

THE PORT AUTHORITY OF NY & NJ

**PROCUREMENT DEPARTMENT
4 WORLD TRADE CENTER, 21ST FL.
150 GREENWICH STREET
NEW YORK, NY 10007**

REQUEST FOR PRE-QUALIFICATION

**TITLE: Request for Pre-Qualification of Construction Contracting &
Construction Cost Management (C3M) Software**

RFPQ NO.: 48378

SUBMIT SEALED PROPOSALS NO LATER THAN THE DUE DATE AND TIME TO THE ABOVE ADDRESS.

QUESTIONS DUE BY: 1/20/2017 TIME: 2:00 PM

PROPOSALS DUE BY: 2/7/2017 TIME: 2:00 PM

**CONTACT: Donald Thompson PHONE NO.: (212) 435-4659
FAX NO.: (212) 435-3959
EMAIL: DThompson@panynj.gov**

**Coretta Doctor PHONE NO.: (212) 435-4606
FAX NO.: (212) 435-3959
EMAIL: CDoctor@panynj.gov**

THE PORT AUTHORITY OF NY & NJ

PROCUREMENT DEPARTMENT
150 GREENWICH STREET, 21ST FLOOR
NEW YORK, NEW YORK 10007

ISSUE DATE: **JANUARY 5, 2017**

TITLE: **REQUEST FOR PRE-QUALIFICATION (RFPQ) of
Construction Contracting & Construction Cost
Management (C3M) Software Solutions**

NUMBER: **48378**

SEND RESPONSES TO: **REFER TO THE DOCUMENT FOR SUBMISSION
INSTRUCTIONS**

RESPONSE DUE DATE: **FEBRUARY 7, 2017 TIME: 2:00 PM EST**

QUESTION DUE DATE: **JANUARY 20, 2017 TIME: 2:00 PM EST**

CONTACTS:

DONALD THOMPSON 212-435-4659 dthompson@panynj.gov

CORETTA DOCTOR 212-435-4606 cdoctor@panynj.gov

**1. GENERAL INFORMATION:
THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY**

The Port Authority of New York and New Jersey (“Port Authority” or “Authority”) is an agency of the States of New York and New Jersey, created and existing by virtue of the Compact of April 30, 1921, made by and between the two States, and thereafter consented to by the Congress of the United States. It is charged with providing transportation, terminal and other facilities of trade and commerce within the Port District. The Port District comprises an area of about 1,500 square miles in both States, centering about New York Harbor. The Port District includes the Cities of New York and Yonkers in New York State, and the cities of Newark, Jersey City, Bayonne, Hoboken and Elizabeth in the State of New Jersey, and over 200 other municipalities, including all or part of seventeen counties, in the two States. The Port Authority manages and/or operates all of the region’s major commercial airports (Newark Liberty International, John F. Kennedy International, Teterboro, LaGuardia and Stewart International Airports); marine terminals in both New Jersey and New York (Port Newark and Elizabeth, Howland Hook and Brooklyn Piers); and its interstate tunnels and bridges (the Lincoln and Holland Tunnels, the George Washington, Bayonne, Goethals Bridges and the Outerbridge Crossing), which are vital “Gateways to the Nation.”

In addition, the Port Authority operates the Port Authority Bus Terminal in Manhattan, the largest facility of its kind in the world, and the George Washington Bridge and Journal Square Transportation Center bus stations. A key link in interstate commuter travel, the Port Authority also operates the Port Authority Trans-Hudson Corporation (PATH), a rapid rail transit system linking Newark, and the Jersey City and Hoboken waterfronts, with midtown and downtown Manhattan. A number of other key properties are managed by the agency, including but not limited to a large satellite communications facility (the Teleport) in Staten Island and a resource recovery co-generation plant in Newark. Prior to September 11, 2001, the Port Authority’s headquarters were located in the World Trade Center, and that complex is still owned and being redeveloped by, in part, the Authority.

2. INTRODUCTION and OBJECTIVE

SUMMARY

- a. The objective of this RFI/RFPQ is to gather information in order to prequalify a product. The Authority seeks to educate itself through information from the vendor community regarding existing computer software the function of which is to help the Port Authority manage construction projects, including associated costs. The construction projects will be of a variety of costs, functions, work scopes, sizes and complexities and would be situated in various locations within the Port District.
- b. The new software would replace existing software now in use at the Port Authority.
- c. The end result of this solicitation would not be a procurement but rather a list of one or more qualifying software products. Any procurement or purchase would be the result of a future solicitation. Respondents should also note that this RFI/RFPQ is not a prequalification and not a necessary precursor to responding to any future solicitation for the subject services.

- d. The Port Authority reserves the unqualified right in its sole and absolute discretion to choose to accept or reject any and all information provided in response to this RFI/RFPQ, either on the basis of a review of the information listed in this RFI/RFPQ or for any other reason, to waive defects in any submission and to reject all submissions and not take any further action. The Port Authority also reserves the unqualified right to utilize any information provided in response to this RFI/RFPQ, to request further information from any Respondent or to not proceed with any further process.
- e. Neither the expression of Respondent's interest, nor the submission of Respondent's qualifications and any documents or other information, nor the acceptance thereof by the Port Authority, nor any correspondence, discussions, meetings or other communications between Respondent and the Port Authority, nor a determination by the Port Authority that Respondent is qualified hereunder shall impose any obligation on the Port Authority. Unless and until the Port Authority awards a contract covering the discussed services to Respondent, the Port Authority shall have no obligation to Respondent.
- f. Respondent's costs of participation or information preparation are not compensable.
- g. While the Authority is seeking to maximize competition and invite a broad range of firms to participate, response to this RFI / Expression of Interest (EOI) by itself does not guarantee the Respondent will receive a contract from the Port Authority or any subsequent solicitation. It is the Respondents sole and complete responsibility to check the Authority's website proactively, review active solicitations and act accordingly.

SPECIFICS

The Port Authority's Engineering Department wishes to replace the Construction Contract Management (C3M) and Construction Cost software systems that it currently uses to perform construction contract and cost management functions in support of the Authority's multi-billion-dollar capital program. The Engineering Department now uses two on premises (On-Prem) systems: (1) Oracle Primavera Contract Management (OPCM version 13) for the tracking and management of construction submittals and construction vendor Requests for Information (RFIs); and (2) WinTrak, a custom in-house developed solution based on Visual Fox Pro to perform payment applications, change order management and cost control.

The Authority believes the marketplace is in a position to offer Commercial off the Shelf (COTS) solutions to perform the Construction Contract and Cost Management (C3M) functionalities for an organization such as itself with complex and varied needs and is seeking information regarding, and exploring migration to, these C3M products. The Authority is open to exploring On-Prem COTS solutions or subscription-based hosted/cloud COTS solutions.

Potential respondents are advised that no information gathered, presented or discussed prior to or outside this process will be considered in the decision making process highlighted herein.

Potential Outcomes of this RFI/RFPQ

Following review of information received from the Respondent, the Authority will base any resulting action on the applicability of the following conclusions:

1. Now is not an effective time to proceed and the solicitation will be closed.
2. The marketplace offers robust and cost effective construction contract tools, but the integrated cost management functionality does not effectively meet the Authority's needs. If, in its sole determination, the Authority sees value in proceeding with the construction contract component, the Authority may choose to prequalify construction contract tools for participation in a subsequent solicitation and will continue to handle the cost management component internally.
3. The marketplace offers robust and cost effective integrated cost management functionality, but the construction contract tools do not effectively meet the Authority's needs. If, in its sole determination, the Authority sees value in proceeding with the integrated cost management component, the Authority may choose to prequalify integrated cost management tools for participation in a subsequent solicitation and will continue to handle construction contracts internally.
4. The marketplace offers robust and cost effective C3M tools. In this case, the Authority may choose to prequalify one or more from a wide range of C3M tools for participation in a subsequent solicitation.

Important Notes regarding this RFI/RFPQ

1. This is currently anticipated to be the only public advertisement for any of the C3M or component suite of products. Only products that are selected to be on a prequalified list will be considered for further action.
2. Respondent shall ensure that any prequalified list generated as a result of this outreach shall be valid for a period of 24 months after creation.
3. This solicitation is open to integrators presenting products they feel can meet the Port Authority's requirements, to product resellers and to product manufacturers presenting their own products. However, it is important to note that the Authority is not seeking integration services now. The evaluation process will first and foremost focus on product capabilities and any subsequent prequalified list will be comprised solely of products. Integrators or resellers presenting products will neither be advantaged or disadvantaged in future solicitations and the Authority encourages maximum competition in all solicitations.
4. It is not anticipated that this solicitation will result in any contract. The objective is for the Authority to gather and vet information on the current status of the marketplace and potentially develop a pool of prequalified products that have high likelihood of working in the Authority's environment.
5. It is currently anticipated, but not guaranteed, that if the research gained from this process results in a prequalified list of either construction contract management products, cost

management products or combined C3M products, the Port Authority will undertake a subsequent publically advertised solicitation to seek integration services using any combination of prequalified products.

6. For this RFI/RFPQ, the Authority is seeking to review and prequalify products or offerings – not implementation services.
7. It is currently anticipated that product terms of usage, typically called End User License Agreements (EULA) or Subscription Agreements, will be negotiated with the product manufacturer or reseller of the product only once an integrator and integration solution is chosen.
8. Any manufacturer, integrator or certified reseller may submit a response to this solicitation.
9. The terms “integrator,” “manufacturer,” “provider” and the like are used interchangeably throughout this document. The use of any one such term is not intended to, and does not indicate, a preference of one solution provider over another.
10. The terms COTS, On-Prem and Cloud Provider are used throughout the document. The use of any one such term is not intended to, and does not, indicate a preference of one solution over another.

3. DEADLINE FOR RECEIPT OF RESPONSES

The due date specified on the cover page is the Response Due Date.

PLEASE READ THE FOLLOWING DELIVERY REQUIREMENTS CAREFULLY. Respondents assume all responsibility for delays or problems in delivery.

Response submissions will be received at:

The Port Authority of NY & NJ
Attention: Proposal Custodian
Procurement Department
4 World Trade Center
150 Greenwich Street, 21st Floor
New York, NY 10007

Clearly mark the solicitation number on the outermost package.

At this address, proposals will be accepted via (1) regular mail, (2) express delivery service (e.g. UPS), or (3) hand delivery.

Express carrier deliveries by commercial vehicles can be made via vendors approved by Silverstein Properties, the 4 World Trade Center (4 WTC) Property Manager, through the Vehicle Security Center (VSC). Presently, UPS is the only delivery vendor with approved recurring delivery times.

There is extensive security at the World Trade Center Site. Individuals must present a valid government-issued photo ID to enter 4 WTC. Individuals without valid identification will be turned away and their packages not accepted. Individuals without packages or carrying small packages or boxes that can be conveyed by hand or on a hand truck may enter through the lobby. All envelopes, packages and boxes may be subject to additional security screening.

There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited.

The Port Authority assumes no responsibility for delays caused by any delivery service.

