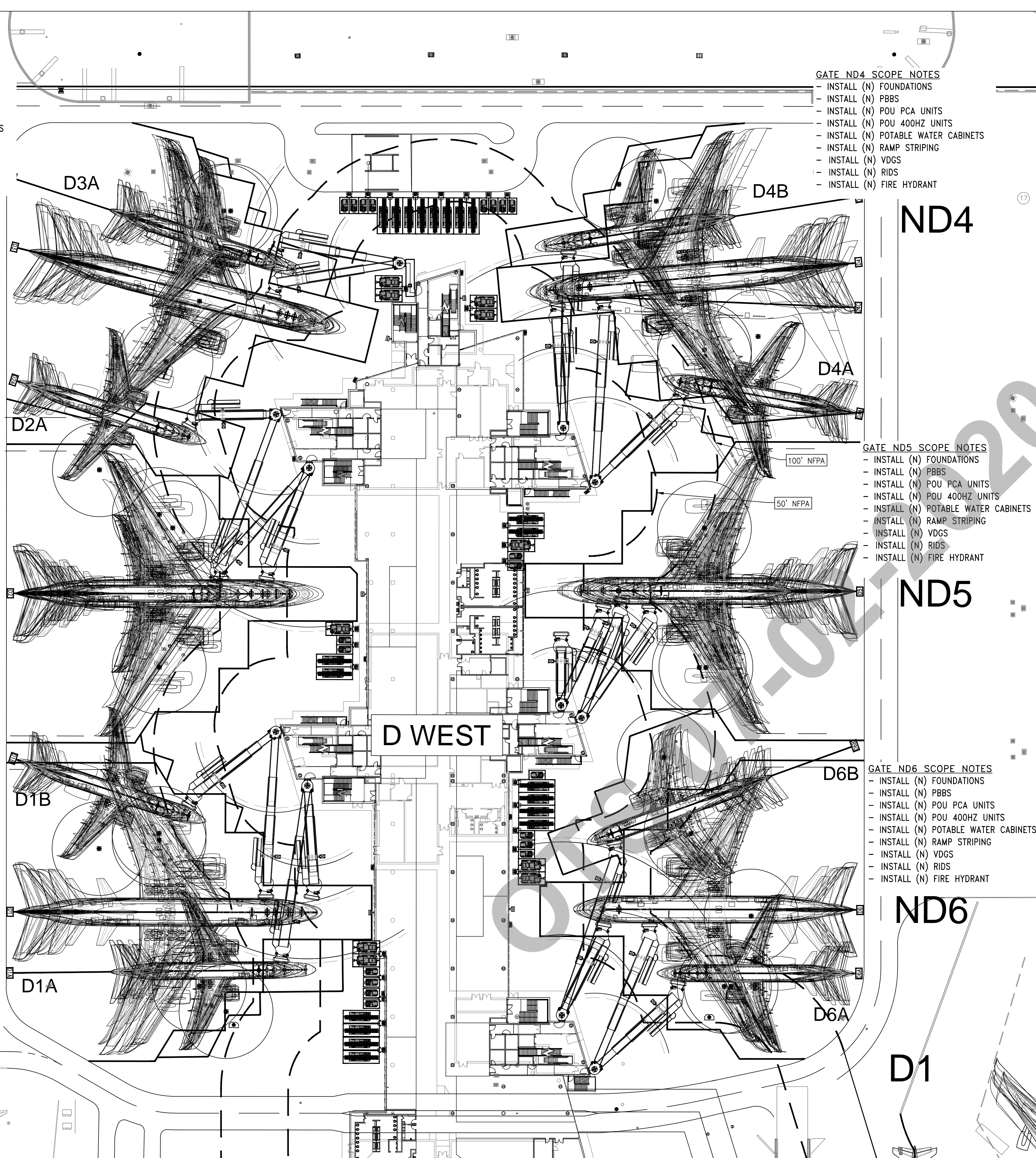
- GATE ND2 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBBS
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT

- GATE ND1 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBBS
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT

- GATE ND4 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBBS
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT

- GATE ND5 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBBS
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT

