

# Memorandum



**Date:** August 30<sup>th</sup>, 2011

**To:** Penelope Townsley, Director  
Department of Small Business Development

**From:** Milton Collins, Associate Director *MSC*  
Miami Dade Aviation Department-Minority Affairs Division

**Subject:** MIA Baggage Handling System Operating and Maintenance Contract  
ITB-MDAD-01-11

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## RECOMMENDATION:

This is a request for the Review Committee (RC) to approve the Community Small Business Enterprise Program (CSBE) Contract Measures in Order for the Department to proceed with the advertisement for the **MIA Baggage Handling System Operating and Maintenance Contract (BHS), ITB-MDAD-01-11**, for the maintenance, operation and repair of all BHS (excluding the outbound BHS operated by American Airlines) on a 24-hour, seven-days-a-week basis. Required services include preventative and corrective maintenance; maintaining spare parts and inventories; unplanned modifications to the systems, and TSA-sponsored modifications to the systems. Systems included are:

- (A) All Domestic and International Inbound Baggage conveyors and claim devices
- (B) The In-Line Security and Automated Baggage Sortation System at the South Terminal
- (C) The Automated Baggage Sortation System at Concourse F
- (D) The Conventional BHS conveyors and baggage make-up carousels

The term of the Contract will be for five (5) years with one (1) Option to Renew (OTR) of five (5) years. The estimated overall cost of the contract will be eighty million dollars (\$80,000,000).

The Minority Affairs Division Staff has evaluated the subject project and recommends 19% CSBE goal as the contract measure, and supplements this recommendation with the attached MDAD Contract Measures Analysis Worksheet, and other supporting documents.

The general intent of this Contract is for the operation, maintenance, and repair of all inbound BHS; specified outbound automated and manual sortation BHS, and their related equipment. Concourse J and Concourse F have an automated sortation BHS, whereas concourses G and a section of F, operate with a manual sortation BHS. Basically, this contract covers all MIA inbound passenger baggage handling and all outbound passenger baggage handling with the exception of American Airlines system. Further intent of this contract is to perform other services on the BHS including system modifications, as determined by the Owner to maintain efficient operations.

These Services shall ensure and provide for the continuing performance and safe operation of the above specified equipment during the term of the contract. The Contractor shall support maintenance and operations of all systems on a 24-hour schedule (scheduled and unscheduled flights, Commercial as well as Charter Flights), seven days a week.

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Invitation to Bid BHS Operations and Maintenance Contract  
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Preventive and corrective maintenance shall be provided and spare parts inventories shall be maintained as specified in the supplier's Operating and Maintenance Manuals or as defined by Industry Standards. A Computerized Maintenance Tracking System shall be required to track and log both Preventive and Corrective Maintenance items, as well as generate reports.

The successful bidder shall provide all necessary management, supervision, labor, parts, supplies, tools, equipment, and instrumentation to operate, maintain and repair the specified BHS at Miami International Airport (MIA) in first class condition. BHS specified in this contract are located at MIA throughout the Central, South and North Terminals and on the first, second and third floors.

Basic Services include but are not limited to the following:

1. The Contractor shall be responsible for providing personnel during the initial training period, which could last up to 60 days as mutually agreed to work alongside the current Contractor to become familiar with the different systems used at MIA.
2. Management, supervision and staffing of all direct, non-direct, and support functions required to operate, maintain and repair the specified BHS at MIA. (details for the systems and subsystems are listed in the Technical Specifications, supported by drawings and mandatory walk through prior to award of this contract).
3. Provision of Original Equipment Manufacturer-recommended maintenance for all BHS, subsystems and components. Preventive Maintenance shall be done during non-peak hours. All systems shall operate up to 24 hours per day, seven days per week. Peak hours for the South Terminal BHS are between 12 noon and 6 pm.

For further information, the attached draft ITB Technical Specifications document details the requirements for this contract.

If additional information is needed, please contact MDAD Project Manager Neil Wyatt at 305-876-7324.

Attachment: Draft ITB Technical Specifications

c: K. Pyatt  
C. Jose  
N. Wyatt  
D. Shore  
File

**MDAD'S CONTRACT MEASURES AND ANALYSIS WORKSHEET**

TO: Penelope Townsley, Director  
 Department of Small Business Development

FROM: Milton Collins, Associate Director *MC*  
 Miami-Dade Aviation Department-Minority Affairs Division

PROJECT/CONTRACT TITLE: Invitation to Bid BHS Operations and Maintenance Contract at MIA

CONTRACT NUMBER: ITB-MDAD-01-11

DEPARTMENT: Aviation

ESTIMATED COST: Eighty Million Dollars (\$80,000,000)

FUNDING SOURCES: Revenue Funds, Reserve Maintenance Funds, and Capital Funds

**DESCRIPTION OF PROJECT:**

Operation, maintenance, and repair of all inbound BHS and specified outbound automated and manual-sortation BHS, and their related equipment. Concourse J and Concourse F have an automated sortation BHS, whereas concourses G and a section of F, operate with a manual sortation BHS. Basically, this contract covers all MIA inbound passenger baggage handling and all outbound passenger baggage handling with the exception of American Airlines system. Further intent of this contract is to perform other services on these BHS including system modifications, as determined by the Owner to maintain their efficient operations.

**CONTRACT MEASURES RECOMMENDATION:**

Trade Set-Aside \_\_\_\_\_ Bid Preference \_\_\_\_\_ Subcontractor Goal   X    
 Set Aside \_\_\_\_\_ No Measures \_\_\_\_\_ Selection Factor \_\_\_\_\_

**REASONS FOR RECOMMENDATION:**

Analysis of the factors contained in Section VI C of Administrative Ordinance 3-22, indicate that a CSBE goal is appropriate for this contract.

**ANALYSIS FOR RECOMMENDATION OF A GOAL:**

Division No.	Item Description	Estimated Cost	Percentage	Availability
15	Mechanical	\$11,400,000	14.25%	3
16	Electrical	\$ 3,800,000	4.75%	3
TOTAL:		<u>\$ 15,200,000</u>	<u>19.0 %</u>	

TOTAL PROEJCT COST: \$80,000,000.00

**Request for Contract Measures -ITB MDAD 01-11  
BAGGAGE HANDLING SYSTEMS AT MIAMI INTERANTIONAL AIRPORT**

<b>SERVICE DESCRIPTION</b>	<b>PRIME CONTRACT</b>	<b>SUB- CONTRACTOR</b>	<b>% OF ESTIMATED CONSTRUCTION VALUE</b>
Management and Operations	\$ 39,600,000		49.50%
Electrical Preventative Maintenance	\$ 3,800,000		4.75%
Corrective Maintenance	\$ 11,400,000		14.25%
Systems parts	\$ 7,200,000		9.00%
Additional Servcies Allowance Account	\$ 2,000,000		2.50%
General Allowance Account	\$ 6,000,000		7.50%
TSA Allowance Account	\$ 10,000,000		12.50%
<b>TOTAL</b>	<b>\$ 80,000,000</b>		<b>100%</b>



# MEMORANDUM

TO: Milton Collins  
Assistant Division Director  
Minority Affairs Division

DATE: July 27, 2011

FROM: Pedro J. Betancourt   
Aviation Sr. Procurement Contract Officer  
Contracts Administration Division

SUBJECT: Recommendation of  
Contract Measures for  
Baggage Handling  
System Operation and  
Maintenance (BHS O&M)  
Project No. ITB-MDAD-01-11

By way of this memorandum, we are requesting that the referenced project, be reviewed and recommended for contract measures. Please advise Neil Wyatt, Facilities Maintenance, (*User Project Manager*), if the project is recommended for the Review Committee and respective meeting this item will be considered.

**Project:** Baggage Handling System Operation and Maintenance (BHS O&M) at Miami International Airport (MIA)

**Background:** This project ensures the safe O&M of the BHS at MIA. The contractor supports the operation and maintenance of all systems (excluding the outbound BHS operated by American Airlines) on a 24-hour, seven-days-a-week basis. Required services include preventive and corrective maintenance, maintaining spare parts, and inventories.

**Scope:** See attached

**Term of the Contract:** Five (5) years

**Contract Estimated Amount:** \$80,000,000

**Existing Contract Measures:** Contract No ITN-MDAD-01-06  
CSBE Goal 19% CWP 19%  
Responsible Wages

Please call me at extension 7345 if you have any questions or concerns.

