



REQUEST FOR QUOTATION

Contact person/Telephone
Larry Waxman/201-395-3451

Collective# 0000034866
Bid Due Date 10/15/2013
Bids must be received no later than 11:00 AM on the above Bid Due Date.

Deliver Goods/Services To:
Newark Liberty International Airport
Building 11 - Stockroom
Newark NJ 07114

Quantity	Description	Unit Price		Total	
	<p>PRECONDITIONED AIR UNITS (PCA) TWO (2) EACH AND GROUND POWER UNITS(GPU)TWO (2)EACH AND EIGHT (8)DAYS ON SITE TRAINING/INSTRUCTION.</p> <p>FURNISH, DELIVER, TRAIN/INSTRUCT PER SPECIFICATIONS EWR-914.204, PRECONDITIONED AIR SPECIFICATIONS, GROUND POWER SPECIFICATIONS AND STANDARD CONTRACT TERMS AND CONDITIONS.</p> <p>IN THE EVENT OF AN ORDER THE DELIVERY SITE IS: Newark Liberty International Airport - Bldg. 11 Stockroom - Newark, NJ 07114.</p> <p>QUOTE FOB DELIVERED PRICING</p> <p>ADVISE DELIVERY IN DAYS _____ A.R.O.</p> <p>ADVISE THE FOLLOWING WITH BID RESPONSE THE ITEMS OFFERED TO SUPPLY:</p> <p>PCA MANUFACTURE AND PLANT LOCATION: _____.</p> <p>MAKE/MODEL/PARTNUMBER: _____.</p> <p>_____.</p> <p>AND GPU MANUFACTURE AND PLANT</p>				
	<p>PLEASE QUOTE FULLY DELIVERED PRICES</p>	<p>PAYMENT TERMS</p>		<p>Total Delivered Price</p>	

This Quotation is subject to the terms and conditions set forth on the back page hereof. Bidder is advised to read these before signing.

We have read the instructions and, if favored with an order, we agree to furnish the items enumerated herein at the prices and under the conditions indicated.

Signed _____
Firm Name _____
Telephone number _____ Date _____
Fax Number _____
Federal Taxpayer ID _____

**Bidder
Must
Sign
In
Two
Places**

NOTICE TO BIDDERS: Unless the following term of assurance that the above offer is irrevocable is signed, the offer submitted herein shall not be deemed to be complete.

The foregoing offer shall be irrevocable for 90 days after the date on which the Port Authority of New York and New Jersey opens this proposal.

Signed _____ Date _____
Firm Name _____



REQUEST FOR QUOTATION

Bid Due Date
10/15/2013

Quantity	Description	Unit Price		Total	
	LOCATION: _____ MAKE/MODEL/PARTNUMBER: _____ _____ QUESTIONS CONTACT: LARRY WAXMAN TEL: 201 395 3451 OR EMAIL: Lwaxman@panynj.gov IF POSSIBLE ONLY QUOTE ON THE PA/PATH REQUEST FOR QUOTATION FORM AND NOT ATTACH YOUR COMPANIES TERMS AND CONDITIONS AS IT MAY DEEM YOUR BID AS NON RESPONSIVE AND OR DELAY AN AWARD. NOTE: THE PRICING SHEET IS LOCATED ON PAGE 21 OF SPECIFICATION EWR-914.301				
	PLEASE QUOTE FULLY DELIVERED PRICES	PAYMENT TERMS			
		Total Delivered Price			

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10/15/2013

Quantity	Description	Unit Price	Total
	<p>This is a Formal Bid Invitation Mail Sealed Bids to:</p> <p>The Port Authority of NY & NJ Attn: Bid Custodian Procurement Department 2 Montgomery Street, 3rd Floor Jersey City, NJ 07302</p> <p>by the date and time listed above, where it will be publicly opened and read.</p> <p>Bids are only accepted Monday through Friday, excluding Port Authority holidays, between the hours of 8 A.M. & 5 P.M., via regular mail, express delivery service or hand delivery.</p> <p>If you do not use or have an envelope provided, you must clearly mark the outside envelope/package with 'BID ENCLOSED' and show the company name, address, as well as Bid number and Due date as stated on this bid document.</p> <p>A valid photo id is required to gain access into the building, to attend the bid opening or hand deliver a bid.</p>		
	<p>2 GroundPower Un& 2Pre-con Air Units</p>		
	<p>PLEASE QUOTE FULLY DELIVERED PRICES</p>	<p>PAYMENT TERMS</p>	<p>Total Delivered Price</p>

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Signed _____ Date _____
 Firm Name _____



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Bid Due Date
10/15/2013

Quantity	Description	Unit Price		Total	
1.00	<p>The item covers the following services: Ground Power Units & Pre-conditioned Uni</p> <p>A price preference of 10 % is available for NY/NJ Minority and Women Business Enterprises (M/WBE) or 5% for NY/NJ Small Business Enterprises (SBE) certified by the Port Authority (PA) by the day before bid opening for awards not exceeding \$1,000,000. My firm was certified as a _____ on _____.</p>				
PLEASE QUOTE FULLY DELIVERED PRICES		PAYMENT TERMS			
		Total Delivered Price			

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 Firm Name _____
 Telephone number _____ Date _____
 Fax Number _____
 Federal Taxpayer ID _____

**Bidder
 Must
 Sign
 In
 Two
 Places**

Signed _____ Date _____
 Firm Name _____

TERMS AND CONDITIONS

1. The Port Authority (PA) reserves the right to request information relating to seller's responsibility, experience and capability to perform the work.
2. Unless otherwise provided, complete shipment of all items must be in one delivery FOB delivery point. Payment will not be made on partial deliveries unless authorized in advance by the party to be charged and the discount, if any, will be taken on the total order.
3. PA payment terms are net 30 days. Cash discounts for prompt payment of invoices may be taken but will not be considered in determining award, except in the case of tie bids.
4. Separate unit and total FOB delivered prices must be shown.
5. Sales to the PA and to PATH are currently exempt from New York and New Jersey State and local taxes and generally from federal taxation. The seller certifies that there are no federal, state, municipal or any other taxes included in the prices shown hereon.
6. The PA shall have the absolute right to reject any or all proposals or to accept any proposal in whole or part and to waive defects in proposals.
7. Unless the phrase "no substitute" is indicated, bidder may offer alternate manufacturer / brands, which shall be subject to Port Authority approval. Please indicate details of product being offered with bid.
8. Acceptance of seller's offer will be only by Purchase Order Form signed by the PA. No change shall be made in the agreement except in writing.
9. If the seller fails to perform in accordance with the terms of this purchase order, the PA may obtain the goods or services from another contractor and charge the seller the difference in price, if any, a reletting cost of \$100, plus any other damages to the PA.
10. Upon request, sellers are encouraged to extend the terms and conditions of any terms agreement with the PA to other government and quasi-government entities by separate agreement.
11. By signing this quotation or bid, the seller certifies to all statements on Form PA 3764A regarding non-collusive bidding; compliance with the PA Code of Ethics; and the existence of investigations, indictments, convictions, suspensions, terminations, debarments and other stated occurrences to assist the PA in determining whether there are integrity issues which would prevent award of the contract to the seller. The PA has adopted a policy set forth in full on PA 3764A, that it will honor a determination by an agency of the State of New York or New Jersey that a bidder is not eligible to bid on or be awarded public contracts because the bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing wage legislation. The Terms and Conditions of PA 3764A apply to this order. A copy can be obtained by calling (201) 395-3405 or at <http://www.panynj.gov/business-opportunities/become-vendor.html>
12. The vendor may subcontract the services or use a supplier for the furnishing of materials required hereunder to such persons or entities as the Manager, Purchasing Services may from time to time expressly approve in writing. All further subcontracting shall also be subject to such approval.
13. The successful bidder (vendor) shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or that goods will be, are being or have been provided to it and/or that services will be, are being or have been performed for it in connection with this Agreement, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.
14. Neither the Commissioners of the Port Authority, nor Directors of PATH, nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Contractor with any liability, or held personally liable to the Contractor under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach, thereof.

September 19, 2013

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

SPECIFICATIONS

EWR-914.301

FOR

PRECONDITIONED AIR UNITS (PCA) AND GROUND POWER UNITS (GPU)

FOR

NEWARK LIBERTY INTERNATIONAL AIRPORT

TERMINAL B-JET BRIDGE AT GATES #62 AND #63

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CHAPTER I - GENERAL PROVISIONS

1.0 SPECIFIC DEFINITIONS

As used in these Specifications:

"Authority" means The Port Authority of New York and New Jersey.

"Merchandise means the goods, merchandise, supplies, equipment, services or articles mentioned in the clause of Chapter II hereof entitled "Scope".

"Purchase Order" means the order placed by the Authority for the purchase of merchandise.

"Vendor" means the person or entity with whom the Purchase Order is placed.

"Manufacturer" means the person or entity who will actually build the specific item to be provided as described herein.

"Installation Contractor" means a person or entity designated by the Authority to receive from the Vendor at the delivery site, and to install, commission and field test the PCA and GPU units furnished by the Vendor.

"Schedule of Unit Prices" means the form signed by the Vendor and containing the price or prices quoted by the Vendor upon the Merchandise.

"Purchase Price" means the price or prices quoted by the Vendor in the Schedule of Unit Prices.

"Engineer" means the Chief Engineer of the Authority acting either personally or through his duly authorized representatives acting within the scope of the particular authority vested in them.

Whenever they refer to the Merchandise or its delivery, "approved", "acceptable", "satisfactory" and words of like import shall mean approved by, or acceptable to, or satisfactory to the Engineer.

2.0 DELIVERY

- 2.1. All of the Merchandise must be delivered within the time specified in Chapter II of these Specifications. All deliveries must be made at the point or points specified in Chapter II hereof. No deliveries shall be made before 10:00 PM or after 6:00 AM, and no deliveries shall be made on Saturdays, Sundays or holidays.
- 2.2. The vendor assumes the risk of loss and damage to all units to be furnished to the Authority hereunder until delivery to the site specified in Chapter II, Section 2.0, or otherwise arising out of the Vendors acts or omissions. The Vendor shall bear all cost of freight and insurance for delivery to the Authority.

3.0 TIME IS OF THE ESSENCE

The Vendor's obligation for the performance within the time provided for this Agreement is of the essence of this Agreement. The Vendor guarantees that he can and will complete such delivery and performance within the time herein stipulated or within the time as extended in accordance with this numbered clause stated herein after. See Section 3.0 of Chapter II for required delivery times.

The delivery times, shall be extended (subject, however, to the provisions of this numbered clause) only if, in the opinion of the Engineer acting personally, the Vendor is necessarily delayed in the delivery solely by fault of The Authority. Further, the Vendor shall be entitled to an extension of time to the extent that delay in its performance results from floods, earthquakes, storms, lightning, fire, epidemic, strike, riot, civil disturbance or any other cause which is beyond the reasonable control of the Vendor as determined by the Engineer.

Any reference herein to the Vendor shall be deemed to include suppliers and others performing on behalf of the Vendor, whether or not in privity of contract with the Vendor, and employees and others will be considered as agents of the Vendor.

The Vendor guarantees that he can and will complete such delivery within the times herein stipulated or within the time as extended in accordance herewith. Inasmuch as the damage and loss to The Authority which will result from delay in completing the Vendor's performance within the time herein stipulated will include items of loss whose amounts will be incapable or very difficult to accurately estimate, the damages to the Authority for each calendar day by which the Vendor does not complete his delivery within the times stipulated, or within

such time as extended, shall be liquidated in the sum of the following amount, Saturdays, Sundays, and holidays included:

Two hundred dollars (\$200.00) per unit per day for each day by which the Vendor shall fail to meet the date for delivery as specified in Chapter II. "Unit" shall mean a) PCA b) GPU. Each shall constitute a separate "Unit".

4.0 PAYMENT

Within thirty (30) days after each milestone is completed, and after receipt of invoice the Authority will pay the Vendor by check according to the following schedule:

1. For Items No. 1 and 2 listed in the "Schedule of Unit Prices" in Chapter IV

<u>Percent Payment</u>	<u>Milestone</u>
40% of the price.	Completion of testing at the factory and approval by the Engineer of Test Reports.
50% of the Price	Delivery of equipment to the Authority at the site.
5% of the price	Completion of field installation and commissioning test (By Others)
5% of the price	Final drawing submittals after completion of field installation, commissioning tests, and completion of all other contract obligations

2. For Item No. 3 listed in the "Schedule of Unit Prices" payment will be made upon completion of services.

The payment of the Purchase Price of any installment shall constitute full consideration to the Vendor for all things done by him in connection with the manufacture, delivery and sale thereof, and except for such payment, all things done by the Vendor shall be at his own cost and expense.

Payment by the Authority of the purchase price for all units and compensation for any Extra Work and acceptance by the Vendor shall constitute a complete and final release to the Authority of all claims by the Vendor under this Contract.

5.0 EXTRAS

Except as specifically hereinafter provided in this numbered clause, the Vendor shall immediately make such change in or additions to the equipment and services as the Engineer may direct. If such changes or additions are not due to fault of the Vendor's part, or on the part of his suppliers or others performing on his behalf, whether or not in privity of contract with the Vendor, and if solely as a result thereof, the Vendor incurs additional costs in performance of his obligations hereunder, the Engineer shall have the authority to agree in writing with him upon compensation for such changes or additions in addition to that provided elsewhere herein. The execution of the aforementioned written agreement shall be a condition precedent to payment of any additional compensation for changes or additions. Accordingly, if the Engineer directs the Vendor to make any change in, or addition to, equipment or services which entitle him to compensation in addition to that provided for elsewhere herein, he shall not proceed with such changes or additions prior to execution of the aforementioned written agreement.

If, as a result of any changes in or addition to the equipment or services the Engineer directs the Vendor to make, the cost of performance of his obligations hereunder are decreased, the Engineer shall have the full authority to agree to adjustments by way of reduction in the compensation provided for elsewhere herein as he may in his sole discretion deem equitable and reasonable and, in making such adjustments, no allowance shall be made for anticipated profits.

The Vendor shall make such changes in or additions to the equipment and service ordered as above without further authorization to the Engineer from The Authority up to and including a cost to the Authority hereunder equal to six percent (6%) of the Lump Sum Price in the proposal and shall make such changes or additions ordered in excess of such cost if the Engineer is specifically authorized to so order by The Authority. Nothing herein shall be construed as representation that changes or additions will be ordered.

6.0 BILL OF SALE

The Vendor shall promptly furnish to the Authority such bills of sale and other instruments as may be required by it, properly executed, acknowledged and delivered, assuring to it title to the Merchandise, free of liens and other encumbrances.

7.0 WARRANTIES (See Chapter III)

8.0 "Insurance Procured by the Contractor CITS#4379N"

The Contractor shall take out, maintain, and pay the premiums on Commercial General Liability Insurance, including but not limited to premises-operations, products-completed operations, and independent contractors coverage, with contractual liability language covering the obligations assumed by the Contractor under this Contract and, if vehicles are to be used to carry out the performance of this Contract, then the Contractor shall also take out, maintain, and pay the premiums on Automobile Liability Insurance covering owned, non-owned, and hired autos in the following minimum limits:

Commercial General Liability Insurance - \$ 2 million combined single limit per occurrence for bodily injury and property damage liability.

Automobile Liability Insurance - \$2 million combined single limit per accident for bodily injury and property damage liability.

In addition, the liability policy (ies) shall name The Port Authority of New York & New Jersey, its related entities, their commissioners, directors, officers, partners, employees and agents as additional insured, including but not limited to premises-operations, products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy (ies) and certificate of insurance shall contain separation of insured conditions and severability of interests clauses for all policies. These insurance requirements shall be in effect for the duration of the contract to include any warrantee /guarantee period and any maintenance period. An act or omission of one of the insureds shall not reduce or void coverage to the other insureds. Furthermore, the Contractor's insurance shall be primary insurance as respects to the above additional insureds. Any insurance or self-insurance maintained by the above additional insureds shall not contribute to any loss or claim

The certificate of insurance and liability policy (ies) must contain the following endorsement for the above liability coverages:

"The insurer(s) shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the Tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority."

The Contractor shall also take out, maintain, and pay premiums on **Workers' Compensation Insurance** in accordance with the requirements of law in the state(s) where work will take place, and Employer's Liability Insurance with limits of not less than \$1 million each accident.

Each policy above shall contain a provision that the policy may not be canceled, terminated, or modified without thirty (30) days' prior written notice to the Port Authority of NY and NJ, Att: Facility Contract Administrator, at the location where the work will take place and to the General Manager, Risk Financing.

The Port Authority may at any time during the term of this agreement change or modify the limits and coverages of insurance. Should the modification or change results in an additional premium, The General Manager, Risk Financing for the Port Authority may consider such cost as an out-of-pocket expense.

Within five (5) days after the award of this agreement or contract and prior to the start of work, the Contractor must submit an original certificate of insurance, to the Port Authority of NY and NJ, Facility Contract Administrator, at the location where the work will take place. This certificate of insurance MUST show evidence of the above insurance policy (ies), stating the agreement/contract number prior to the start of work. The General Manager, Risk Financing must approve the certificate(s) of insurance before any work can begin. Upon request by the Port Authority, the Contractor shall furnish to the General Manager, Risk Financing, a certified copy of each policy, including the premiums.

If at any time the above liability insurance should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the Manager shall so direct, the Contractor shall suspend performance of the contract at the premises. If the contract is so suspended, no extension of time shall be due on account thereof. If the contract is not suspended (whether or not because of omission of the Manager to order suspension), then the Authority may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be payable by the Contractor to the Port Authority.

Renewal certificates of insurance or policies shall be delivered to the Facility Contractor Administrator, Port Authority at least fifteen (15) days prior to the expiration date of each expiring policy. The General Manager, Risk Financing must approve the renewal certificate(s) of insurance before work can resume on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Contractor shall promptly obtain a new and satisfactory certificate and policy.

The requirements for insurance procured by the Contractor shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Contractor under this contract. The insurance requirements are not a representation by the Authority as to the adequacy of the insurance to protect the Contractor against the obligations imposed on them by law or by this or any other Contract. **[CITS#4379N]**

9.0 TAX EXEMPTIONS – DUTIES AND IMPOSTS

Sales to the Port Authority of New York and New Jersey, the governmental instrumentality of the States of New York and New Jersey, are exempt from sales and use taxation, either State or municipal, in these two States and also from federal taxation, including excise taxes. Certificate of Registry for tax-free transactions under Chapter 32 of the Internal Revenue Code: No.13-730079K. The Vendor therefore certifies that there are no such taxes included in his prices shown herein. The Vendor should retain a copy of this Contract to substantiate the exempt sale. The Vendor shall pay all duties and imposts, if any, on the importation of any materials.

10.0 PATENTS

The right to use all patented materials, compositions of matter, manufactures, apparatus, appliances, processes of manufacture, or types of construction as part of

the sale shall be obtained by the Vendor without separate or additional compensation whether the same is patented before, during or after the performance of this Agreement.

The Vendor shall indemnify the Authority against and save it harmless from all loss and expense incurred in the defense, settlement, or satisfaction of any claims in the nature of patent infringement arising out of or in connection with the Authority's use in accordance with the preceding paragraph of this numbered clause, of such patentable subject matter or patented material, compositions of matter, manufactures, apparatus, appliances, processes of manufacture, or types of construction. If requested by the Authority and if notified promptly in writing of any such claim, the Vendor shall conduct all negotiations with respect to and defend such claim without expense to the Authority. If the Authority be enjoined from using any of the materials or ideas which form the subject matter of this Agreement and as to which the Vendor is to indemnify the Authority against patent claims, the Authority may, at its option and without thereby limiting any other right it may have hereunder at law or in equity, require the Vendor to supply, temporarily or permanently, materials or ideas not subject to such injunction and not an infringement of any patent and if the Vendor shall fail to do so, the Vendor shall, at its expense, remove all such facilities and refund the cost thereof to the Authority or take such steps as may be necessary to insure compliance by the Authority with such injunction, all to the satisfaction of the Authority and without cost or expense to the Authority.