- GATE ND6 SCOPE NOTES**
- INSTALL (N) FOUNDATIONS
 - INSTALL (N) PBBS
 - INSTALL (N) POU PCA UNITS
 - INSTALL (N) POU 400HZ UNITS
 - INSTALL (N) POTABLE WATER CABINETS
 - INSTALL (N) RAMP STRIPING
 - INSTALL (N) VDGS
 - INSTALL (N) RIDS
 - INSTALL (N) FIRE HYDRANT



- GENERAL NOTES:**
1. REFER TO DRAWING XP001 FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS.
 2. SEE XP300 SERIES FOR STRIPING REMOVAL.
 3. SEE XP400 SERIES FOR STRIPING INSTALLATION.
 4. SEE XP500 SERIES FOR STRIPING DETAILS AND SPECIFICATIONS.
 5. STRIPING IS BASED OFF OF ARCHIVE DATA AND INFORMATION PROVIDED BY OTHERS.

AIRCRAFT SERVICE CHART

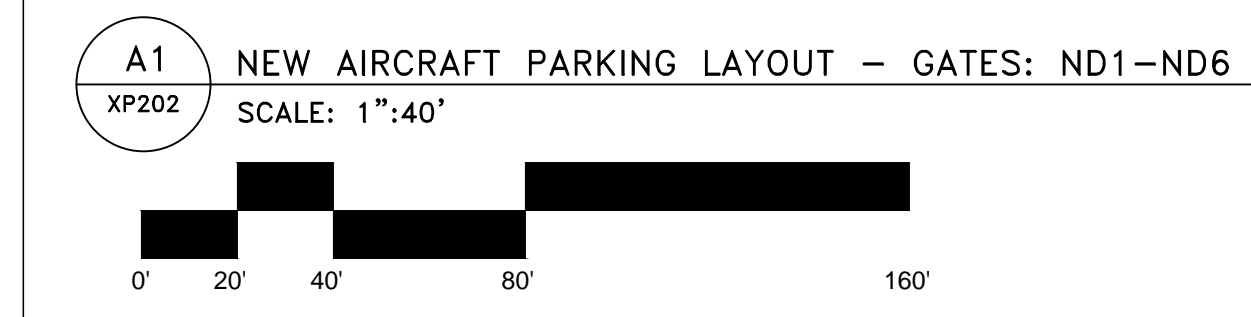
| GATE NO. | ND1 | ND1A | ND1B | ND2 | ND2A | ND3 | ND3A | ND4 | ND4A | ND4B | ND4C | ND5 | ND6 | ND6A | ND6B |
|----------------|-----|------|------|-----|------|-----|------|-----|------|------|------|------|-----|------|------|
| ADG VI A380 | - | - | - | - | - | - | - | - | - | - | X(1) | - | - | - | - |
| B747-400 | X | - | - | X | - | X | - | X | - | - | - | - | - | - | - |
| B777-9X(FWT) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| B777-8X(FWT) | - | - | - | - | - | X | - | - | - | - | - | - | - | - | - |
| B777-300ER | - | - | - | - | - | X | - | X | - | - | - | - | - | - | - |
| B777-200ER/LR | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B787-10 | - | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B787-9 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B787-8 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A350-1000 | - | - | - | - | - | X | - | X | - | - | - | - | - | - | - |
| A350-900 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A350-800 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A340-500 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A340-300 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A340-200 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A330-900 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A330-800 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A330-300 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| A330-200 | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B767-400ER | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B767-300ERW | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B757-300W | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B757-200W | X | - | - | X | - | X | - | X | - | - | - | X(2) | X | - | - |
| B737-MAX10 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| B737-900W/MAX9 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| B737-800W/MAX8 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| B737-700W/MAX7 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| A321X/NEO | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| A320X/NEO | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| A319X/NEO | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| A220-300/CS300 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| A220-100/CS100 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| EMB-195 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| EMB-190 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| EMB-175EW1 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| EMB-170 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |
| MD90-30 | - | X | - | X | - | X | - | X | - | - | - | X | - | X | - |
| MD80/B8 | - | X | - | X | - | X | - | X | - | - | - | X | - | X | - |
| B717 | - | X | X | X | X | X | - | X | X | - | - | X | - | X | X |