4. PRODUCT PREREQUISITES

- A. Each proposal for the C3M solution must be an existing system of record for Construction Contract and/or Cost Management purposes. The system must be in current use by at least ten US customers and must have been in use for a minimum of three years. Each system must manage a portfolio in excess of \$100 million in construction projects for at least one customer as of the date of submission of the response.
- B. Each proposal must be accompanied by a certification that the particular system proposed by the Respondent has earned annual gross revenues of at least \$2.5 million a year for the last three fiscal years from management of the type of products described herein and that the system manufacturer has at least 50 employees supporting this product line. The certification must be on letterhead signed by the manufacturer's or cloud provider's Chief Financial Officer (CFO) or other principal authorized to make such certification or by a certified public accountant (CPA).

Each Respondent must include documentation that all solutions it proposes and all applicable product manufacturers meet the above prerequisites. By furnishing this solicitation to Respondents, the Port Authority has not made a determination that the solutions proposed by the Respondents or the manufacturers of such solutions have met the prerequisites. In addition, a determination that a Respondent's proposed solution or manufacturer has met the prerequisites does not guarantee that such proposed solution or manufacturer will be deemed qualified in connection with other response requirements included herein.

If the Respondent intends to utilize a subcontractor, and in the Authority's determination of whether the Respondent has met the prerequisites set forth herein, the Authority will consider only the relevant experience of that subcontractor working as a subcontractor of the Respondent in prior contracts. Any decision that a Respondent has met the prerequisites that is based on the experience of a subcontractor or a joint venture partner will be reconsidered if the proposed subcontractor or joint venture arrangement is withdrawn by the Respondent. If the Respondent is a common law joint venture, the Authority will consider only the experience of each of the joint venture partners working as a common law joint venture in prior contracts with these same partners in determining whether the Respondent has met the prerequisites set forth herein.

For each of the Respondent's US customers cited under Prerequisite (A) above, Respondent shall include at least the following information in their response: customer name, contact person, project(s) and years of utilizing the product. The Authority reserves the right to contact any or all of these customers.

In the event a response is submitted by a joint venture, the foregoing prerequisites will be considered with respect to such response as follows:

With respect to subparagraphs (A) and (B) of this section 4 above, the prerequisite will be considered satisfied if the joint venture itself, or any of its participants individually, can meet the requirements. With respect to subparagraph B, the annual gross income of the joint venture itself may meet the prerequisites or the annual gross income of the participants in the joint venture may be considered cumulatively to meet the prerequisite.

If the response is submitted by a common law joint venture, a joint venture that has not been established as a distinct legal entity, each participant of the joint venture shall be held jointly and severally liable and must individually execute and perform all acts required by this RFI/RFPQ. Documents signed by a common law joint venture, in connection with this RFI/RFPQ, shall include the names of all participants of the joint venture followed by the words "acting jointly and severally." All joint venture proposers must provide documentation of their legal status.

5. PRODUCT QUALIFICATION PROCESS - EVALUATION CRITERIA

The Port Authority will review all responses to determine if they adhere to the format required, if they contain all required submissions and if the Respondent's proposed solution and manufacturer satisfy the prerequisites required for submission of a response.

Responses meeting such requirements will then undergo a detailed two-stage *technical compatibility evaluation* as follows:

Stage One: Functionality Matrix Evaluation

- The product(s) proposed by the Respondent will be evaluated based on the matrix provided in **Attachment B**; with higher scores afforded to mandatory requirements and to those features available out of the box or natively configurable.

Stage Two: On-Site Evaluation

- Only certain Respondents will be asked to provide on-site, in-depth product demonstrations and to participate in additional discussions and further review. Scripts detailing required demonstration components will be provided at that time. Evaluation in this phase shall consist of both *technical* as well as *company* components.

- **Technical components** shall include, but not be limited to, the functionality matrix, ease of use, general look and feel for the Authority's user base; flexible reporting engine; ease of integration; availability of preconfigured APIs; strong SDKs; and ease of ability to adapt to changes in requirements (such as, but not limited to, changes in federal regulations) over time.
- **Company components** shall include, but not be limited to, such things as product maturity; number of commissioned systems of similar size and complexity of the Authority; user reference checks; depth of product development and technical support; manufacturer industry partners; depth of reseller and integrator networks; business risks the solution offering (i.e. cloud, subscription, on-prem) presents to the Authority; and the ability to have an effective exit strategy with limited downtime.

The Authority may qualify any product submitted in response to this RFI/RFPQ.

6. SUBMISSION OF INFORMATION

Submit one reproducible original version of the response (containing original signatures and clearly designated as such), three double-sided copies of the response and two flash drives containing the response, all on or before the due date and time and in accordance with the information on the cover page of this RFI/RFPQ. Send or deliver your response to the RFP Custodian at the address specified on the cover page. Submissions must be in the following formats:

- Matrix (**Attachment B**) in both PDF and the original Excel format; and
- All write-up(s) in PDF format without security restrictions.

Each copy (including the original) of the response as well as the parcel(s) used for shipping must be conspicuously marked with the Respondent's name and address as well as the Respondent's Port Authority issued Vendor Number, if available. In addition, the outside of the package must clearly state the title of this RFI/RFPQ, the number of this RFI/RFPQ and the Response Due Date. Failure to properly label proposal submissions may result in a delay in identification, misdirection or disqualification of proposal submissions.

Express carrier deliveries by commercial vehicles can be made via vendors approved by Silverstein Properties, the 4 World Trade Center (4 WTC) Property Manager or through the Vehicle Security Center (VSC). Presently, UPS is the only delivery vendor with approved recurring delivery times.

There is extensive security at the World Trade Center Site. Individuals must present a valid government-issued photo ID to enter 4 WTC. Individuals without valid identification will be turned away and their packages not accepted. Individuals without packages or carrying small packages or boxes that can be conveyed by hand or on a hand truck may enter through the lobby. All envelopes, packages and boxes may be subject to additional security screening.

There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited.

The Port Authority assumes no responsibility for delays caused by any delivery service.

Consistent with environmentally preferable procurement practices, the Port Authority requests all documents submitted to be in a form that can be easily recycled (i.e., no plastic covers or binding) and to provide only supporting literature which directly relates to the proposal being submitted.

7. PROPOSAL SUBMISSION REQUIREMENTS

The response shall include or identify the following:

A. Transmittal Letter

The Response shall express the Respondent's interest in providing C3M tools to the Port Authority. The Transmittal Letter shall also include or identify:

- The name, address, URL and Federal Employer Identification Number of the Respondent.
- Contact information (name, title, e-mail address, telephone number) of the individual who shall act as the Proposer's contact with the Authority for further information requests and future solicitations, if any. In addition, at any time after the opening of the responses to the solicitation, the Authority may request additional information relating to the Proposer's qualifications and will use this individual as the point of contact for these queries.
- A brief description of the proposed offerings, including product suite(s) and the product manufacturer or subscriptions, its years in business under its present business name, and a list of previous business names used (if any) and relationships amongst all relevant entities in the Response.
- If Respondent is not the product manufacturer, a brief description of the relationship and information about the Respondent's lines of business, its years in business under its present business name, and a list of previous business names used, if any.

Responses must be signed by an authorized corporate officer (e.g., President or Vice President), General Partner, or such other individual authorized to bind the Respondent to the provisions of its qualifications and this solicitation. A copy of such authorization shall be included with the response.

B. Executive Summary / Capability Statement:

The Respondent shall submit a summary of how the proposed offering satisfies the requirements contained in this solicitation, as well as the special competencies and expertise of the offering to meet the requirements of this solicitation. Included within this capability statement, the Respondent shall identify and briefly describe:

- The specific relevant functionality and breadth of usage of the product offering being proposed, including explanation of the product’s use by clients of size and complexity equivalent to the Authority.
- What makes the solution uniquely qualified to meet the Agency’s requirements for this engagement.
- Typical timeframes for delivering similar solutions.

C. Certifications With Respect to the Contractor’s Integrity Provisions

This RFI/RFPQ contains Contractor Integrity Provisions as Part III of the accompanying Standard Terms and Conditions. By submitting a response, the Respondent shall be deemed to have made the certifications contained therein, unless the Respondent submits a statement with its proposal explaining the inability to make such certification(s). Such statement shall be submitted in a separate envelope clearly marked “CERTIFICATION STATEMENT,” along with your proposal.

D. Documentation of Product Prerequisites

The Respondent shall submit documentation to demonstrate that its proposed offering meets the prerequisites included herein. Please see Section 4 (Product Prerequisites) for details.

E. Agreement on Terms of Discussion

The Agreement on Terms of Discussion, attached hereto as **Attachment A** shall be signed by an officer of your company who is authorized to bind the company to the matters set forth therein. All information contained in the Respondent’s response is subject to the “Agreement on Terms of Discussion” and is not generally considered confidential or proprietary. All materials submitted in response to or in connection with this RFI/RFPQ shall become the property of the Port Authority. Selection or rejection of responses shall not affect this right.

F. License Agreements

The Respondent shall include with its submission copies of standard EULA or subscription software license agreements that the Respondent would reasonably expect the Authority to execute as part of an agreement. Requests for this information does not signify the Authority’s acceptance or agreement to enter in any such license or other agreement.

F. Functionality Matrix

Please provide responses to **Attachment B** - Functionality Matrix. This will form the basis of the Authority’s initial evaluation.

Attachment B available in Microsoft Excel format by request to Port Authority Contact above.

Even though the Port Authority does not anticipate that any award will be made directly from this RFI/RFPQ, Respondents are advised that responses to this RFI/RFPQ, as well as other responses submitted as a result of this RFI/RFPQ may, and most probably will, be incorporated in any contract regarding the subject matter herein. Respondents are cautioned that responses to the Functionality Matrix and other responses that describe product capability shall be considered binding and may be included as representations in subsequent agreements.

G. Technical Discussion

- A. Please provide an overview of the technical components of your proposed architecture and how it aligns with the Authority's standards as provided elsewhere herein.
- B. It is the Authority's overall understanding that the proposed solution can be comprised of one or a combination of the following three general approaches:
 1. Traditional On-Prem software (perpetually licensed with associated ongoing maintenance fees) to be loaded on Authority-provided equipment in an Authority protected datacenter.
 2. Version of the traditional On-Prem software with associated ongoing maintenance fees but loaded by the Authority in the Authority's secured and maintained cloud-based IaaS environment (such as, for example, Microsoft Azure).
 3. A cloud based offering hosted in a cloud environment in compliance with Authority standards.

Please provide the Authority with an understanding of how your proposed offering fits into these constructs; which constructs are actually available; any other solutions if offered; and pros and cons for each solution offered to the Authority.

- C. What processes are necessary to develop changes to your software and to keep pace with security updates required due to known vulnerabilities, and how you communicate this (from a timing and functionality perspective) to clients?
- D. The Authority is a recipient of various Federal grants. Please detail which clients you currently have that are also Federal grant recipients. How does your software enable them to effectively handle the different requirements imposed by Federal grants?
- E. How does your software accommodate new construction contract procurement methods that the agency may implement in the future? Current methods include Design-Bid-Build, Design-Build and Public-Private Partnerships.

H. Implementation and Ongoing Support Abstracts

- A. Understanding that no detailed specifications are provided, please describe average implementations a company the size and complexity of the Authority could expect. Include within this a suggested timeline and the project team required. Also include an assessment of the five biggest risks the Authority should expect to encounter when migrating to the proposed offering and proposed mitigations.
- B. What should the Authority expect with respect to ongoing use of the system? What level of effort is required to effectively maintain the system from an OS, DB and application perspective?