Attachments: Draft Technical Specifications

CC: Marie Clark-Vincent  
Debra Shore  
Neil Wyatt

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Section 3 – Technical Specifications Draft (as of 07/25/2011)  
Operation and Maintenance Services for Baggage Handling Systems at MIA

## SECTION 3

### TECHNICAL SPECIFICATIONS BAGGAGE HANDLING SYSTEMS (BHS) OPERATION & MAINTENANCE (O&M) MIAMI DADE AVIATION DEPARTMENT (Short Title: BHS O&M)

#### 3.1.0 Summary of Work

- 3.1.1 The Miami Dade Aviation Department (MDAD) has determined that the Miami International Airport (MIA) terminal drawings, building layout plans for the various BHSs, and O&M Manuals for the BHSs contain Sensitive Security Information (SSI) as defined by 49 CFR Part 1520. As such, the negotiating process for this procurement shall not include copies of any of these documents. After the Contract has been awarded the Contractor may obtain unredacted copies of the SSI documents for use during the term of the Contract. A representative of the Contractor must present a current, government issued picture identification (e.g., Driver's License, United States Passport), and be authorized to sign a MDAD Non-Disclosure Agreement (NDA). The signed and notarized NDA certifies that the authorized individual agrees that they are familiar and will comply with the standards for access, dissemination, handling, and safeguarding of SSI in accordance with 49 CFR Part 1520, and that in accordance with one or more of the following Florida Statutes, § 111.301 and § 119.071, to maintain the information contained in the documents as being exempt from the provision of Florida Statute 111.07(1) and § 24(a), Article I of the State Constitution. The Contractor is required to handle and store all of the Contractual documents pursuant to Special Provision 5.
- 3.1.2 These written Specifications, in conjunction with the MIA BHS drawings, and BHS Operations and Maintenance Manuals, which are available as defined above, are part of the Contract Documents for the operation and Maintenance and Repair of BHSs at Miami International Airport. This Contract is broken into two parts: the first part explains the O&M of the systems, subsystems, and related components; the second part, Special Provision 7, deals with work that pertains to construction, major improvements, enhancements, and modifications to the systems.
- 3.1.3 The general intent of this Contract is for operation, maintenance, and repair of: all specified inbound and outbound automated sortation and manual-sortation BHSs, and their related equipment. Concourse J and a section of concourse F have an automated sortation BHS, whereas concourses E, G, and a section of F, operate with a manual-sortation BHS. Basically, this contract covers all MIA inbound passenger baggage handling and all outbound passenger baggage handling with the exception of American Airlines' system. Further intent of this contract is to perform other "additional" services

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on these BHSs, to include system modifications, as determined by the Owner to maintain their efficient operations. Part of the requirements of this contract is for the Contractor to obtain an Annual Facility Permit for Unincorporated Areas of Dade County Only and Building or Structures as Defined in the Florida Building Code that shall be maintained for the term of the contract.

3.1.4 The Contractor shall be responsible to provide services for the overall performance of the following systems located throughout MIA as listed under Exhibit A:

1. Inbound domestic BHSs.
2. Inbound international BHSs.
3. Outbound manual-sortation BHSs.
4. Outbound automated sortation BHSs.

3.1.5 These services shall ensure and provide for the sustained performance and safe operation of the subject equipment during the term of the Contract. The Contractor shall provide preventive maintenance, corrective maintenance, and system modification, when required, and shall maintain spare parts inventories as well. The Contractor shall support all automated sortation and manual-sortation baggage handling systems 24-hour a day, seven days a week. Preventive maintenance shall be done in a manner and at a time so to not interfere with the standard operation of the systems. Additional operating hours for late departures or charters operating during other than standard operating hours, as required, and all costs shall be incurred by the Contractor.

3.1.6 The Contractor shall provide operation and maintenance inclusive of parts, electronics and metal welding and metal fabrication in accordance with operations and maintenance manuals, manufacturer recommendations, industry standards of the specific systems supplied by the various systems suppliers and systems installation contractors for all BHSs, and conveyor baggage systems, along with their associated subsystems and components.

3.1.7 These Contract documents are confidential, and are not to be distributed or copied, in part or in whole, without the written consent of an authorized representative of the MDAD Safety and Security Division, and in coordination with the Contract Administrator.

#### 3.2.0 Training and Familiarization

3.2.1 The contractor shall learn and become proficient in the MIA operation of both sortation and manual-sortation BHSs during the training period. The time frame for training will start from Notice to Proceed (NTP), and last up to 60 days as mutually agreed.

3.2.2 It is the Owner's desire that the Contractor concentrate the bulk of the training and familiarization from 1:00 PM to 5:00 PM for the Contractor to fully understand the overall scope and complexity of the operation of the MIA BHSs during peak periods,

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especially the outbound automated sortation BHS in the south terminal. Training and familiarization during other times are acceptable provided that the Contractor notifies the MDAD Contract Administrator of the dates and times of his/her intent to do so and that it includes startup, and shutdown.

- 3.2.3 The Contractor's responsibilities during the training and familiarization period are limited only to training and familiarization of the identified BHSs. The Contractor shall have no responsibilities or obligations to perform any actual operation and maintenance work on any of the BHSs during the training period. The Contractor shall not interfere or hinder others that do have the responsibility for the O&M of the BHSs during this training period. Should any incident or conflict occur between the Contractor's personnel and the personnel of others, it shall immediately be brought to the attention of the MDAD Contract Administrator.
- 3.2.4 Payment to the Contractor for Training and Familiarization shall be paid from the Dedicated Allowance Account for Training and Familiarization. Notwithstanding the amount of the dedicated allowance account, the Contractor shall be paid only for the actual hours of training performed. The Contractor shall submit a Request for Payment on a monthly basis, in arrears, that reflects the total amount paid to the Contractor's personnel and any Subcontractor times a one-point six multiplier [or as determined by DPM]. Each Request for Payment during the training period shall be accompanied by Certified Payroll forms (pursuant to Article 2.09) for each of the personnel that were on the job during the training period. The Contractor's Request for Payment shall reflect the sum of all the attached Certified Payroll forms times the multiplier (herein above) to derive the total value of the Request for Payment.
- 3.3.0 Drawings, and Operations and Maintenance Manuals**
- 3.3.1 Drawings and Operations and Maintenance Manuals are available for inspection and review at the designated MDAD location for this project as described in Section 3.1.
- 3.3.2 The Drawings apply to the specified work and illustrate the general configuration of the BHSs and related equipment located at MIA to be operated and maintained under this Contract based on the best information available. They are intended to generally identify and illustrate the magnitude and makeup of the systems, subsystems, and equipment to be operated and maintained under this Contract.
- 3.3.3 The Operations and Maintenance Manuals provided apply to the specified work. They are intended to generally supplement the drawings and identify the equipment to be operated and maintained under this Contract, and the scope and type of operations and maintenance to be performed. All equipment/components associated with the baggage handling systems/subsystems covered under the Contract shall be operated and maintained in accordance with the Operations and Maintenance Manuals, unless otherwise stated.

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- 3.3.4 By the presentation of Drawings, an attempt has been made to present approximate conveyor right of ways, configurations, surrounding conditions, etc., but these shall be determined by review of the existing conditions, and verified by actual field walkthroughs and/or inspections of the building and facilities, as required, to be thoroughly acquainted with the specified BHS (s) and the overall scope and complexity of the operation and maintenance of these systems, as applicable. For this reason, all Bidders shall attend a mandatory site inspection prior to bidding.
- 3.3.5 Actual detailed configuration of the conveyor lines and other components of the BHSs may vary to some extent from the drawings due to field modifications, etc. All equipment/components associated with the systems/subsystems indicated in the drawings shall be included in the scope of work, despite any variations in the configurations from that shown in the drawings (e.g., number of devices, individual conveyor lengths, etc.)

#### 3.4.0 SYSTEM(S) DESCRIPTIONS – Automated and Manual Sortation BHSs

The system descriptions of the automated sortation and manual sortation baggage handling systems under this contract at Miami International Airport, as shown under Exhibit A, are described below. Airline staff is responsible to place bags that are irregular, soft sided or undersize into tubs prior to induction in accordance with MDAD bag hygiene policies, except for South terminal where airline staff must place every bag into tubs prior to induction. In addition, airline staff must manually transport all oversized baggage to the designated oversize induction belts. The Contractor shall be responsible to monitor airlines baggage handling process, and shall enforce MDAD's bag hygiene policies.

- 3.4.1 Inbound Domestic BHS. There are twenty-one inbound domestic claim devices (CD) throughout MIA located on the first floor of concourses D, E, F, G, H, and J.
1. Concourse D. - Seven baggage claim devices, CD-21 to CD-27, at concourse D are designed for inbound domestic flights.
  2. Concourse E. - There are two baggage claim devices, CD-14 and CD-15, at concourse E designed for inbound domestic flights.
  3. Concourse F. - Two baggage claim devices, CD-12 and CD-13, at concourse F are designed for inbound domestic flights.
  4. Concourse G. - Two baggage claim devices, CD-10 and CD-11, at concourse G are designed for inbound domestic flights.
  5. Concourse H. - There are two baggage claim devices, CD-8 and CD-9, at concourse H designed for inbound domestic flights.
  6. Concourse J. - Six baggage claim devices, CD-1 to CD-6, at concourse J are designed for inbound domestic flights. See Section 3.4.4.C for more details.

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- 3.4.2 Inbound International BHSs. - There are twenty-three inbound international claim devices (CD) and three oversized claim belts throughout MIA located at concourses D, E, and J.
1. Concourse D. - There are ten slope plate claim devices, CD-1 to CD-10, and two oversized claim belts under construction at concourse D. These belt systems will be put into operation and added to the contract at a later time.
  2. Concourse E. - There are eight slope plate claim devices, CD-1 to CD-8, at concourse E designed for inbound international flights.
  3. Concourse J. - Five baggage claim carousels devices, CD-1 to CD-5, and one oversized claim belt, at concourse J are designed for inbound international flights. See also Section 3.4.4.C for details.
- 3.4.3 Outbound Manual-Sortation BHSs. - There are twelve makeup (MU) outbound manual sortation baggage systems located throughout MIA at concourses E, F, G, and H.
1. Concourse E. - Three baggage makeup devices, MU-52, MU-62, and 62-2, located at concourse E are designed for outbound manual sortation.
  2. Concourse F. - Three baggage makeup devices, MU-50, MU-51, and MU-54, at concourse F are designed for outbound manual sortation.
  3. Concourse G. - Three baggage makeup devices, MU-45, MU-46, and MU-47, at concourse G are designed for outbound manual sortation.
  4. Concourse H. - Three baggage makeup devices, MU-41, MU-42, and MU-43, at concourse H are designed for outbound manual sortation.
- 3.4.4 Outbound Automated Sortation BHSs. - This system exists at a portion of concourse F, and south terminal which includes concourses H and J.