11.0 CERTAIN VENDOR'S WARRANTIES

The Vendor warrants that he is financially responsible and experienced in, and competent to perform the sale hereunder, that he is familiar with all rules, regulations and specifications referred to herein, with all applicable laws, ordinances, rules and regulations, with the nature of the sale, and with all pertinent conditions and circumstances, that no Director, officer, agent or employee of the Authority is personally interested, directly or indirectly, in this Agreement; and that no representation, promise or statement, oral or in writing, has induced him to submit his Proposal, saving only those contained in the papers expressly made part of this Agreement.

12.0 RIGHTS OF THE AUTHORITY

If the Vendor is guilty of any breach or becomes insolvent or bankrupt or if his property or affairs are placed in the hands of a receiver or trustee, the Authority shall be entitled:

- a. to withhold out of monies otherwise due such sums as the Engineer deems necessary to protect it from loss or delay and to apply such sums for the Vendor's account as the Engineer deems best to secure such protection.
- b. to have any items or portions thereof completed for the Vendor's account either itself or through others.
- c. to cancel this Agreement as to all or any part of the uncompleted portion thereof.
- d. to exercise any appropriate right or remedy at law or in equity.

For the purpose of this Agreement, breach shall include, but shall not be limited to, the following, whether or not the time has yet arrived for performance of an obligation under this Agreement; a statement by the Vendor to any representative of the Authority indicating that he cannot or will not perform any one or more of his obligations under this Agreement; any act or omissions of Vendor or any other occurrence which makes it improbable at the time that he will be able to perform any one or more of his obligations under this Agreement; a suspension of or failure to proceed with any part of the work by the Vendor which makes it improbable at the time he will be able to perform any one or more of his obligations under this Agreement.

13.0 NO ASSIGNMENTS

Any assignment or other transfer by the Vendor of this Agreement or any part hereof without the express consent in writing of the Authority shall be void, provided that the Vendor may subcontract portions of the Sale to be performed if the Engineer expressly so permits in writing. No subcontractor shall have any rights against the Authority and all subcontractors shall be deemed the Vendor's agents.

14.0 APPLICABLE LAW

This Agreement shall be construed in accordance with the Law of the State of New Jersey. The Vendor hereby consents to the exercise by the courts of the States of New York and New Jersey of jurisdiction in personam over it with respect to any matter arising out of or in connection with this Agreement and waives any

objection to such jurisdiction which it might otherwise have; and the Vendor agrees that mailing of process by registered mail addressed to it at the address of the Vendor indicated herein, shall have the same effect as personal service within the States of New York and New Jersey upon domestic corporation of the said State.

15.0 NO PERSONAL LIABILITY

No Director, Commissioner, officer, agent, or employee of the Authority shall be held personally liable under this agreement, or because of any acceptance of or attempt to accept this Proposal.

16.0 NO ESTOPPEL

No act or omission of The Authority or the Engineer shall constitute an estoppel against The Authority or waiver of any provision of this Agreement or an election to pursue exclusively any right or remedy, saving only an express written declaration to the effect, and no waiver of any other breach. No approval or acceptance of any item and no payment therefore shall release the Vendor from any obligations under this Agreement or estop the Authority from showing at any time that such item was not satisfactory or that such payment was incorrect.

17.0 APPROVAL BY THE ENGINEER

The approval by the Engineer of any workmanship, materials, drawings, designs, or details of construction of the equipment shall be construed merely to mean that at that time the Engineer knows of no good reason for objecting thereto and no such approval shall release the Vendor from his full responsibility for the satisfactory construction and operation of the equipment.

The decision of the Engineer shall be conclusive, final and binding on the parties as to all questions arising out of, under, or in connection with this Agreement (including questions of breach of Contract).

18.0 ERRORS AND OMISSIONS

If the Vendor discovers any errors or omissions in the Specifications or in the work undertaken and executed by him, he shall immediately notify the Engineer and the Engineer shall promptly verify the same. If, with the knowledge of such error or omission and prior to the correction thereof, the Vendor proceeds with any work affected thereby, he shall do so at his own risk, and the work so done shall not be considered as work done under and in performance of this Agreement unless and until approved and accepted.

19.0 MATERIALS AND WORKMANSHIP

All design, materials and workmanship shall in every respect be in accordance with the best current practice in the industry and free from defect. All design, workmanship, and materials shall at all times and places be subject to the inspection of the Engineer. Should they fail to meet his approval, they shall be forthwith made good, replaced or corrected, as the case may be, by the Vendor, at his own expense. All materials shall be new materials.

20.0 ENTIRE AGREEMENT

The Agreement contains the entire agreement between the parties and consists of the Instructions to Bidders, this Proposal and the annexed Specifications. Except as otherwise specifically provided, no change in, modification or termination of this Agreement shall be effective unless in writing and signed by the party to be charged therewith.

This Proposal shall be irrevocable for 90 days after its opening by the Authority.

21.0 PROGRESS SCHEDULE

Within fifteen calendar days after acceptance of the Proposal, the Vendor shall prepare a detailed progress schedule for the approval of the Engineer. The progress schedule shall show the date for the commencement and completion of the different portions of the Contract. After the approval of the schedule, no changes shall be made therein without the written approval of the Engineer.

Approval of any progress schedule shall not relieve the Vendor of his obligation to complete the Contract by the time required in the Contract, even though the schedule approved may be inconsistent with such completion, nor shall it constitute a representation by the Authority that the Vendor will be able to proceed or complete in accordance with the schedule.

The Engineer shall have the right at any time when in his judgment the work is not proceeding in accordance with the approved progress schedule or is not proceeding at sufficient rate to ensure completion by the time required in the Contract (even though proceeding in accordance with approved progress schedule) to order the Vendor to increase the number of men employed, to use additional plant or equipment, and to take such other steps as may be necessary or required to assure the completion of the various operations within the time allotted therefor in the approved schedule or by the aforesaid completion time without additional compensation to the Vendor.

NOTICE:

Unless the following term of assurance that the above offer is irrevocable is signed, the Proposal submitted herein shall not be deemed to be complete.

The foregoing offer shall be irrevocable for 90 days after the date on which the Authority opens this Proposal.

(Signature of Agent, Partner, or corporate officer signing)

OFFER SUBMITTED BY:

Date:.....
.....
Vendor

By.....
Title.....

Vendor's address:
.....
.....

(Corporate Seal)

OFFER ACCEPTED:

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

BY: _____

Director, Procurement Department
The Port Authority of New York and New Jersey

Title: _____

Date: _____

CHAPTER II - MANUFACTURE AND DELIVERY

1.0 SCOPE.

The Specifications require furnishing and delivery of two (2) Preconditioned Air Units and two (2) Ground Power Units in accordance with Chapter III of these Specifications. All installation is by others.

All things not specified in the Specifications but involved in carrying out their intent are required by these Specifications and shall be furnished as though they were specifically delineated, described, and mentioned.

2.0 PLACE OF DELIVERY

The Vendor shall make delivery of all merchandise under this purchase order to the Port Authority of New York and New Jersey, Newark Liberty International Airport, Terminal B, Newark, NJ 07114.

If space is not available at the aforementioned location, delivery shall be made to a location, designated by the Authority, within a twenty-five mile radius of the Statue of Liberty at no additional cost to the Authority.

3.0 TIMES FOR DELIVERY

Delivery of the two (2) Preconditioned Air Units and the two (2) Ground Power Units within fourteen (14) calendar weeks after Port Authority Engineer gives written approval to proceed. This period shall include two (2) weeks for shop drawings review and approval by the Engineer.

Delivery will be limited only to weekdays between the hours as indicated in paragraph 2.0 of Chapter I. No legal holidays or weekend delivery will be permitted. Prior to delivery, at least two (2) weeks advance notice shall be given to the Engineer for making arrangement to receive all the four Units at the delivery site (outside of building) by the Installation Contractor. At that time, the Vendor shall be given specific delivery instructions and exact location of delivery. Off-loading of the Units at the delivery site from Vendor's truck will be by the Installation Contractor. The following legal holidays will be observed at the Facility:

New Years Day

Columbus Day

Martin Luther King, Jr. Day

Veterans Day

Presidents' Day

Thanksgiving Day

Memorial Day

Day After Thanksgiving

Independence Day

Christmas Day

Labor Day

and each general election day in the State in which the work is to be performed, and such other or different days or dates as may be declared holidays or legal holidays by the legislature of the State in which the materials are to be delivered.

If any such legal holiday falls on a Sunday, the next day shall be considered the legal holiday and/or if any such legal holidays falls on a Saturday, then the preceding day shall be considered the legal holiday.

4.0 SHOP DRAWINGS, CATALOG CUTS AND DATA (See Chapter III)

5.0 INSPECTION AND TEST (See Chapter III)

CHAPTER III – TECHNICAL REQUIREMENTS

See Attachment

5. CHAPTER IV - EXECUTION

1.0 TRANSPORTATION

Each Preconditioned Air Unit and Ground Power Unit shall be transported as a single complete unit via separate truck to its place of delivery, as specified in paragraph 2.0 of Chapter II, in compliance with the manufacturer's written instructions.

2.0 INSTALLATION AND FIELD TESTS

The Vendor shall provide the services of qualified factory-trained manufacturers' representatives to assist in the installation and startup of the Preconditioned Ai Units and Ground Power Units specified below:

Two (2) working days for each PCA & GPU Unit

The Vendor shall provide five (5) copies of the manufacturer's startup report along with a letter indicating that the installation is in compliant with manufacturer's guidelines and recommendations. Actual field installation and commissioning will be performed by the Authority's designated Installation Contractor.

3.0 SCHEDULE OF UNIT PRICES

The Bidder shall provide information in this "Schedule of Unit Prices" as follows:

Item No.	Description	Qty <u>UNITS</u> <u>DAYS</u>	Unit	Unit Price EACH Day Price EACH	Total
1	Preconditioned Air Units	2 UNITS	EA	× \$ _____	= \$ _____
2	Ground Power Units	2 UNITS	EA	× \$ _____	= \$ _____
3	Services of manufacturer's representative	8 DAYS	Per Day	× \$ _____	= \$ _____
TOTAL DELIVERED PRICE					\$ _____

The sum of the Vendor's obligations for items 1 through 3 shall be inserted in the appropriate space on the request for Quotation Sheet. The Unit Prices do not constitute an outline of the total Contract services as required by the specifications but will be used in computing the Vendor's compensation. The sum of the Unit Prices will be used in comparing Proposals.

Return one (1) copy of this Schedule of Unit Prices with your Bid.

AIRCRAFT PRECONDITIONED AIR SYSTEM

PART 1 - GENERAL

1.01 SUMMARY

This Specification identifies requirements for a point-of-use type Aircraft Preconditioned Air (PCA) system located at the aircraft end of passenger loading bridge (PLB) Gates 62 and 63 in Terminal B of Newark International Airport. The PCA system shall be designed and rated for servicing aircraft types provided in Appendix B. The PCA system shall be integrated with the PLB's and shall be connected to the 480V, 3-phase, 3 wire, 60 Hz power as provided at each gate.

All equipment shall be designed for installation on FMC/Jetway boarding bridges Model A3-58/110 125R Serial numbers OG 38313 and 37574, respectively. All equipment shall be mounted to the bridge in such a way as to not restrict bridge operation, including but not limited to, retraction, extension and rotation within acceptable limits.

When submitting a bid, identify any deviations from the physical characteristics specified herein.

1.02 **RESERVED**

1.03 GENERAL DESIGN AND PERFORMANCE REQUIREMENTS

- A. Design and performance of components and methods specified herein shall comply with applicable Federal, State, and Local laws, ordinances, regulations and codes, and the latest industry standards including, but not limited to the entities listed below.

Occupational Safety and Health Administration (OSHA)

Anti-Friction Bearing Manufacturers Association (AFMBA)

Air Movement and Control Association (AMCA)

American National Standards Institute (ANSI)

Air-Conditioning and Refrigeration Institute (ARI)

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

American Society for Testing and Materials International (ASTM)

National Fire Protection Association (NFPA)

National Electrical Manufacturers Association (NEMA)

Underwriters Laboratories Inc (UL)

National Electrical Code (NEC)

- B. In addition, specific provisions cited herein shall govern for the associated specific application.

1.04 DESIGN CONDITIONS

A. Design Ambient Conditions

Summer and winter design ambient are based on published ASHRAE climatic data for the site. The summer design ambient shall be the dry bulb temperature corresponding to 0.4% annual cumulative occurrence and the mean coincident wet-bulb temperature. The winter design ambient shall be the dry-bulb temperature corresponding to 99.6% annual cumulative frequency of occurrence.

Design Summer Conditions: 94.2°F DB/74.6°F WB

Design Winter Conditions: 12.3°F DB

- B. All outdoor mounted equipment shall be capable of withstanding the following climate conditions without damage or failure, even though cooling and/or heating performance may be somewhat degraded beyond that required for the design ambient temperatures but the equipment shall not shut down, but keep operating in a limited output mode:

Temperature: -40 °F to +125 °F

Humidity: 10% to 99% relative

Precipitation: Rain, Snow and Dust combined with wind

Wind: Up to 55MPH; Gusts up to 85MPH

1.05 COOLING PERFORMANCE REQUIREMENTS

A. System Design Requirements

The PCA system to the gates and all gate equipment shall be designed to attain and maintain cabin temperature of 75°F in the cooling mode for the largest aircraft which may be parked at the gate. The equipment shall be capable of meeting the stated conditions at 100% passenger and crew load.

B. Gate Cooling Performance Requirements

The unit and air delivery system shall be capable of maintaining a cabin temperature of 75° +/-2 Degrees F and 50% RH, with a full passenger and crew load, under design summer ambient conditions and with full electrical and solar loads. It shall also be capable of adjusting temperature and airflow to compensate for reduced passenger loads, lower ambient temperatures, or smaller aircraft.

The above cooling performance requirements shall be met using 100 percent outside make-up air to the unit.

In addition to maintaining cabin temperature as defined above, each gate system shall be capable of performing a cabin temperature “pull down” of a heat soaked aircraft, from a temperature of 100°F to a temperature of 80°F or lower on a summer design day within a period of 45 minutes, with no occupants and all doors closed.

C. Unit Minimum Cooling Airflow Requirements

Notwithstanding the performance requirements of paragraphs “A” and “B” above, units and air delivery components shall have the following minimum cooling airflow requirements for each aircraft type as indicated:

	Code C Narrow Body Aircraft	Code D Wide Body Aircraft	Code E Jumbo Aircraft
Air Delivery	Single Hose	Single Hose	Dual Hose
Rated Air Flow	190 lbs/min	375 lbs/min	600 lbs/min
Pressure at unit outlet at rated air flow	15 in. w.g.	30 in. w.g.	25 in. w.g.
Air Supply Temperature at Unit Outlet, at rated air flow	35°F	35°F	35°F

The Manufacturer shall provide greater performance if calculations determine that such performance is needed in order to meet the cooling performance requirements of the Boeing B747-8/9 and associated aircraft mix.

The Manufacturer shall present, with their submittal, performance calculations demonstrating the requirements of the largest aircraft at each gate and the capability of the proposed equipment to meet those requirements.

The calculations shall take into account losses in the air delivery hose. The Manufacturer shall provide calculations for hoses from three (3) different

Manufacturers so as not to limit the Authority from future use of any standard insulated hose available for aircraft air conditioning.

1.06 HEATING PERFORMANCE REQUIREMENTS

- A. Each unit shall contain electrical strip heaters. The unit, control and air delivery system shall be capable of maintaining a cabin temperature of 68°F minimum for up to the largest aircraft type designated at each bridge, during flight turnaround conditions, including those with no passenger load, at winter design ambient, without the use of recirculation return air. In addition, temperature and volume modulation capability shall be provided to automatically and efficiently compensate for higher ambient, higher passenger loads or smaller aircraft.

The system shall also be capable of maintaining an “overnight heating” mode on empty aircraft with all doors closed, with cabin temperature set for 60 degrees minimum in lieu of 68 degrees F, during ambient temperatures as much as 10 degrees F lower than the winter design condition. Each unit shall contain means for remotely resetting the preset cabin ambient control for this purpose.

Each gate system shall be capable of raising the temperature of a cold-soaked aircraft cabin from 32 degrees F to 65 degrees F within a 45-minute period during design winter conditions with an empty aircraft of the largest size identified for the gate, with all doors closed.

A minimum electric heating rating of 50 kW for narrow body, 60 kW for wide body and 120 kW for jumbo aircrafts shall be provided.

1.07 VENTILATION REQUIREMENTS

- A. Each gate air system shall be designed to provide minimum airflow corresponding to 10 CFM per passenger in the cooling and ventilation modes and 5 CFM in the heating mode while maintaining the required cabin temperature. A combination of temperature and airflow modulation shall be used to support the heating or cooling requirements during moderate climate conditions.

1.08 QUALITY ASSURANCE

- A. PCA systems of the types and sizes specified herein shall have been satisfactorily manufactured and used for purposes similar to those intended herein for not less than ten years.
- B. Upon request, arrange for PCA system to be factory inspected by the Engineer prior to shipping.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver products and materials to construction site in original factory packaging, labeled with manufacturer's identification.
- B. Store products and materials in original packaging and protect from construction activities, weather, dirt, water, and chemical and mechanical damage. Raise products and materials off floors to protect from water damage.
- C. Transport products and materials to final installed locations. Comply with the Manufacturer's rigging instructions.
- D. Repair and/or replace products and materials that are damaged at no additional cost to the Authority.

PART 2 - PRODUCTS

2.01 Manufacturers

- A. Subject to compliance with the requirements of this Section, provide factory-fabricated Aircraft Preconditioned Air systems by one of the following manufacturers, or approved equal:

Hobart / Trilectron – 100 Ton POU320 Series

Address: 11001 US Highway 41 N, Palmetto, FL 34221. Ph: (941) 721-1000

JBT AeroTech – 100 Ton JetAire Series

Address: 1805 West 2550 South, Ogden, UT 84401. Ph: (800) 827-7707

Cavotec/INET US Inc. – 100 Ton PCAir Unit

Address: 4111 N. Palm Street, Fullerton CA 92835 Ph: (714) 888-2700

2.02 CABIN TEMPERATURE CONTROL

- A. The system shall be equipped with direct digital controls (DDC) to automatically modulate supply air temperature to attain and maintain the set cabin temperature within +/- 2 degrees F at the sensing point. This shall be facilitated by use of a small temperature probe connected to the system by way of a small cable and jack in the bridge cab. The temperature probe shall be mounted to the wall in the cab area, near the door of the aircraft. The automatic controller shall select the appropriate operating mode (cool, ventilate, heat) depending upon ambient temperature and/or the unit inlet air temperature and aircraft on-board conditions.
- B. The cabin temperature set point for the cooling mode and heating mode shall be re-settable via software control from within the DDC controller.
- C. Each unit shall have the capability to be controlled by a back-up temperature sensor on the unit in case of failure of the automatic temperature sensing circuit. Switch

over shall be automatic whenever the cabin sensor probe or its cable is either missing or is detected as an open or short circuit. A light shall be provided to indicate to the bridge operator that the PCA unit is operating in automatic bypass mode because of a failure in the cabin temperature sensor or its cable.