I. Budgetary Cost Estimate

As part of the response, submit a separate overall cost estimate for budgetary purposes. The cost estimate shall indicate the licensing model and general fee structure that the Authority could be reasonably expected to incur for product, subscription, maintenance and support and / or other

services related to the provision, installation, integration, configuration and maintenance of Proposer's proposed solution.

Costs provided may be total or unit based costs. Identify the units for all unit-based costs (e.g. per user / per month) as applicable.

If you are proposing multiple products for the final solution, include in your response a diagram(s) showing the product relationship.

Cost shall distinguish between one-time costs and recurring/annual costs as well as costs payable to the product manufacturer/reseller or other third parties.

Please include all price books for products/services that the Authority may consider purchasing.

J. General Contract Provisions

The Port Authority has attached its Standard Terms and Conditions to this RFI/RFPQ as Attachment C. The Proposer is expected to agree with these Standard Terms and Conditions. However, if the Proposer has any specific exceptions, such exceptions should be set forth in a separate letter included with its response to this RFI/RFPQ. After the Response Due Date, the Proposer will be precluded from raising any exceptions unless such exceptions are justified by and directly related to substantive changes in the business or technical requirements and are agreed to by the Proposer and the Port Authority.

K. Background Checks

Prior to awarding any future purchase agreement, at the direction of the Port Authority, the Contractor and its employees, agents and subcontractors may be required to have its staff, and any subcontractor's staff working under this Contract, authorize the Authority or its designee to perform background checks. Such authorization, if required, shall be in a form acceptable to the Authority. The Contractor (and subcontractor) may also be required to use an organization designated by the Authority to perform the background checks. 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. Costs for staff that are rejected for a credential for any reason are not reimbursable.

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, except as otherwise required by federal law and/or regulation. 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.

The length of time researched for the identity check/background screening on new hires shall be a minimum of ten (10) years.

8. QUESTIONS / COMMUNICATION

Any questions by prospective Respondents concerning this RFI/RFPQ shall be addressed by e-mail to the Buyers listed on the cover page of this solicitation no later than the listed question due date and time.

The Buyers are authorized only to direct the attention of prospective Respondents to various portions of this solicitation so that Respondents may read and interpret such portions themselves.

Neither any Buyer nor any other employee of the Port Authority is authorized to interpret the provisions of this solicitation or to give additional information as to its requirements. If interpretation or other information is required, it will be communicated to prospective Respondents by written addenda and such writing shall form a part of this solicitation.

9. CONFERENCES / PRODUCT DEMOS

As described elsewhere herein, Respondents whose products the Port Authority desires to evaluate further following evaluation based on the Functionality Matrix will be asked to participate individually in an onsite discussion and demonstration of product functionality with Authority staff.

These conferences are currently scheduled for the weeks of March 20, 2017 – March 31, 2017 onsite at Authority offices in Jersey City, NJ. The exact time and location will be communicated to Respondents who are invited to deliver such presentations. Each presentation shall be approximately four (4) hours long. Respondents who are invited to deliver a presentation will be randomly assigned a time slot and date for their presentation. Please note that Internet and Wi-Fi access will not be provided as a part of the setup for the demonstrations.

The Port Authority is unable to grant exceptions to this timeframe, so Respondents are advised to take this into account and ensure key technical staff will be available.

Proposer's General Reference Checks

Attachment E shall be filled out and included with your response as per the attached instructions.

10. GENERAL

- A. The Port Authority reserves all its rights at law and equity with respect to this RFI/RFPQ including, but not limited to, the unqualified right, at any time and in its sole discretion, to change or modify this RFI/RFPQ, to reject any and all responses, to waive defects or irregularities in responses received, to seek clarification of responses, to request additional

information, to request any or all Proposers to make a presentation, to undertake discussions and modifications with one or more Proposers, or to negotiate an agreement with any Proposer or third person who, at any time, subsequent to the deadline for submissions to this RFI/RFPQ, may express an interest in the subject matter hereof, to terminate further participation in the responses process by a Proposer or to proceed with any responses or modified responses, which, in its judgment, will, under all circumstances, best serve the Port Authority's interest. The Port Authority may, but shall not be obliged to, consider incomplete responses or to request or accept additional material or information. The holding of any discussions with any Proposer shall not constitute acceptance of a response, and a response may be accepted with or without discussions.

- B. No Respondent shall have any rights against the Port Authority arising from this RFI/RFPQ, the content or receipt of responses thereto or the incorporation in or rejection of information contained in any response or in any other document. The Port Authority makes no representation, warranty, or guarantee that the information contained herein, or in any addenda hereto, is accurate, complete, or timely or that such information accurately represents the conditions that would be encountered during the performance of the contract. The furnishing of such information by the Port Authority shall not create or be deemed to create any obligation or liability upon it for any reason whatsoever and each Respondent, by submitting its response, expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever. Accordingly, nothing contained herein and no representation, statement or promise, of the Port Authority, its directors, officers, agents, representatives, or employees, oral or in writing, shall impair or limit the effect of the warranties of the Respondent required by this RFI/RFPQ or Contract and the Respondent agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.
- C. At any time and from time to time after the opening of the responses, the Port Authority may give oral or written notice to one or more Respondents to furnish additional information relating to its response, or to meet with designated representatives of the Port Authority. The giving of such notice shall not be construed as an acceptance of a response. Any information so requested shall be submitted within three (3) calendar days after the Port Authority's request unless a shorter or longer time is specified therein.
- D. Neither the expression of your organization's interest, nor the submission of your response to the solicitation and any documents or other information supplied by you, nor any correspondence, discussions, meetings or other communications between your organization and the Port Authority, shall impose any obligation on the Port Authority. The Port Authority shall have no obligation to any Respondent.
- E. Acceptance shall be only by mailing to or delivering to the office designated by the Respondent in its response, a notice in writing signed by an authorized representative on behalf of the Port Authority specifically stating that the response is accepted or by execution of an agreement covering the subject matter of this RFI/RFPQ, signed by authorized representatives of the Port Authority and the Respondent. No other act of the Port Authority, its Commissioners, officers, agents, representatives or employees shall

constitute acceptance of a proposal. Rejection of a response shall be only by either (a) a notice in writing specifically stating that the response is not accepted, signed by an authorized representative of the Port Authority and mailed to or delivered to the Respondent at the office designated in the Response, or (b) omission of the Port Authority to accept the response or create a list of Prequalified products within 180 days after the Response Due Date. No other act of the Port Authority, its Commissioners, officers, agents, representatives or employees shall constitute rejection of a response.

- F. It is Port Authority policy that contractors and vendors comply with the legal requirements of the States of New York and New Jersey. Your attention is therefore called to New York State's requirements that certain contractors, affiliates, subcontractors and subcontractors' affiliates register with the New York State Department of Taxation and Finance for the purpose of collection and remittance of sales and use taxes. Similarly, New Jersey requires business organizations to obtain appropriate Business Registration Certificates from the Division of Revenue of the State's Department of the Treasury.
- G. The Port Authority shall not be liable for any costs incurred by the Respondent in the preparation, submittal, presentation, or revision of its qualifications, or in any other aspect of the Respondent's activity in connection with its response to this RFI/RFPQ. No Respondent is entitled to any compensation with respect to this RFI/RFPQ.
- H. The Authority reserves the unqualified right, in its sole and absolute discretion, to reject all responses, to undertake discussions and modifications with one or more Respondents and to proceed with those response(s) or modified response(s), if any, which in its judgment will, under all the circumstances, best serve the public interest.
- I. Prospective Respondents are advised that additional vendor information, including but not limited to forms, documents and other information, including MBE/WBE Participation Plan Submission Forms and protest procedures, may be found on the Port Authority website at: <http://www.panynj.gov/business-opportunities/become-vendor.html>.
- J. Vendor Profile – To ensure maximum opportunities, it is vitally important that Respondents keep their vendor profiles up to date with an appropriate e-mail address, as this will enable their firms to receive timely notice of advertisements, reminders, solicitations and addenda. Respondents may update their vendor profile or register as a Port Authority Vendor by accessing the online registration system at <https://panynjprocure.com/VenLogon.asp>.
- K. Non-Liability of Port Authority Representatives: Neither the Commissioners of the Port Authority, nor any of them, nor any officer, agent or employee thereof shall be charged personally with any liability by a Proposer or another or held liable to a Proposer or another under any term or provision of this RFI / RFPQ or any statement made herein or because of the submission or attempted submission of a proposal or other response hereto or otherwise.

ATTACHMENT A

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification(s), ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent.

Any information (including information contained in any proposal, vendor qualification(s), ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) provided in connection with this procurement is subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on October 22, 2014, which may be found on the Port Authority website at: <http://www.panynj.gov/corporate-information/pdf/foi-code.pdf>. The foregoing applies to any information, whether or not given at the invitation of the Authority.

(Company)

(Signature)

(Title)

(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY.
DO NOT RETYPE.

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

Requirement #	Functional Requirements	Current System Capability	Importance	Feature Provided?	Module or Software Name	Proposed System	Vendor Comment
1.0	System						
1.01	General System Requirements						
1.01.1	Ability to provide on-premise and cloud (SaaS) hosted software alternative:	Both	Convenient				
1.01.2	If proposing as a on-premise solution, ability to run on Microsoft SQL server	Both	Important				
1.01.3	If proposing as a cloud-based (SaaS) solution, ability to provide 99.9% uptime availability		Mandatory				
1.01.4	Ability to provide site license price option		Mandatory				
1.02	General Software Requirements						
1.02.1	Ability to support common functions like copy/paste, fill-down/fill-right, and drill-down, filtering, grouping, sorting, and search.	Both	Convenient				
1.02.2	Ability to create or modify reports without using external reporting applications. Custom fields should be supported by the configuration framework with no coding or vendor support required.		Important				
1.02.3	Ability to provide unlimited custom fields that allow calculations rather than data (e.g., create a cell called WIP remaining budget = Authorization - WIP)		Important				
1.02.4	Ability to provide users with ease of use - look as much like current systems as possible.	Both	Convenient				
1.02.5	Ability to change names of fields on user interface in order to maintain existing PA terminology. (e.g., PIN, PACC instead of potential and pending change order)	Both	Mandatory				
1.02.6	Ability to store, distribute, and manage a large volume of files of any size and type, with any number of project participants	Both	Mandatory				
1.03	Security						
1.03.1	Ability to provide secure system structure with independent permissions and multiple levels of security and user authorization by user or role		Important				
1.03.2	Ability to provide user access (permission level) controls user interface report access, approval workflows, etc.		Mandatory				
1.03.3	Ability to provide multifactor authentication protocol for system administrators and system owners		Important				
1.03.4	Ability to provide a complete audit trail of all system activity, with time and date stamping, which cannot be deleted by the user or the administrator		Mandatory				
1.03.5	Ability to provide integration with PANYNJ Active Directory platform or centralized account/application user management		Important				
1.03.6	Ability to provide integration with PANYNJ Rights Management Framework		Convenient				
1.40	Help Desk Support						
1.04.1	Provide 24x7 live support by software vendor		Mandatory				
1.04.2	Provide context-based help built into application screens		Mandatory				
1.04.3	If this is a cloud solution, provide the ability to defer update:		Convenient				
1.04.4	Provide online user support (FAQs, demos, tutorials, user community forums, etc.)		Important				
1.50	Account Requirements						
1.05.1	Ability to provide enterprise-wide licensing option based on unlimited user account:		Important				
1.05.2	Ability to provide a dedicated Account Representative		Important				
1.05.3	Ability to provide product updates at no additional cost (included in subscription/maintenance fee)		Mandatory				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