Concourse F BHS. - The descriptions for the automated sortation BHS at MIA in concourse F are as follows:

- A. System Overview. - The outbound automated sortation BHS at concourse F accepts only screened bags from several input points: ticket counters, customs Recheck and inbound transfers; moves each bag past a laser barcode scanning array; determines its sort destination; and delivers it to one of sixteen sort piers. Bags that are not automatically scanned are routed to a manual encoding console where an operator hand scans the barcode or keys in the flight number. The sorting system is based on the IATA 10-digit standard. The system utilizes an Accusort eight-head scanning array, and Key Concepts (formerly Varcom) Automation's Sort-10 PC-based software package. Maintenance of the sorting system requires access to information on the system's status, plus notification of support staff when an event requiring a response occurs. The Key Concepts' AirFlow-10 product utilizes PC-based diagnostic and user input consoles. The consoles display the entire system in a

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graphic format and allow users to request information and make configuration changes using point and click methods. Two consoles are installed: one in the computer control room and one in the operator control booth.

- B. **Baggage Sorting Messages (BSMs).** - Key Concepts Automation's Sort-10 software collects BSMs from several airline host computers, stores this information in its database, and uses it to determine the sort destination of each bag when it is scanned by the laser array or at the manual encoding console. The unique bar coded number on each bag allows tracking information to be stored and retrieved.
- C. **Hardware Components**
- i. **Integrated Conveyors Lines.** - The main conveyor system consists of nine groups of conveyor segments (lines) that are under the direct control of the PC and PLC discussed here in the following paragraphs.
- (1) **Interline Transfer (IT).** - The interline transfer belt has thirteen segments and collects bags after the two EDS systems from the Recheck EDS customs belt located on the first floor. It also collects bags from the interline drop-off point and carries them to T1-5.
  - (2) **Ticket Counter (TC1).** - This check-in belt has been decommissioned, and is no longer in use. Bags originating from this check-in belt are manually transported to the TCB machines located on the second floor. After the bags pass the past EDS1 or EDS2, they are sent either to system T1 for manual-sortation BHS, or to IT-1 for automated sorting BHS.
  - (3) **Ticket Counter (TC2).** - This belt has two segments. It receives bags from the TCB conveyor system and delivers them to T1.
  - (4) **T1.** This belt has thirteen segments. It collects bags from the IT line and the two ticket counter lines TC1 and TC2, moves them past the laser scanning array, and to the T1 cross pusher that determines if each bag belongs on the M1 or M2 line.
  - (5) **T2.** This line has two segments. It receives bags from the T1 cross pusher (crossover), and delivers them to the M2 line.
  - (6) **Mainline 1 (M1).** - This line has nine segments. It receives bags from the T1 line and carries them past the odd numbered pushers (15 to 27) for sorting onto piers SP15 to SP27. Bags which cannot be pushed run out to SP29 at the end of the M1 line.
  - (7) **Mainline 2 (M2).** - This line has nine segments. It receives bags from the T2 line and carries them past the even numbered pushers (16 to

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- 28) for sorting onto piers SP16 to SP28. Bags which cannot be pushed run out to SP30 at the end of the M2 line.
- (8) No-Read (NR). - The NR line has eleven segments. Bags which are not read by the laser array are pushed by the NR pusher onto the NR line. They are then conveyed to the manual encoding station to be hand scanned or keyed in. Following the encoding position, the bags merge back into the IT line.
- (9) Sort Piers (SP). - The SP line has sixteen segments. Each sort pier receives bags from its associated pusher and presents them to the baggage handler for loading onto a cart or container.
- ii. Peripheral Conveyors Lines. - Several additional lines that pre-date the installation of the automated sorting system at Concourse F feed the newer automated sorting conveyors. These systems have their own assorted controllers.
- iii. Feed Lines. - The following conveyor lines feed the main sorting loop listed in Section 3.4.4:
- (1) Ticket Counter (TCE). - This line has fourteen segments, TCE1 to TCE14. It begins with the E recheck and carries bags to MC2. TCE1 to TCE3 have been decommissioned.
- (2) MC2. - This system has seventeen segments, MC2-5 to MC2-21. It receives bags from TCE4 and carries them across the E bagroom to TCE5.
- (3) LTC. - This line has six segments, LTC5 to LTC10, controlled by a Modicon PLC. It receives bags from MC2-21 and carries them along the F bagroom to CS11. LTC1 to LTC4 have been decommissioned.
- (4) Ticket Counter (TCA). - TCA has three segments, TCA1 to TCA3. It begins at E recheck and carries bags down to TC1-4. They are controlled by a Modicon PLC.
- (5) Ticket Counters (TCB). - TCB to TI has five segments, TCB1 to TCB3. It begins at E recheck and carries bags down to TC2-4. They are controlled by a Modicon PLC.
- (6) E Detection Systems (EDS). - There are several EDS machines to screen passenger bags prior to induction in the system.
- (a) Two machines, EDS1 and EDS2, on the second floor screen bags collected from TC1 and carry them to system 47 or to the IT line. EDS1 has sixteen segments whereas EDS2 has twenty-two segments.

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- (b) One other EDS also on the second floor, screen bags collected from passengers and then go to TC2 check-in belt.
  - (7) Curbside (CS). - Part of this system (CS1 to CS10) has been decommissioned. The operational segments, CS11 to CS14, carry bags from LTC to the IT line. LTC10 merges into CS11, and CS14 merges into IT-9. Segments CS11 to CS14 are controlled by the new Quantum PLC via MCP-4.
  - (8) Pushers. - There are fourteen sort pier pushers plus one no-read and one cross-over pusher. They are under the control of the Quantum PLC. All pushers can be tested from the graphic user console.
  - iv. Control Hardware. - The mechanical sorting process is controlled by a Quantum PLC and a redundant pair of PCs. The PLC handles hardware inputs and outputs such as photo eyes, motors, and pushers. The PC software provides the user interface, package sorting and tracking databases, and the communication and networking hardware that integrates all the system's peripherals. The PLC and PCs are programmed to handle all the existing functionality. Most importantly, the software provides a graphic display of the overall system and immediately highlights problems, such as bag jams or hardware failures, with both graphic and audible alarms.
  - v. Encoding Console. - The main encoding console is a Key Concepts LLC "Key Encode" product. It consists of a touch screen console with integrated PC that facilitates user encoding entries with fewer keystrokes and provides greater specificity in sorting baggage. The console PC communicates with the rest of the sorting system via TCP/IP messages on the Ethernet LAN.
  - vi. Information Displays. - The Key Concepts AirFlow-10 provides graphic displays that show the layout of the baggage room, the exact location of a problem, and the effect of that problem on the rest of the operation. The displays also provide a history of events to assist in troubleshooting of recurring symptoms.
2. Concourses H and J BHS. - The BHSs at concourses H and J in the south terminal have the following systems and subsystems.
- A. Outbound Sortation. - Check-in Systems (Induction)
    - i. Ticket Counter (TC) Check-in Subsystem. - Eight originating ticket counter check-in islands (TC1 through TC8) are located on the second level. Each subsystem consists of international style check-in stations (2 segment in-line scale and label/induction conveyors) that feed onto a take-away conveyor which transports baggage to the south terminal first level bagroom.

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- ii. Cruise Ship (CC) Subsystem. - One originating cruise ship counter check in island (CC2/3) subsystem is located on the first level. The subsystem consists of international style check-in stations (2 segment in-line scale and label/induction conveyors) that feed on the CC2 or CC3 take-away conveyors which transport baggage on the CC3 line or CC2 line.
- (1) The Cruise ship subsystem (CC1) originates in the first level. The takeaway conveyor is for group check-in and special parcel delivery (SPD). The CC1 transport system merges into the CC3 subsystem in first level bagroom.
  - (2) The cruise ship subsystems (CC2 and CC3) originate in the first level. The take-away conveyor is comprised of four segments, one segment for CC2 and three segments for other check-ins. The CC2 subsystem traverses across the south terminal in the bagroom. The CC3 merges into the first level bagroom.
  - (3) The CC2 line contains an automatic bag reader (ATR), located in the existing airlines bagroom, linking the airlines and outbound originating baggage to one of two make-up devices (MU45 and MU46). Sortation is based on the airline carrier code contained within the 10 digit bag tag information. All read bags is diverted from the CC2 line to the CC4 line for transport to make-up device MU45, and no-read bags remain on the CC2 line, and are transported to make up device MU46.
- iii. Transfer Baggage Subsystem. - The transfer subsystem consists of conveyor lines TX1, TX2, and TX3, for the transport of the interline baggage, and to transfer baggage from the south terminal first level bagroom. Only one transfer baggage system operates at a time.
- (1) The CC3 and TX3 lines contain a primary ATR (2 each) for linking outbound originating bags and bags from the transfer line to their designated sort pier device. After the bag has passed through the EDS security screening matrix they pass through an update ATR (4 each). By means of high speed diverters (pushers) on the main sort line, bags are diverted from the sort line for access to any of the 25 sort pier outputs of the system bags; and baggage requiring manual encoding are diverted to ME1 or ME2 after no read at the primary ATR.
- iv. Curbside Subsystem. - The curbside system consists of conveyor lines CS1, CS2, and CS3 which transport second level curbside checked baggage to the first level sortation system within the south terminal. Only CS3 is operational at this time.