- D. In the automatic mode, the system shall perform all functions without any human intervention except for the following:
- Connect aircraft service hose(s) (ground crew)
 - Place temperature probe in aircraft cabin (gate agent)
 - Press START button (ground crew)
 - Press STOP button after Auxiliary Power Unit (APU) is started (ground crew)
 - Remove and store hose (ground crew)
 - Remove temperature sensor probe (ground crew)
- E. The system shall be equipped with necessary accessories to conduct the required electrical power from a junction box to the PCA unit. The system shall also include accessories to supply air from the unit via flexible aircraft service hose(s) as required to reach aircraft connections directly for all types except the DC-9 and MD-80 series. Extension hoses of suitable length with quick connect fittings shall be furnished. The total air delivery system shall, in combination with the operating parameters of the unit, provide the performance requirements stated in sections 1.05 and 1.06 . All pressure drops and heat gain or loss of the air delivery accessories shall be considered in rating and sizing the system and unit capacities.
- F. The flexible air delivery hose shall be connected to the unit located under the outer tunnel of the PLB and extend through the PLB lift column to an area above the hose basket located on the aircraft side of the lift column. This section of the air delivery hose shall be connected, routed and supported in such a manner as to not interfere with the bridge mechanisms. The support of the hose extending through the lift column shall be located to ensure the hose is not damaged in any manner by the vertical travel of the PLB. The flexible hose shall be of the lightweight insulated type, which is flat when not in use, for easy storage by one person in the hose storage basket mounted at each gate.
- G. The final location and mounting of units, delivery accessories, type of hose and connector nozzle, storage basket and extension devices shall be approved by the Engineer prior to equipment fabrication or construction.

2.03 REMOTE CONTROL AND MONITORING

- A. When The “START” pushbutton on the remote apron level control station is pressed, the PCA unit shall start and deliver airflow suitable for the safe servicing of a “Regional Aircraft”. For servicing larger aircrafts, requiring increased airflow, the operating control station shall include additional pushbuttons individually labeled by aircraft size up to service capacity of the PCA system. Larger aircrafts shall be designated as “Narrow Body”, “Wide Body”, and “Jumbo”.
- B. Each unit shall have a “START/STOP” push-button station located at the apron level for convenient access by ground crew personnel. This Start/Stop station shall be remote from the unit and mounted to the bridge wheel assembly in a location as approved by the Engineer. Where Jumbo aircraft requiring dual-hoses for maximum cooling capability are to be served, the remote push-button station shall be provided with a “SECOND HOSE” pushbutton for Jumbo aircraft.
- C. The unit shall always start up in regional aircraft mode with the selection of the larger aircraft to be by the ground crew personnel. Selecting the “SECOND HOSE” pushbutton shall set the unit to its full Jumbo aircraft capability in terms of air-flow and pressure while at the same time opening the damper which allows outlet air to flow into the second flexible service hose.
- D. The apron level pushbutton station shall include:
 - An hour meter, indicating total hours of PCA unit operation.
 - A pushbutton for displaying system operating fault codes.
 - A pushbutton to initiate “SETBACK” operating mode of the PCA unit for servicing of empty aircraft setback from the passenger bridge with aircraft doors closed.
- E. Each unit shall have dry contacts for connection by others to remotely monitor the status of the unit, including “ON/OFF” status and “Fault” condition. Any associated software required shall be included so that the Authority can monitor these conditions from a remote PC workstation.

2.04 INTERFACE WITH EXISTING FACILITIES

- A. Each unit and any other accessories shall utilize 480 volt, 3-phase, 60 Hz power supply. The Manufacturer shall confirm with the PLB manufacturer to ensure that the proposed weights, methods and locations of mounting and wiring schemes do not in any way degrade the structural integrity of the bridge, provide safety hazards or affect any bridge warranties between the bridge manufacturer and the Authority. Manufacturer shall provide written evidence from the PLB manufacturer for this project to that effect. The PCA system shall be integrated with the passenger

loading bridges. The PLB's at Gates 62 and 63 are Jetway Model A3-58/110 125R, Serial numbers OG 38313 and 37574, respectively.

- B. All condensate run-offs from the unit shall be collected/piped to the drain location designated by the Engineer. Condensate pumps shall be provided as necessary. Any condensate that may tend to collect in other areas due to insufficiently insulated piping or hoses shall be collected/pumped to the aforementioned designated drain.

2.05 UNIT CONSTRUCTION DETAILS

- A. Each unit shall include (a) a weatherproof control assembly which contains low-voltage (Class II) logic, modulating and control circuits; (b) a weatherproof NEMA-3R (NEMA-4X) power panel assembly which contains incoming power connections, fuses, control transformers, and starters; and (c) the main blower/coil/refrigeration section, consisting of inlet filter(s), blower, means of modulating air flow, evaporator coil(s), condensers, compressors, refrigeration accessories and outlet plenum with electrical strip heaters. The condensate pump, if required, shall be mounted integrally with the unit. All components used in the unit shall be UL listed.
- B. The means of modulation of airflow shall be by an airflow damper.
- C. The unit shall be totally encased in an aluminum housing with a rigid steel or aluminum frame, free of vibration transmission with vibration isolators, where necessary.
 - 1. The main housing shall contain, in addition to the low voltage controller cabinet and the power cabinet, the blower, evaporators, insulated double wall type constructed of 304 stainless steel condensate drain pan , condensate drain pan, outlet plenum, air filters, compressors, condensers and fans, inlet damper and condensate pump, together with all the other refrigeration accessories and safety devices required for safe, unattended continuous operation.
 - 2. The unit construction shall be of a material sufficient to provide adequate structural rigidity of frame and enclosure, of a non-corroding material and provided with thermal insulation for conditions encountered in normal usage. The equipment exterior shall be primed and painted to match bridge. Equipment interior shall be manufacturer's standard. Access doors and panels shall be provided for inspection and access to internal parts including condensers, compressors, expansion devices, valves, motors, blower, damper, heaters, filters, condensate pump, and evaporators.

2.06 UNIT CONTROLLER

- A. The unit controller shall be a fully functional Direct Digital Control (DDC), microprocessor based, low voltage (Class II), programmable controller. It shall be

housed in a gasketed NEMA-3R (NEMA-4X) weatherproof cabinet on the unit and contain the following functions, controls, displays and remote features:

1. Remote "ON/OFF" push-button station, lighted.
2. Remote "FAULT" indicator (overloads, compressor circuits, over temp if applicable, filter alarm, VFD if applicable).
3. Blower Motor Overload Indicator, with shutdown.
4. Control functions for mode changing, modulating temperature, air flow, staging compressors, condenser fans and strip heaters, including any optional remote functions.
5. Connections for remote "ON/OFF", remote status displays and "FAULT" alarm plus RS232 and RS485 ports for remote control/monitoring.
6. Connection for display of smoke alarm indication (detector remote from unit).
7. Provision for cabin temperature set point adjustment.
8. Temperature controller for automatic modulation of outlet temperature.
9. Necessary controls to provide auto defrost of the coils.
10. Digital display of system operating parameters and faults for service/maintenance viewing..

* All abovementioned items except (1) and (2) shall be installed inside of a lockable controller cabinet.

- B. Provide a temperature sensor probe that can be placed by gate agents in the aircraft interior. The probe shall be supplied with a coil cord, minimum 15 feet when extended, and hardwired to a wall box in the bridge cab area.

2.07 UNIT POWER CONNECTION AND MOTOR STARTER

- A. Incoming electrical power connection points, power fuses, control power transformer(s) and starters for the blower motor, compressor motors and condenser fan as well as power control devices for the electrical strip heaters shall be housed in a single weatherproof cabinet section integral with the unit main housing and accessible from outside the unit.
- B. All devices that operate on voltage above 50V shall be mounted in this cabinet (with the exception of the motors, and strip heaters, if used) such that only control power or logic-level signals are present in other areas of the unit. Starters shall be NEMA-3R (NEMA-4X) or IEC rated and UL rated. For motors over 60HP, starters shall be reduced-voltage start type.

2.08 SUPPLY AIR BLOWER

- A. The blower shall be of the centrifugal type and sized for the appropriate volume airflow requirements at 3600-rpm max. The unit size shall be selected so that the fan brake horsepower does not exceed the maximum required over the design

operating range of the unit at the total static pressure. Horsepower shall be selected based on the Manufacturer's choice of equipment that affects the external resistance of the system. The blower shall be statically and dynamically balanced and designed for continuous operation at the maximum rated fan speed and horsepower. The fan shaft shall be turned, ground and polished steel designed to operate at no more than 70 percent of the first critical speed at the top of the speed range of the fan's class.

- B. Provide shaft bearings having a median life (AFBMA) of 200,000 hrs calculated in accordance with AFBMA 90 for ball bearings, or AFBMA 11 for roller bearings.

2.09 BLOWER MOTOR

- A. The blower motor shall be a high-efficiency type, TEFC, UL rated, of standard frame size, with permanently lubricated bearings. Motor shall be accessible for inspection or replacement from outside the unit via access panel, without requiring removal of any other components.

2.10 CONDENSER FANS AND MOTORS

- A. Condenser fans shall be propeller type, direct-driven with permanently lubricated bearings. Condenser fan motors shall be of standard frame size, 1,800-rpm maximum, TEFC, UL rated, with permanently lubricated bearings.

2.11 EVAPORATOR AND CONDENSER COILS

- A. Coils shall be seamless copper tube with aluminum fins and removable from the unit. The evaporator coil section shall be completely insulated. The number of tubes and fin spacing shall be designed and sized to meet the performance requirements and clearly indicated in the submittals for review and approval. Coils shall be proof tested to 400 psig and leak tested to 250 psig with air pressure under water, then cleaned, dehydrated and sealed with a holding charge of nitrogen. No more than one compressor circuit shall be combined with a single evaporator coil.
- B. Compressors shall be serviceable, hermetic "scroll type". Each circuit shall have thermal expansion valves, filter drivers, sight glasses, minimum of two refrigeration circuits, recharging connection on the low pressure side, and condenser fan cycling control for low ambient when ambient temperature drops below 45 degrees F.
 - 1. Safety Controls: Low pressure cutout, high-pressure cutouts, compressor motor overload, manual reset, anti-recycling timer, adjustable low-ambient lockout, and compressor over temperature safety module.

2.12 SMOKE DETECTOR

- A. The PCA unit shall be fitted with a smoke detector downstream of the electric heater. The detector shall be water tight NEMA-4, photoelectric type, UL rated for

use in air handling systems. The air supply blower shall shut down upon detection of smoke.

2.13 AIR FILTERS

- A. Provide factory-fabricated, flat panel type cleanable air filters with holding frames, with 2-inch-thick cleanable filtering media constructed of woven and crimped stainless steel or aluminum materials, or approved equal, adequate for airport jet fume environment.
- B. Noise Level: The maximum sound level for the unit at maximum operating condition shall not exceed 90dbA at a distance of 15 feet (4.5M) from the unit.

2.14 AIRCRAFT SERVICE HOSE

- A. The flexible aircraft service hose at each gate shall be 14-inch diameter, flat type. Hose length shall be adequate to reach the inlets of a Boeing 747 and associated aircraft mix. Hose shall be supplied in sections of no more than 20 feet joined by a closed nylon zipper or Velcro device, with 14 to 8 inch diameter reducing adapter on the end.
- B. Aircraft coupler shall be 8 inch. Extension hoses for aircraft shall be assembled from the same hose sets as defined above, with the same type aircraft coupler on one end and a quick disconnect "female" coupler on the other, to mate with the aircraft coupler on the basic hose. Total lengths of hose assemblies and extenders shall be calculated by the Manufacturer for each bridge configuration.
- C. A hose storage basket shall be provided to be installed at the front of the bogie wheel and of sufficient size to easily store the required hose length. The basket shall be constructed of steel frame with rounded top edges and corners, with sheet steel or expanded steel sides and an open framework or expanded steel bottom. The top front edge (toward hose deployment direction) shall have a minimum radius of 1 inch.
- D. Gates 62 and 63 are identified to accommodate a Jumbo aircraft and shall be equipped with dual aircraft service hoses. The hose storage basket shall be increased in size to accommodate both hoses. Both hoses shall be fed from a common air supply plenum or duct. One hose, identified as "Main Hose", shall be permanently fed from this plenum/duct whenever the "START" pushbutton is selected. In this mode, the unit shall deliver conditioned air only through the main hose and provide a limited air supply pressure and volume so as not to exceed pressure ratings of internal duct systems for any aircraft smaller than a Jumbo. When a Jumbo aircraft is parked at the gate, the second hose, identified as "Second Hose", shall be deployed and connected to the aircraft's second air fitting. At this point, when the "SECOND HOSE" pushbutton is selected, the controller shall activate the normally closed air damper feeding the "Second Hose" inlet, and at the same time allow the unit to deliver its full-rated supply pressure and volume as required by ambient and on-board temperature conditions to service a fully loaded

Jumbo aircraft. Unless the "SECOND HOSE" position is selected, the unit shall stay in the limited-output mode and the damper to the second hose shall remain closed. The "START", "STOP" and "SECOND HOSE" push buttons shall be mounted on the ramp level remote operator station.

2.15 IDENTIFICATION

- A. Provide each PCA unit with identification label to include, as a minimum, manufacturer name, model number, fan capacity and power requirements.
- B. Attached to the interior of the PCA door shall be a laminated component drawing with a list of components identified with a description and the manufacture's part number. Also attached shall be a laminated wiring schematic showing the exact wiring of the PCA.

2.16 CONDENSATE DRAINS & PUMP

- A. Condensate drain piping, external to PCA unit shall be of flexible nylon reinforced clear vinyl tubing for use in actuating utility carrying devices, pantographs etc.
- B. Condensate pump shall be fitted with a thermostatic drain valve designed to drain the pump housing before the ambient temperature drops below 32°F.
- C. Condensate collection pans shall be made from stainless steel materials and be removal from the unit for cleaning.

2.17 WARRANTY/GUARANTEE

- A. Equipment furnished under this specification shall be guaranteed against defective parts and workmanship under the terms of the manufacturer's warranty for a period of not less than one (1) year, parts and labor, from the date of initial start-up and acceptance of the equipment by the Engineer at the project site. Compressor warranty shall be a minimum five (5) years.

PART 3 - EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services:

Field tests and inspections shall be performed under the direction of a factory-authorized service representative. Inspect components, assemblies, and equipment installations, including connections. Provide assistance with testing procedures.

- B. Site Acceptance Tests:

Recognizing that it is impractical to simultaneously duplicate the design ambient, aircraft activity and passenger loads for performing system capacity, acceptance

criteria for system rating shall be based on factory testing with limited on-site verification of key performance parameters as mutually agreed to by the Manufacturer and Engineer prior to the performance of the acceptance tests. Tests shall comprise those in the approved site acceptance test procedures. Complete test reports shall be submitted within 10 working days of completion of the actual tests.

C. Factory Test

Each functional assembly shall be inspected and tested at the factory prior to shipment. The Authority or its representative shall have the right to witness these tests, for which purpose a 10-day written notification shall be given prior to performance. Complete test reports shall be submitted within 2 weeks of factory test. Factory test report shall be furnished with the PCA including test results, test procedures, and conclusion. Each test report shall be dated and signed by authorized personnel of the Manufacturer.

D. Field Tests:

Preconditioned air units shall be subject to field testing by a factory-authorized representative to verify field performance comparable with factory tests for leakage, acoustic performance, and vibration. Start up, test, and adjust units in presence of the Engineer. Should the test reveal any defects or other evidence of unsatisfactory materials or workmanship, make necessary repairs and repeat the test until the installation is proven satisfactory. Perform all additional work at no extra cost to the Authority and make all repairs to achieve compliance with specified performance. Repeat applicable tests as often as required to achieve specified performance.

3.02 OPERATION AND MAINTENANCE MANUALS

- A. Operation and Maintenance manuals shall be provided in a protective binder or cover at least 10 days prior to site acceptance. Prior to the field tests, provide five (5) O&M manuals to the Engineer for review and approval.
- B. As a minimum, the manuals shall consist of the following:
1. One section defining the overall operation of the system, start-up and shut-down and adjustment procedures, overall preventative maintenance charts, flow charts and a listing of major system components, with a guide to finding detailed information on these components in other sections.
 2. One section containing maintenance and operating details of the air handlers, with theory of operation, control diagrams, schematics, troubleshooting charts, complete alignment instructions, preventive maintenance details, and parts lists.
 3. One or more sections containing the standard vendor's operating and maintenance manuals of all functional assemblies, including compressors, pumps, control valves, coils, etc., with catalog cuts of all devices.

4. One section detailing system controls: operation, theory, control and ladder diagrams, program parameter adjustments, manual override techniques, and parts lists.
5. Cross reference parts list, indicating Manufacturer's part numbers as they appear in the manuals with corresponding original manufacturer's part numbers (if different than the original manufacturer).
6. Capacity information, curves, etc., same as provided for submittals.

3.03 TRAINING

- A. Training: During the checkout and test phases, the appropriate Authority personnel shall be invited to witness and to receive over-the-shoulder operation/adjustment training. Immediately prior to or within one week after system acceptance tests are conducted, the manufacturer's representative shall conduct a minimum of 3-day training class for up to 12 personnel. The class shall consist of 50 percent classroom and 50 percent hands-on operation. This class shall be aimed at operating and maintenance personnel for basic operation, preventative maintenance, adjustment and initial fault response.
- B. The Manufacturer shall make available optional additional training courses dealing with detailed maintenance of the controls and overall system troubleshooting and realignment, either at its factory facility, or at the job site.

END OF SECTION

AIRCRAFT PRECONDITIONED AIR SYSTEM

APPENDIX A

SUBMITTAL REQUIREMENTS

- A. Five (5) sets of design drawings, calculations, catalog-cuts and equipment drawings shall be submitted to the Engineer for review and approval. Detailed installation shop-drawings and catalog-cuts shall be available for submittal to the Engineer for review and approval.
- B. Submit Aircraft cooling and heating load calculations (performance calculations) with geographical aircraft position, occupancy configuration (cockpit, cabin crew, and passengers), ambient temperature, cabin set-point temperature, etc for review and approval.
- C. The following drawing's and other data shall be submitted by the manufacturer for the approval by the Engineer:
 - 1. **Product Data:** Submit manufacturer's technical product data, including rated capacities of selected model clearly indicated, dimensions, mounting provisions, required clearances, weights, power requirements, furnished accessories, and installation instructions, including the following.
 - a. Certified blower performance curves indicating operation condition points clearly plotted.
 - b. Blower motor ratings and, nameplate data, including horsepower, RPM, voltage, frequency, full load amps, power factor, efficiency and other electrical characteristics.
 - c. Condenser motor rating , nameplate data, including horsepower, RPM, voltage, frequency, full load amps, power factor, efficiency and other electrical characteristics.
 - d. Compressor performance points and operating characteristics.
 - e. Compressor motor ratings, nameplate data, including horsepower, RPM, voltage, frequency, full load amps, power factor, efficiency and other electrical characteristics.
 - f. Strip heater catalog cuts and performance data.
 - g. Smoke detector catalog cuts.
 - h. Drawings indicating unit dimensions, mounting, required clearances, field connection locations, wiring diagrams, and shipping drawings.
 - i. PCA unit performance ratings in accordance with ARI-430 (static pressure, airflow, fan speed, and fan brake horsepower).