1.60	Archiving & Retention					
1.06.1	Ability to archive all documents, data and transaction history associated with a projec		Mandatory			
1.06.2	Ability to export all documents and associated metadata in a format compatible for import into PANYNJ document management system such as Open Text Content Server or SharePoint	Both	Mandatory			
1.06.3	Ability to archive an entire project, including all information, forms, documents, attachments and other data, including the historic activity (e.g., comments, dialogs, date/times, etc.) of each, to a designated PANYNJ server in a format that does not rely on the vendor's system to access or organize the archive	Both	Mandatory			
1.06.4	Add the ability to bulk upload / export. Add the e-discovery capabilities. Ability to enforce retention policies.		Mandatory			
1.70	Collaboration					
1.07.1	View, comment and redline markup of submittals, as-builts and RFI attachments in PDF format		Important			
1.07.2	Allow vendors to submit pay applications, change proposals, RFIs and submittals		Important			
1.07.3	Ability to use either a built-in or external viewer for CADD and BIM model		Important			
1.07.4	Redline and Annotate CADD and BIM Models		Important			
1.80	Workflow					
1.08.1	Routes and tracks the progress of construction forms through a review, comment and approval (at multiple levels) workflow process	CM13	Mandatory			
1.08.2	Provides standard workflows that can be modified and allow authorized users to create workflows		Important			
1.08.3	Support electronic document review, both by single reviewer or multi-reviewers	CM13	Mandatory			
1.08.4	Allows a "draft" response that can be viewed only by select users, and must be approved before the response is issued and can be seen by all		Convenient			
1.08.5	Provides for internal dialogue between select parties (not viewable by others on the project) on a form that is tracked and saved		Convenient			
1.08.6	Provide integration with Office 365 email for alerts, notifications and other workflow related interactions. Ability to interact with workflow within the email system.		Important			
1.90	Integration					
1.09.1	Integrate data in real time via multiple integration approaches (Web Services, etc		Important			
1.09.2	Import data from Excel or CSV files to populate fields	CM13	Mandatory			
1.09.3	Export logs and other data to Excel with formatting		Important			
1.09.4	Accessible and fully functional from Windows web browser, tablet, or mobile device with no reliance on third party software		Important			
1.09.5	Compatible with Microsoft Office products		Important			
1.09.6	System is compatible with other standard PANYNJ desktop software (Adobe Acrobat, Oracle Primavera, AutoCAD)	Both	Important			
1.09.7	Provide an Application Programming Interface (API) that allows the system to exchange information with other PANYNJ systems	Both	Mandatory			
1.09.8	Able to share data with other PANYNJ software platforms (e.g., SAP, Cognos, Maximo, SharePoint, Content Server, Oracle Primavera, etc.)	Both	Important			
1.09.9	Provide the ability to share financial data with other database systems		Important			
1.09.10	View and analyze information from Primavera schedules, including cost loaded and resource loaded information		Convenient			
1.09.11	Synchronize alerts, messages, etc., with Microsoft Outlook		Important			
1.09.12	Integration with 3rd Party systems such as Bid Management, Certified Payroll, etc		Important			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

1.10	Cloud Computing						
1.10.1	If proposing as a cloud-based (SaaS) solution, ability to comply with PANYNJ Cloud Computing Framework, including compliance with NIST 800-144, NIST 800-53, FIPS 200, and FIPS 199		Important				
1.10.2	Encryption: Require that strong encryption using a robust algorithm with keys of required strength be used for Web sessions. Please specify in comments the encryption protocols usec		Important				
1.10.3	Digital Signatures: Federal agencies must employ government-approved cryptographic algorithms for encryption and digital signature, and the implementations need to be FIPS 140-2 validated		Convenient				
1.10.4	Data Storage: Secure Data Deletion. Require that cloud/vendor providers offer a mechanism for reliably deleting data at the Agency's request		Important				
1.10.5	Data Location: Must be US-based, in multiple locations for redundancy and administered by US Citizens		Important				
1.10.6	Electronic Discovery: A cloud/vendors information archival capabilities must preserve the original metadata of 'client data' so as to not adversely affect the Agency's litigation risk		Important				
1.10.7	Data Ownership: The Agency must retain exclusive ownership over all its data; that the cloud/vendor provider acquires no rights or licenses to that data, including intellectual property rights or licenses. The cloud/vendor may not use the Agency's data for its own purposes; and that the cloud/vendor does not acquire and may not claim any interest in the data due to security.		Important				
1.10.8	Availability: Must meet 99.9% uptime and be able to demonstrate that they have met this standard for a period of X years		Important				
1.10.9	Data Security: c. Threat management, security monitoring, and file/data integrity prevents or detects any tampering of data.		Important				
1.10.10	Data Security: b. Encryption in transit with SSL/TLS protects Agency's data transmitted between the Agency and cloud/vendor application.		Important				
1.10.11	Encryption: Require that strong encryption using a robust algorithm with keys of required strength be used for data at Rest. Please specify in comments the encryption protocols usec		Important				
1.10.12	Encryption: Require that strong encryption using a robust algorithm with keys of required strength be used for data in process (memory). Please specify in comments the encryption protocols used		Convenient				
1.10.13	ISO 27001 Certification		Important				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

2.0	Portfolio Management						
2.10	General						
2.11	Support PANYNJ's Enterprise Project Structure/ Organizational Breakdown Structure/ Work Breakdown Structure (EPS/OBS/WBS)	Both	Important				
2.12	Create heirarchical enterprise structure to allow grouping of projects to business units, facilities, buildings, field offices, etc	Both	Mandatory				
2.13	Have the flexibility to easily revise the hierarchical structure and re-associate projects to different or new nodes		Important				
2.14	Subtotal costs and other numerical data at all levels of the hierarchy	Both	Mandatory				
2.15	Report on data across multiple projects (e.g., budget vs. forecase vs. actual cost-to-date for specific contractor across the entire portfolio)		Mandatory				
2.16	Allow forensic searches across projects and into attachment:	Wintrak	Important				
2.17	Create multiple capital programs, each capable of encompassing multiple construction projects, and multiple contracts below the project leve	Both	Important				
2.18	Create a new construction project from a template		Convenient				
2.19	Group users by Field Office which filters list to only those contracts they are responsible for.	Both	Important				
2.20	Allow users to filter views to see only projects they are responsible for and not have to scroll through numerous contracts that are not theirs.	Both	Mandatory				
2.21	Apply multiple filter levels. (If a user selects JFK and sets the filter to "Redevelopment," the user sees and reports only contracts at JFK that are designated as Redevelopment	Wintrak	Mandatory				
2.22	Respect permissions, groupings & filtering when viewing and reporting (e.g., user associated with NY airports sees only facilities at JFK, LGA and SWF airports. If they run reports for "All Facilities," only data from those three facilities will print).	Wintrak	Mandatory				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

3.0	Document Management					
3.10	General					
3.1.1	Create typical construction data entry screens (forms), including, but not limited to, Requests for Information (RFIs), Submittals, Daily Inspection Reports, Change Orders, Issues, etc	CM13	Mandatory			
3.1.2	Provide for the creation of custom forms, in addition to "out-of-the-box" forms provided		Important			
3.1.3	Allow for files to be attached to construction records created using the forms	CM13	Mandatory			
3.1.4	Track issues on a project and allows for links or associations to be formed between various records that may be related to a common issue		Important			
3.1.5	Identify which records should be associated through word searches. Look at records and be able to decide which should be associated and reject others		Important			
3.1.6	Allow for an administrator to designate fields that are required to be completed		Important			
3.1.7	Provides a project specific repository for all project related documents		Mandatory			
3.1.8	Automatically synchronizes documents between the system and a local storage source		Important			
3.1.9	Provide an organizational structure in which a user can easily search and find project documents and other vital project information		Mandatory			
3.1.10	Provide robust search functionality that searches all existing documents, forms, attachments and correspondence using tagged metadata		Mandatory			
3.1.11	Provide a viewer for documents in various formats, including but not limited to, PDF, Microsoft Office applications, and drawing packages like CAD	CM13	Mandatory			
3.1.12	Allow designated users to control access to documents within their respective project	CM13	Mandatory			
3.1.13	Allow users to print documents related to their respective project	CM13	Mandatory			
3.1.14	Provide an integrated viewer that includes redline and markup capabilities		Important			
3.1.15	Feature automatic reference (xref) file detector		Important			
3.1.16	Automatically compress multiple files into zip files for easy download		Important			
3.1.17	Allow approvers to digitally sign and encrypt documents		Important			
3.1.18	Allow for project images and videos to be uploaded, marked-up (photos), stored, categorized, and selected by query search		Mandatory			
3.1.19	Ability to provide real-time message tracking and time/date stamps on all communication transactions		Important			
3.20	Submittals & RFIs					
3.2.1	Manage the routing, commenting & approval of Submittals and RFIs	CM13	Mandatory			
3.2.2	Generate a submittal form and log and a separate RFI form and log	CM13	Mandatory			
3.2.3	Allow users to establish different review cycle turnaround times for each RFI or Submittal		Mandatory			
3.2.4	Create a custom length alpha-numeric identifier for all	CM13	Mandatory			
3.2.5	Assign a response required by date that can be used to trigger alerts	CM13	Mandatory			
3.2.6	Bring in submittal required-by date by transferring submittal-late dates from PANYNJ scheduling software (P6)	CM13	Important			
3.2.7	Capture who is responsible for responding and group all overdue items from various projects for that person into one report or dunning letter	CM13	Mandatory			
3.2.8	Route to multiple reviewers and bring all comments together into one document that will be sent back to the contractor	CM13	Mandatory			
3.2.9	Show response times and late submittals in a dashboard and alert report	CM13	Mandatory			
3.30	Daily Inspection Reports					
3.3.1	Able to capture and customize the data fields used in the daily inspection reports. Fields to be included at a minimum include: date, weather, trade name, # of workers, quantity of material installed, schedule activity ID, text field for work done, inspector name, visitors, safety issue		Important			
3.3.2	Able to capture and customize the data fields used in the T&M Reports		Important			
3.3.3	Able to route through a workflow with a sign-off by RE or Lead Inspector		Important			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