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- v. **Baggage Services Subsystem (BS).** - There is one baggage service subsystem (BS1) where baggage are manually inputted on the conveyors, get transported and are merged into the CS1 subsystem.
  - vi. **Re-Accommodation Subsystem.** - There is one re-accommodation check-in subsystem (RA1/2) located on the third level. This subsystem consists of international style check-in stations (2 segment in-line scale and label/induction conveyors) that feed onto RA1.
    - (1) RA1 traverses down through the spiral belt to merge onto the sortation line in the first level. RA2 traverses down through the spiral belt to merge onto the CC1 line for transport to the other bag systems.
  - vii. **Recheck Baggage Subsystem.** - This system has been decommissioned. The international inbound Recheck baggage subsystems (RC1 and RC2) originate in the third level. Both lines traverse down to the first floor level where they merge onto the sortation line.
  - viii. **Mainline Subsystem.** - Two mainline subsystems ML1 and ML2 provide transportation and sortation for outbound baggage. Security cleared and identified bags are transported to their associated EDS and are then transferred via two redundant diverters to ML1 or ML2. Baggage is then transported and sorted to the pier determined sort pier. Unsorted baggage is transported and merged onto the BS subsystem for reprocessing.
- B. Outbound Sortation - Other Inbound System**
- i. **Manual Encoding.** - Bags that are not successfully read by the primary scanners are transported to the manual encoding line (ME1 or ME2). At the manual encoding line, bags advance on a series of queue conveyors until positioned at a manned station. The bags are then be encoded, using a scan gun or by key encoding, and then released. Once released from the manual encoding area, bags are merged onto the CC3 and TX3 lines via the 45 degree merge conveyors, the bags are tracked from the manned position to the sort output destination or to the EDS security screening matrix if the bag has an EDS designation.
  - ii. **Oversize Subsystem (OS).** - The Outbound Oversize system consists of four conveyor subsystems for transporting oversize bags as follows:
    - (1) Two subsystems (OS2 and OS4) originate in the second level, and feed directly to oversize piers in the first level.
    - (2) OS3 originates in the second level (behind ticket counter TC6), and feeds via an oversize lift to a transport conveyor in the first level that transports the oversize items to the upper level oversize sort pier located along column line 26.

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- (3) OS5 originates at the second level curbside and feeds directly to the lower level oversized sort pier located in the first level along column line 26.
  - (4) OS2, OS4, and OS5 originating oversized lines are reversible for tub return from the first level to the second level ticketing area.
  - (5) OS1 subsystem. - See Section C below.
- iii. Sort Pier Subsystem (SP). - Twenty-five sort pier subsystems provide accumulation of cleared and sorted outbound baggage. Each SP subsystem consists of a pair of upper and lower sort laterals. Baggage sorted from ML1 subsystem is delivered to the upper lateral, and baggage sorted from the ML2 subsystem is delivered to the lower lateral.
  - iv. Cross-Over Baggage Subsystem (XO). - Three cross-over baggage subsystems provide transportation redundancy for the BHS.
    - (1) In the event of a down-line failure on the CS3, EDS1, or ML1 subsystems, baggage on the CS3 subsystem is transferred via a pusher to the XO line and then transported and merged with the CS3 subsystem.
    - (2) In the event of a down-line failure on the CS3, EDS2, or ML2 subsystems, baggage on the CS3 subsystem is transferred via a pusher to the XO line, and then transported and merged with the CS3 subsystem.
- C. Sortation Inbound Systems
- i. Inbound Domestic Subsystems. - There are six domestic terminating flat plate claim devices IB1 through IB6 located on the first level. Bags are loaded directly onto the device on the airside of the claim device. Terminating domestic oversized items are placed on one of three slides located on the first level.
  - ii. Sortation International Inbound Subsystems (IB). - Five International Inbound terminating transport lines IB1 through IB5 located on the first level feed directly to the five slope plates claim devices located in the third level claims hall.
  - iii. One International Inbound terminating oversized line (OS1) originates in the first level and feeds directly to an unload conveyor in the third level International Inbound claims hall.
- D. Sortation TSA Bag Screening Subsystems
- i. Explosive Detection System (EDS). - There are ten CTX9000 explosive detection subsystems to provide security screening for outbound baggage.

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EDS subsystems, EDS1A through EDS1E, and EDS2B through EDS2F. The TSA is responsible for the operation and maintenance of the EDS machines; however, the Contractor shall be responsible for the maintenance and repair of the EDS belts.

- ii. **Re-Introduction Subsystem (REDS).** - One security re-introduction baggage subsystem provides induction of baggage that requires level 1 screening. Baggage on the REDS1 subsystem is transported and then merged onto the CS3 subsystem for delivery to the EDS2 level 1 security screening loop.
- iii. **Cleared Baggage (CB).** - Two security cleared baggage subsystems provides re-introduction of baggage that has passed manual inspection. In the ETD room, security personnel inspect suspect bags and load cleared baggage on either CB1 or CB2 subsystem. Baggage on the CB1 subsystem is transported to an ATR and then merged into ML1 subsystem for delivery to a sort pier. Baggage on the CB2 subsystem is transported to an ATR and then merged onto ML2 subsystem for delivery to a sort pier.
- iv. **Suspect Baggage (SB).** - Two suspect baggage subsystems provide transportation of suspect bags from the EDS security screening loops to the ETD room. Suspect baggage from the EDS1 loop is transferred to the SB1 subsystem. Suspect baggage from the EDS2 loop is transferred to the SB2 subsystem.

#### E. Computer Systems

- i. The sortation controller system comprise equipment that is used for the tracking of all baggage input from the scanner arrays and manual encoding stations through the system sort devices, based on information previously entered by an operator and information received from fixed bar code scanners and manual encoders and/or hand held scanners. The sortation controller system is configured as a fully redundant system with "hot backup". The primary and backup sort controller is located in the BHS control room.

Additionally, the sortation controller system equipment and function provide for visual as well as hard copy fault and production monitoring, at the workstation for the entire baggage system.

- ii. **Maintenance Diagnostic Systems.** - The Maintenance Diagnostic Systems workstation has a minimum of five wall mounted systems graphic monitors that accurately and clearly depict the entire baggage system. These monitors display in real time, dynamic pictorial format, the operational status of the conveyors, EDS, sort piers, claim devices, etc. that are connected to the sortation controller and overall system programmable logic controllers. Each monitor provides color indications of the predefined outbound and inbound system areas. There are two 21-inch monitors provided with zoom

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capabilities for predefined sectors of the BHS. In the event of a fault, the operator may zoom to the predefined area for more specific details of the fault.

iii. Interface Requirements. - The BHS computer systems communicate with the Airport Operation Information System (AOIS) to receive departure flight information including flight number and make-up assignment. The BHSs employ outbound sort correlation tables which establish the correspondence between flight number and make-up number.

- (1) Bi-directional data communication between BHS and AOIS computers is provided to maintain and/or advise status of both systems.
- (2) The user airline/owner Common User Terminal Equipment (CUTE) reservation computer system network is based on the utilization of intelligent workstation at check-in counters for flight assignments and sort pier to flight connection, (as well as other functions not related to the BHS). The CUTE contractor's (SITA) Bag Message System transports Bag Source Messages in real time to the BHSs to support sortation.

#### F. Closed Circuit Television

The BHS includes digital based closed circuit television cameras and displays to monitor the BHS, with particular attention paid to trouble areas such as pushers, diverters, and/or 45 degree merge points, incline, declines etc.

i. Dynamic Flight Pier Assignment Display Board. - A Dynamic Flight Pier Assignment Display Board is located in the bagroom. It displays flight data (flight number, departure time, etc.) with associated pier assignments for the BHS. The dynamic display updates automatically as controlled by the BHS.

ii. Security Screening. - The systems include provisions for 100% checked baggage security screening.

3.4.5 Airline companies that are specifically identified within this section, along with their implied location of operation within the terminal, are subject to change. Any airline may be either temporarily or permanently relocated within the terminal facility.

#### 3.5.0 Basic Services

A second Notice to Proceed (NTP) for the operation and maintenance of the contract will be issued following completion of personnel's training and familiarization, described in 3.2. Hence, the contract term period will be based on this second NTP.

3.5.1. The Contractor shall be responsible for the overall performance of automated sortation and manual-sortation BHSs, and provide services for the baggage systems listed under Exhibit A to include, but not limited to the following:

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1. Manage, supervise, and staff all direct, non-direct, and support functions required to operate, maintain, and repair the specified BHSs.
2. Provide all necessary labor, tools, instrumentation, parts and equipment to perform duties. Parts shall be purchased by the Contractor using a dedicated allowance account, and will be reimbursed by the Owner. Refer to Section 3.7 for more details.
3. Provide and maintain all furniture, office supplies to include printer toner and paper, etc. for Contractor's offices and Baggage Control Centers.
4. Perform routine maintenance such as inspections and tests to identify and correct any unusual or abnormal equipment conditions and to meet the required systems service availability.
5. Perform scheduled maintenance as required to keep the BHSs operating safe, efficient, and reliable, on a regular basis as defined by the equipment manufacturer's operation and maintenance manuals, or consistent with industry standards.
6. Perform corrective measure or repair required because of ordinary wear and tear.
7. Clear all baggage jams;, and resolve all system malfunctions.
8. Maintain inventory of parts including baggage tugs.
9. Operate programmable logic controller (PLC) systems such as: Allen Bradley, Modicon, Quantum, Square-D, as well as other PLC systems.
10. Recognize, diagnose and correct electrical-mechanical and PLC system malfunctions.
11. Maintain and modify when necessary the computer systems with in-house staff or through subcontractors for programming of the sortation systems.
12. Develop, direct and manage contingency plans that allow systems or parts of systems to function under different failure modes, including supervising airline and scraps personnel at the ticket counters.
13. Monitor implementation and completion of preventive maintenance (PM) program, and recommend enhancements to the program. Contractor shall utilize a computerized maintenance management system to track all maintenance work orders for PM tasks, jams, and inventory of parts. Computerized data shall be capable of downloading into spreadsheet software.
14. Prepare and submit reports (daily/weekly/monthly) on the status of the system and confers on a daily basis with MDAD Contract Administration and the airlines as listed in Table 3.16-1.
15. Prepare and submit monthly maintenance summary reports consisting of repair maintenance, and baggage jam clearance that has been completed the previous month as listed in Table 3.16-1.