- j. Overload protection devices for all motors
 - k. Starter and contactor catalog cuts and other performance data.
 - l. Static pressure profiles by component section.
 - m. Coil ratings in accordance with ARI-410 (capacities and pressure drops).
 - n. Certified PCA unit sound power levels at rated capacity at each active band.
 - o. Product for filter media, filter performance data, filter assembly, and filter frames.
 - p. Capacities and performance selections for specific operating conditions.
 - q. Material safety data sheets (MSDS): sheet metal materials, gauges and features; framing materials, shapes and sizes; access doorframes, hinges, hardware, gaskets.
 - r. Power and control wiring diagrams.
 - s. Manufacturer's installation and start-up instructions.
 - t. Refrigeration schematic diagrams
 - u. Control sequence and operations
 - v. Warranties
2. **Shop Drawing:** Submit equipment shop drawings detailing electrical and mechanical requirements for wiring and mounting, including control wiring.
3. **Operation and Maintenance Data:** Submit operation and maintenance manuals and overall system parts list. Include troubleshooting and maintenance guide, service and repair guide, preventative maintenance schedule and procedures, theory of operation; recommended spare part lists, special tools and factory contact procedures, laminated component drawing and wiring schematic.

END OF APPENDIX A

**AIRCRAFT PRECONDITIONED AIR SYSTEM
APPENDIX B
SUBMITTAL REQUIREMENTS**

A. Potential Aircraft at Gates 62 & 63

Aircraft List		
Code C	Code D	Code E
A318/A319/A320w/A321	A310-300	A330-200
A320W/Neo	B757-200/300	A330-300
B737-700W	B767-300/400	A340-200
B737-800W	B787-800/900	A340-300
B737-900W	E190	A340-500
B737-700		A340-600
E175		A350-1000
		A350-900
		B747-400
		B747-8/9
		B777-200/300
		B777-200ER
		B777-300ER

END OF APPENDIX B

17/17

GROUND POWER UNIT SPECIFICATIONS

PART 1 - GENERAL

1.01 SCOPE

- A. This Specification describes the requirements for a Dual Output, 12 pulse, Solid State Frequency Converter type Ground Power Unit (GPU) designed to be capable of powering commercial and military aircraft type loads with a power quality of MIL-STD-704E at 400 Hertz, 115/200 volts AC, 3-Phase, 4 Wire from a 480 volt, 3 -Phase power supply.
- B. Units shall be appropriately rated for servicing Boeing 787-8 Dreamliners and all aircraft included in Appendix A. One (GPU) will be installed on the passenger boarding bridges at each of Gates 62 and 63 at Newark Liberty International Airport (EWR).
- C. All equipment shall be designed for installation on a FMC/Jetway Model A3 58/110 passenger boarding bridge. Each boarding bridge currently has a 90 KVA GPU which will remain. The GPU from this purchase will supplement the existing GPU.
- D. When submitting quotation, identify any deviations from the physical characteristics specified herein as it may impact the structural support design assumptions.

1.02 GENERAL

- A. Applicable Publications - The publications listed below form a part of this specification to the extent referenced herein. The publications are referred to in the text by the basic designation only.

- 1. Military Standards:

MIL-STD-704F (2004) Aircraft Electrical Power Characteristics.

MIL-STD-461B (1980) Electromagnetic Interference Characteristics Requirements for Equipment.

MIL-STD-16878D General Specifications for Insulated Electrical Wire.

MIL-W-586-IB Wire, Electrical, Polyvinyl Chloride Insulated, Copper or Alloy Copper.

MIL-I-8500 Interchangeability and Replaceability of Component Parts for

Aircraft and Missiles.

2. Other Publications:

NFPA 70 National Electrical Code (NEC)

Institute of Electrical and Electronic Engineers (IEEE)

DFS-400 (EURO-STANDARD 400 Hertz)

ASTM A123

Canadian Standards Association (CSA)

AEEC, Project 609 (ARINC) [future]

ICS 6-78 (NEMA) Enclosures for Industrial Control Devices and Systems

ST 20 (NEMA) Dry Type Transformers for General Applications

NBFI-70 National Electrical Code

ICS-1 General Standards for Industrial Control and Systems

C84.1-1977 (ANSI) Voltage Ratings for Electrical Power Systems and Equipment

38-1975 IEC Standard Voltages (AM I-1977)

ATA-101 Rev. 4 Ground Equipment Technical Data

SB209

AMS 4015

ASMB 209

IEC 204-1 Electrical Equipment of Industrial Machines

B. Requirements - Provide a GPU with accessories, auxiliary equipment, and associated work as specified. The GPU shall be a standard product of the manufacturer and shall be the manufacturer's latest design that complies with the specifications herein.

1. Materials - Shall be new, unused and suitable for the purpose intended.

2. Basic Assembly Design - The GPU shall be designed as a modular assembly

containing a solid state, 12-pulse, 400-Hertz frequency converter and accessories needed to form an operating power supply

3. Provisions shall be included for lifting and moving the unit by means of a forklift.
4. Environmental Conditions - The GPU shall be capable of withstanding or operating satisfactorily when exposed to the following conditions:
 - a. Ambient temperatures ranging from -40 degrees C to 52 degrees C when operating.
 - b. Relative humidity of 10% to 95% non-condensing
 - c. Altitude - Operation at altitudes up to 6,600 feet above sea level without de-rating.
 - d. Wind - Up to 80 mph steady; with gusts to 125 mph.
5. Life Expectancy - The GPU shall have minimum life expectancy of 20-30 years and a mean time between failures of 24,000 hours, while operating within the Specifications herein at loads to, and including rated load. The unit shall be capable of operating within Specifications after storage of up to seven years when properly preserved, packaged and protected.
6. Audible Noise Level - The GPU noise level shall not exceed 65 dBA at a distance of 4.5 feet height and 3 feet from the unit.
7. The GPU shall meet radiated and conductor limits of Radio Suppression Specification MIL-STD-461.
8. Wiring - Control panel wiring shall be extra flexible, standard-type conforming to MIL-W-16878D, MIL-W-5086 or equivalent. Wiring shall have ample service loops, formed into neat appearance, and laced tightly. Each wire shall be identified using bold faced stamped wire with numbers in accordance with the wiring diagram of the unit. Wiring bundles shall be adequately supported and installed in the control cabinet in a neat workmanlike manner. All wiring shall be point to point meaning that every wire starts at one place and ends at another place without any tapping off of that wire to a different destination.
9. Terminals - Wiring terminals shall be designed to result in a permanent, secure bond between the wire and terminal. Circuits, which continue to field-wired components, shall terminate at suitably identified, easily accessible, terminal boards.

10. ELECTRICAL CHARACTERISTICS

Input Ratings

- a. Voltage - 480 volts AC nominal (-15% +15%)
- b. Phases- three
- c. Frequency - 60 Hertz, $\pm 10\%$
- d. Full load current - 200 Amps
- e. At full load, input current harmonics shall not exceed 10%.

Output Ratings

- a. Power rating - 180 KVA
- b. Voltage - 115/200 volts AC
- c. Phases - three
- d. Frequency - 400 Hertz, ± 0.4 Hertz
- e. Power factor - .8 lagging at full load
- f. Full load current - 520 Amps
- g. The unit will be equipped with two (2) output contactors each rated at 90 KVA, however the total output of the GPU shall not exceed the unit full load rating. Each output will be protected as shown in paragraph 2.03. Two (2) Cable Hoists shall be provided, one for each of the dual cable outputs.

1.03 SUBMITTALS

At time of Bid

- A. (4 sets) Submit manufacturer's data on GPU and components that confirms all specifications are met or exceeded. If sales literature or standard spec sheets do not address all the specifications, provide detailed manufacturer's data that does address the specifications. Include manufacturer's product warranty for replacement of materials and equipment used in GPU.

Two calendar weeks after receiving Purchase order

- B. (6 sets) Shop Drawings: Within two calendar weeks after receiving Purchase Order, submit for Authority's approval, dimensioned drawings of GPU and accessories including, but not limited to output contactors, circuit boards, and their spatial relationship to associated equipment, and connections to remote equipment. Submit schematic and wiring diagrams, material list, foundation requirements, anchor bolt locations, loading and control panel layout drawings.
- C. (6 sets) Submit a proposed shop testing and field testing plan for Authority's approval. The plan shall include methods and provisions for validating the functionality of complete system, special control sequences and routines and the proper operation for sensors, operators and control panels.

Two weeks before Shipment of Units

- D. (4 sets) Certified Test Reports: Submit for Authority's review, certified test reports of inspection, tests showing that the equipment meets power, voltage, frequency and specified rating requirements.
- E. (4 sets) Operation, Installation, and Maintenance Manuals: Submit for Authority's approval, operation, installation and maintenance manuals including recommended routine service and maintenance check-list and record form.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. **Hobart / Trilectron** - 180 KVA Hobart ADV
Address: 11001 US Highway 41 N, Palmetto, FL 34221. Ph: (941) 721-1000.
- B. **Jetway Systems / JBT AeroTech** – 180KVA Jet power III
Address: 1805 West 2550 South, Ogden, UT 84401. Ph: (800) 827-7707.
- C. **MCM Engineering, Inc** – 180KVA GPU
Address: 845 Hinckley Road, Burlingame, CA 94010. Ph: (650) 259-9100.

2.02 CHARACTERISTICS

- A. The GPU shall operate and provide electrical power in accordance with the requirements specified herein when supplied with adequate and suitable power as specified herein.

B. Input Voltage and Frequency:

1. The GPU shall function properly when supplied from an AC source at -15% and +15% of nominal voltage rating.
2. On starting the GPU, the input starting inrush shall not exceed 100% of that input current required when unit is operating at rated load output.
3. With the GPU supplying loads from 10% to rated load, the input line current shall be balanced to the extent that the current in the line shall not differ by more than 5% from the arithmetic average current in the three input lines. This requirement shall apply when the input voltage unbalance is not greater than 3%.

C. Output Voltage and Frequency:

1. The output voltage of the GPU shall be 115/200 volts AC at 400 Hertz.
2. With GPU operating at a constant load, a change in ambient temperature up to 52 degrees C in an eight hour period or as the GPU stabilizes from cold condition at the load shall not cause the voltage to change by more than 1% of its rated values.
3. With GPU operating at a constant load, a change in ambient temperature up to 52 degrees C in an eight hour period, or as the GPU stabilizes from cold condition at the load shall not cause the frequency to change by more than 0.05% of its rated frequency.
4. The frequency shall be 400 Hertz \pm 0.4 Hertz at every load condition.
5. There shall be no evident discontinuities, spikes or notches in the waveform when viewed on a high frequency oscilloscope having DC-15M Hertz bandwidth and a 25 nanosecond rest time. A discontinuity is defined as step in the waveform that exhibits a rise time of less than one-fourth the width of the succeeding step in the output waveform. A spike or notch is defined as an over-shoot or under-shoot observed during a step change that falls outside the bank defined by the final amplitudes of the previous succeeding step. This requirement is based on using linear (non-saturating) reactors to obtain the lagging power factor load component.
6. Load conditions from no load to and including rated load, the total harmonic distortion of the output voltage waveform shall not exceed 3% when measured line-to-line and line-to-neutral. Single harmonic shall not exceed 2.0% of the fundamental at steady state voltage and not otherwise exceed the distortion spectrum limits of MIL-STD-704.

7. The DC voltage component as measured at the output terminals shall not exceed 100 millivolts from no load to and including rated load.
8. When reviewed on an oscilloscope, the output voltage envelope of line-to-line or line-to-neutral voltages for loads to and including rated load on the GPU shall not show a difference in voltage amplitude for adjacent peaks of more than 0.25% of rated voltage (RMS). This applies to both the upper and lower halves of the envelope.
9. Frequency modulation shall not exceed 0.25% under load conditions.
10. For 3 phase voltage connection, the displacement angle between adjacent output phases shall be 120 ± 1.5 degrees under operating conditions.
11. The overall efficiency shall be not less than 93% at loads and power factors above 50% of rated. "No load" losses shall not exceed 4% of unit rating.
12. When the GPU is initially operating at rated input frequency and rated voltage, and following sudden change in load of up to 100% of rated load, the transient output voltage shall not deviate beyond the limits of Figure 5 of MIL-STD-704. Output voltage shall recover and stay within the regulation band within 50 milliseconds.
13. The GPU output voltage shall be capable of being adjusted over a minimum range of plus or minus 15 percent from rated voltage.
14. With a 10% unbalanced load the maximum output voltage deviation of any of the three output phases will not exceed 3% from the average of the three phase voltages or in accordance with the limits of Figure 1 of MIL-STD-704, whichever is greater.
15. Under balanced load conditions up to and including 100% load, the maximum output voltage deviation of any of the three output phases will not exceed 1% from the average of the three output phase voltages.
16. The voltage regulation from no load to rated load and from rated load to no load shall not be more than 1.0 percent of rated voltage. This regulation shall be maintained with input line voltage variations of plus or minus 10 percent.
17. The crest factor shall be 1.414, ± 0.07 .
18. The GPU shall have an adjustable line drop compensation feature. It shall be adjustable to 8 % boost.

19. The GPU shall have a 28 VDC interlock circuit operating from the E & F pins in the aircraft connector. Provide a manual toggle switch to defeat this circuit. This toggle switch shall be used for testing only.
20. The frequency converter shall be designed with an energy management system that will provide continuous, trip free operation of aircraft designed for No Break Power Transfer operations during ground servicing at the gate.
21. Upon a loss of input power for 25 milliseconds the output contactor shall stay closed if the input power is restored within specified limits during that 25 milliseconds.
22. The unit shall be equipped with a protective package that contains an over and under voltage circuit that will be set to comply with the requirements of MIL-STD-704E. When either of the relays operates it opens an output contactor which removes output power to the load.
23. The GPU unit will have twin output cables each providing 90KVA continuous. The units will be mounted to the roof of the C-tunnel, 2' behind the lift columns. The cables will hang from hoists mounted on the left side of the bridge cab
24. Unit's output voltage shall be 110-120 volts AC phase to ground voltage

2.03 OVERLOAD AND SHORT CIRCUIT

- A. The GPU shall be capable of supplying overloads of up to 125% of rated load for 10 minutes, 150% of rated load for 30 seconds, 200% of rated load for 10 seconds.
- B. The GPU shall be self-protecting for over currents up to and including 90% of component thermal capacities.
- C. The GPU shall be capable of withstanding without damage, a bolted line-to-ground fault, a bolted line-to-line fault, or a bolted phase-to-phase fault cleared by internal solid state circuitry.
- D. The GPU shall be designed to be self-protecting through solid state technology.

2.04 AC INPUT PROTECTION DEVICES

- A. A circuit shall detect the loss of a phase and prevent unit from starting.
 - B. Control circuit transformers with a fused primary shall be provided for operation
- GPU-Page-8

of control and indicating devices.

- C. Fuses shall be suitably marked as to circuit designation.
- D. The GPU shall have an internally mounted circuit breaker connected to the input power lines to allow the input power to be removed in the case of a fault or for maintenance.

2.05 SYSTEM MONITORING/BUILT-IN TEST EQUIPMENT

A. Lights: There shall be a minimum of three (3) lights mounted on the front of the unit.

- 1. One Red light: indicate the presence of a fault
- 2. Green light: indicate unit is functioning and power is available
- 3. Amber light: indicate output contactor on.

B. Each module shall have an alphanumeric display and RS-232 output with the ability to be read on a PC to be used in gathering data from the unit or trouble shooting. The RS-232 output and alphanumeric displays shall provide the following information as a minimum:

- 1. Internal and External parameters
 - a. Input voltage (three phases, A-B, B-C, C-A)
 - b. DC Bus Voltage
 - c. Output Voltage (L-N, three phases)
 - d. Output Current
 - e. Output Power (KW)
 - f. Power Factor
 - g. Output Frequency
 - h. Run Time
- 2. GPU Settings
- 3. GPU Memory Data
- 4. Setup Values

C. Metering: A digital panel meter shall be provided on the front of the unit to indicate output voltage and output current. The following information shall be available on the front panel:

- 1. Phase "A" Output Voltage
- 2. Phase "B" Output Voltage
- 3. Phase "C" Output Voltage
- 4. Average Output Voltage
- 5. Phase "A" Output Current

6. Phase "B" Output Current
7. Phase "C" Output Current
8. Average Output Current

D. Other means of monitoring and troubleshooting will be acceptable if, after submittal review, they are deemed to identify, at a minimum, the points shown in 2.06, A through C.

2.06 DIAGNOSTICS

A. The unit shall perform a self-diagnostic test each time the unit is started.

B. The unit shall indicate fault areas via lights on PC boards, coded readout information or digital readout displayed on the front control panel.

2.07 MEMORY STORAGE

A. The unit shall be capable of recording the last 200 power deliveries to an aircraft and retain the memory for a least 2 years during the absence of external power.

B. These memory records must be capable of being downloaded via a RS232 connection.

2.08 PHYSICAL CHARACTERISTICS

A. The weight of the GPU shall not exceed 2,500 pounds.

B. The GPU maximum dimensions shall be 65" long x 53" wide x 30" high excluding accessories.

C. The enclosure panels shall be aluminum over a steel frame and rated as NEMA 3R.

D. Major components and subassemblies shall be marked or labeled with an identification number or letter code, or both, on or near the device. The code shall be readily visible when examining the GPU.

2.09 FINISHES

A. Case components shall be painted and suitable protected from oxidation and corrosion.

B. External surfaces shall be painted to customer specified color, upon request.

2.10 MAINTAINABILITY

- A.** The Mean-time-to-repair for the GPU shall be no greater than 30 minutes at the module level.
- B.** Replaceable module accessibility shall be consistent with mean-time-to-repair.
- C.** The GPU shall incorporate built-in-test equipment capable of permitting detection of no less than 98% of the faults. No less than 100% of faults shall be detected by augmenting built-in-test-equipment with the use of off line checkout routines.

2.11 FAULT ISOLATION

- A.** The GPU shall be designed such that an operator can report a single occurring fault.
- B.** The GPU shall be designed such that a technician shall be capable of isolating 98% of single occurring faults.
- C.** No less than 100% of faults shall be detected and localized by augmenting diagnostic routines with the use of portable type test equipment.

2.12 REPAIR

- A.** The GPU design shall be such that no less than 99% of faults are correctable at the user level using recommended spare parts.
- B.** The GPU design shall be such that no less than 100 % of faults are correctable using avionic support resources.

2.13 ENVIRONMENTAL CONDITIONS

- A.** The GPU shall be capable of being operated from -40°C to 52°C, when operating.
- B.** The GPU shall be cable of operating during and after illumination by air electromagnetic radiation.
- C.** The GPU shall be transportable by air, rail, road, ship and helicopter to the point of installation and use.
- D.** A suitable mounting support shall be provided for attaching to the roof of the C-tunnel.

- E. The unpackaged GPU shall withstand, without damage, and remain operable, the rail impact as specified in MIL-STD-705, Method 740-56.

2.14 CONSTRUCTION

- A. The converter and inverter sections of the GPU shall be grouped for easy inspection or replacement. Each individual module shall be arranged for removal without disassembly of the GPU.

2.15 COOLING

- A. The phase modules shall be cooled by a long life fan and the air flow shall be separated from the internal electronic components to provide a separate physically sealed, environmentally clean electronic subsection.

2.16 MATERIALS AND PROCESSES

- A. Materials and processes required shall be readily commercially available.
- B. Flammable and fungus nutrient materials shall not be used.

2.17 TEST POINTS

- A. Test points shall be built into the equipment to permit rapid isolation of defective assemblies, modules, price parts and facilitate alignment, calibration and test.