3.3.4	Able to see a log of all reports that can be sorted or filtered		Important			
3.3.5	Able to attach unlimited numbers of photographs to the daily report with the ability to "Tag" the photo with data		Important			
3.3.6	Able to change the label of the photograph		Convenient			
3.3.7	Ability to link Daily Inspection Reports to schedule activities for reference		Convenient			
3.40	Non-Compliance Notices					
3.4.1	Ability to Identify areas where contractor did not achieve the specified level of quality		Important			
3.4.2	Ability for contractor to provide Corrective Action		Important			
3.4.3	Ability to Create a log of non-compliances and track status to resolution		Important			
3.4.4	Ability to Generate paper forms		Important			
3.4.5	Able to route through a workflow with a response from the contractor and a sign-off by RE or Lead Inspector		Important			
3.50	Meeting Minutes					
3.5.1	Ability to document individual threads of discussion in separate field:		Important			
3.5.2	Ability to append each subsequent discussion about a thread to the prior with a date to build a chronology until issue closed		Important			
3.5.3	Ability to establish and close out Action items with a due date assigned to people		Important			
3.60	Correspondence sent and received					
3.6.1	Ability to Separate folders for correspondence by date		Important			
3.6.2	Ability to Search by keyword in log and documents themselves:		Important			
3.70	Transmittals					
3.7.1	Email a link or attach the correspondence files to a transmittal.		Mandatory			
3.80	Drawing Log					
3.8.1	Ability to Capture all drawings with revision control & tracking of superceded drawing:		Mandatory			
3.8.2	Ability to Attach drawings to record in system:		Mandatory			
3.8.3	Ability to markup, write, draw or sketch comments, revisions, etc. on a drawing in PDF format:		Convenient			
3.8.4	Ability to create links in the PDF to issues, RFIs, and other documents or forms in the system		Convenient			
3.8.5	Ability to Customize comments or markups by changing the color, fill, line type and text properties		Convenient			
3.8.6	Ability to provide markup tools for a PDF, including text, notes, highlighter, clouds, and callout:		Convenient			
3.8.7	Ability to allow embedding of images and video:		Important			
3.8.8	Ability to track the author, date, time and comments associated with each comment or markup:		Important			
3.8.9	Ability to import drawing list from Excel to reduce manual typing		Mandatory			
3.9	Punchlists					
3.9.1	Ability to capture all punchlists by discipline, with the following data fields at a minimum: Description of Work, Dollar Value, Forecast / Actual Completion date, Status, Inspector.		Important			
3.9.2	Ability to utilize attributes to create separate lists of punch list item:		Important			
3.9.3	Ability to attach an external document to a punch list item		Important			
3.9.4	Ability to incorporate a Punch List in a workflow.		Important			
3.9.5	Ability to create multiple punch lists		Important			
3.10	Specialty Documents					

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

3.10.1	Contractor insurance tracking reports and alerts		Convenient			
3.10.2	Vendor performance evaluation		Convenient			
3.10.3	Integrate with Certified Payroll Tracking System such as LCP tracker		Convenient			
3.10.4	Recycle Compliance		Convenient			
3.10.5	Closeout checklists		Convenient			
3.10.6	Capture and calculate equipment emissions information		Convenient			
3.10.7	Track Leadership in Energy and Environmental Design (LEED) certification points		Convenient			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

4.0	Financial (Wintrak)					
4.10	Vendor Contract Management					
4.1.1	Ability to capture general information about a contract (name, budget, contractor, etc.	Both	Mandatory			
4.1.2	Ability to code the Contract to one of various categories - Such as Classified (Unit Price), Unclassified (Lump Sum) & Work Order, but should be extensible to add new category types	Wintrak	Mandatory			
4.1.3	Ability to capture all vendors (prime and subcontractors) contact information in a central repository available to all contracts	Both	Mandatory			
4.1.4	Ability to distinguish Prime and Subcontractors on a per contract basis	Wintrak	Mandatory			
4.1.5	Ability to assign attributes to vendors, such as MBE/ SBE/etc. Status	Wintrak	Important			
4.1.6	Ability to assign vendors to multiple contracts	Wintrak	Important			
4.1.7	Ability to assign MBE, etc. goals to each contract	Wintrak	Important			
4.1.8	Ability to roll up costs by the attributes to verify goal compliance	Wintrak	Important			
4.1.9	Ability to assign vendors to multiple projects, or to the prime contractor	Both	Important			
4.1.10	Ability to differentiate cost types: Classified, UnClassified and Work Order	Wintrak	Important			
4.1.11	Ability to track performance bonding amounts, if the authorization requires it.	Wintrak	Important			
4.1.12	Ability to track Insurance expiration date		Important			
4.1.13	Ability to track subcontracting goal compliance reports (what % to SBE, etc	Wintrak	Mandatory			
4.1.14	Ability to produce graphical reporting on MBE, SBE and WBE Compliance		Mandatory			
4.20	Budget Authorization Management					
4.2.1	Ability to create Authorization (the maximum allowed to be spent for any particular line item) to be subdivided into any combination of the contract types. Each of these Line Items will have their own authorized value, the combined total of which makes up the Current Total Authorization.	Wintrak	Mandatory			
4.2.2	Ability to allow the Authorizations on the different Contract types to be further subdivided into Extra Work and/or Net Cost authorizations	Wintrak	Mandatory			
4.2.3	Ability to establish budget contingency as a Supplemental Line Item that is identified to a specific charge code.	Wintrak	Mandatory			
4.2.4	Ability to record and separately store the original Authorization line item detail in a field that project level staff do not have security rights to change	Wintrak	Important			
4.2.5	Ability to create a form and workflow that can be used to request and get approval of increases to Authorizations. There shall be a field that explains the reasons for the need to increase the authorization. Record and separately store each progressive authorization with the line item level of detail.	Wintrak	Important			
4.2.6	Allow comparison of original authorization and current authorization to explain why a project costs more than the original authorization.	Wintrak	Mandatory			
4.2.7	Ability to establish a construction contract authorization budget with a hierarchical breakdown to a Schedule of Bid Prices and a Schedule of Values	Wintrak	Important			
4.2.8	Ability to generate a warning alert whenever Work in Progress (WIP) or Actual Cost exceeds a user defined percentage of Current Authorization for all contract types	Wintrak	Important			
4.2.9	Ability to prevent entry of a dollar amount that is greater than the authorized amount and generate an alert message whenever Work in Progress or Actual Cost is going to exceed the Current Authorization at the Contract and Line Item level. Set rules on fields for Work in Progress and Actual Cost/ Payment Applications that does not allow entry of an amount that exceeds the current Contract Authorization amount.	Wintrak	Mandatory			
4.2.10	Set rules on fields for Actual Cost/ Payment Applications that does not allow entry of an actual amount that exceeds the current WIP for that charge code. Generate an alert message whenever Actual Cost exceeds the Work in Progress at the Charge Code level.	Wintrak	Mandatory			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

4.2.11	Ability to subdivide contract Authorizations into an unlimited number of individual line items. Line items can be either lump sum amounts or record quantity X unit price. Reporting should allow comparisons of <u>Authorization, actual, WIP and forecast at the line item level</u>	Wintrak	Mandatory				
4.2.12	Ability to assign an identifying code to individual Contract Line Items. Should be able to assign the same identifying code to multiple Line Items.	Wintrak	Mandatory				
4.30	Forecast Cost Management						
4.3.1	At project initiation provide the ability to automatically populate the Forecast cost field with the Authorization amount at the Contract and Line Item level	Wintrak	Important				
4.3.2	Ability to change the value of a record's forecast, by manually over-writing the fields automatically populated forecast value.	Wintrak	Important				
4.3.3	Ability to automatically increase a line item forecast to the WIP amount, should WIP exceed the Forecast ensuring that the WIP entry does not exceed the Line Item Authorization. Generate an alert message whenever a forecast is automatically increased.	Wintrak	Important				
4.3.4	Ability to Allow the entry of a forecast value that exceeds the current Authorization except in the case of a Lump Sum Line Item.	Wintrak	Important				
4.3.4a	Generate an alert message whenever a forecast exceeds a line Item Authorization.		Important				
4.3.5	All negative value Extra Work Items will reduce the LUMP SUM FORECAST. This is the only permissible way to reduce the Lump Sum Forecast.	Wintrak	Important				
4.3.5a	The exception to 4.3.5 is an Adjustment Post Award Contract Change (PACC). Whether positive or negative, it changes the value of a T&M or Unit Price Change Order, increasing or decreasing the change orders original value. The result then, will increase or decrease the Extra Work Forecast and the available Extra Work funding.		Mandatory				
4.3.6	When the forecast cost of a Lump Sum Item is less than the authorized value (because reduced by negative value entries), ability to prevent the entry of Work In Progress (WIP) or actual cost amounts that exceed the lower contract Forecast, (rather than the Authorization limit)	Wintrak	Important				
4.30	Actual Cost Management						
4.3.1	Ability to populate actual cost from the payment application module at the Line item level	Wintrak	Mandatory				
4.3.2	Ability to generate alerts and prevent data entry if actual lump sum cost, quantity or unit price exceeds contract authorizations	Wintrak	Mandatory				
4.3.3	Ability to assign multiple codes to actual charges as they are entered in the system. Codes to include Charge Code, Reference Number, and Item Number.	Wintrak	Mandatory				
4.3.4	Associate these multiple charges to a single original budget Authorization line items.	Wintrak	Important				
4.40	Payment Applications						
4.4.1	Ability to accept payment applications from outside vendors at the Bid Item and Schedule of Values item level		Convenient				
4.4.2	Ability to compare payment to date to Authorization and generate alerts when within user defined % of budget authorization on a clear, concise financial screen	Wintrak	Important				
4.4.3	Ability to automatically generate a log of payments made to date and drill down to a breakdown of each payment by item and by charge code.	Wintrak	Important				
4.4.4	Ability to provide a payment request form that mimics forms used at the Port and generates a payment record that can be routed for approval using a workflow		Important				
4.4.5	Ability to prevent any Payment to exceed WIP of any Item, regardless of what it is.	Wintrak	Mandatory				
4.4.6	Withhold contractual retention amounts, and backcharge (i.e. concrete and asphalt penalties) the contractor. Track both earned and paid to date. Allow partial releases of these amounts in future payment applications.	Wintrak	Important				
4.50	Work in Place Management						

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

4.5.1	Ability to create custom fields to capture an RE's estimate of the work in progress (WIP) at the cost type level (classified, unclassified, etc) through the end of the current month, forecast work in progress for the remainder of the year and future years to contract completion.	Wintrak	Mandatory			
4.5.2	Ability to calculate remaining budget, forecast variances and associated alerts by using the WIP amount (rather than the actual payment amount) to compare to the Authorizator	Wintrak	Mandatory			
4.5.3	Ability to establish rules that WIP never exceed its Authorization.	Wintrak	Mandatory			
4.5.4	Establish a rule where no payment should ever exceed the WIP VALUE for an item being paid	Wintrak	Important			
4.5.5	Ability to generate alert and prevent entry if Payments exceeds WIP, Forecast or Authorization.	Wintrak	Mandatory			
4.5.6	Ability to apply the same rules to detail items that are individually authorized for specific scopes of work.	Wintrak	Mandatory			
4.5.7	Ability to establish rules that prevent entry of WIP and payments that exceed the detailed items Authorization. The Charge Code Level is a rolling forecast that can be overwritten by a later WIP.	Wintrak	Mandatory			
4.5.8	Ability to establish rules that prevent a negative WIP value to be applied to a charge code, if the result would be less than the amount paid to the charge code or the item. Allow the user to reconcile the problem by first applying a negative payment, thereby increasing the balance of unpaid WIP until its value is great enough to yield a WIP balance of zero or greater.	Wintrak	Mandatory			
4.60	Change Order Management					
4.6.1	Ability to allow changes to the contract amount through a change management proces:	Wintrak	Mandatory			
4.6.2	Ability to input cost or time impacts forecast (PIN) to a contract before proposal received from vendor	Wintrak	Important			
4.6.3	Ability to convert PIN to a PACC when contractor proposal received to minimize repetitive data entry. The PIN should be automatically closed upon creation of the PACC.	Wintrak	Important			
4.6.4	Ability to allow outside vendors to submit change proposals for money and time extension:		Important			
4.6.5	Ability to compare the sum of the original contract value + approved changes + PACCs + PINs to the available funding Authorization. Generate alert if Authorization is exceedec	Wintrak	Mandatory			
4.6.6	Ability to store PA's Independent Cost Estimates of Extra Work amount and compare to contractor proposals and final Change Order amount		Important			
4.6.7	Store multiple proposal prices as change order negotiations progres:		Important			
4.6.8	Ability to compare engineering estimate to proposals to CO amount		Important			
4.6.9	Ability to generate a record of negotiation		Important			
4.6.10	Ability to automatically generate change order request forms and log:	Wintrak	Mandatory			
4.6.11	Ability to establish a workflow to route the PACC for approva		Important			
4.6.12	Ability to increase the contract COST upon CO approval (block payment of extra \$ until CO approval)		Important			
4.6.13	Apply workflow routes, roles, and rules automatically to each contract type Change Order, Post Award Contract Change (PACC) and Pending Item Notification (PIN) based on user roles and task assignments.		Important			
4.6.14	Ability to record basic information about the PIN/PACC/CO, including but not limited to, change description, causation code, justification for change, scope, estimated cost at a line item level, estimated time impact.	Wintrak	Important			
4.6.15	Ability to associate issues, RFIs, and other related documents to individual change management records		Convenient			
4.6.16	Ability to input planned spending in a field called the Current Year Forecast	Wintrak	Important			
4.6.17	Ability to automatically sum all change estimates into an Extra Work forecast (sum of PIN/PACC/Forecast)	Wintrak	Important			
4.6.18	Ability to assign a charge code to every detail Item Record including Net Cost (T&M) line items to allow input of actual costs	Wintrak	Important			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