- AIRCRAFT SERVICE CHART LEGEND:**
- X = AIRCRAFT SERVICED
 - = AIRCRAFT NOT SERVICED
 - (1) = PBB CANNOT SERVICE U11 DOOR OF A380. A380 PARKED AT GATE RESTRICTS GATE ND5 TO A MAX A321S.
 - (2) = RESTRICTED WITH A380 AT POSITION ND4C

PASSENGER BOARDING BRIDGE AND SERVICE DATA

| GATE/ POSITION | BOARDING BRIDGE MODEL | WALKWAY OR EXTENDED CORRIDOR | ROTUNDA FLOOR HEIGHT | PCA POINT OF USE | 400HZ POINT OF USE | POTABLE WATER | VDGS |
|----------------|-----------------------|------------------------------|----------------------|------------------|--------------------|---------------|------|
| ND1/ND1A | AT3-68/144 | NO | 13'-0" | 60 TON | 90KVA | YES | YES |
| ND1/ND1B | AT3-68/144 | NO | 13'-0" | 120 TON | 180KVA | YES | NO |
| ND2 | AT3-65/133 | NO | 13'-0" | 60 TON | 90KVA | YES | NO |
| ND2/ND2A | AT3-68/144 | NO | 13'-0" | 120 TON | 180KVA | YES | YES |
| ND3/ND3A | AT3-61/127 | YES | 13'-0" | 120 TON | 180KVA | YES | YES |
| ND4/ND4A | AT3-72/150 | NO | 13'-0" | 60 TON | 90KVA | YES | NO |
| ND4/ND4B | AT3-68/144 | NO | 13'-0" | 120 TON | 180KVA | YES | YES |
| ND5(L1) | AT3-52/100 | NO | 13'-0" | N/A | N/A | NO | NO |
| ND5(L2) | AT3-58/116 | NO | 13'-0" | 120 TON | 180KVA | YES | YES |
| ND6/ND6A | AT3-65/133 | NO | 13'-0" | 60 TON | 90KVA | YES | NO |
| ND6/ND6B | AT3-68/144 | NO | 13'-0" | 120 TON | 180KVA | YES | YES |

- PBB CHART NOTES:**
1. DESIGN UTILIZES JBT AEROTECH PBB MODELS AS A BASIS OF DESIGN AND UTILIZED MODELS MAY CHANGE AS DESIGN PROGRESSES. PROVIDE AND INSTALL AS INDICATED OR EQUIVALENT. SEE SPECIFICATIONS.



- LEGEND:**
- Visual Docking Guidance System
 - Potable Water Cabinet

HOUSTON AIRPORTS
3701 N. TERMINAL ROAD, BUILDING 1.W290.A
HOUSTON, TX 77032

MICKEY LERLAND INTERNATIONAL TERMINAL (MLIT)

C.I.P. No. A-0800 A.I.P. No. N/A
C.O.H. No. 4600014128 D.O.A. No. N/A
B.S.G. No. N/A H.A.S. No. PN0826
ITRP T.I.P. No. ITRP-C01-T-001

FENTRESS ARCHITECTS

STOA ARCHITECTS

AERO SYSTEMS ENGINEERING
2700 DELK ROAD SE
SUITE 100
MARIETTA, GA 30067
PROJECT NO. 115982FALIAH

DESIGNER PROJECT No.: 115982FALIAH
PROJECT STATUS: DESIGN DEVELOPMENT

REVISIONS

| No. | DESCRIPTION | DATE | BY |
|-----|-------------|------|----|
| | | | |

DESIGN BY: D.MARTURELLO
DRAWN BY: D.SINBOUALAY
CHECKED BY: J.CHERNOFF
ISSUE DATE: XX/XX/XXXX
APPROVED BY: C. BARGE
APPROVAL DATE: XX/XX/XXXX

DIRECTOR of HOUSTON AIRPORT SYSTEM

ISSUED FOR REVIEW

North
TRUE

SHEET NAME: NEW AIRCRAFT PARKING LAYOUT - GATES: ND1-ND6
SHEET No. XP202 SCALE: 1" = 40'
SHEET SIZE: 30"x42" ARCH E1

FILE PATH:
HAS FILE:
PLOT DATE:
PLOT DATE:
PLOT DATE:
PLOT DATE:

APPENDIX "I"

AIRCRAFT SUPPORT SYSTEM DESCRIPTION

AIRPORT TERMINAL GATE SYSTEMS(S)

- 1.1 **Gate Systems** - The thirty (30) existing Airport Terminal Gate System(s) located at Terminals A and D include Passenger Loading Bridges (PLB), 400Hz Ground Power Units (GPU), 28.5 VDC Ground Power Units (GPU), Preconditioned Air Units (PCA), Potable Water Cabinets (PWC), Rooftop Air Units (RTU), and other auxiliary equipment. Terminal Gate Systems at Terminal D also include Aircraft Guidance Systems.

- 1.2 **Terminal A** - The nineteen (19) gates are inclusive of all related parts, systems, and accessories. Maintenance items on Gates include, but are not limited to, mechanical, electrical, and electronic systems, engines, motors, pumps, compressors, fans, belts, cables, computers, instrumentation, controls, alarms, indicator lights, tires, suspension, steering devices, drive mechanisms, bearings, seals, rollers, and doors. Electrical service includes power circuit breakers, power and instrument transformers, surge protection devices, relays, and secondary breakers serving motor controls up to but excluding main disconnects in primary switchboards serving motor controls and starters. System details are provided below.
 - 1.2.1 Gates A17, A18, A19, and A24 identified above include the following equipment:
 - 1.2.1.1 Self-Contained PCA Unit JetAir Model XPC-6013-113-17-40
 - 1.2.1.2 400Hz power is supplied by self-contained units by FMC J-090-115-B1-001 (one each per gate)
 - 1.2.1.3 Fire Extinguisher, 10 lb.
 - 1.2.1.4 400Hz Interlock
 - 1.2.1.5 400Hz, Pre-Conditioned Air, Portable Water Indicator Lights
 - 1.2.1.6 737 Bumper Cutout
 - 1.2.1.7 1500 CFM Exhaust Fan
 - 1.2.1.8 A-300 Closure Modification
 - 1.2.1.9 Articulating Cab Floor
 - 1.2.1.10 Bridge, 400 Hz and Pre-Conditioned Air Monitoring and Cable
 - 1.2.1.11 Bumper Limit Switches
 - 1.2.1.12 Swinging Cap Doors
 - 1.2.1.13 Dual Plug Modular Telephone Outlet
 - 1.2.1.14 "A" Frame
 - 1.2.1.15 Emergency Lights
 - 1.2.1.16 Fire Alarm Pull Box
 - 1.2.1.17 Heated Portable Water Cabinet
 - 1.2.1.18 Hurricane Tie Downs
 - 1.2.1.19 Lighting Ground Stud
 - 1.2.1.20 Maintenance Ladder with Cage
 - 1.2.1.21 Roof Handrail