2.18 CABINET

- A. The components and sub-assemblies shall be mounted in an cabinet enclosure suitable for the intended environmental conditions.
- B. Access doors and cover shall be provided for easy access to component parts.
- C. The control panel shall be mounted within the enclosure with provisions included for attaching remote controls.

2.19 FACTORY TESTS

The Manufacturer shall test every GPU to assure compliance with the Specifications. The Authority shall be notified 2 weeks days prior to the date of

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such tests. The Authority reserves the right to witness tests and request additional tests that show compliance with the Specifications. Tests shall include, but not be limited to, the following:

A. Operational Checkout:

1. GPU shall undergo a high potential test on the input of the unit, as per manufacturer's recommendation, to detect wiring errors. Additional checks shall include over-temperature alarm, under-voltage alarm, hour meter, and fans.

B. No Load Losses:

1. Operate at no load and nominal input voltage. Measure and record input voltage, output voltage, and output frequency.

C. Load Test:

1. Operate GPU at 0%, 50%, and 100% loads. Measure and record output voltage, THD, and DC bus voltage.

D. Burn-In:

1. Before delivery, operate each GPU for a minimum of 8 hours.

E. Additional Tests:

1. Voltage balance (output)
2. Voltage balance (input)
3. Transient voltage dip and response at 0.8 pf (output)
4. Frequency regulation (output)
5. Overload
6. Each safety operating device
7. Line drop compensation circuit
8. Input current harmonics

2.20 CONTROLS AND SPECIAL FEATURES

A. Automatic Reset:

1. The reset function shall be accomplished by operation of the "power off" pushbutton.

B. Remote Monitoring:

1. Each GPU shall provide a set of normally open contacts to provide ON/OFF status on the GPU.
2. Each GPU shall provide a set of normally closed contacts to provide alarm status of the GPU.

2.21 WARRANTY

- A.** The manufacturer shall guarantee that its products will meet all applicable specifications and other specific product and work requirements including those of performance of this agreement and will be free from defects in material and workmanship. Warranty period shall be for one (1) year from acceptance by the Authority.

2.22 CABINET MOUNTING

- A.** The cabinet shall be mounted in such a manner that no damage shall occur during transportation.
- B.** The front and rear door of GPU shall be lockable to prevent unauthorized access into the unit. There shall be two lockable latches on each door, on either side of the door.
- C.** Attached to the interior of the GPU's front and rear doors shall be a laminated component drawing with a list of components identified with a description and manufacture's part number. Also attached shall be a wiring schematic showing the exact wiring of the GPU's front and rear compartment sections.
- D.** If the GPU's front and / or rear doors are equipped with electrical controls or components, the doors shall be equipped with grounding straps.
- E.** Grounding straps used on the GPU shall be braided. Wire type straps shall not be allowed.
- F.** The GPU shall be equipped with a desiccant filter or other means of removing moisture from the sections of the GPU containing the circuit boards.

2.23 ELECTROMAGNETIC COMPATIBILITY

A. Grounding:

1. AC source power will be grounded at the source only, provide necessary provisions accordingly.
2. AC output power will be grounded to the system., provide necessary provisions accordingly.

B. Bonding:

1. The chassis or enclosure shall be continuous welded for maximum shielding.

PART 3 TESTING, TRAINING AND MANUALS

3.01 SYSTEM TESTING / COMMISSIONING

- A. Factory Tests:** Each functional assembly shall be inspected and tested at the factory prior to shipment. The Authority or representative shall have the right to witness these tests, for which purpose a 5-day notification shall be given prior to performance. Complete test reports shall be submitted within 2 weeks of factory test.
- B. In-Process Field Testing and Inspection:** All installed equipment shall be inspected, all wiring checked for proper continuity in accordance with the applicable specs and standards.
- C. Site Acceptance Tests:** Acceptance criteria for system rating will be based on factory testing with on-site verification of key performance parameters as mutually agreed to by the Supplier and Authority prior to the performance of the acceptance tests.
- D. Tests shall comprise those in the approved site acceptance test procedure. Complete test reports shall be submitted within 10 working days of completion of the actual tests.**

3.02 OPERATION AND MAINTENANCE MANUALS

- A. Provide 4 sets of the comprehensive Operation and Maintenance Manuals to the Authority fourteen (14) days prior Shipment date.**
- B. The Manuals shall fully describe each product, system, or subsystem numbered logically and separated into sections and contained in rigid plastic binders with identification inserted in clear plastic insert pockets on front and spine portions of each binder.**
- C. The content of the Manuals shall be limited to information and data that specifically applied to products provided and shall include routine normal and**

special operating instructions and sequences. Also included shall be routine maintenance procedures and guides for troubleshooting, disassembly and reassembly instructions, and checking instructions along with a recommended spare parts list consisting of current prices and sources.

- D. Wiring diagrams and schematics shall be incorporated into the manuals to clearly show features such as controls, switches, instruments and indicators by name and location.

3.03 TRAINING

- A. Provide a complete training program for the Authority's operating, engineering, and maintenance personnel. Training shall include both classroom and hands-on instruction and be of sufficient duration to adequately train personnel to perform on-site routine, preventative, and remedial maintenance of the equipment, product or system. This training will consist of two (2) eight hour classes.
- B. The training format shall be submitted to the Authority for approval sixty (60) days prior to anticipated training date. Submittal shall include, but not be limited to, training outline and Manual, Instructor name and history of previous training for specific product, training aides and duration of program.
- C. The Authority reserves the right to require the Supplier to provide, at no expense to the Authority, additional training in the event the Authority is of the opinion that the proposed training format is not satisfactory.
- D. Training shall be conducted prior to final acceptance of respective equipment, products, and systems by the Authority and shall be given on the EWR Airport property at the direction of the Authority.
- E. The Authority reserves the right to replace, at no expense to the Authority, an instructor who, in the opinion of the Authority, is not performing at a satisfactory level.

Appendix A

There is an existing 90 KVA GPU on the passenger boarding bridge

Potential Aircraft at the Gate	
A310-300	B737-700W
A318/A319/A320w/A321	B737-800W/900W
A320W/Neo	B747-400
A321	B747-8/9
A330-200	B757-200/300
A330-300	B767-300/400
A340-200	B777-200/300
A340-300	B777-200ER
A340-500	B777-300ER
A340-600	B787-800/900
A350-1000	E175
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B737-700	

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STANDARD CONTRACT TERMS AND CONDITIONS

PART I GENERAL DEFINITIONS

To avoid undue repetition, the following terms, as used in this Agreement, shall be construed as follows:

Authority or Port Authority - shall mean the Port Authority of New York and New Jersey.

Contract, Document or Agreement - shall mean the writings setting forth the scope, terms, conditions and Specifications for the procurement of Goods and/or Services, as defined hereunder and shall include, but not be limited to: Invitation for Bid (IFB), Request for Quotation (RFQ), Request for Proposal (RFP), Purchase Order (PO), Cover Sheet, executed Signature Sheet, AND PRICING SHEETS with Contract prices inserted," "STANDARD CONTRACT TERMS AND CONDITIONS," and, if included, attachments, endorsements, schedules, exhibits, or drawings, the Authority's acceptance and any written addenda issued over the name of the Authority's Manager, Purchasing Services Division.

Days or Calendar Days - shall mean consecutive calendar days, Saturdays, Sundays, and holidays, included.

Week - unless otherwise specified, shall mean seven (7) consecutive calendar days, Saturdays, Sundays, and holidays.

Month - unless otherwise specified, shall mean a calendar month.

Director - shall mean the Director of the Department which operates the facility of the Port Authority at which the services hereunder are to be performed, for the time being, or his/her successor in duties for the purpose of this Contract, acting personally or through one of his/her authorized representatives for the purpose of this Contract.

Manager - shall mean the Manager of the Facility for the time being or his successor in duties for the purpose of this Contract, acting personally or through his duly authorized representative for the purpose of this Contract.

No person shall be deemed a representative of the Director or Manager except to the extent specifically authorized in an express written notice to the Contractor signed by the Director or Manager, as the case may be. Further, no person shall be deemed a successor in duties of the Director unless the Contractor is so notified in writing signed by the Authority's Manager, Purchasing Services Division. No person shall be deemed a successor in duties of the Manager unless the Contractor is so notified in a writing signed by the Director.

Minority Business Enterprise (MBE) - shall mean a business entity which is at least 51% owned and controlled by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more minority groups, and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens.

"Minority Group" means any of the following racial or ethnic groups:

- (a) Black persons having origins in any of the Black African racial groups not of Hispanic origin;
- (b) Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American culture or origin, regardless of race;
- (c) Asian and Pacific Islander persons having origins in any of the original peoples of the Far East,

Southeast Asia, The Indian Subcontinent, or the Pacific Islands;

- (d) Native American or Alaskan native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

Site of the Work - or words of similar import shall mean the Facility and all buildings and properties associated therewith as described in this Contract.

Small Business Enterprise (SBE) - The criteria for a Small Business Enterprise are:

- o The principal place of business must be located in New York or New Jersey;
- o The firm must have been in business for at least three years with activity;
- o Average gross income limitations by industry as established by the Port Authority.

Subcontractor - shall mean anyone who performs work (other than or in addition to the furnishing of materials, plant or equipment) in connection with the services to be provided hereunder, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any person who furnished merely his own personal labor or his own personal services. "Subcontractor", however, shall exclude the Contractor or any subsidiary or parent of the Contractor or any person, firm or corporation which has a substantial interest in the Contractor or in which the Contractor or the parent or the subsidiary of the Contractor, or an officer or principal of the Contractor or of the parent of the subsidiary of the Contractor has a substantial interest, provided, however, that for the purpose of the clause hereof entitled "Assignments and Subcontracts" the exclusion in this paragraph shall not apply to anyone but the Contractor itself.

Women-Owned Business Enterprise (WBE) - shall mean a business enterprise which is at least 51% owned by one or more women, or, in the case of a publicly held corporation, at least 51% of the stock of which is owned by one or more women and whose management and daily business operations are controlled by one or more women who are citizens or permanent or resident aliens.

Work - shall mean all services, equipment and materials (including materials and equipment, if any, furnished by the Authority) and other facilities and all other things necessary or proper for, or incidental to the services to be performed or goods to be furnished in connection with the service to be provided hereunder.

PART II GENERAL PROVISIONS

1. Facility Rules and Regulations of The Port Authority

- a. The Contractor shall observe and obey (and compel its officers, employees, guests, invitees, and those doing business with it, to observe and obey) the facility Rules and Regulations of the Port Authority now in effect, and such further reasonable Rules and Regulations which may from time to time during the term of this Agreement be promulgated by the Port Authority for reasons of safety, health, preservation of property or maintenance of a good and orderly appearance and efficient operation of the Facility. The Port Authority agrees that, except in case of emergency, it shall give notice to the Contractor of every Rule and Regulation hereafter adopted by it at least five days before the Contractor shall be required to comply therewith.
- b. A copy of the facility Rules and Regulations of the Port Authority shall be available for review by the Contractor at the Office of the Secretary of the Port Authority.

2. Contractor Not An Agent

This Agreement does not constitute the Contractor the agent or representative of the Port Authority for any purpose whatsoever except as may be specifically provided in this Agreement. It is hereby specifically acknowledged and understood that the Contractor, in performing its services hereunder, is and shall be at all times an independent Contractor and the officers, agents and employees of the Contractor shall not be or be deemed to be agents, servants or employees of the Port Authority.

3. Contractor's Warranties

The Contractor represents and warrants:

- a. That it is financially solvent, that it is experienced in and competent to perform the requirements of this Contract, that the facts stated or shown in any papers submitted or referred to in connection with the solicitation are true, and, if the Contractor be a corporation, that it is authorized to perform this Contract;
- b. That it has carefully examined and analyzed the provisions and requirements of this Contract, and that from its own investigations it has satisfied itself as to the nature of all things needed for the performance of this Contract, the general and local conditions and all other matters which in any way affect this Contract or its performance, and that the time available to it for such examination, analysis, inspection and investigation was adequate;
- c. That the Contract is feasible of performance in accordance with all its provisions and requirements and that it can and will perform it in strict accordance with such provisions and requirements;
- d. That no Commissioner, officer, agent or employee of the Port Authority is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder;
- e. That, except only for those representations, statements or promises expressly contained in this Contract, no representation, statement or promise, oral or in writing, of any kind whatsoever by the Port Authority, its Commissioners, officers, agents, employees or consultants has induced the Contractor to enter into this Contract or has been relied upon by the Contractor, including any with reference to: (1) the meaning, correctness, suitability, or completeness of any provisions or requirements of this Contract; (2) the nature, quantity, quality or size of the materials, equipment, labor and other facilities needed for the performance of this Contract; (3) the general or local conditions which may in any way affect this Contract or its performance; (4) the price of the Contract; or (5) any other matters, whether similar to or different from those referred to in (1) through (4) immediately above, affecting or having any connection with this Contract, the bidding thereon, any discussions thereof, the performance thereof or those employed therein or connected or concerned therewith.

Moreover, the Contractor accepts the conditions at the Site of the Work as they may eventually be found to exist and warrants and represents that it can and will perform the Contract under such conditions and that all materials, equipment, labor and other facilities required because of any unforeseen conditions (physical or otherwise) shall be wholly at its own cost and expense, anything in this Contract to the contrary notwithstanding.

Nothing in the Specifications or any other part of the Contract is intended as or shall constitute a representation by the Port Authority as to the feasibility of performance of this Contract or any part thereof.

The Contractor further represents and warrants that it was given ample opportunity and time and by means of this paragraph was requested by the Port Authority to review thoroughly all documents forming this Contract prior to opening of Bids on this Contract in order that it might request inclusion in this Contract of any statement, representation, promise or provision which it desired or on which it wished to place reliance; that it did so review said documents, that either every such statement, representation, promise or provision has been included in this Contract or else, if omitted, that it expressly relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Contract without claiming reliance thereon or making any other claim on account of such omission.

The Contractor further recognizes that the provisions of this numbered clause (though not only such provisions) are essential to the Port Authority's consent to enter into this Contract and that without such provisions, the Authority would not have entered into this Contract.

4. Personal Non-Liability

Neither the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Contractor with any liability, or held personally liable to the Contractor under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach, thereof.

5. Equal Employment Opportunity, Affirmative Action, Non-Discrimination

- a. The Contractor is advised to ascertain and comply with all applicable federal, State and local statutes, ordinances, rules and regulations and, federal Executive Orders, pertaining to equal employment opportunity, affirmative action, and non-discrimination in employment.
- b. Without limiting the generality of any other term or provision of this Contract, in the event of the Contractor's non-compliance with the equal opportunity and non-discrimination clause of this Contract, or with any of such statutes, ordinances, rules, regulations or Orders, this Contract may be cancelled, terminated or suspended in whole or in part.

6. Rights and Remedies of the Port Authority

The Port Authority shall have the following rights in the event the Contractor is deemed guilty of a breach of any term whatsoever of this Contract:

- a. The right to take over and complete the Work or any part thereof as agent for and at the expense of the Contractor, either directly or through others.
- b. The right to cancel this Contract as to any or all of the Work yet to be performed.
- c. The right to specific performance, an injunction or any appropriate equitable remedy.
- d. The right to money damages.

For the purpose of this Contract, breach shall include but not be limited to the following, whether or not the time has yet arrived for performance of an obligation under this Contract: a statement by the Contractor to any representative of the Port Authority indicating that the Contractor cannot or will not perform any one or more of its obligations under this Contract; any act or omission of the Contractor or any other occurrence which makes it improbable at the time that it will be able to perform any one or more of its obligations under this Contract; any suspension of or failure to proceed with any part of the Work by the Contractor which makes it improbable at the time that it will be able to perform any one or more of its obligations under this Contract.

The enumeration in this numbered clause or elsewhere in this Contract of specific rights and remedies of the Port Authority shall not be deemed to limit any other rights or remedies which the Authority would have in the absence of such enumeration; and no exercise by the Authority of any right or remedy shall operate as a waiver of any other of its rights or remedies not inconsistent therewith or to estop it from exercising such other rights or remedies.

7. Rights and Remedies of the Contractor

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract which may be committed by the Port Authority, the Contractor expressly agrees that no default, act or omission of the Port Authority shall constitute a material breach of this Contract, entitling the Contractor to cancel or rescind this Contract or to suspend or abandon performance.

8. Submission To Jurisdiction

The Contractor hereby irrevocably submits itself to the jurisdiction of the Courts of the State of New York and New Jersey, in regard to any controversy arising out of, connected with, or in any way concerning this Contract.

The Contractor agrees that the service of process on the Contractor in relation to such jurisdiction may be made, at the option of the Port Authority, either by registered or certified mail addressed to it at the address of the Contractor indicated on the signature sheet, or by actual personal delivery to the Contractor, if the Contractor is an individual, to any partner if the Contractor be a partnership or to any officer, director or managing or general agent if the Contractor be a corporation.

Such service shall be deemed to be sufficient when jurisdiction would not lie because of the lack of basis to serve process in the manner otherwise provided by law. In any case, however, process may be served as stated above whether or not it might otherwise have been served in a different manner.

9. Harmony

- a. The Contractor shall not employ any persons or use any labor, or use or have any equipment, or permit any condition to exist which shall or may cause or be conducive to any labor complaints, troubles, disputes or controversies at the Facility which interfere or are likely to interfere with the operation of the Port Authority or with the operations of lessees, licensees or other users of the Facility or with the operations of the Contractor under this Contract.

The Contractor shall immediately give notice to the Port Authority (to be followed by written notices and reports) of any and all impending or existing labor complaints, troubles, disputes or controversies and the progress thereof. The Contractor shall use its best efforts to resolve any such complaint, trouble, dispute or controversy. If any type of strike, boycott, picketing, work stoppage, slowdown or other labor activity is directed against the Contractor at the Facility or against any operations of the Contractor under this Contract, whether or not caused by the employees of the Contractor, and if any of the foregoing, in the opinion of the Port Authority, results or is likely to result in any curtailment or diminution of the services to be performed hereunder or to interfere with or affect the operations of the Port Authority, or to interfere with or affect the operations of lessees, licensees, or other users of the Facility or in the event of any other cessation or stoppage of operations by the Contractor hereunder for any reason whatsoever, the Port Authority shall have the right at any time during the continuance thereof to suspend the operations of the Contractor under this Contract, and during the period of the suspension the Contractor shall not perform its services hereunder and the Port Authority shall have the right during said period to itself or by any third person or persons selected by it to perform said services of the Contractor using the equipment which is used by the Contractor in its operations hereunder as the Port Authority deems necessary and without cost to the Port Authority. During such time of suspension, the Contractor shall not be entitled to any compensation. Any flat fees, including management fees, shall be prorated. Prior to the exercise of such right by the Port Authority, it shall give the Contractor notice thereof, which notice may be oral. No exercise by the Port Authority of the rights granted to it in the above subparagraph shall be or be deemed to be a waiver of any rights of termination or revocation contained in this Contract or a waiver of any rights or remedies which may be available to the Port Authority under this Contract or otherwise.

- b. During the time that the Contractor is performing the Contract, other persons may be engaged in other operations on or about the worksite including Facility operations, pedestrian, bus and vehicular traffic and other Contractors performing at the worksite, all of which shall remain uninterrupted.

The Contractor shall so plan and conduct its operations as to work in harmony with others engaged at

the site and not to delay, endanger or interfere with the operation of others (whether or not specifically mentioned above), all to the best interests of the Port Authority and the public as may be directed by the Port Authority.