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16. Maintain all manufacturers' manuals with upgrades, changes and current information on all baggage systems.
17. Perform housekeeping around conveyor belt systems by ensuring that BHSs areas are well-organized and free of trash and debris. [specific BHS cleaning areas to be determined]
18. Provide operation, maintenance, and repair of the entire BHSs networks, software, and hardware including but not limited to upgrading and patching of operating systems and software applications for all portions of systems and subsystems that are related to the BHSs, utilizing the systems providers and industry standards. The contractor shall provide services, at a minimum, for the following:
  - System network
  - Gateways
  - Replacement and installation of parts
  - Licenses upkeep and renewal
  - Software upgrades
  - Software functionality of hardware
  - Systems interfaces (e.g. TSA, MDAD Security, Fire Alarms, AOIS, etc.)
  - Computer power supply and associated cables
  - Surge suppression
  - Modems
  - Connectors, cables, and coils
  - Drivers
  - Documentation
  - Troubleshooting/maintenance
  - Re-programming
  - Loading new programs
  - Systems back-up restoring data
  - Security and anti-virus protection
  - System audits
  - Optimization and improvement
  - Any and all software and hardware not listed above that is a component of the system necessary for the BHSs operation.
19. Perform at a minimum quarterly PM on servers, UPS(s), and workstations in order to keep the systems optimized.
20. Maintain secure on-site custody of all BHSs related software, firm names, back-ups, and licenses.
21. Prepare for and perform full system backups immediately before and after any such changes to codes/software. Maintain copies of system source codes and backups off site of MIA, and in a secure and fireproof environment.

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22. Perform PM on systems' uninterruptible power supplies UPS(s), including fire door UPS(s) in accordance to manufacturer and industry's standards.
23. Provide manpower in the CBRA room to clear baggage on the suspect belt (SB) conveyor lines; to allow bags in the room immediate access to the belts, between 12:00 PM and 6:00 PM daily.
24. Monitor systems and system computers for jam detections and malfunctions, and provide jam clearance employees for 24-hour coverage. MIA strives to support the airlines' bag loading policies prior to departure times which are half-hour for domestic flights, and one hour for international flights. As a result, response time for clearing of bag jams shall be immediate for automated sortation, and shall not exceed 10 minutes for manual sortation BHS.
25. Manage distribution of baggage tubs to airlines counter for the transport of regular bags on the induction belts; for concourses H and J; this is over 10,000 tubs daily. In addition, the Contractor shall be responsible for the purchase, maintenance, and replacement of all MDAD-approved tubs.
26. Provide adequate staff and equipment to deliver all bags arriving at default piers. Currently over 1,000 bags at concourses H and J and over 120 bags at concourse F.
27. Maintain all BHS related fire and/or security doors including all related components, such as light and air curtains, and all intercom control systems.
28. Inspect, service, and clean as required all encoding consoles, laser readers, hand scanners and other scanning devices.
29. Inspect and clean individual read heads at a minimum twice a day (at system start-up in morning and once during the peak period).
30. Provide manpower to staff concourses F and J's transfer points, induction belts, and all baggage transfers.
31. Provide manpower to deliver baggage from the oversize belts, F and J's transfer points, induction belts, and all other baggage transfers. At concourse J, this is currently 600 bags daily.
32. Gather all airlines flight schedules and allocate pier space as needed.
33. Provide all necessary vehicles and equipment required to perform the services specified in this Contract including but not limited to lifts, fork-lifts, trucks, golf carts, etc. as specified in Section 3.20. The Owner will provide one fork lift and one "Big Joe" lift as denoted in Section 3.19.
34. Provide all fuel, maintenance, service, and repair to manufacturer's specifications the Owner supplied forklift and "Big Joe" lift, and all Contractor supplied vehicles and equipment used to support this Contract. The Contractor shall be held liable for all damages, partial or total loss of the Owner supplied forklift and "Big Joe" lift.

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35. Assume responsibility for BHSs operations, maintenance, and repairs with Airlines and the MDAD Maintenance and Operating divisions in order to avoid interruption and delays. This includes adjustment of BHSs operations and pier assignments, when necessary.
36. Maintain and repair of all CCTV cameras and monitors related to the BHSs in accordance to manufacturers and/or industry's standards.
37. Provide at a minimum, quarterly training for air carrier staff on proper baggage hygiene at all terminals and piers (i.e. placement of bags in tubs, placement of bags on belts, removal of bags straps prior to placing bag on belt, etc.).
38. Maintenance of passenger scales or scale bins are not part of this contract, see Owner-Provided Equipment and Maintenance in Section 3.19.

#### 3.6.0 Parts, Equipment, and Consumables

- 3.6.1 The expenditures for parts, equipment, and consumables shall be from a dedicated allowance account. The Contractor shall maintain an inventory of spare parts, equipment, consumables, and expendables for the BHSs at the same level throughout the contract as identified by the Owner. Stock levels and types of parts, equipment, and consumables are subject to change at the sole discretion of the Owner. The costs for all consumables and expendable supplies shall be included in the Contract price for Operation and Maintenance of each system. The Contractor shall not be allowed a percentage markup on neither reimbursing invoices.
- 3.6.2 A list of the current inventory level will be provided by the department to the awarded contractor. The Contractor shall be responsible, but not limited to the following:
  1. Obtain competitive quotes from at least three suppliers for all parts not identified as sole source. Parts must be purchased from the vendor providing lowest cost for parts that meet the Original Equipment Manufacturer's specifications.
  2. Assume full responsibility for accurately recording the spare parts purchases as required to obtain reimbursement from the Owner.
  3. Provide sales receipts for parts and supplies with vendors' invoices in order to document costs incurred.
  4. Properly store spare parts and maintain a clean and organized setting within the allocated spare parts storage spaces.
  5. Perform monthly and annual spare parts inventory audits to comply with the following requirements:
    - A. The Contractor shall manage the inventory using the FIFO (First-In First-Out) methodology.

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<u>Tracking Accuracy</u>	<u>Payment Factor</u>
95.0 - 100.0 .....	1.00
93.9 - 94.99 .....	0.99
92.8 - 93.89 .....	0.98
91.7 - 92.79 .....	0.97
90.6 - 91.69 .....	0.96
Etc.	

For example, if one day in a 30-day invoice period has a 93.85% Tracking Accuracy and all other days were 99% or greater, then a .98 payment factor would be applied to one thirtieth of the normal total invoice amount.

- 3. A deduction for failure to achieve the required performance levels as specified in 3.11 shall be assessed as follows:

In the event a subsystem down time exceeding 15 minutes due to Contractor's negligence in maintenance and/or excessive response time (or lack of it) the Contractor shall be assessed damages of \$100 per instance and assessed additional damages of \$100 per hour for every hour or portion of an hour that the system is out of service.

- 4. In addition to any and all monetary penalties that shall be assessed as a result of failure to meet performance requirements as specified in this bid, the Contractor shall at his/her expense provide additional manpower to manually expedite bags from counters to sorters when a complete or partial system outage occurs.

**3.13.0 Contractor's Minimum Requirements**

3.13.1. Before award of contract the Contractor shall provide, except for the submission of resumes, to the Owner for review and approval:

- 1. A copy of the Contractor's State of Florida General Mechanical Contractor license or a copy of the Miami-Dade Transporting Assembly Maintenance and Service Contractor License. This license shall be maintained for the Term of the Contract.
- 2. Proof (i.e. records/service records) that the Contractor has a minimum of 5 years satisfactory experience in providing and managing the operation, maintenance, and repair of automated and non-automated BHS at airport(s) of similar size and capacity as MIA.
- 3. Within two (2) weeks after the Contractor's receipt of the Notice to Proceed(NTP), he/she shall submit resumes to the Contract Administrator for review and approval of all key personnel (Qualifier, Manager, and supervisory personnel) that will be used to perform the work specified in the Contract. The Owner shall retain the right to review and approve the replacement of key personnel for the duration of the Contract.

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- B. The monthly inventory report shall include the following information at a minimum:
- i. Part Number
  - ii. Manufacturer's Number
  - iii. Part Name / Description
  - iv. Location (Bin Number)
  - v. Quantity On Hand

3.6.3 The Owner shall provide shelving and bins to store and shelve parts for the BHSs.

3.6.4 The Contractor shall, within the space designated in each concourse, provide and maintain the storage shelving system and parts bins necessary to organize and store the spare parts, equipment, expendables, and consumables required in the performance of the Contract. All racks, shelving, and bins shall be of the size and strength necessary to safely support the inventoried items while making them easily identifiable and accessible. Racks, shelves, and bins shall be capable of having SKU numbers affixed for efficient location and inventory control. The shelving and bins shall remain the property of the Owner and shall remain in place at the conclusion of this Contract.