4.6.19	Ability to allow Clause Items (type of T&M) to share the Net Cost Authorization; yet roll up to a separate line item than their Net Cost counterpart. Clause Items maintain their own WIP, Forecast and Payment information and must meet the same limitation requirements as all other line items (I.E. costs are associated to police activity or traffic control due to the release of ballgames)	Wintrak	Mandatory				
4.6.20	Ability to allow contractors to enter, and for specified users (such as Inspectors) to mark for approval for payment of, Time and Material compensation requests for an individual change authorization. Data fields to include hours worked, payroll amount, and ability to sum the total cost incurred to date.	Wintrak	Important				
4.6.21	Ability to monitor the cost of each change authorization based on cost information entered by the contractor, and notifies the construction manager by e-mail when the costs submitted by the contractor approaches the not-to-exceed amount	Wintrak	Important				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

5.0	REPORTING						
5.10	General						
5.1.1	Ability to provide out-of-the-box analytical reports covering the common needs of each module	Both	Mandatory				
5.1.2	Ability to display user-created custom cost fields that allow the use of formulas to calculate variances from other standard or custom fields on an on-screen Cost Worksheet. Ability to print cost worksheet as it appears on screen	Both	Important				
5.1.3	Ability to generate a "Ball in Court" report that identifies all action items from every system module for individuals assigned actions in the system, including actions generated by an automated workflow.	CM13	Mandatory				
5.1.4	Ability to generate a High Alert report that identifies all overdue items from every system module and communicates who has the item, when they got it and when it was due and how many days late it is.	CM13	Mandatory				
5.1.5	Ability to produce a cost report that compares project Authorization, Forecast, Payments made to date, and Work in Progress at the contract type level of detail: (1) Classified (2) Unclassified / Lump Sum , (3) Work Order (4) Extra Work and (5) Net Cost	Wintrak	Important				
5.1.6	Ability to generate Document Turnaround reports that graphically and in tabular form show average turnaround time for processing different document types at various levels (project, person, group, etc.)	CM13	Mandatory				
5.1.7	Ability to develop new ad hoc reports in house without need for programming skill!		Important				
5.1.8	Ability to export reports in PDF, HTML, CSV, DOC, TXT or Excel formats		Mandatory				
5.1.9	Ability to provide administrator reports, including details regarding user accounts, permissions, activity log, statistics, etc.		Important				
5.1.10	Ability to provide the ability to schedule the automatic production and posting of batch reports at regularly scheduled intervals	Both	Convenient				
5.1.11	Ability to create custom data fields and use to sort, filter, group and subtota		Important				
5.1.12	Ability to generate a Staff workload report that lists how many projects are assigned to a RE, how many submittals to an individual reviewer, etc.		Mandatory				
5.1.13	Ability to generate a report listing the status of projects ("active," "on hold," "closed") and allow the ability to filter or sort by the status field.		Important				
5.1.21	Ability to generate dunning letter for overdue items	CM13	Mandatory				
5.1.22	Ability to generate unit price (classified items) reports that compares quantity/\$ budgeted to quantity/\$ installed. Ability to group by charge code, reference number, item number and location. Alert when actual unit quantity exceeds 20% of original value	Wintrak	Important				
5.1.23	Ability to generate available funding Report that compares original and current Authorization to the forecast cost at completion = Original \$ + Approved Change Orders + PINs + PACCs (see below)		Important				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

5.20	Dashboards							
5.2.1	Ability to provide dashboards showing graphical summarization of relevant program and project data, at both a summary level, a program level breakdown, and a detailed individual project level		Important					
5.2.2	Allow project team members to easily view their personal outstanding items in a dashboard high alert report		Important					
5.2.3	Feature role-based dashboards with key performance indicators and customizable report:		Important					
5.2.4	Incorporate popular project metrics or scorecards such as the Cost Performance Index, Schedule Performance Index, and earned value into dashboards.		Important					
5.2.5	Provide for individually created dashboards.		Convenient					
5.30	Alerts							
5.3.1	Ability to allow global creation of alerts based on custom criteria with user assignments based on system Roles (System Administrator Defined)		Important					
5.3.2	Ability to trigger alerts by user defined rules (User Defined)		Important					
5.3.3	Ability to notify users by e-mail, text message or other means when an action is required on their part, assignment of an issue, "ball-in-court" status and pending deadlines.		Important					

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

6.0	Schedule Management						
6.10	General						
6.1.1	Ability to transfer all or select project schedule dates from schedule software.		Important				
6.1.2	Ability to produce cash flow reports using dates in P6 schedule and cost data in the system		Convenient				

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

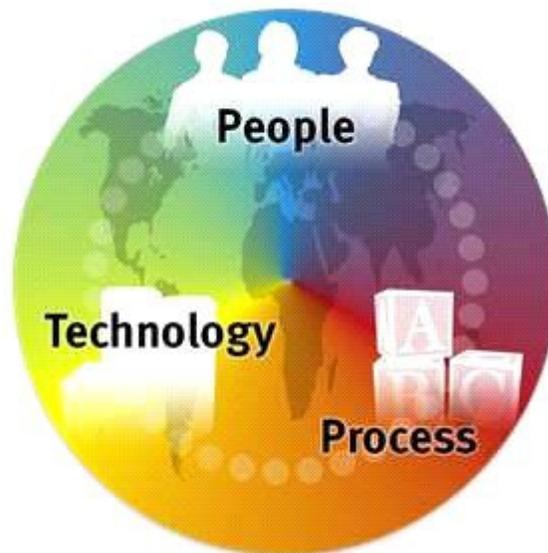
7.0	Additional Software Modules/Functionality						
7.10	General						
7.1.1	Ability to provide Bid Management module or integration with 3rd Party Bid Too			Convenient			
7.1.2	Ability to provide Recycle Management module that captures planned vs actual quantities and generate a report on a project and program level.	Wintrak		Important			
7.1.3	Ability to provide LEEDs Management module that captures the data necessary to establish compliance with LEED requirements.			Important			

ATTACHMENT B - C3M FUNCTIONAL REQUIREMENTS

8.0	Mobile Device Accessible						
8.10	General						
8.1.1	Ability to provide either a mobile enabled browser or an app for Android, iOS and Windows mobile devices that allows for creation, edit and approval of construction forms, and access to the project repository.		Important				
8.1.2	Ability to convert handwritten notes using a stylus on a mobile device to text		Important				
8.1.3	Ability to write Daily Inspector Reports and attach photos on a mobile device, whether online or offline.		Important				

**STANDARDS AND GUIDELINES
FOR
PORT AUTHORITY TECHNOLOGY**

**(Non-Confidential Sections for use in
preparation/distribution with RFP)**



Technology Department

Version 7.5
5/28/14

(PREPARED FOR RFP: **PLACE TITLE OF RFP HERE**)

Table of Contents

Introduction	4
1.0 The Port Authority Wide Area Network (PAWANET).....	4
1.1 PAWANET Overview.....	4
1.2 VOIP Circuit Diagram –	5
1.3 Inter-site Services Providers	5
1.4 PAWANET Functions.....	6
1.5 Features of PAWANET	6
1.6 Supported Protocols	6
1.7 PAWANET Switches and Routers.....	6
1.8 Approved Servers	7
1.9 Enterprise Addressing Scheme (including IP addressing).....	7
1.10 Enterprise Network Monitoring Software	7
2.1 Network Overview.....	7
2.2 Enterprise Network Architecture.....	8
2.3 Network Naming Conventions.....	13
2.4 Directory Services and Structure	13
2.5 System Backup and Recovery	13
2.6 Business Resumption Plan.....	14
2.7 Telecommunications Standards for Enterprise Network Resources	14
2.8 Documentation	16
3.0 Virus Scanning & Management	16
3.1 Overview	16
3.2 Standards.....	17
3.3 Acquisition and Installation	17
3.4 Virus Detection and Response	17
4.0 Electronic Mail.....	18
4.1 E-Mail Overview	18
4.2 E-Mail System Architecture	18
4.3 E-Mail Environment: Design Considerations and Infrastructure	18
4.4 Integrating Applications Server with Port Authority Email System.....	19

5.0	Intranet	19
5.1	Intranet Overview.....	19
5.2	Direction of eNet Development.....	20
5.3	eNet Software Infrastructure Standards & Guidelines	20
6.0	Workstation Hardware and Operating System Software	21
6.1	Overview	21
6.2	Workstation Operating System Standard	21
6.3	Workstation Configuration	21
6.4	Workstation Security.....	23
7.0	Distributed Systems Environment.....	24
7.1	Overview	24
7.2	Microsoft Windows Servers	24
7.3	Unix	25
7.4	z/OS	25
7.5	Application Security	26
7.6	Server Physical Security	26
7.7	Load Balancing – Failover Architecture.....	26
8.0	Vendor Provided Dedicated Systems	26
8.1	Overview	26
8.2	Physical Security Technology Standards.....	27
8.3	Communications Infrastructure Standards.....	29
8.4	Server Infrastructure Standard.....	29
9.0	Wireless Technologies.....	29
9.1	Wireless Guidelines.....	29
9.2	Scope.....	30
9.3	Principles.....	30
9.4	Compliance Requirements	31
9.5	Device Specifications	31
9.2	Paging Device Policy.....	33
9.3	Cellular Phone & Wireless Modem Policy and Procedures.....	34
9.4	Technology Services Mobile Device (Windows Mobile and Apple) Policy.....	34
9.6	BlackBerry Guidelines.....	35

Introduction

The purpose of this document is to communicate the standards established by the Technology Department (TD) and provide guidance in proposing Information Technology (IT) solutions for the Port Authority of New York & New Jersey (PANYNJ), the Agency.