10. Claims of Third Persons

The Contractor undertakes to pay all claims lawfully made against it by subcontractors, suppliers and workers, and all claims lawfully made against it by other third persons arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay all such claims lawfully made against them.

11. No Third Party Rights

Nothing contained in this Contract is intended for the benefit of third persons, except to the extent that the Contract specifically provides otherwise by use of the words "benefit" or "direct right of action."

12. Provisions of Law Deemed Inserted

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

13. Costs Assumed By The Contractor

It is expressly understood and agreed that all costs of the Contractor of whatever kind or nature and whether imposed directly upon the Contractor under the terms and provisions hereof or in any other manner whatsoever because of the requirements of the operation of the service or otherwise under this Agreement shall be borne by the Contractor or without compensation or reimbursement from the Port Authority, except as specifically set forth in this Agreement. The entire and complete cost and expense of the Contractor's services and operations hereunder shall be borne solely by the Contractor and under no circumstances shall the Port Authority be liable to any third party (including the Contractor's employees) for any such costs and expenses incurred by the Contractor and under no circumstances shall the Port Authority be liable to the Contractor for the same, except as specifically set forth in this Section.

14. Default, Revocation or Suspension of Contract

a. If one or more of the following events shall occur:

1. If fire or other cause shall destroy all or a substantial part of the Facility.
2. If any governmental agency shall condemn or take a temporary or permanent interest in all or a substantial part of the Facility, or all of a part of the Port Authority's interest herein;

then upon the occurrence of such event or at any time thereafter during the continuance thereof, the Port Authority shall have the right on twenty-four (24) hours written notice to the Contractor to revoke this Contract, such revocation to be effective upon the date and time specified in such notice.

In such event this Contract shall cease and expire on the effective date of revocation as if said date were the date of the expiration of this Contract. Such revocation shall not, however, relieve the Contractor of any liabilities or obligations hereunder which shall have accrued on or prior to the effective date of revocation.

b. If one or more of the following events shall occur:

1. The Contractor shall become insolvent, or shall take the benefit of any present or future insolvency statute, or shall make a general assignment for the benefit of creditors, or file a voluntary petition in bankruptcy or a petition or answer seeking an arrangement or its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any other law or statute of the United States or of any State thereof, or consent to the appointment of a receiver, trustee, or liquidator of all or substantially all its property; or
2. By order or decree of a court the Contractor shall be adjudged bankrupt or an order shall be made approving a petition filed by any of the creditors, or, if the Contractor is a corporation, by any of the stockholders of the Contractor, seeking its reorganization or the readjustment of its indebtedness under the federal bankruptcy laws or under any law or statute of the United States or of any State thereof; or
3. A petition under any part of the federal bankruptcy laws or an action under any present or future insolvency law or statute shall be filed against the Contractor and shall not be dismissed within thirty (30) days after the filing thereof; or
4. The interest of the Contractor under this Contract shall be transferred to, passed to or devolve upon, by operation of law or otherwise, any other person, firm or corporation, or
5. The Contractor, if a corporation, shall, without the prior written approval of the Port Authority, become a surviving or merged corporation in a merger, a constituent corporation in a consolidation, or a corporation in dissolution; or
6. If the Contractor is a partnership, and the said partnership shall be dissolved as the result of any act or omission of its copartners or any of them, or by operation of law or the order or decree of any court having jurisdiction, or for any other reason whatsoever; or
7. By or pursuant to, or under authority of any legislative act, resolution or rule, or any order or decree of any court or governmental board, agency or officer having jurisdiction, a receiver, trustee, or liquidator shall take possession or control of all or substantially all of the property of the Contractor and such possession or control of all or substantially all of the property of the Contractor and shall continue in effect for a period of fifteen (15) days;

then upon the occurrence of any such event or at any time thereafter during the continuance thereof, the Port Authority shall have the right upon five (5) days notice to the Contractor to terminate this Contract and the rights of the Contractor hereunder; termination to be effective upon the date and time specified in such notice as if said date were the date of the expiration of this Contract. Termination shall not relieve the Contractor of any liabilities or obligations hereunder which have accrued on or prior to the effective date of termination.

c. If any of the following shall occur:

1. The Contractor shall cease, abandon any part of the service, desert, stop or discontinue its services in the premises for any reason whatsoever and regardless of the fault of the Contractor; or
2. The Contractor shall fail to keep, perform and observe each and every other promise, covenant and agreement set forth in this Contract on its part to be kept, performed or observed, within five (5) days after receipt of notice of default thereunder from the Port Authority (except where fulfillment of its obligations requires activity over a greater period of time, and the Contractor shall have commenced to perform whatever may be required for fulfillment within five (5) days after receipt of notice and continues such performance without interruption except for causes beyond its control);

then upon the occurrence of any such event or during the continuance thereof, the Port Authority shall have the right on twenty four (24) hours notice to the Contractor to terminate this Contract and

the rights of the Contractor hereunder, termination to be effective upon the date and time specified in such notice. Termination shall not relieve the Contractor of any liabilities which shall have accrued on or prior to the effective date of termination.

- d. If any of the events enumerated in this Section shall occur prior to commencement date of this Contract the Port Authority upon the occurrence of any such event or any time thereafter during the continuance thereof by twenty-four (24) hours notice may terminate or suspend this Contract and the rights of the Contractor hereunder, such termination or suspension to be effective upon the date specified in such notice.
- e. No payment by the Port Authority of any monies to the Contractor for any period or periods after default of any of the terms, covenants or conditions hereof to be performed, kept and observed by the Contractor and no act or thing done or omitted to be done by the Port Authority shall be deemed to be a waiver of the right of the Port Authority to terminate this Contract or of any other right or remedies to which the Port Authority may be entitled because of any breach thereof. No waiver by the Port Authority of any default on the part of the Contractor in the performance of any of the terms, covenants and conditions hereof to be performed, kept or observed by the Contractor shall be or be construed to be a waiver by the Port Authority of any other subsequent default in the performance of any of the said terms, covenants and conditions.
- f. In addition to all other rights of revocation or termination hereunder and notwithstanding any other provision of this Contract the Port Authority may terminate this Contract and the rights of the Contractor hereunder without cause at any time upon five (5) days written notice to the Contractor and in such event this Contract shall cease and expire on the date set forth in the notice of termination as fully and completely as though such dates were the original expiration date hereof and if such effective date of termination is other than the last day of the month, the amount of the compensation due to the Contractor from the Port Authority shall be prorated when applicable on a daily basis. Such cancellation shall be without prejudice to the rights and obligations of the parties arising out of portions already performed but no allowance shall be made for anticipated profits.
- g. Any right of termination contained in this paragraph, shall be in addition to and not in lieu of any and all rights and remedies that the Port Authority shall have at law or in equity consequent upon the Contractor's breach of this Contract and shall be without prejudice to any and all such other rights and remedies. It is hereby specifically agreed and understood that the exercise by the Port Authority of any right of termination set forth in this paragraph shall not be or be deemed to be an exercise by the Port Authority of an election of remedies so as to preclude the Port Authority from any right to money damages it may have for the period prior to the effective date of termination to the original expiration date of the Contract, and this provision shall be deemed to survive the termination of this Contract as aforesaid.
- h. If (1) the Contractor fails to perform any of its obligations under this Contract or any other agreement between the Port Authority and the Contractor (including its obligation to the Port Authority to pay any claim lawfully made against it by any supplier, subcontractor or worker or other person which arises out of or in connection with the performance of this Contract or any other agreement with the Port Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other agreement between the Port Authority and the Contractor is made against the Port Authority or (3) any subcontractor under this Contract or any other agreement between the Port Authority and the Contractor fails to pay any claims lawfully made against it by any supplier, subcontractor, worker or other third person which arises out of or in connection with this Contract or any other agreement between the Port Authority and the Contractor or if in the opinion of the Port Authority any of the aforesaid contingencies is likely to arise, then the Port Authority shall have the right, in its discretion, to withhold out of any payment (final or

otherwise) such sums as the Port Authority may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Port Authority may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Port Authority to withhold out of any payment, final or otherwise, a sum for any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the Port Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Port Authority to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by the Port Authority shall create any obligation of any kind to such supplier, subcontractors, worker or other third persons. If, however, the payment of any amount due the Contractor shall be improperly delayed, the Port Authority shall pay the Contractor interest thereon at the rate of 6% per annum for the period of the delay, it being agreed that such interest shall be in lieu of and in liquidation of any damages to the Contractor because of such delay.

- i. If the Port Authority has paid any sum or has incurred any obligation or expense which the Contractor has agreed to pay or reimburse the Port Authority, or if the Port Authority is required or elects to pay any sum or sums or incurs any obligations or expense by reason of the failure, neglect or refusal of the Contractor to perform or fulfill any one or more of the conditions, covenants, or agreements contained in this Contract, or as a result of an act of omission of the Contractor contrary to the said conditions, covenants and agreements, the Contractor shall pay to the Port Authority the sum or sums so paid or expense so incurred, including all interests, costs and damages, promptly upon the receipt of the Port Authority's statement therefore. The Port Authority may, however, in its discretion, elect to deduct said sum or sums from any payment payable by it to the Contractor.
- j. If the Port Authority pays any installment to the Contractor without reducing said installment as provided in this Contract, it may reduce any succeeding installment by the proper amount, or it may bill the Contractor for the amount by which the installment paid should have been reduced and the Contractor shall pay to the Port Authority any such amount promptly upon receipt of the Port Authority's statement therefore.
- k. The Port Authority shall also have the rights set forth above in the event the Contractor shall become insolvent or bankrupt or if his affairs are placed in the hands of a receiver, trustee or assignee for the benefit of creditors.

15. Sales or Compensating Use Taxes

Purchases of services and tangible personal property by the Port Authority in the States of New York and New Jersey are generally exempt from state and local sales and compensating use taxes, and from most federal excises (Taxes). Therefore, the Port Authority's purchase of the Contractor's services under this Contract is exempt from Taxes. Accordingly, the Contractor must not include Taxes in the price charged to the Port Authority for the Contractor's services under this Contract. The Contractor certifies that there are no such taxes included in the prices for this Contract. The Contractor shall retain a copy of this Contract to substantiate the exempt sale.

The compensation set forth in this Agreement is the complete compensation to the Contractor, and the Port Authority will not separately reimburse the Contractor for any taxes unless specifically set forth in this Agreement.

16. No Estoppel or Waiver

The Port Authority shall not be precluded or estopped by any payment, final or otherwise, issued or made under this Contract, from showing at any time the true amount and character of the services performed, or

from showing that any such payment is incorrect or was improperly issued or made; and the Port Authority shall not be precluded or estopped, notwithstanding any such payment, from recovering from the Contractor any damages which it may sustain by reason of any failure on its part to comply strictly with this Contract, and any moneys which may be paid to it or for its account in excess of those to which it is lawfully entitled.

No cancellation, rescission or annulment hereof, in whole or as to any part of the services to be provided hereunder, or because of any breach hereof, shall be deemed a waiver of any money damages to which the Port Authority may be entitled because of such breach. Moreover, no waiver by the Authority of any breach of this Contract shall be deemed to be a waiver of any other or any subsequent breach.

17. Records and Reports

The Contractor shall set up, keep and maintain (and shall cause its subcontractors to set up, keep and maintain) in accordance with generally accepted accounting practice during the term of this Agreement and any extensions thereof and for three years after the expiration, termination or revocation thereof, records, payroll records and books of account (including, but not limited to, records of original entry and daily forms, payroll runs, cancelled checks, time records, union agreements, contracts with health, pension and other third party benefit providers) recording all transactions of the Contractor (and its subcontractors), at, through or in any way connected with or related to the operations of the Contractor (and its subcontractors) hereunder, including but not limited to all matters relating to the charges payable to the Contractor hereunder, all wages and supplemental benefits paid or provided to or for its employees (and its subcontractors' employees) and such additional information as the Port Authority may from time to time and at any time require, and also including, if appropriate, recording the actual number of hours of service provided under the Contract, and keeping separate records thereof which records and books of account shall be kept at all times within the Port District. The Contractor shall permit (and cause its subcontractors to permit) in ordinary business hours during the term of this Agreement including any extensions thereof and for three years thereafter the examination and audit by the officers, employees and representatives of the Port Authority of such records and books of account and also any records and books of account of any company which is owned or controlled by the Contractor, or which owns or controls the Contractor if said company performs services similar to those performed by the Contractor anywhere in the Port District. However, if within the aforesaid three year period the Port Authority has notified the Contractor in writing of a pending claim by the Port Authority under or in connection with this Contract to which any of the aforesaid records and documents of the Contractor or of its subcontractors relate either directly or indirectly, then the period of such right of access shall be extended to the expiration of six years from the date of final payment with respect to the records and documents involved.

Upon request of the Port Authority, the Contractor shall furnish or provide access to the federal Form I-9 (Employment Eligibility Verification) for each individual performing work under this Contract. This includes citizens and noncitizens.

The Contractor (and its subcontractors) shall, at its own expense, install, maintain and use such equipment and devices for recording the labor hours of the service as shall be appropriate to its business and necessary or desirable to keep accurate records of the same and as the general manager or the Facility Manager may from time to time require, and the Contractor (and its subcontractors) shall at all reasonable times allow inspection by the agents and employees of the Port Authority of all such equipment or devices.

- a. The Contractor hereby further agrees to furnish to the Port Authority from time to time such written reports in connection with its operations hereunder as the Port Authority may deem necessary or desirable. The format of all forms, schedules and reports furnished by the Contractor to the Port Authority shall be subject to the continuing approval of the Port Authority.
- b. No provision in this Contract giving the Port Authority a right of access to records and documents is intended to impair or affect any right of access to records and documents which they would have in the absence of such provision. Additional record keeping may be required under other sections of this

Contract.

18. General Obligations

- a. Except where expressly required or permitted herein to be oral, all notices, requests, consents and approvals required to be given to or by either party shall be in writing and all such notices, requests, consents and approvals shall be personally delivered to the other party during regular business hours or forwarded to such party by United States certified mail, return receipt requested, addressed to the other party at its address hereinbefore or hereafter provided. Until further notice the Contractor hereby designates the address shown on the bottom of the Contractors Signature Sheet as their address to which such notices, requests, consents, or approvals may be forwarded. All notices, requests, consents, or approvals of the Contractor shall be forwarded to the Manager at the Facility.
- b. The Contractor shall comply with the provisions of all present and future federal, state and municipal laws, rules, regulations, requirements, ordinances, orders and directions which pertain to its operations under this Contract and which affect the Contract or the performance thereof and those engaged therein as if the said Contract were being performed for a private corporation, except where stricter requirements are contained in the Contract in which case the Contract shall control. The Contractor shall procure for itself all licenses, certificates, permits or other authorization from all governmental authorities, if any, having jurisdiction over the Contractor's operations hereunder which may be necessary for the Contractor's operations. The Contractor's obligation to comply with governmental requirements are not to be construed as a submission by the Port Authority to the application to itself of such requirements.
- c. The Contractor shall pay all taxes, license, certification, permit and examination fees and excises which may be assessed on its property or operations hereunder or income therefrom, and shall make all applications, reports and returns required in connection therewith.
- d. The Contractor shall, in conducting its operations hereunder, take all necessary precautions to protect the general environment and to prevent environmental pollution, contamination, damage to property and personal injury. In the event the Contractor encounters material reasonably believed to be asbestos, polychlorinated biphenyl (PCB) or any other hazardous material, in conducting its operations hereunder, the Contractor shall immediately stop Work in the area affected and report the condition in writing to the Manager. Work in the affected area shall not thereafter be resumed by the Contractor except upon the issuance of a written order to that effect from the Manager.
- e. The Contractor shall promptly observe, comply with and execute the provisions of any and all present and future rules and regulations, requirements, standard orders and directions of the American Insurance Association, the Insurance Services Office, National Fire Protection Association, and any other body or organization exercising similar functions which may pertain or apply to the Contractor's operations hereunder.

The Contractor shall not do or permit to be done any act which:

1. will invalidate or be in conflict with any fire insurance policies covering the Facility or any part thereof or upon the contents of any building thereon; or
2. will increase the rate of any fire insurance, extended coverage or rental insurance on the Facility or any part thereof or upon the contents of any building thereon; or
3. in the opinion of the Port Authority will constitute a hazardous condition, so as to increase the risk normally attendant upon the operations contemplated by this Contract; or
4. may cause or produce in the premises, or upon the Facility any unusual, noxious or objectionable smoke, gases, vapors, odors; or
5. may interfere with the effectiveness or accessibility of the drainage and sewerage system, fire protection system, sprinkler system, alarm system, fire hydrants and hoses, if any, installed or located or to be installed or located in or on the Facility; or
6. shall constitute a nuisance in or on the Facility or which may result in the creation,

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commission or maintenance of a nuisance in or on the Facility.

- f. If by reason of the Contractor's failure to comply with the provisions of this Section and provided the Port Authority has given the Contractor five (5) days written notice of its failure and the Contractor shall not have cured said failure within said five (5) days, any fire insurance, extended coverage or rental insurance rate on the Facility or any part thereof or upon the contents of any building thereon shall at any time be higher than it otherwise would be, then the Contractor shall on demand pay the Port Authority that part of all fire insurance, extended coverage or rental insurance premiums paid or payable by the Port Authority which shall have been charged because of such violations by the Contractor.
- g. The Contractor shall conduct its operations hereunder so as not to endanger, unreasonably interfere with, or delay the operations or activities of any tenants or occupants on the premises or the Facility and, moreover, shall use the same degree of care in performance on the premises as would be required by law of the Port Authority and shall conduct operations hereunder in a courteous, efficient and safe manner.
- h. The Contractor shall provide such equipment and medical facilities as may be necessary to supply first aid service in case of accidents to its personnel who may be injured in the furnishing of service hereunder. The Contractor shall maintain standing arrangements for the removal and hospital treatment of any of its personnel who may be injured.

19. Assignments and Subcontracting

- a. The Contractor shall not sell, transfer, mortgage, pledge, subcontract or assign this Contract or any part thereof or any of the rights granted hereunder or any moneys due or to become due to it hereunder or enter into any contract requiring or permitting the doing of anything hereunder by an independent Contractor, without the prior written approval of the Port Authority, and any such sale, transfer, mortgage, pledge, subcontract, assignment or contract without such prior written approval shall be void as to the Port Authority.
- b. All subcontractors who provide permanent personnel to the Contractor for work under this Contract shall be given written notice to comply with all requirements of the Contract. The Contractor shall be responsible and liable for the performance and acts of each subcontractor.
- c. All persons to whom the Contractor sublets services shall be deemed to be its agents and no subletting or approval thereof shall be deemed to release this Contractor from its obligations under this Contract or to impose any obligations on the Port Authority to such subcontractor or to give the subcontractor any rights against the Port Authority.

20. Indemnification and Risks Assumed By The Contractor

To the extent permitted by law, the Contractor shall indemnify and hold harmless the Port Authority, its Commissioners, officers, representatives and employees from and against all claims and demands, just or unjust, of third persons (including Contractor's employees, employees, officers, and agents of the Port Authority) arising out of or in any way connected or alleged to arise out of or alleged to be in any way connected with the Contract and all other services and activities of the Contractor under this Contract and for all expenses incurred by it and by them in the defense, settlement or satisfaction thereof, including without limitation thereto, claims and demands for death, for personal injury or for property damage, direct or consequential, whether they arise from the acts or omissions of the Contractor, the Port Authority, third persons (including Contractor's employees, employees, officers, and agents of the Port Authority), or from the acts of God or the public enemy, or otherwise, including claims and demands of any local jurisdiction against the Port Authority in connection with this Contract.