3.6.5 Parts, equipment, expendables, and consumables for the BHSs shall be similarly maintained within the existing system/storage area(s).

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#### 3.7.0 Additional Services

3.7.1 The Contractor shall provide additional services when authorized by the Owner. A Work Order shall be required to perform additional services. Additional facilities may be added as additional work. Although this solicitation identified specific facilities to be serviced, it is hereby agreed and understood that any County Department or agency facility or additional MDAD facility may be added to this Contract at the option of the County. Additional Services also include Subcontractor supplies and electrical service. The Contractor shall be invited to submit price quotes for these new facilities. If these quotes are acceptable to the Owner the additional work may be added to this Contract either by work order or change order. Notwithstanding, the Contractor does not have an exclusive right to these additional sites. The County may determine to obtain price quotes for additional facilities from others in the event the County does not find the price quotes comparable. Contractor markup shall not exceed five percent.

3.7.2 The cost for all Additional Services for BHSs operated and maintained under this Contract shall be a reimbursable expense. The Contractor provides that the Contractor submits a minimum of three itemized quotes for the Owner's review and approval for reimbursable items and optional system installations of a value over \$5,000. Award shall be to the lowest qualified bidder.

3.7.3 Additional services may also include but is not limited to:

1. Repair of damage caused beyond the Contractor's control.
2. Installation of new options.
3. Replacement of obsolete system components.
4. Work deemed operationally necessary by the Owner in order to provide continuous service through the system.

#### 3.8.0 Allowance Accounts

3.8.1 Performance of work, if any, under Allowance Accounts shall be authorized by written work order(s) issued by the Contract Administrator. The Contractor shall submit a proposal for each additional work. No work order is required for services under the training and parts allowances.

3.8.2 The Dedicated Training Allowance Account shall be used for training.

3.8.3 The Dedicated Parts Allowance Account shall be used for parts, equipment, and consumables.

3.8.4 The Dedicated Additional Services Allowance Account shall be used at the sole discretion of MDAD for major modifications, major overhaul of systems, etc. The Contractor shall submit a proposal for each additional service. Performance of work, if any, shall be authorized by written work order(s) issued by the Contract Administrator.

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- 3.8.5 The General Allowance Account (GAA) shall be used at the sole discretion of MDAD for unforeseen work, and the amount shall not exceed 10% of the total contract. The Contractor shall submit a proposal for each additional service. Performance of work, if any, shall be authorized by written work order(s) issued by the Contract Administrator.
- 3.8.6 The Dedicated TSA Allowance Account shall be used for TSA related projects and/or modifications. The Contractor shall submit a proposal for each additional service. Performance of work, if any, shall be authorized by written work order(s) issued by the Contract Administrator.

### 3.9.0 Technical Definitions

#### 3.9.1 General

1. Airline or User shall mean any airline or business entity with operations at MIA.
2. Baggage Handling System(s) (BHS) shall mean the specified BHS conveyors and all related items located at the MIA. BHSs include but are not limited to, automated systems and non-automated systems, support structures, platform, mechanical and electrical equipment and components, safety doors, power turns, merges, pushers, diverters, WID conveyors, motor control panels, field control devices (e.g. photoeyes, limit switches, control stations/devices, audio/visual alarms, etc.), motors, motor starters, disconnects, pushbutton, PLCs, controls and control hardware and software, communications equipment, laptops, etc.
3. Baggage Make-up Area - Shall mean all areas within the shadow of the BHSs, including the inside of the make-up and claim units.
4. BHS Operation and Maintenance Contractor - Shall be synonymous with Contractor, Equipment Maintenance Contractor, Baggage Maintenance Contractor, Automated Baggage Sorting System Contractor and Operation/Maintenance Contractor and shall mean the firm or company that is responsible for the operation, maintenance and repair of the specified conveyor equipment and systems described by these Documents.
5. Contractor - The organization responding to the Invitation to Bid for the specified BHS Operation and Maintenance Services and who has entered into the Contract with the MDAD.
6. Corrective Maintenance (CM). - Shall mean the repair and replacement of any component, and all other corrective measures of the BHS that is not considered PM. See Section 3.16 for submittal requirements.
7. Day. - Calendar day.
8. Preventive Maintenance (PM). - Shall mean the maintenance of the BHS in compliance with the Manufacturer's and Installer's approved Maintenance Schedule, Maintenance Standards, relevant codes of all Authorities Having

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Jurisdiction (AHJ), and statutory regulations, as well as good engineering practice and including regular inspection, servicing, lubrication, cleaning (of both the equipment and immediate surrounding area), and detection and correction of potential failures either before they occur or before they develop into major defects (imminent failures or repairs).

9. Segment. - Shall mean motor driven conveyor section.
10. Subsystem. - A lower level portion of the total BHS, the equipment of which has the same function. Major subsystems are also called systems, such as the "Check-in" or "Make-up" systems.

#### 3.9.2 Abbreviations

1. BHS shall mean the specified baggage handling system(s) to be operated, maintained, and repaired under this contract located at and/or related to the conveyor systems at MIA.
2. ATR shall mean automatic tag reader, the laser scanner that scans barcode format tags.
3. CBRA shall mean checked baggage resolution area.
4. EDS shall mean explosive detection system. This is a TSA-supplied screening device.
5. ETD shall mean explosive trace detector.
6. MIA shall mean Miami International Airport.
7. MCP shall mean motor control panel. The MCP contains the electrical control and power circuit devices for control of the automated and manual sortation BHS.
8. Make-up or system shall mean make-up devices or systems.
9. MDAD shall mean Miami Dade Aviation Department.
10. OEM shall mean original equipment manufacturer.
11. PLC shall mean programmable logic controller, which controls BHS operation.
12. PM shall mean preventive maintenance.
13. TSA shall mean the Transportation Security Administration.

#### 3.10.0 Laws, Permits, Codes and Standards

- 3.10.1 The Contractor shall comply with all Federal, State, and Municipal laws and ordinances, prepare all documents, give all notices, pay all fees, obtain all permits necessary for work, obtain all certificates of inspection and approval for the work, and deliver same to the Department designee.
- 3.10.2 All work and materials, furnished and/or installed shall be in full accordance with all applicable laws, rules and/or regulations of any and/or all departments, boards and/or

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authorities having lawful jurisdiction. The Contractor shall immediately inform, in writing (fax or e-mail), the Owner of any work or materials which violates such laws, rules, and/or regulations.

3.10.3 The Contractor shall possess and maintain all qualification, licenses and permits as required, to perform the services/work required of this Contract. Employees of the Contractor shall possess the qualifications, training, licenses and permits that are required within such jurisdiction.

3.10.4 All operations and maintenance procedures shall meet the applicable requirements as prescribed in the latest of maintenance manuals published by the OEM.

3.10.5 All operations and maintenance procedures shall meet applicable requirements as prescribed in the latest adopted editions of the following codes and standards:

1. Annual Facility Permit for Unincorporated Areas of Dade County Only and Building or Structures as Defined in the Florida Building Code. See Exhibit B.
2. ASME B 20.1-Safety standard for Conveyor and Related Equipment.
3. CRF Title 29 Part 1926 (OSHA)-Safety and Health Regulations for Construction.
4. Code of Metropolitan Dade County-Chapter 10 Contractors.
5. National Electric Code-NFPA 70E.

#### 3.11.0 Performance Requirements

3.11.1. The manual sortation BHS shall have the following performance requirements:

1. The baggage systems shall be continually operated and maintained as indicated by the Original Equipment Manufacturer (OEM).  
System failures shall be continuously and properly staffed in order to expeditiously bring the system back into service, and response time per call shall not exceed 10 minutes.
3. The contractor shall manage airlines, skycaps, and contractor personnel to manually expedite bags from ticket counters when a complete or partial system failure occurs. If the failure was caused by the contractor's actions, additional manpower will be provided at the contractor's expense.

3.11.2. The automated sortation BHSs shall have the following performance requirements:

1. The BHS shall be continually operated and maintained to achieve at a minimum 95% of historical average performance levels per each system and/or subsystem as denoted above in Section 3.4 provided the system failure is caused by system or operational related issues and not by poor bag hygiene.
- ~~2. The Contractor shall operate and maintain the Baggage Handling System(s) at all times to continuously achieve the following rates:~~

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- ~~A. Inbound Combination 30 bags per minute per claim/feed~~
- ~~B. Manual encode — 30 bags per minute~~
- ~~C. Outbound oversize — 30 bags per minute~~
- ~~D. Inbound oversize — 30 bags per minute~~
- ~~E. Ticket counter 60 bags per minute~~
- ~~F. Mainline transport — 60 bags per minute~~
- ~~G. Sort lines — 30 bags per minute~~
- ~~H. All others — 30 bags per minute~~

3.11.3. The Contractor shall operate and maintain the BHSs seven days a week, every week of the year, twenty four hours per day. The Owner will continue to carry out its normal airport operations in relation to the BHSs throughout the term of the Contract.

3.11.4. The Contractor shall carry out and perform obligations, duties and responsibilities under this Contract in the least intrusive manner possible so as to minimize any effect upon, disruption to, interference with or interruption of the Owner's use and operation of the BHSs and the Owner's activities which are related to or connected with such operation and use, and any of the Owner's existing facilities and ongoing operations or other operations located in the area adjacent to the BHSs.