To that end, these guidelines intend to help RFP Submitters do the following:

- Implement computing and networking solutions that ensure the utmost reliability, availability and security.
- Procure hardware and software that advances business needs in a manner that is compatible in an ever-changing IT environment that enables departments to work with each other more effectively.
- Easily and efficiently communicate and exchange information throughout the agency.
- Achieve greater systems integration so that the application will be interoperable resulting in cost effectiveness and quality control.
- Adherence to these standards ensures that IT investments achieve Enterprise connectivity, interoperability, consistency, and will enhance performance in a cost-effective way.

1.0 The Port Authority Wide Area Network (PAWANET)

1.1 PAWANET Overview

The Port Authority has a modern distributed computing network, called the Port Authority Wide Area Network (PAWANET), which is managed as an enterprise resource. It connects all the various Port Authority facilities and transportation systems using high-speed voice, data, and video lines or links.

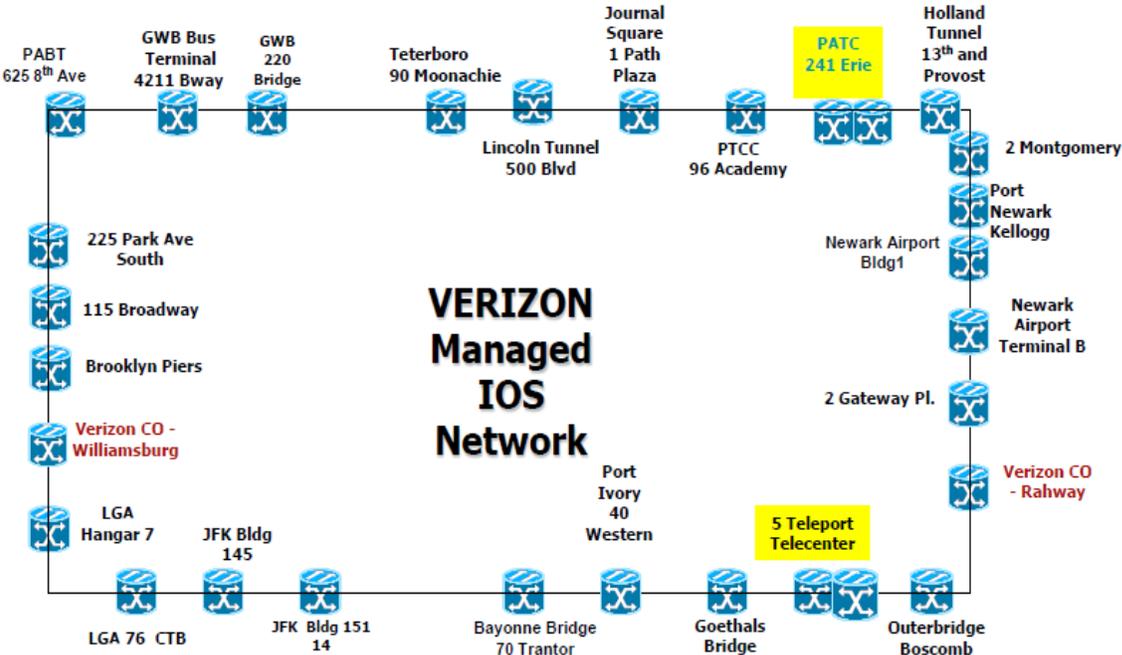
This network is crucial to all Port Authority businesses because it provides the connections for applications such as e-Mail, Internet and Intranet access, SAP, PeopleSoft, Electronic Toll Collection, Computer Aided Design and Drafting (CADD), Lease Image, Closed Circuit Television (CCTV) surveillance systems, and in the future, videoconferencing, and more.

PAWANET consist of a Managed Fiber Optic Dense Wave Division Multiplexed (DWDM) Network, provided by Verizon Select Services, as an Integrated Optical Service (IOS) network. This network consists of eleven separate and distinct (1) Gbps lightwave networks, each interconnecting with the data centers at Telecenter and the Port Authority Technical Center (PATC). Site-to-Site interconnectivity is achieved via the “hub and spoke” topology through the data centers. Additional high-speed Ethernet Private Lines (EPL) have been deployed to support key Port Authority off-ring facilities. Remote locations are linked using redundant high-speed dedicated point-to-point leased communication lines.

Remote locations are linked using redundant high-speed dedicated point-to-point leased communication lines. Wireless connectivity also supported when hardwired connections are not practical.

The network consists of state-of-the-art Cisco Systems equipment and services, such as, high performance Cisco Catalyst switches and routers. The Port Authority uses Bluewater Network Monitoring Services to monitor PAWANET, and Cisco Systems SMARTnet hardware/software maintenance services, and Cisco's Technical Assistance Center (TAC) to support and maintain the network.

1.2 VOIP Circuit Diagram –



1.3 Inter-site Services Providers

The Technology Department (TD) has contracted with a variety of companies to provide inter-site services. Companies providing communications services for the Wide Area Network are listed below.

- AT&T Local Services
- Verizon

1.4 PAWANET Functions

Currently PAWANET is used to transport the following:

Data	Supports the low and high volume transfer of data used for applications, such as SAP and PeopleSoft, and for network communications, such as e-Mail. Provides a data path for off-site, mainframe data backup of file, print and application servers. Enables the use of Storage Area Network (SAN) for network storage of user files and routing jobs to shared network printers.
Video	The transfer of Closed Circuit TV (CCTV) data is supported across the entire network to provide security for the Port Authority's key facilities. The network provides the hardware capabilities for voice and VoIP transmission.
Voice	The network switches and transmission lines are used for videoconferencing to enable diversely located staff participate in meetings across large geographic area.
Videoconferencing	Voice Over Internet Protocol (VOIP) is in the process of being implemented for the agency to replace the legacy Nortel system, which currently serves the majority of Port Authority users. VOIP will be another data stream utilizing the PAWANET infrastructure.
VOIP	

1.5 Features of PAWANET

PAWANET provides a high performance and reliable fail-safe communications network. These are its key features:

- Alternate paths of communication
- Support of high volume traffic such as CADD, CCTV and others
- Catalyst 3000, 4000 and 6500 switches at all the major sites, and at the Teleport
- Cisco high performance 2000, 3000 and 7200 router family products with redundant power supplies

1.6 Supported Protocols

The network supports the following network protocols, allowing dissimilar platforms to communicate within PAWANET:

TCP/IP:	TCP/IP is the universal protocol that allows communications between all systems within the Port Authority's network, as well as other networks.
IPX/SPX:	This protocol allows communications between all Novell platforms.
SNA/SDLC:	This protocol allows communications between all IBM systems and other systems that support System Network Architecture (SNA).

1.7 PAWANET Switches and Routers

The current standard switches and routers used on PAWANET are:

- Tellabs Reconfigurable Optical Add Drop Multiplexers (ROADMS) are the DWDM nodes on the Verizon Managed IOS Network.
- Cisco High performance 3000, 4000, and 6000 series switches
- Cisco High performance 2000, 3000 series routers for intermediate connectivity.
- Cisco 7200 high performance routers
Provide high-speed connectivity and routing capabilities across the network in

support of TCP/IP, IPX/SPX and bridging functions, and provides routing capabilities for Port Authority Internet access.

- A pair of fault tolerant 10 Gbps links on IOS are established on IOS to provide the required band with between the data centers at Telecenter and PATC.

1.8 Approved Servers

Only IBM File & Print and Application servers may be connected to PAWANET.

This includes turnkey and distributed systems where File & Print or Application servers are used. Any replacement File & Print or Application servers must be IBM servers. Deviation from this policy will not be allowed, without prior approval of the Chief Technology Officer or their designee.

1.9 Enterprise Addressing Scheme (including IP addressing)

The Port Authority's enterprise network is a TCP/IP Class B network allowing for a maximum of 255 subnet assignments. Subnets assigned on a geographical basis according to the number of resources required. Workstations are configured for dynamic assignment of IP addresses via Dynamic Host Configuration Protocol (DHCP).

TD will assign static IP addresses for servers, printers and faxes that are to be connected to PAWANET.

1.10 Enterprise Network Monitoring Software

The Port Authority has selected Bluewater Network Monitoring Services to continually provide real time monitoring of PAWANET, and its data and voice link availability. To provide for real time network monitoring, the following software utilities are used by Bluewater and the Port Authority, respectively:

- Remedy Network Management software used by Bluewater
- Cisco Works for Switched Internetworks used by Port Authority

2.0 Network Resources

2.1 Network Overview

The Port Authority has a modern distributed computing network, which is managed as an Enterprise resource. The network connects all individual PCs, servers, printers, and other devices in a unified computing infrastructure that makes it possible for the Port Authority to conduct its business.

The Enterprise Network consists of the PAWANET (see Section 1.1) and connected Local Area Networks (LAN's). The line of demarcation between the cable and wiring is the responsibility of the carrier and the Port Authority's area of responsibility is usually a wiring closet. The Port Authority's Enterprise Network consists of the following components on the Port Authority side of demarcation:

Enterprise Devices

- Cabling
- Routers
- Switches
- Wiring Closets
- Communications Equipment Racks
- Server Racks
- File and Print Servers
- Application Servers
- Storage Area Networks (SAN)
- Network Printers
- Security Devices (Video Encoders, IP Cameras, ACS Panels)

LAN Devices

- Desktop PCs
- Workstations
- Voice Over IP Phones
- Laptops
- Video Conference Units
- Local Printers
- Scanners
- Copiers
- PC Peripherals

2.2 Enterprise Network Architecture

The Port Authority operates an extensive network of Enterprise file, print and application servers. These devices are linked to an Enterprise Wide Area Network. The flexibility provided by the use of multiple servers, server clusters and Storage Area Networks (SAN) offers users improved network response, greater reliability, increased data security and reduced operating cost. Adherence to the standards outlined in this section allows the Port Authority to manage their systems, applications and data in a way that best meets our business needs while maintaining interoperability and safeguarding Port Authority's information assets.

2.2.1 Server Operating System and Software

All Enterprise File & Print services in the Port Authority are currently, based on the Windows Operating System. Microsoft Windows, Linux and Sun Solaris are supported as application servers when required for functionality.

In addition to the base operating system, all servers must include the following components:

- Virus Protection (minimum: McAfee Engine 8.5.0i, with current DAT files)
- Network Security
- Remote Monitoring and Management
- Intrusion Detection
- Mainframe Systems Backup (minimum: Upstream 3.5.0c)
- Uninterrupted Power Supply (If central UPS is not installed at the location)
- Current Service Packs and security patches (minimum: SP1)

Note: All operating system and server software shall be provided and configured by the Technology Department prior to connection to PAWANET.

2.2.2 Configuration

All network devices--including servers, workstations, network printers, and network faxes--must use IP addresses which conform to the standards outlined in sections, 1.9 Enterprise Addressing Scheme, and 2.3.1, Server Names. System Administrators may refer to the Guide to System Administration for specific instructions on how to install and configure the Windows operating systems.