The Contractor assumes the following risks, whether such risks arise from acts or omissions (negligent or not) of the Contractor, the Port Authority or third persons (including Contractor's employees, employees, officers, and agents of the Port Authority) or from any other cause, excepting only risks occasioned solely by affirmative willful acts of the Port Authority done subsequent to the opening of proposals on this Contract,

and shall to the extent permitted by law indemnify the Port Authority for all loss or damage incurred in connection with such risks:

- a. The risk of any and all loss or damage to Port Authority property, equipment (including but not limited to automotive and/or mobile equipment), materials and possessions, on or off the premises, the loss or damage of which shall arise out of the Contractor's operations hereunder. The Contractor shall if so directed by the Port Authority, repair, replace or rebuild to the satisfaction of the Port Authority, any and all parts of the premises or the Facility which may be damaged or destroyed by the acts or omissions of the Contractor, its officers, agents, or employees and if the Contractor shall fail so to repair, replace, or rebuild with due diligence the Port Authority may, at its option, perform any of the foregoing work and the Contractor shall pay to the Port Authority the cost thereof.
- b. The risk of any and all loss or damage of the Contractor's property, equipment (including but not limited to automotive and/or mobile equipment) materials and possessions on the Facility.
- c. The risk of claim, whether made against the Contractor or the Port Authority, for any and all loss or damages occurring to any property, equipment (including but not limited to automotive and/or mobile equipment), materials and possessions of the Contractor's agents, employees, materialmen and others performing work hereunder.
- d. The risk of claims for injuries, damage or loss of any kind just or unjust of third persons arising or alleged to arise out of the performance of work hereunder, whether such claims are made against the Contractor or the Port Authority.

If so directed, the Contractor shall at its own expense defend any suit based upon any such claim or demand, even if such suit, claim or demand is groundless, false or fraudulent, and in handling such shall not, without obtaining express advance permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority or the provision of any statutes respecting suits against the Port Authority.

Neither the requirements of the Port Authority under this Contract, nor of the Port Authority of the methods of performance hereunder nor the failure of the Port Authority to call attention to improper or inadequate methods or to require a change in the method of performance hereunder nor the failure of the Port Authority to direct the Contractor to take any particular precaution or other action or to refrain from doing any particular thing shall relieve the Contractor of its liability for injuries to persons or damage to property or environmental impairment arising out of its operations.

21. Approval of Methods

Neither the approval of the Port Authority of the methods of furnishing services hereunder nor the failure of the Port Authority to call attention to improper or inadequate methods or to require a change in the method of furnishing services hereunder, nor the failure of the Port Authority to direct the Contractor to take any particular precautions or to refrain from doing any particular thing shall relieve the Contractor of its liability for injuries to persons or damage to property or environmental impairment arising out of its operations.

22. Safety and Cleanliness

- a. The Contractor shall, in the furnishing of services hereunder, exercise every precaution to prevent injury to person or damage to property or environmental impairment and avoid inconvenience to the occupants of or any visitors to the Facility. The Contractor shall, without limiting the generality hereof, place such personnel, erect such barricades and railings, give such warnings, display such lights, signals or signs, place such cones and exercise precautions as may be necessary, proper or desirable.

- b. The Contractor shall in case of unsafe floor conditions due to construction, wetness, spillage, sickness and all other types of hazardous conditions proceed to rope off the unsafe area and place appropriate warnings signs to prevent accidents from occurring. The Contractor shall clean said area to the satisfaction of the Manager.
- c. The Contractor shall at all times maintain in a clean and orderly condition and appearance any and all facilities provided by the Port Authority for the Contractor's operations, and all fixtures, sink closets, equipment, and other personal property of the Port Authority which are located in said facilities.

23. Accident Reports

The Contractor shall promptly report in writing to the Manager of the Facility and to the Deputy Chief, Litigation Management of the Port Authority all accidents whatsoever arising out of or in connection with its operations hereunder and which result in death or injury to persons or damage to property, setting forth such details thereof as the Port Authority may desire. In addition, if death or serious injury or serious damage is caused, such accidents shall be immediately reported by telephone to the aforesaid representatives of the Port Authority.

24. Trash Removal

The Contractor shall remove daily from the Facility by means provided by the Contractor all garbage, debris and other waste material (solid or liquid) arising out of or in connection with its operations hereunder, and any such garbage, debris and other waste material not immediately removed shall be temporarily stored in a clear and sanitary condition, approved by the Facility Manager and shall be kept covered except when filling or emptying them. The Contractor shall exercise care in removing such garbage, debris and other waste materials from the Facility. The manner of such storage and removal shall always be subject in all respects to the continual approval of the Port Authority. No equipment or facilities of the Port Authority shall be used in such removal unless with its prior consent in writing. No such garbage, debris or other waste materials shall be or be permitted to be thrown, discharged or disposed into or upon the waters at or bounding the Facility.

25. Lost and Found Property

The Contractor shall instruct its personnel that all items of personal property found by the Contractor's employees at the Site must be turned in to the Port Authority and a receipt will be issued therefor.

26. Property of the Contractor

- a. All property of the Contractor at the Site by virtue of this Contract shall be removed on or before the expiration or sooner termination or revocation of this Contract.
- b. If the Contractor shall fail to remove its property upon the expiration, termination or revocation of this Contract the Port Authority may, at its option, dispose of such property as waste or as agent for the Contractor and at the risk and expense of the Contractor, remove such property to a public warehouse, or may retain the same in its own possession, and in either event after the expiration of thirty (30) days may sell the same in accordance with any method deemed appropriate; the proceeds of any such sale shall be applied first, to the expenses of sale and second, to any sums owed by the Contractor to the Port Authority; any balance remaining shall be paid to the Contractor. Any excess of the total cost of removal, storage and sale and other costs incurred by the Port Authority as a result of such failure of performance by the Contractor over the proceeds of sale shall be paid by the Contractor to the Port Authority upon demand.

27. Modification of Contract

This Contract may not be changed except in writing signed by the Port Authority and the Contractor. The

Contractor agrees that no representation or warranties shall be binding upon the Port Authority unless expressed in writing in this Contract.

28. Invalid Clauses

If any provision of this Contract shall be such as to destroy its mutuality or to render it invalid or illegal, then, if it shall not appear to have been so material that without it the Contract would not have been made by the parties, it shall not be deemed to form part thereof but the balance of the Contract shall remain in full force and effect.

29. Approval of Materials, Supplies and Equipment

Only Port Authority approved materials, supplies, and equipment are to be used by the Contractor in performing the Work hereunder. Inclusion of chemical containing materials or supplies on the Port Authority Approved Products List – Environmental Protection Supplies constitutes approval. The list may be revised from time to time and at any time by the Port Authority and it shall be incumbent upon the Contractor to obtain the most current list from the Manager of the Facility.

At anytime during the Solicitation, pre-performance or performance periods, the Contractor may propose the use of an alternate product or products to those on the Approved Products List – Environmental Protection Supplies, which product(s) shall be subject to review and approval by the Port Authority. Any alternate product so approved by the Port Authority may be used by the Contractor in performing the Services hereunder. Until such approval is given, only products on the Approved Products List – Environmental Protection Supplies may be used.

30. Intellectual Property

The right to use all patented materials, appliances, processes of manufacture or types of construction, trade and service marks, copyrights and trade secrets, collectively hereinafter referred to as “Intellectual Property Rights”, in the performance of the work, shall be obtained by the Contractor without separate or additional compensation. Where the services under this Agreement require the Contractor to provide materials, equipment or software for the use of the Port Authority or its employees or agents, the Port Authority shall be provided with the Intellectual Property Rights required for such use without further compensation than is provided for under this Agreement.

The Contractor shall indemnify the Port Authority against and save it harmless from all loss and expense incurred as a result of any claims in the nature of Intellectual Property Rights infringement arising out of the Contractor’s or Port Authority’s use, in accordance with the above immediately preceding paragraph, of any Intellectual Property. The Contractor, if requested, shall conduct all negotiations with respect to and defend such claims. If the Contractor or the Port Authority, its employees or agents be enjoined either temporarily or permanently from the use of any subject matter as to which the Contractor is to indemnify the Port Authority against infringement, then the Port Authority may, without limiting any other rights it may have, require the Contractor to supply temporary or permanent replacement facilities approved by the Manager, and if the Contractor fails to do so the Contractor shall, at its expense, remove all such enjoined facilities and refund the cost thereof to the Port Authority or take such steps as may be necessary to insure compliance by the Contractor and the Port Authority with said injunction, to the satisfaction of the Port Authority.

In addition, the Contractor shall promptly and fully inform the Director in writing of any intellectual property rights disputes, whether existing or potential, of which it has knowledge,

relating to any idea, design, method, material, equipment or any other matter related to the subject matter of this Agreement or coming to its attention in connection with this Agreement.

31. Contract Records and Documents – Passwords and Codes

When the performance of the contract services requires the Contractor to produce, compile or maintain records, data, drawings, or documents of any kind, regardless of the media utilized, then all such records, drawings, data and documents which are produced, prepared or compiled in connection with this contract, shall become the property of the Port Authority, and the Port Authority shall have the right to use or permit the use of them and any ideas or methods represented by them for any purpose and at any time without other compensation than that specifically provided herein.

When in the performance of the contract services the Contractor utilizes passwords or codes for any purpose, at any time during or after the performance of such services, upon written request by the Authority, the Contractor shall make available to the designated Authority representative all such passwords and codes.

32. Designated Secure Areas

Services under the Contract may be required in designated secure areas, as the same may be designated by the Manager from time to time (“Secure Areas”). The Port Authority shall require the observance of certain security procedures with respect to Secure Areas, which may include the escort to, at, and/or from said high security areas by security personnel designated by the Contractor or any subcontractor's personnel required to work therein. All personnel that require access to designated secure areas who are not under positive escort by an authorized individual will be required to undergo background screening and personal identity verification.

Forty-eight (48) hours prior to the proposed performance of any work in a Secure Area, the Contractor shall notify the Manager. The Contractor shall conform to the procedures as may be established by the Manager from time to time and at any time for access to Secure Areas and the escorting of personnel hereunder. Prior to the start of work, the Contractor shall request a description from the Manager of the Secure Areas which will be in effect on the commencement date. The description of Secure Areas may be changed from time to time and at any time by the Manager during the term of the Contract.

33. Notification of Security Requirements

The Authority has the responsibility of ensuring safe, reliable and secure transportation facilities, systems, and projects to maintain the well-being and economic competitiveness of the region. Therefore, the Authority reserves the right to deny access to certain documents, sensitive security construction sites and facilities (including rental spaces) to any person that declines to abide by Port Authority security procedures and protocols, any person with a criminal record with respect to certain crimes or who may otherwise poses a threat to the construction site or facility security. The Authority reserves the right to impose multiple layers of security requirements on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, or may make any amendments with respect to such requirements as determined by the Authority.

These security requirements may include but are not limited to the following:

- Contractor/ Subcontractor identity checks and background screening

The Port Authority’s designated background screening provider may require inspection of not less than two forms of valid/current government issued identification (at least one having an official photograph) to

verify staff's name and residence; screening federal, state, and/or local criminal justice agency information databases and files; screening of any terrorist identification files; access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning, or the like.

The Contractor may be required to have its staff, and any subcontractor's staff, material-men, visitors or others over whom the Contractor/subcontractor has control, authorize the Authority or its designee to perform background checks, and a personal identity verification check. Such authorization shall be in a form acceptable to the Authority. The Contractor and subcontractors may also be required to use an organization designated by the Authority to perform the background checks.

As of January 29, 2007, the Secure Worker Access Consortium (S.W.A.C.) is the only Port Authority approved provider to be used to conduct background screening and personal identity verification, except as otherwise required by federal law and/or regulation (such as the Transportation Worker Identification Credential for personnel performing in secure areas at Maritime facilities). Information about S.W.A.C., instructions, corporate enrollment, online applications, and location of processing centers can be found at <http://www.secureworker.com>, or S.W.A.C. may be contacted directly at (877) 522-7922 for more information and the latest pricing. The cost for said background checks for staff that pass and are granted a credential shall be reimbursable to the Contractor (and its subcontractors) as an out-of-pocket expense as provided herein. Staff that are rejected for a credential for any reason are not reimbursable.

- Issuance of Photo Identification Credential

No person will be permitted on or about the Authority construction site or facility (including rental spaces) without a facility-specific photo identification credential approved by the Authority. If the authority requires facility-specific identification credential for the Contractor's and the subcontractor's staff, the Authority will supply such identification at no cost to the Contractor or its subcontractors. Such facility-specific identification credential shall remain the property of the Authority and shall be returned to the Authority at the completion or upon request prior to completion of the individual's assignment at the specific facility. It is the responsibility of the appropriate Contractor or subcontractor to immediately report to the Authority the loss of any staff member's individual facility-specific identification credential. The Contractor or subcontractor shall be billed for the cost of the replacement identification credential. Contractor's and subcontractor's staff shall display Identification badges in a conspicuous and clearly visible manner, when entering, working or leaving an Authority construction site or facility.

Employees may be required to produce not less than two forms of valid/current government issued identification having an official photograph and an original, unlaminated social security card for identify and SSN verification. Where applicable, for sensitive security construction sites or facilities, successful completion of the application, screening and identify verification for all employees of the Contractor and subcontractors shall be completed prior to being provided a S.W.A.C. ID Photo Identification credential.

- Access control, inspection, and monitoring by security guards

The Authority may provide for Authority construction site or facility (including rental spaces) access control, inspection and monitoring by Port Authority Police or Authority retained contractor security guards. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work and that of its subconsultant/subcontractor's and service suppliers at the Authority construction site or facility (including rental spaces). In addition, the Contractor, subcontractor or service provider is not permitted to take photographs, digital images, electronic copying and/or electronic transmission or video recordings or make sketches on any other medium at the Authority construction sites or facilities (including rental spaces), except when necessary to perform the Work under this Contract, without prior written permission from the Authority. Upon request, any photograph, digital images, video recording or sketches made of the Authority construction site or facility shall be submitted

to the Authority to determine compliance with this paragraph, which submission shall be conclusive and binding on the submitting entity.

- Compliance with the Port Authority Information Security Handbook

The Contract may require access to Port Authority information considered Confidential Information (“CI”) as defined in the Port Authority Information Security Handbook (“Handbook”), dated October, 2008, corrected as of February, 2009, and as may be further amended. The Handbook and its requirements are hereby incorporated into this agreement and will govern the possession, distribution and use of CI if at any point during the lifecycle of the project or solicitation it becomes necessary for the Contractor to have access to CI. Protecting sensitive information requires the application of uniform safeguarding measures to prevent unauthorized disclosure and to control any authorized disclosure of this information within the Port Authority or when released by the Port Authority to outside entities. The following is an outline of some of the procedures, obligations and directives contained in the Handbook:

- (1) require that the Contractor and subcontractors, when appropriate, sign Non-Disclosure Agreements (NDAs), or an Acknowledgment of an existing NDA, provided by the Authority as a condition of being granted access to Confidential Information categorized and protected as per the Handbook;
- (2) require that individuals needing access to CI be required to undergo a background check, pursuant to the process and requirements noted in § 3.2 of the Information Security Handbook.
- (3) require Contractors and commercial enterprises to attend training to ensure security awareness regarding Port Authority information;
- (4) specific guidelines and requirements for the handling of CI to ensure that the storage and protection of CI;
- (5) restrictions on the transfer, shipping, and mailing of CI information;
- (6) prohibitions on the publication, posting, modifying, copying, reproducing, republishing, uploading, transmitting, or distributing CI on websites or web pages. This may also include restricting persons, who either have not passed a pre-screening background check, or who have not been granted access to CI, from viewing such information;
- (7) require that CI be destroyed using certain methods, measures or technology pursuant to the requirements set forth in the Handbook;
- (8) require the Contractor to mandate that each of its subcontractors maintain the same levels of security required of the Contractor under any Port Authority awarded contract.
- (9) prohibit the publication, exchange or dissemination of CI developed from the project or contained in reports, except between Contractors and subcontractors, without prior approval of the Port Authority;
- (10) require that CI only be reproduced or copied pursuant to the requirements set forth in the Handbook.

- Audits for Compliance with Security Requirements

The Port Authority may conduct random or scheduled examinations of business practices under this section entitled “NOTIFICATION OF SECURITY REQUIREMENTS” and the Handbook in order to assess the extent of compliance with security requirements, Confidential Information procedures, protocols and practices, which may include, but not be limited to, verification of background check status, confirmation of completion of specified training, and/or a site visit to view material storage locations and protocols.

34. Construction In Progress

The Contractor recognizes that construction may be in progress at the Facility and may continue throughout the term of this Contract. Notwithstanding, the Contractor shall at all times during the term hereof maintain the same standards of performance and cleanliness as prevails in non-affected areas as required by the standards hereunder.

35. Permit-Required Confined Space Work

Prior to commencement of any work, the Contractor shall request and obtain from the Port Authority a description of all spaces at the facility which are permit-required confined spaces requiring issuance of an OSHA permit.

Prior to the commencement of any work in a permit-required confined space at a Port Authority facility requiring issuance of an OSHA permit, the Contractor shall contact the Manager to obtain an Authority Contractor Permit-Required Confined Space Notification form. The notification form must be filled out and submitted prior to commencing permit-required confined space work. All confined space work shall be performed in accordance with all applicable OSHA requirements. The Contractor shall provide its employees with a copy of its own company permit and shall furnish the Port Authority with a copy of the permit upon completion of the work. The Contractor must supply all equipment required for working in a confined space.

36. Signs

Except with the prior written approval of the Port Authority, the Contractor shall not erect, maintain or display any signs or posters or any advertising on or about the Facility.

37. Vending Machines, Food Preparation

The Contractor shall not install, maintain or operate on the Facility, or on any other Port Authority property, any vending machines without the prior written approval of the Port Authority. No foods or beverages shall be prepared or consumed at the Facility by any of the Contractor's employees except in areas as may be specifically designated by the Port Authority for such purpose.

38. Confidential Information/Non-Publication

a. As used herein, confidential information shall mean all information disclosed to the Contractor or the personnel provided by the Contractor hereunder which relates to the Authority's and/or PATH's past, present, and future research, development and business activities including, but not limited to, software and documentation licensed to the Authority or proprietary to the Authority and/or PATH and all associated software, source code procedures and documentation. Confidential information shall also mean any other tangible or intangible information or materials including but not limited to computer identification numbers, access codes, passwords, and reports obtained and/or used during the performance of the Contractor's Services under this Contract.

b. Confidential information shall also mean and include collectively, as per *The Port Authority of New York & New Jersey Information Security Handbook (October 15, 2008, corrected as of February, 9 2009)*, Confidential Proprietary Information, Confidential Privileged Information and information that is labeled, marked or otherwise identified by or on behalf of the Authority so as to reasonably connote that such information is confidential, privileged, sensitive or proprietary in nature. Confidential Information shall also include all work product that contains or is derived from any of the foregoing, whether in whole or in part, regardless of whether prepared by the Authority or a third-party or when the Authority receives such information from others and agrees to treat such information as Confidential.

c. The Contractor shall hold all such confidential information in trust and confidence for the Authority, and agrees that the Contractor and the personnel provided by the Contractor hereunder

shall not, during or after the termination or expiration of this Contract, disclose to any person, firm or corporation, nor use for its own business or benefit, any information obtained by it under or in connection with the supplying of services contemplated by this Contract. The Contractor and the personnel provided by the Contractor hereunder shall not violate in any manner any patent, copyright, trade secret or other proprietary right of the Authority or third persons in connection with their services hereunder, either before or after termination or expiration of this Contract. The Contractor and the personnel provided by the Contractor hereunder shall not willfully or otherwise perform any dishonest or fraudulent acts, breach any security procedures, or damage or destroy any hardware, software or documentation, proprietary or otherwise, in connection with their services hereunder. The Contractor shall promptly and fully inform the Director in writing of any patent, copyright, trade secret or other intellectual property rights or disputes, whether existing or potential, of which the Contractor has knowledge, relating to any idea, design, method, material, equipment or other matter related to this Contract or coming to the Contractor's attention in connection with this Contract."

d. The Contractor shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or to the fact that goods have been, are being or will be provided to it and/or that services have been, are being or will be performed for it in connection with this Agreement, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.