- 1.2.1.22 Smoke Detection Device (two each per gate)
 - 1.2.1.23 Triangular Gate Identification Sign, Illuminated Style
 - 1.2.1.24 Portable Water Cabinet (PWC) Jetflo Model JF201C
 - 1.2.1.25 Roof Top AC Unit (RTU) Trane Model TCCO48F400BB
- 1.2.2 Gates A1, A2, A7, A8, A9, A10, A11, A12, A14, and A15 include the equipment listed above except for the following:
- 1.2.2.1 400Hz power is supplied by self-contained units by FCX Model No. PFC072-H-40-FM (one each per gate)
 - 1.2.2.2 Pre-Conditioned Air is supplied by self-contained Pre-Conditioned Air Unit INET Model PDX25S
 - 1.2.2.3 Roof Top AC Unit (RTU) Trane Model TCDO49C400BC
 - 1.2.2.4 Portable Water Cabinet (PWC) Jetflo Model JF300 at Gates A1, A7 and Jetflo Model JF301C at Gates A2, A8, A9, A10, A11, A12, A14, and A15
 - 1.2.2.5 Gates A1, A2, A7, and A8 include Bumper Extensions
 - 1.2.2.6 28.5 VDC power is supplied by self-contained units by Hobart Model No. 6T28-600CL at Gates A1, A2, A7, and A8
- 1.2.3 Gates A25, A26, A27, A29, and A30 include the equipment listed above except for the following:
- 1.2.3.1 400 HZ power is supplied by self-contained units by FCX Model No. PFC072-H-40-FM-12P (one each per gate)
 - 1.2.3.2 Pre-Conditioned Air is supplied by self-contained Pre-Conditioned Air Unit JETAIR XPC-6013-113-17-40 at gates A25, A26 and INET Model PDX25S at gates A27, A29, and A30.
 - 1.2.3.3 Roof Top AC Unit (RTU) RUUD Model WLKA-A048DL
 - 1.2.3.4 Portable Water Cabinet (PWC) Semler Model S1-1500
 - 1.2.3.5 28.5 VDC power is supplied by self-contained units by Hobart Model No. 6T28-600CL at Gates A25 and A26
- 1.3 **Terminal D** - The eleven (11) gates are inclusive of all related parts, systems, and accessories. Maintenance items on Gates include, but are not limited to, mechanical, electrical, and electronic systems, engines, motors, pumps, compressors, fans, belts, cables, computers, instrumentation, controls, alarms, indicator lights, tires, suspension, steering devices, drive mechanisms, bearings, seals, rollers, and doors. Electrical service includes power circuit breakers, power and instrument transformers, surge protection devices, relays, and secondary breakers serving motor controls up to but excluding main disconnects in primary switchboards serving motor controls and starters. System details are provided below.
- 1.3.1 400Hz Ground Power System
 - 1.3.2 Pre-Conditioned Air System
 - 1.3.3 Potable Water Supply System
 - 1.3.4 Aircraft Guide-In System

APPENDIX "II"
SUPPORT EQUIPMENT REQUIREMENTS

**APPENDIX “II”
SUPPORT EQUIPMENT REQUIREMENTS GENERAL**

- 1.1 The Contractor shall provide acceptable, safe, timely, and courteous Support Equipment Service to:
 - 1.1.1 Support commercial aircraft with power, air, and water when parked on airport property.
 - 1.1.2 Provide means for passengers to safely embark and disembark commercial aircraft.
 - 1.1.3 Transport passengers safely and comfortably between parked Aircraft and Terminals per Director’s request at no additional cost to the City.
 - 1.1.4 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.

2.0 PERFORMANCE REQUIREMENTS

- 2.1 The Contractor shall provide Support Operations inclusive of all equipment, operators, lubricants, tires, batteries, and expendables required for acceptable service at all times at no additional cost to the City. Contractor shall provide specified equipment and personnel to accomplish the required services, including bus drivers and trained equipment operators. Contractor’s Support Operations equipment shall be “like new,” reliable, clean, and well maintained inside and out.
- 2.2 Contractor shall be responsible for all fuel cost associated with the use of all Support Equipment under this agreement at no additional cost to the City.
- 2.3 The Contractor shall coordinate its Support Operation thru Gate Control.
- 2.4 The Contractor’s Support Operations shall support the following aircraft, but not limited to:

| | | | |
|----------|----------|---------|----------|
| B727-200 | A340 | A300 | MD11 |
| B737-100 | B757-200 | A350 | MD80 |
| B737-200 | B767-200 | DC9-30 | A380 |
| B747-200 | B777-200 | DC10-10 | B747-800 |
| B747-400 | B777-300 | DC10-30 | B787 |
- 2.5 Contractor shall bring equipment to the hardstand and/or airport facilities and remove equipment from the area(s) as service requirements dictate. The City will not operate Contractor’s equipment unless specifically authorized by Contractor to do so in emergency situations.
- 2.6 Contractor shall provide specialized equipment, including a Passenger Lift Vehicle, capable of docking to all aircraft (including the A380’s upper deck) for passengers with ambulatory or mobility impairments.

3.0 CONTRACTOR-FURNISHED EQUIPMENT

- 3.1 The Contractor shall perform services and operate its support equipment only with trained, qualified employees.
- 3.2 Contractor’s Support Operations includes providing, maintaining, and operating the support equipment.
- 3.3 The list below is the minimum assets required for aircraft support operations:
 - 3.3.1 Two (2) Buses.
 - 3.3.2 One (1) Mobile Stairways.
 - 3.3.3 One (1) Disabled Passenger Lift Vehicle.
 - 3.3.4 One (1) 90 KVA 400 Hz Ground Power Unit.