3.11.5. Reliability requirements of each sub-system shall be measured in terms of "Availability" (A) of each sub-system. Availability of each sub-system is determined from the following definitions and formulae:

1. Failure — A failure is defined as any malfunction of a sub-system component, assembly, or sub-assembly which stops normal operations. A failure shall be charged against only the sub-system which causes that failure. The following shall not be classified as failures:

~~A. Malfunctions due to causes outside the sub-system such as sabotage, general power outage, etc.~~

~~B. Malfunctions due to baggage jams not caused by failure of a subsystem component, assembly or sub-assembly.~~

~~C. Incipient failures which are detected and repaired without affecting normal operation of the sub-system.~~

~~D. Malfunction of one of a redundant computer pair where the repair time does not affect normal operation of the system.~~

2. Scheduled Operating Time (ST) — This is the scheduled time that the BHS is available for baggage processing. (24 hours per day minimum).

3. Repair time (RT) — The normal interval of time between initiation of repairs and return of the subsystem to operation. Response time for initiation of repairs shall be

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~~within 3 minutes of system failure. This 3 minute response time shall not be included in the repair time. Response time more than 3 minutes shall be included in repair time.~~

4. ~~Subsystem Availability (A) is defined as follows:~~

$$A = (ST - RT) / ST$$

5. ~~Each subsystem of the BHS shall have an availability of not less than 0.99 (99%) for the first thirty days of full operation (averaged weekly) under this Contract. Subsequent to the first thirty days the system shall reach and maintain an average subsystem availability of not less than 0.995 (99.5%).~~

6. ~~Sortation Accuracy – The Contractor shall maintain all tracking devices (encoders, PLCs, computer system databases, etc.) in such proper order to achieve continuous sortation accuracy from an encoding position (ATR or manual encoding) of 99.995%, calculated on a daily basis, for the total number of bags input into the baggage system. Sortation accuracy is defined as encoded baggage that is sorted correctly to the assigned pier. Baggage that is sorted to an incorrect pier is classified as a mis-sort. The intent is to minimize mis-sorts and disconnected baggage.~~

7. ~~Tracking Accuracy – The Contractor shall maintain all tracking devices (encoders, PLCs, computer system databases, etc.) in such proper order to achieve continuous sortation accuracy from an encoding position (ATR or manual encoding) of 99.8%, calculated on a daily basis, for the total number of bags input into the baggage system. Tracking accuracy is defined as the system's ability to identify and control the location of the baggage from the point of encoding to the correct output. The intent of this requirement is to ensure system transit times are met and the baggage is processed in a timely manner.~~

~~Read Rates – The Automatic Tag Readers (ATR) shall be maintained by the Contractor per the manufacturer's recommended procedures. The minimum daily average read rate maintained for original tags shall be 90% successful reads of all ten digit and four digit city codes. This figure does not apply to hand-written tags or non-compliant tags which negatively impact actual read rates. The intent is to reduce the volume of baggage processed through manual encoding, thus reducing transit times.~~

3.11.6. For any calendar month during the Contract that the BHS does not achieve a minimum 95% availability, the Contractor shall promptly undertake improved maintenance and/or operational procedures, and shall propose a new plan to the Owner within ten days to correct the problem. Corrections shall be at the Contractor's expense with the exception that the Contractor shall act on behalf of the Owner to recover costs from the Equipment Supplier and Designer when corrections required are as a result of design deficiencies and/ or a failure of parts under warranty.

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~~3.11.7. The BHS shall be continually operated and maintained to achieve the following minimum performance levels per each sortation system and/or subsystem:~~

- ~~1. Complete system failure must be less than 30 minutes cumulative per month.~~
- ~~2. Any partial and/or subsystem outage must be less than 120 minutes cumulative per month.~~
- ~~3. The Concourse F laser system must read at least 75% if all bags have readable tags.~~

3.11.8. The Contractor recognizes that, through no fault of either the Owner or the Contractor, it may become necessary to temporarily suspend Contractor's work on a BHS. Should the suspension be determined, at the sole discretion of the Owner, to be of a relatively short duration, i.e., 1 to 6 days (approximately), payment to the Contract may continue at the O&M rate. Should the Owner determine that the suspension will be of a moderate length of time, i.e., 1 to 30 days (approximately), the Owner may provide a notice to the Contractor stating that all O&M efforts are suspended and that the Contractor will be paid at the Training rate pursuant to Section 3.2.4. Should the suspension be significant, the Owner reserves the right to suspend the Contractor's work pursuant to Article 7.7.

**3.12.0 Deductions For Deficiencies in System Performance**

3.12.1 A deduction for failure to achieve the required performance levels, as specified within these specifications, shall be assessed as follows, provided that breakdowns are caused by system and/or operational related issues and not poor bag hygiene.

- 1. Each invoice period (e.g., month) shall be divided into equal portions representative of each day in that period (e.g., 30 parts for a 30-day invoice period). If the Availability (A) for a given day is less than 0.95 (95%), a "Payment Factor" shall be applied by MDAD to that day (i.e., to that day's portion of the regular invoice amount) in accordance with the following:

<u>Availability (A)</u>	<u>Payment Factor</u>
100.0 - 100.0	1.00
93.95 - 94.99	0.99
92.8 - 93.89	0.98
91.7 - 92.79	0.97
90.6 - 91.69	0.96
Etc.	

For example, if one day in a 30-day invoice period has a 93.95% Availability and all other days were 99% or greater, then a 0.99 payment factor would be applied to one thirtieth of the normal total invoice amount.

- 2. If the Tracking Accuracy for a given day is less than 0.95 (95%), a "Payment Factor" may be applied by MDAD to that day (i.e., to that day's portion of the regular invoice amount) in accordance with the following:

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4. The Contractor's organizational chart for Staff to be utilized on the Contract.

#### 3.13.2. Minimum qualifications for Contractor's staff:

1. **General Manager.** - The Contractor shall assign a full time executive, qualified, and experienced person as the BHS Manager to be responsible for overseeing and directing the maintenance services. The Manager shall be fluent in speaking, reading and writing the English language. The Manager or his authorized representative shall be available and on site at all times, including attendance at regularly scheduled or on-demand meetings by the Owner and/or the users to discuss the maintenance of the BHSs. The Manager shall be in charge of and have overall responsibility for the work to be carried out under this Contract and as such shall devote his time exclusively to this work. The Manager shall be available for periodic tours or inspections of the premises to be made with the Owner. The Maintenance Contractor shall be responsible for providing equal level replacement when the BHS Manager is absent due to disability or vacation.
2. **Shift Supervisors.** - Shift Supervisors/Maintenance Technicians Supervisors shall have a minimum of 3 years experience in supervising the operation, maintenance, and repair of automated and non-automated BHSs at airports of similar size and capacity as MIA. They must be on site at all times that work is being performed on the BHSs.
3. **Mechanics/Technicians.** - Mechanics/Technicians shall be skilled cross-crafted technicians with a minimum of 3 years experience in an airport environment of similar size and capacity as MIA. They must display mechanical and electrical aptitude and strong skills and experience with industrial control devices. Responsibilities include, but are not limited to, maintenance and repair of all electrical, mechanical, and control devices, equipment, and components associated with the baggage handling systems including controls, PLCs, and scanner systems, etc.
4. **Mechanics.** - Mechanics shall be responsible for the daily operations of the baggage handling systems as well as to operate, maintain, trouble-shoot and repair the mechanical, electrical, and control systems related to the baggage handling systems. The following list is a general outline of their job duties, and is not to be construed as "all inclusive".
  - A. Monitor daily operations and statistics of the baggage system to determine problem areas.
  - B. Trouble-shoot and repair all mechanical, electrical, and control components of the BHSs.
  - C. Analyze all data from the baggage handling system to determine problems and trends that may lead to problems.

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- D. Suggest and, with Owner, TSA, and airline approval, make necessary changes to the PLCs to maintain and/or enhance the BHS operations.
5. Baggage Jam Runners. - The Baggage Jam Runner's job duties shall consist of the following items:
- A. Work in a safe manner to clear all baggage jams using Lock-Out-Tag-Out procedures as needed.
  - B. Ensure that bags are aligned as required upstream of L3 machines and/or immediately clear any/all jams.
  - C. Assist the maintenance mechanics/technicians on an as needed basis.
  - D. Observe and report any maintenance operations and/or repair problems to the maintenance mechanics/technicians.
  - E. Perform general cleanup of work areas and in/around conveyor equipment at a frequency required to maintain units free of trash, dirt, and debris.
  - F. Be responsible for manual movement of baggage in the event of system outage, during system fallback conditions, etc., as required.
  - G. Be responsible for clearing and assisting with clearance of baggage jams at the entrance and exit of the EDC machines.
  - H. Re-circulate baggage tubs and from the counters, deliver bags, staff transfer lines, staff misser (default) chers, and staff oversize belts.
- 3.13.3. BHS Monitors (Control room Operators and Manual Encoders). One year of experience as a computer operator in the operation of an automated building management system is required.
- 3.13.4. All of Contractor's staff shall comply with all applicable security and safety regulations. Airport Security Identification and Customs' Clearance badges shall be obtained, and workers required per MDAD Safety and Security guidelines. All of the Contractor's personnel shall wear distinctive uniforms with Company Logo. The Contractor shall be responsible for all badge costs, including fees.