39. Time is of the Essence

Time is of the essence in the Contractor's performance of this Contract inasmuch as the Work to be performed will affect the operation of public facilities.

40. Holidays

The following holidays will be observed at the Site:

New Year's Day	Labor Day
Martin Luther King Jr. Day	Columbus Day
Presidents Day	Veterans Day
Memorial Day	Thanksgiving Day
Independence Day	Day After Thanksgiving
Christmas Day	

This list is subject to periodic revision and the Contractor shall be responsible for obtaining all updated lists from the office of the Manager. If any such holiday falls on a Sunday then the next day shall be considered the holiday and/or if any such holiday falls on a Saturday then the preceding day shall be considered the holiday.

41. Personnel Standards

In addition to any specific personnel requirements that may be required under the clause entitled "Personnel Requirements" in the Specifications, the Contractor (and any Subcontractor) shall furnish competent and adequately trained personnel to perform the Work hereunder. If, in the opinion of the Manager, any

employee so assigned is performing their functions unsatisfactorily, they shall be replaced by the Contractor within twenty-four (24) hours following the Contractor's receipt of the Manager's request for such replacement.

All Contractor's employees performing Work hereunder shall have the ability to communicate in the English language to the extent necessary to comprehend directions given by either the Contractor's supervisory staff or by the Manager's staff. Any employee operating a motor vehicle must have a valid driver's license.

The Contractor shall verify that employees working under this Contract in the United States are legally present in the United States and authorized to work by means of the federally required I-9 program

42. General Uniform Requirements for Contractor's Personnel

In addition to any specific uniform requirements that may be required by the Specifications, uniforms must be worn at all times during which the Services are being performed hereunder. The Contractor agrees that his/her employees will present a neat, clean and orderly appearance at all times. Uniforms shall include the Contractor's identification badge with picture ID bearing the employee's name. All uniforms, colors, types and styles shall be subject to the prior approval of the Manager. The Contractor will also be responsible for ensuring that its employees are wearing shoes appropriate for the tasks performed. The Manager shall have the right to require removal of any employee who shall fail to wear the proper uniform and shoes, and the exercise of this right shall not limit the obligation of the Contractor to perform the Services or to furnish any required number of employees at a specific location at the Site as specified.

43. Labor, Equipment and Materials Supplied by the Contractor

The Contractor shall, at all times during the performance of this Contract, furnish all necessary labor, supervision, equipment and materials necessary for the prompt and efficient performance of the Work, whether such materials and equipment are actually employed in the furnishing of the Work or whether incidental thereto.

All materials used by the Contractor in furnishing Work hereunder shall be of such quality as to accomplish the purposes of this Contract and the Services to be furnished hereunder in such manner so as not to damage any part of the Site.

The Port Authority by its officers, employees and representatives shall have the right at all times to examine the supplies, materials and equipment used by the Contractor, to observe the operations of the Contractor, its agents, servants and employees and to do any act or thing which the Port Authority may be obligated or have the right to do under this Contract or otherwise.

All equipment, materials and supplies used in the performance of this Contract required hereunder shall be used in accordance with their manufacturer's instructions.

Materials and supplies to be provided by the Contractor hereunder shall comply with OSHA and all applicable regulations.

44. Contractor's Vehicles – Parking - Licenses

At the discretion of the Manager, the Port Authority may permit the Contractor during the effective period of this Contract to park vehicle(s) used by it in its operations hereunder in such location as may from time to time or at any time be designated by the Manager. The Contractor shall comply with such existing rules, regulations and procedures as are now in force and such reasonable future rules, regulations and procedures as may hereafter be adopted by the Port Authority for the safety and convenience of persons who park automotive vehicles in any parking area at the Site or for the safety and proper persons who park automotive vehicles in any parking area at the Site or for the safety and proper identification of such vehicles, and the Contractor shall also comply with any and all directions pertaining to such parking which may be given from time to time and at any time by the Manager. Any vehicle used by the Contractor hereunder shall be

marked or placarded, identifying it as the Contractor's vehicle.

45. Manager's Authority

In the performance of the Work hereunder, the Contractor shall conform to all orders, directions and requirements of the Manager and shall perform the Work hereunder to the satisfaction of the Manager at such times and places, by such methods and in such manner and sequence as he/she may require, and the Contract shall at all stages be subject to his/her inspection. The Manager shall determine the amount, quality, acceptability and fitness of all parts of the Work and shall interpret the Specifications and any orders for Extra Work. The Contractor shall employ no equipment, materials, methods or staff or personnel to which the Manager objects. Upon request, the Manager shall confirm in writing any oral order, direction, requirement or determination.

The Manager shall have the authority to decide all questions in connection with the Services to be performed hereunder. The exercise by the Manager of the powers and authorities vested in him/her by this section shall be binding and final upon the Port Authority and the Contractor.

46. Price Preference

If this solicitation has not been set aside for the purposes of making an award based on bids solicited from Port Authority certified Minority Business, Women Business or Small Business Enterprises as indicated by the bidder pre-requisites in Part II hereof, for awards of contracts, not exceeding \$1,000,000, for:

- (a) Services, a price preference of 5% is available for New York or New Jersey Small Business Enterprises (SBE); or
- (b) Services (excluding Janitorial/Cleaning Services), a price preference of 10% is available for New York or New Jersey Minority or Women Business Enterprises (M/WBE),

certified by the Port Authority by the day before the bid opening.

If the Bidder is a Port Authority certified MBE, WBE or SBE, enter the applicable date(s) certification was obtained in the space provided on the Signature Sheet attached hereto.

47. M/WBE Good Faith Participation

If specified as applicable to this Contract, the Contractor shall use every good-faith effort to provide for participation by certified Minority Business Enterprises (MBEs) and certified Women-owned Business Enterprises (WBEs) as herein defined, in all purchasing and subcontracting opportunities associated with this Contract, including purchase of equipment, supplies and labor services.

Good Faith efforts to include participation by MBEs/WBEs shall include the following:

- a. Dividing the services and materials to be procured into small portions, where feasible.
- b. Giving reasonable advance notice of specific contracting, subcontracting and purchasing opportunities to such MBEs/WBEs as may be appropriate.
- c. Soliciting services and materials from a Port Authority certified MBE/WBE or seeking MBEs/WBEs from other sources. To access the Port Authority's Directory of MBE/WBE Certified Firms go to www.panynj.gov/supplierdiversty
- d. Ensuring that provision is made to provide progress payments to MBEs/WBEs on a timely basis.
- e. Observance of reasonable commercial standards of fair dealing in the respective trade or business.

Subsequent to Contract award, all changes to the M/WBE Participation Plan must be submitted via a modified M/WBE Participation Plan to the Manager for review and approval by the Authority's Office of Business Diversity and Civil Rights. For submittal of modifications to the M/WBE Plan, Contractors are directed to use form PA3749C, which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>. The Contractor shall not make changes to its approved M/WBE Participation Plan or substitute M/WBE subcontractors or suppliers for those named in their approved plan without the Manager's prior written approval. Unauthorized changes or substitutions, including performing the work designated for a subcontractor with the Contractor's own forces, shall be a violation of this section. Progress toward attainment of M/WBE participation goals set forth herein will be monitored throughout the duration of this Contract.

The Contractor shall also submit to the Manager, along with invoices, the Statement of Subcontractor Payments as the M/WBE Participation Report, which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>. The Statement must include the name and business address of each M/WBE subcontractor and supplier actually involved in the Contract, a description of the work performed and/or product or service supplied by each such subcontractor or supplier, the date and amount of each expenditure, and such other information that may assist the Manager in determining the Contractor's compliance with the foregoing provisions.

If, during the performance of this Contract, the Contractor fails to demonstrate good faith efforts in carrying out its M/WBE Participation Plan and the Contractor has not requested and been granted a full or partial waiver of the M/WBE participation goals set forth in this Contract, the Authority will take into consideration the Contractor's failure to carry out its M/WBE Participation Plan in its evaluation for award of future Authority contracts.

PART III CONTRACTOR'S INTEGRITY PROVISIONS

1. Certification of No Investigation (criminal or civil anti-trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure of Other Information

By bidding on this Contract, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that the Bidder and each parent and/or affiliate of the Bidder has not

- a. been indicted or convicted in any jurisdiction;
- b. been suspended, debarred, found not responsible or otherwise disqualified from entering into any contract with any governmental agency or been denied a government contract for failure to meet standards related to the integrity of the Bidder;
- c. had a contract terminated by any governmental agency for breach of contract or for any cause based in whole or in part on an indictment or conviction;
- d. ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Bid;
- e. had any business or professional license suspended or revoked or, within the five years prior to bid opening, had any sanction imposed in excess of fifty thousand dollars (\$50,000) as a result of any judicial or administrative proceeding with respect to any license held or with respect to any violation of a federal, state or local environmental law, rule or regulation;
- f. had any sanction imposed as a result of a judicial or administrative proceeding related to fraud,

- extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; and
- g. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

2. Non-Collusive Bidding, and Code of Ethics Certification, Certification of No Solicitation Based On Commission, Percentage, Brokerage, Contingent or Other Fees

By bidding on this Contract, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, that

- a. the prices in its bid have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- b. the prices quoted in its bid have not been and will not be knowingly disclosed directly or indirectly by the Bidder prior to the official opening of such bid to any other bidder or to any competitor;
- c. no attempt has been made and none will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition;
- d. this organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics dated April 11, 1996, (a copy of which is available upon request) nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code;
- e. no person or selling agency other than a bona fide employee or bona fide established commercial or selling agency maintained by the Bidder for the purpose of securing business, has been employed or retained by the Bidder to solicit or secure this Contract on the understanding that a commission, percentage, brokerage, contingent, or other fee would be paid to such person or selling agency; and
- f. the Bidder has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or from a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Contract.
- g. no person or organization has been retained, employed or designated on behalf of the Bidder to impact any Port Authority determination, where the solicitation is a Request for Proposals, with respect to (i) the solicitation, evaluation or award of this Contract, or (ii) the preparation of specifications or request for submissions in connection with this Contract.

The foregoing certifications shall be deemed to be made by the Bidder as follows:

- * if the Bidder is a corporation, such certification shall be deemed to have been made not only with respect to the Bidder itself, but also with respect to each parent, affiliate, director, and officer of the Bidder, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Bidder with an ownership interest in excess of 10%;
- * if the Bidder is a partnership, such certification shall be deemed to have been made not only with respect to the Bidder itself, but also with respect to each partner.

Moreover, the foregoing certifications, if made by a corporate Bidder, shall be deemed to have been authorized by the Board of Directors of the Bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Bidder cannot make the foregoing certifications, the Bidder shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the reasons therefor. If the Bidder is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its bid, setting forth in such statement the reasons for its uncertainty. With respect to the foregoing certification in paragraph "2g", if the Bidder cannot make the certification, it shall provide, in writing, with the signed bid: (i) a list of the name(s), address(es), telephone number(s), and place(s) of principal employment of each such individual or organization; and (ii) a statement as to whether such individual or organization has a "financial interest" in this Contract, as described in the Procurement Disclosure policy of the Authority (a copy of which is available upon request to the Director of the Procurement Department of the Authority). Such disclosure is to be updated, as necessary, up to the time of award of this Contract. As a result of such disclosure, the Port Authority shall take appropriate action up to and including a finding of non-responsibility.

Failure to make the required disclosures shall lead to administrative actions up to and including a finding of non-responsiveness or non-responsibility.

Notwithstanding that the Bidder may be able to make the foregoing certifications at the time the bid is submitted, the Bidder shall immediately notify the Authority in writing during the period of irrevocability of bids and the term of the Contract, if Bidder is awarded the Contract, of any change of circumstances which might under this clause make it unable to make the foregoing certifications, might render any portion of the certifications previously made invalid, or require disclosure. The foregoing certifications or signed statement shall be deemed to have been made by the Bidder with full knowledge that they would become a part of the records of the Authority and that the Authority will rely on their truth and accuracy in awarding and continuing this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the Bidder has falsely certified as to any material item in the foregoing certifications, has failed to immediately notify the Port Authority of any change in circumstances which might make it unable to make the foregoing certifications, might render any portion of the certifications previously made invalid, or require disclosure, or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certifications required to be disclosed, the Authority may determine that the Bidder is not a responsible Bidder with respect to its bid on the Contract or with respect to future bids on Authority contracts and may exercise such other remedies as are provided to it by the Contract with respect to these matters. In addition, Bidders are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g. New York Penal Law, Section 175.30 et seq.). Bidders are also advised that the inability to make such certification will not in and of itself disqualify a Bidder, and that in each instance the Authority will evaluate the reasons therefor provided by the Bidder. Under certain circumstances the Bidder may be required as a condition of Contract award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Port Authority, said Monitor to be charged with, among other things, auditing the actions of the Bidder to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Port Authority.

3. Bidder Eligibility for Award of Contracts - Determination by an Agency of the State of New York or New Jersey Concerning Eligibility to Receive Public Contracts

Bidders are advised that the Authority has adopted a policy to the effect that in awarding its contracts it will honor any determination by an agency of the State of New York or New Jersey that a Bidder is not eligible to

bid on or be awarded public contracts because the Bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a Bidder whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a bid on a Port Authority contract and then to establish that it is eligible to be awarded a contract on which it has bid because (i) the state agency determination relied upon does not apply to the Bidder, or (ii) the state agency determination relied upon was made without affording the Bidder the notice and hearing to which the Bidder was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

4. Contractor Responsibility, Suspension of Work and Termination

During the term of this Contract, the Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Port Authority to present evidence of its continuing legal authority to do business in the States of New Jersey or New York, integrity, experience, ability, prior performance, and organizational and financial capacity.

The Port Authority, in its sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when it discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Port Authority issues a written notice authorizing a resumption of performance under the Contract.

Upon written notice to the Contractor, and an opportunity to be heard with appropriate Port Authority officials or staff, the Contract may be terminated by Port Authority at the Contractor's expense where the Contractor is determined by the Port Authority to be non-responsible. In such event, the Port Authority or its designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach, including recovery of costs from Contractor associated with such termination.

5. No Gifts, Gratuities, Offers of Employment, Etc.

At all times, the Contractor shall not offer, give or agree to give anything of value either to a Port Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the Port Authority, or to a member of the immediate family (i.e., a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, agent, job shopper, consultant, construction manager or other person or firm representing the Port Authority of duties involving transactions with the Contractor on behalf of the Port Authority, whether or not such duties are related to this Contract or any other Port Authority contract or matter. Any such conduct shall be deemed a material breach of this Contract.

As used herein "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by the Contract or any other Port Authority contract), etc. which might tend to obligate the Port Authority employee to the Contractor, and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Contract or any other Port Authority contract. Where used herein, the term "Port Authority" shall be deemed to include all subsidiaries of the Port Authority.

The Contractor shall insure that no gratuities of any kind or nature whatsoever shall be solicited or accepted by it and by its personnel for any reason whatsoever from the passengers, tenants, customers or other persons using the Facility and shall so instruct its personnel.

In the event that the Contractor becomes aware of the occurrence of any conduct that is prohibited by this section entitled "No Gifts, Gratuities, Offers of Employment, Etc.," it shall report such occurrence to the Port Authority's Office of Inspector General within three (3) business days of obtaining such knowledge. (See "<http://www.panynj.gov/inspector-general>") for information about to report information to the Office of Inspector General). Failing to report such conduct shall be grounds for a finding of non-responsibility.

In addition, during the term of this Contract, the Contractor shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated April 11, 1996, (a copy of which is available upon request to the Office of the Secretary of the Port Authority).

The Contractor shall include the provisions of this clause in each subcontract entered into under this Contract.

6. Conflict of Interest

During the term of this Contract, the Contractor shall not participate in any way in the preparation, negotiation or award of any contract (other than a contract for its own services to the Authority) to which it is contemplated the Port Authority may become a party, or participate in any way in the review or resolution of a claim in connection with such a contract if the Contractor has a substantial financial interest in the contractor or potential contractor of the Port Authority or if the Contractor has an arrangement for future employment or for any other business relationship with said contractor or potential contractor, nor shall the Contractor at any time take any other action which might be viewed as or give the appearance of conflict of interest on its part. If the possibility of such an arrangement for future employment or for another business arrangement has been or is the subject of a previous or current discussion, or if the Contractor has reason to believe such an arrangement may be the subject of future discussion, or if the Contractor has any financial interest, substantial or not, in a contractor or potential contractor of the Authority, and the Contractor's participation in the preparation, negotiation or award of any contract with such a contractor or the review or resolution of a claim in connection with such a contract is contemplated or if the Contractor has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Contractor shall immediately inform the Director in writing of such situation giving the full details thereof. Unless the Contractor receives the specific written approval of the Director, the Contractor shall not take the contemplated action, which might be viewed as or give the appearance of a conflict of interest. The Director may require the Contractor to submit a mitigation plan addressing and mitigating any disclosed or undisclosed conflict, which is subject to the approval of the Director and shall become a requirement, as though fully set forth in this Contract. In the event the Director shall determine that the performance by the Contractor of a portion of its Services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Contractor's said Services is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf of both parties to order that such portion of the Contractor's Services not be performed by the Contractor, reserving the right, however, to have the Services performed by others and any lump sum compensation payable hereunder which is applicable to the deleted work shall be equitably adjusted by the parties. The Contractor's execution of this document shall constitute a representation by the Contractor that at the time of such execution the Contractor knows of no circumstances, present or anticipated, which come within the provisions of this paragraph or which might otherwise be viewed as or give the appearance of a conflict of interest on the Contractor's part. The Contractor acknowledges that the Authority may preclude it from involvement in certain disposition/privatization initiatives or transactions that result from the findings of its evaluations hereunder or from participation in any contract, which results, directly or indirectly, from the Services provided by the Contractor hereunder. The Port Authority's determination regarding any questions of conflict of interest shall be final.

7. Definitions

As used in this section, the following terms shall mean:

Affiliate - Two or more firms are affiliates if a parent owns more than fifty percent of the voting stock of each of the firms, or a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the firms, or if the firms have a common proprietor or general partner.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting and/or law enforcement agency and any inquiries concerning civil anti-trust investigations made by any federal, state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or Federal, State, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Bidder by whatever titles known.

Parent - An individual, partnership, joint venture or corporation which owns more than 50% of the voting stock of the Bidder.

If the solicitation is a Request for Proposal:

Bid - shall mean Proposal;

Bidder - shall mean Proposer;

Bidding - shall mean submitting a Proposal.

In a Contract resulting from the taking of bids:

Bid - shall mean bid;

Bidder - shall mean Bidder; except and until the Contract has been awarded, then it shall mean

Contractor

Bidding - shall mean executing this Contract.

In a Contract resulting from the taking of Proposals:

Bid - shall mean Proposal;

Bidder - shall mean Proposer;

Bidding - shall mean executing this Contract.