- 3.3.5 Two (2) 180 KVA 400 Hz Ground Power Unit.
 - 3.3.6 Two (2) 110 Ton Pre-Conditioned Air Units.
 - 3.3.7 Two (2) 60 Ton Pre-Conditioned Air Units.
 - 3.3.8 Two (2) Potable Water Units.
- 3.4 Support equipment listed below shall be provided and dedicated to HAS 24/7 per pricing specified in Exhibit B Fee Schedule of the executed Agreement.
- 3.5 **Buses**
- 3.5.1 Buses shall be like new diesel-powered air conditioned, capable of providing safe and prompt transport of up to 110 passengers to and from the Terminal and Aircraft located throughout the Airport.
 - 3.5.2 Buses shall have a luggage rack inside for passenger convenience.
- 3.6 **Aircraft Stairs**
- 3.6.1 Aircraft Stairs shall be truck-mounted, enclosed, and capable of servicing wide-body aircraft and narrow-body aircraft. Stair(s) shall be completely enclosed to provide weather protection, stable, safe, and weather protected passengers boarding and deplaning and shall comply with all applicable safety requirements. Safety features on the units shall include:
 - 3.6.2 Illuminated Steps.
 - 3.6.3 Illuminated Platform.
 - 3.6.4 Stabilizers.
- 3.7 **Disabled Passenger Lift Vehicles**
- 3.7.1 Disabled passenger lift vehicle shall be factory designed and built to safely and comfortably transport enplaning/deplaning passengers with ambulatory or mobility impairments to/from all levels of aircraft cabins as described in section 2.3 per Federal Aviation Administration (FAA) Advisory Circular AC-150/5220-21C or latest revision. The Disabled Passenger Lift Vehicle shall have the capability of docking to the **A380** upper deck.
- 3.8 **Ground Power Units**
- 3.8.1 Ground power unit shall be a 90-KVA 400-Hz and two (2) 180 KVA 400 Hz diesel-powered, trailer-mounted units and shall include all necessary aircraft cables required to service specified aircraft.
- 3.9 **Pre-Conditioned Air Units**
- 3.9.1 Aircraft Air Conditioner shall be diesel powered unit with a nominal capacity of 120 tons of cooling and 750,000 Btu/Hr heating and include all necessary hoses and couplers required to service specified aircraft.
 - 3.9.2 Aircraft Air Conditioner shall be diesel powered unit with a nominal capacity of 60 tons of cooling and 720,000 Btu/Hr heating and include all necessary hoses and couplers required to service specified aircraft.
- 3.10 **Potable Water Units**
- 3.10.1 Potable water service truck shall have an approximately 450-gallon capacity stainless-steel tank and be equipped with all necessary hoses and fittings required to service specified aircraft.

APPENDIX “VI” REPLACEMENT PARTS

APPENDIX "VI" REPLACEMENT PARTS

| TERMINAL A/D PARTS – DESCRIPTION | MANUFACTURER/PART # | QTY |
|---|----------------------------|------------|
| 14" x 20" FLAT DUCT PCA HOSE | J & B AVIATION JB1410-20 | 49 |
| GEMINI FIELD REPLACEABLE GPU CABLE HEAD | J & B AVIATION JB5100 | 2 |
| JETWAY DRIVE WHEEL 40X14 ALUMINUM RIM | JETWAY SYSTEMS | 4 |
| STARTER PCA HOSE | J & B AVIATION | 9 |
| STEARNS DRIVE WHEEL 40X14 ALUMINUM RIM | STEARNS | 3 |
| TAPERED PCA ADAPTER HOSE 14" X 8" | J & B AVIATION JB1410-01 | 13 |
| THYSSEN DRIVE WHEEL 40X14 STEEL RIM | THYSSEN | 1 |
| MOTOR, 7.5 HP, WWE7 | WORLDWIDE 213TD | 4 |
| MOTOR, 7.5 HP, O132M0 | BALDOR, 1440/1750 | 3 |
| MOTOR, .5 HP, VS-F1 | SUMITOMO TC-FX/FB-O5A | 4 |