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<b>1. BHS Daily Tasks:</b>	
<b>Task</b>	<b>Daily Task Description</b>
A.	Ensure that all previous day's "Day End Tasks" have been completed.
B.	Collect, log, and file all "End of Day" reports generated during the nightly-end of day processing (1st shift only).
C.	Ensure the systems are operational and ready for the operation day.
D.	Verify that all communications links are running and operational (PLC, etc).
E.	Coordinate and communicate with airline agents and their O&M staff, TSA, and MDAD Operations as required (e.g., regarding any BHS operational decisions, initiation of fallback modes and procedures, changes in status, downtime, etc.).
F.	Verify readiness to exercise/initiate any and all back-up or fallback modes or procedures at any time (e.g. redundant PLCs online, back-up diverters operational where available, correction).
G.	Monitor system for any visual and audible alerts and notify maintenance operations of identified conditions that may need correction.
H.	Fully advise next shift of current conditions and relevant issues as required.
I.	Perform jams clearing and bag alignment, etc.).
J.	Collect all flight information and generate master schedule with pier assignments at concourses F and G.
K.	Maintain constant communication with designated TSA representatives to monitor EDS machines performance.
L.	Enter all maintenance actions into maintenance management system including PMs, jams, and parts inventory.

<b>2. BHS Regularly Scheduled, Non-Daily Tasks:</b>	
<b>Task</b>	<b>Regularly Scheduled Non-Daily Task Description</b>
A.	Prepare and save weekly and monthly reports.
B.	Print, distribute, and file weekly and monthly reports.
C.	Ensure that maintenance staff performs all scheduled preventive maintenance tasks, and log all PM work.

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D.	Check spare parts inventory and initiate any required purchase requests.
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<b>3. BHS Random/Unscheduled Tasks</b>	
<b>Task</b>	<b>Random Unscheduled Tasks Description</b>
A.	Report and document any equipment failures.
B.	Provide on-site support to off-site support personnel.
C.	Keep complete records of any changes to code/software and coordinate implementation with operation/users as required.
D.	Prepare for and perform full system back-ups immediately before and after any such changes to code/software. Maintain copies (including copies of backups) of all system source codes off site of MIA, and in a secure and fireproof environment.
E.	Coordinate and communicate with airline pilots and their O&M staff, TSA, and MDAD Operations as required (e.g., regarding any/all BHS operational decisions, initiation of fallback modes and procedures, changes in status, downtime, etc. related to unplanned repairs and failures).

**3.14.0 Communications**

- 3.14.1. The Contractor shall be required to maintain an updated list of emergency contacts, listing all key personnel with names and titles, home/office telephone numbers, field office numbers and beeper numbers.
- 3.14.2. Contractor shall ensure that control room can communicate with appropriate staff and provide immediate communications with control room at all times.

**3.15.0 Emergency Service**

- 3.15.1 The Contractor shall perform all services required by this Contract at all times that the MIA facility is operational. This shall include times when an emergency is declared by the County Manager for hurricanes and/or other perceived security and/or operational threats.

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#### 3.16.0 Service Reporting and Records

3.16.1 The Contractor shall submit the documentation listed below at the time specified during the term of the Contract and in accordance with their submittal deadlines. The Contractor shall prepare all documents in the English language, and shall email electronic copies of the reports to a list of persons to be designated by the Owner.

<u>Submittal Item</u>	<u>Deadline</u>
Contractor's Safety Plan and Drug Policy.	30 days after Award of Contract.
System Status and Problem Reports on a daily basis with a weekly summary.	By 10:00 AM the next day.
BHS Operational (Performance) and Maintenance Reports on a weekly basis and summarized on a monthly basis.	Within 48 hours.
BHS Hurricane Preparedness Plan.	May 1 <sup>st</sup> of each calendar.
Monthly invoices.	Within 14 days of the day of each calendar month.
Completed PM tasks for each month.	Within 14 days of the day of each calendar month.
A list of all corrective maintenance executed each month.	Within 14 days of the day of each calendar month.
A monthly log of all service interruptions which records the date, time, location and subsystems failure/problem, and the elapsed time services are fully restored.	Within 14 days of the day of each calendar month.
Daily inspection and maintenance logs for all system and subsystem of TSA security doors at ticket counters and curbsides and the Medeco key log reflecting operational status of each door per TSA requirements each month.	Within 14 days of the day of each calendar month.
Accident reports for all accidents arising out of or in connection with the services which result in injury or property damage, giving full details and witness statements.	Monthly. In addition, if death or serious injury occurs the same shall be reported immediately to the Owner by telephone.
Maintenance management and parts inventory report	Monthly.
Spare parts inspection audit report	Quarterly and yearly.

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#### 3.17.0 Invoices

- 3.17.1 The Contractor shall submit to the MDAD, within fourteen (14) days after the last day of each calendar month, an invoice for the services performed under this Contract for the calendar month. The form of the invoice shall be as prescribed or agreed upon by the MDAD. Partial release from all suppliers and Subcontractors shall be furnished with all but the first invoice. In addition, each invoice must comply with all County requirements including the provision of certified payrolls and Monthly Utilization Report.
- 3.17.2 A monthly System Performance Report for the invoice period must accompany the invoice. For any calendar month of this Contract that the BHS does not meet or exceed the minimum Performance Requirements specified herein, the appropriate "Payment Factor(s)" (also defined herein) shall be applied to the Contractor's total invoice amount for that month.

#### 3.18.0 Cleaning of Work Areas

- 3.18.1 The Contractor shall be responsible for operating in compliance with MDAD's environmental and ISO 14001 policies, and with all applicable Federal, State, and local regulations.
- 3.18.2 The contractor shall store and dispose Hazardous waste material in compliance with MDAD's environmental and ISO 14001 policies, and with all applicable Federal, State, and local regulations, including record keeping of shipping documents.
- 3.18.3 The Contractor shall be responsible for general housekeeping and cleanliness in and around work area. This includes the cleaning of all systems and system components, tools, equipment and appurtenances associated with the operation and maintenance of the systems; the systems shop areas, parts storage areas, and baggage make-up areas. These areas include all outdoor piers, items found blowing between piers, and daily changing and disposal of trash bags in garbage containers located in front and in back of each pier without the use of blowers.
- 3.18.4 The Contractor shall remove surplus and scrap materials at least weekly and remove combustible scrap daily.
- 3.18.5 The Contractor shall provide for pick-up of solid waste generated in the maintenance of the BHSs excluding hazardous material which shall be disposed of as described in Section 3.18.2 above.

#### 3.19.0 Items and Services Provided By MDAD

- 3.19.1 The Owner shall provide to the Contractor the following:

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1. Office, shop, and storage space as defined in Exhibits E, F and G of this bid. (The Contractor shall, at his/her expense, provide and maintain all furniture, equipment office supplies to include printer toner and paper, etc. for the office and Baggage Control Centers.)
2. Shelving and bins for storage of parts, equipment, and consumables.
3. Building utilities (electricity, heating gas, etc.) used in the operations and maintenance and repair of the BHSs.
4. One fork lift.
5. One "Big Joe" lift.
6. Phones and local phone service.
7. Maintenance of passenger scales or sensors

#### 3.20.0 Equipment List

##### 3.20.1 Minimum Detailed Equipment/Vehicle List

- A. The BHS Maintenance Contractor shall provide as a part of their bid, a detailed list of equipment/vehicles which have been included.

Vehicle Type	Quantity
Fork lift	1 - Owner supplied
"Big Joe" lift	1 - Owner supplied
1/2 Ton pick-up truck	
Golf cart	

- B. Staffing. - The Contractor must have adequate dedicated staff to meet performance levels required by the Contract.

#### 3.21.0 Contract Conclusion

- 3.21.1 At the Conclusion of this Contract, the Contractor shall deliver to the Owner all manuals, drawings, computer programs (INCLUDING SOURCE CODE), procedures, and records which the Contractor has used to maintain the BHS. The system shall be returned to the Owner in the same or better condition in which it was delivered to the Contractor with the exception of reasonable wear and tear.

#### 3.22.0 Continuity of Services

- 3.22.1 The Contractor recognizes that the services under this contract are vital to the Owner and must be continued without interruption and that, upon Contract expiration, a

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successor, either the Owner or another contractor, may continue them. The Contractor shall agree to:

1. Furnish phase-in training; and
2. Exercise its best efforts and cooperation to achieve an orderly and efficient transition to a successor.

3.22.2 The Contractor shall, upon the Owner's written notice:

1. Furnish phase-in, phase-out services for up to 90 days immediately prior to the expiration of this contract and;
2. Negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required. The plan shall specify a training program and a date for transferring responsibility for each division of work described in the plan, and shall be subject to the Owner's approval.

3.22.3 The Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this Contract are maintained at the required performance level.

3.22.4 The Contractor shall retain qualified personnel on the job to operate and maintain the services and help the successor through the continuity period with the consistency of the services required by this Contract. The Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. Selected employees who are unable to change, the Contractor shall release them at mutually agreeable cost and negotiate transfer of their earned fringe benefits to the successor.

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### **SPECIAL PROVISION 7**

This contract is divided into two sections:

1. The O&M section which deals with the operations, maintenance, and repair of the baggage handling systems and all related subsystems and components.
2. The construction section which allows for all work pertaining to construction, major improvements, enhancement, and modification to the systems and all related subsystems and components. The work under this section shall be performed as Additional Services, paid under their appropriate Dedicated Allowance Accounts, and shall be authorized by MDAD through work orders. TSA related work shall also be under this Provision with its own allowance account as well.

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