2.2.2.1 Drive Mapping Conventions and Organization

Mapping of workstation drive pointers to SAN or server disk volumes or folders is accomplished through a Windows Active Directory Login Script or the Microsoft equivalent. The following drive letters are reserved for Windows Active Directory installations:

Pointer	Volume or Folder
M:	Reserved
P:	Public Applications

Q:	Installation and Upgrade Utilities
S:	Departmental shared directories and files
T:	Reserved
U:	Users Private Home Directory

- Public (Shared) application software installed on a file and print server cluster must reside on a separate volume named "APPS".
Example:
P:\APP
S
- Each software application installed on the file and print server, or server cluster, must have its own sub-folder.
Examples: P:\APPS\EXCEL
P:\APPS\WORD
- Shared Data stored on a file and print server cluster, shall reside in a volume named Data, and shall be mapped to the "S:" drive pointer.
Example <Cluster_name>:\DATA\<Department_NAME>\SHARE on a server cluster
- Each Department's SHARE folder will contain at least three sub-folders titled Org, Everyone and Projects.
- Under the Projects folder will be two additional folders, one called "Active" and one called "Completed". Active projects reside in the "Active" folder.
- When staff identifies a project as being completed, the project folder will be moved to the "Completed" folder and all rights, except for "Browse" will be removed from the folder. This will ensure that the final project documents remain unchanged, while still allowing authorized staff to review the old documents and use them as templates for new documents if desired. The "Completed" folder will be set to archive its data.
- Under the "ORG" folder will be subfolders with names corresponding to the various divisions within the department. By default, only staff within a division will have access to a division's folder. These folders are intended to hold data for a specific division that would not normally be shared departmentally. Staff from other divisions would not have access to these folders unless the division manager of the owning division gives their approval. Having folders setup by divisions will simplify the process of identifying who is responsible for the contents of a folder.
- The "S" and "U" drives should only be used to store business related files.
- The Systems Administrator, at the direction of the Chief Technology Officer, may from time to time remove any data deemed to be non-business related.
- A folder called "Everyone" will be created in the Share folder. All staff in the department will have full access to this folder to store and retrieve files that are not related to a project or a division's day-to-day operations.
- Additional shared folders, with access restricted to only specific users, if required, will be created in the Share folder. Access will be restricted through the use of Inherited Rights Filters and access will be granted through the use of groups. These groups will be named using the same name as the folder name.
- In general, rights to any folder will be granted through the use of a group having the same name as the folder. The group would have trustee rights to the folder, and users would be added to or removed from the group as needed. All rights would be granted or revoked through the use of form PA-3624A. Designated staffs in each department are required to approve these requests.

- A user “U” drive will be assigned to each standard Windows Active Directory account for use by each individual user to store business related data on the network. Access to the “U” drive is restricted to the account owner only. Users receive all rights to this folder”. Users cannot share data on their “U” drive. Files should be shared only by using the Share, (“S”) drive.
- Access to a user’s home directory, by anyone other than the owning user is prohibited and will be removed after notifying the end-user.
- Installation files used in the installation of desktop software must reside in a sub-folder under the “APPS” volume

Example P:\APPS\Pstf

2.2.2.2 Connecting LAN Devices to the Enterprise Network

The Technology Department (TD) is responsible for connecting all LAN devices to the Enterprise Network (PAWANET) provided they meet the Port Authority’s standards. The following system components must meet the standards in order to connect department devices:

Type of Device or Software

- Primary Network Operating System (NOS)
- Application Server Operating System
- Network Interface Card (NIC)

2.2.3 Server Network Resources Security

2.2.3.1 Server Physical Security

All servers and communication equipment must be located in locked rooms or secured with a cable and lock with the keyboard secured to prevent tampering and unauthorized usage.

2.2.3.2 Server Logical Security

To safeguard the Port Authority’s Information Technology (IT) systems and data, TD has implemented a number of processes and procedures, including the requirement that all users accessing the Port Authority’s networks authenticate to the Microsoft (MS) Windows Active Directory (Active Directory). The Active Directory Service is a database containing descriptions of all network devices including servers, workstations and user accounts.

In plain English, this means that by executing a login when you first power on your PC you are telling the network who you are. This is accomplished by providing your Windows Username and password. Just as you are issued an ID card for access to certain facilities, buildings or rooms you need to visit to perform your job, your Windows authentication grants you access to network resources, such as shared data volumes, software applications and network printers you use in performing your assigned tasks.

TD, or its contracted vendor, is responsible for providing all enterprise servers with the following protection of their logical resources:

- Guard against unauthorized access.
- Perform daily incremental backups of servers and authorized workstations and full backups weekly.
- Store all monthly backups off site at a secure location and secure daily and weekly backups on-site in a locked area.
- Test recovery procedures annually.
- Use system and application passwords that conform to the Technology Services Department standards.
- Configurations must conform to security parameters identified by NetVision and Quest

- Intrust Suite software.
- Control all remote access using the Port Authority's Remote Access System.
- Maintain current patch levels and critical security updates.

2.2.4 Network Access and User Account Security

2.2.4.1 Account Creation

User accounts are created and managed in MS Windows Active Directory Services for the Windows network resources. Documentation for the creation of user accounts and authority for access is maintained by the Customer Service Desk Manager.

2.2.4.2 Time Restrictions

Due to the fact that The Port Authority serves its clients 24 hours a day, we do not have Login Time Restrictions on our File & Print servers. All staff may access their account 24 X 7.

2.2.4.3 Concurrent Logins

Login sessions will be limited to one connection per user. User accounts should not have the ability to login to multiple workstations after establishing one active connection to the network.

2.2.4.4 Intruder Detection

These system-monitoring features must be active:

- Restrict the count of incorrect login attempts to three before the account is locked out.
- The time for which unsuccessful login attempts are retained to determine a possible intruder attack should be a minimum of 30 minutes before the counter is reset to zero.
- The time for which a user account remains disabled before the account can be used again should be a minimum of 30 minutes.

2.2.4.5 Passwords

All user accounts must have passwords conforming to the following standards:

- Minimum length is six (6) characters.
- The password should not be easily guessed. It should not be related to one's job and should not be a word in the dictionary or a proper name.
- Should be set to expire at least every 90 days and 30 days for accounts with system or application administrator access
- Grace Logins should be activated and limited to three
- Users should be notified several days in advance of password expiration.
- Users should be forced to change their password on initial login and once it expires.
- Unique passwords should be required when changed. Users should be prevented from reusing a previous password for a minimum of one-year.
- Users should not be permitted to change their passwords more than once a day.
- Passwords should be encrypted in storage.
- Passwords must be entered in a non-display field with a re-enter verify function for new passwords.
- Passwords must not be available on hard copy.
- Passwords used in system startup files and login scripts must be encrypted.
- If an application uses a default password, change it on installation.
- Do not use cyclical passwords, such as the word, February, during the month of February.
- Do not reveal your password to anyone except authorized persons.
- Use both upper and lower case characters and special characters where possible.
- Change password if it has been disclosed or compromised.
- Protect by using a screen saver password with a recommended 15-minute time- out

- period.
- Passwords should not be the same as the user ID

Passwords are considered confidential data. They protect the Port Authority's network resources and grant system privileges and access. Disclosure may result in unauthorized access to data, system files and transactions. Passwords are also your signature and identify you as the individual who is responsible for the system activity.

2.2.4.6 Modems and Switches

Staff is prohibited from connecting dial-up modems and switches including wireless switches (e.g. Linksys wireless switches) to workstations that are simultaneously connected to PAWANET or another internal communication network unless approved by the Technology Department (TD).

Where modems have been approved, users must not leave modems and/or switches connected to personal computers in auto answer mode, such that they are able to receive in-coming dial-up calls.

2.2.5 Remote Access System

The use of local modems to establish direct dial connections to devices on the Port Authority's network is prohibited. Exceptions to this policy require the approval of the Technology Department's Chief Technology Officer.

The approved mechanism for remote access to the Port Authority network is through the Remote Access System (RAS). The Remote Access System utilizes an Internet-based Virtual Private Network (VPN) tunnel established over the Internet linking remote users to the Port Authority Wide Area Network (PAWANET) (remote client to PA site). It is designed to provide authorized Port Authority users with secure access to corporate applications and to files available on their departmental file servers. This access to applications and resources is delivered through a thin-client environment consisting of a farm of Citrix MetaFrame/Microsoft Terminal Services servers capable of supporting 200 or more simultaneous users each. There is no provided access to the user's office PC desktop. Port Authority offices without direct connection to the Port Authority Wide Area Network (PAWANET) can use this system to establish remote access to corporate applications located on PAWANET.

RAS provides multiple security mechanisms to ensure that only authorized users gain access to the Port Authority's computing resources and systems. Through multiple security steps, the user must respond to security challenges. After successful authentication verification, authorized users are provided with access to corporate applications and their departmental network resources through the thin-client environment.

The Port Authority also supports corporate site-to-site VPN connections and utilizes Cisco equipment for these connections.

Remote access is authorized on a case-by-case basis by the Chief Technology Officer.

2.2.6 Hardware Standards

The TD Enterprise Architecture team is responsible for setting the agency hardware standards. As of October 2012, the hardware standards are as follows:

- | | |
|------------------------------------|-----------------|
| • Desktop, Laptop, CAD* | Lenovo |
| • High End Multimedia Workstation* | Apple |
| • Mobile Devices | BlackBerry |
| • Printers* | Hewlett Packard |
| • Routers and Switches | Cisco |

- Servers* IBM and NEC
- Smart Devices iPhone/iPad
- Storage Area Network (SAN) IBM (Entry Level and Mid-Range)

* Note: To maintain optimal operating efficiency of the computing environment a standard “refresh” age has been adopted. The agency standard refresh age is greater than 5 years. TD is responsible for the automatic replacement/upgrade of hardware that has exceeded the agency standard age limit.

2.2.6.1 Standard Servers

A representative sample of standard servers is as follows:

Server Description	IBM Model
WEB Server, Small applications server	xSeries 3550M4
Medium applications server	xSeries 3650M4
Database Server, Multiple and Large application server	xSeries 3850M4
Virtual Clusters	NEC Express 5800 series or IBM as stated above

Each server shall have at least three (3) network interface ports to support a production, management and backup network, and redundant power supplies.

The Port Authority manages servers models via a lifecycle process with a minimum ‘in service’ life of three (3) years.

2.3 Network Naming Conventions

2.3.1 Server Names

The Port Authority employs a naming convention for all servers within PAWANET. That convention will be discussed during a solution implementation phase.

2.4 Directory Services and Structure

The Port Authority uses Windows Active directory to manage network resources and user access. Port Authority departments are designated as organizational units (OU) and servers are network objects contained within the OU.

All network printers should be created using Printer Properties Pro utility.

Applications are distributed using Microsoft System Center Configuration Manager (SCCM).

Applications are distributed based on the type of workstation and user definitions.

Scheduling of distributions is performed in conjunction with client departments.

2.5 System Backup and Recovery

There are two Port Authority approved standard software products, used to perform scheduled server backups:

Version 7.5 (*RFP – PLACE TITLE OF RFP HERE*)

- **Upstream Reservoir** is a centralized backup tool used to create data backups for all distributed systems.
- **FDR Upstream** is a Mainframe based tool used to backup all Mainframe data.

Backup data is stored on disk storage for prompt backup and restore. Encrypted tape backup is stored remotely at a secure facility, and is required to assure off-site disaster recovery data storage. All backup media and records must be treated with the same level of security and confidentiality as the original data.

The System Administrator is responsible for verifying that system backups, both local and remote backups, can be used to restore the data. Tests of the ability to successfully restore from both backup systems should be performed annually. It is recommended that:

- Tests of the ability to restore system and application files will be performed on a non-production server.
- When incremental or differential backups are routinely used, the test restore procedure should incorporate both.
- Immediately prior to performing the test restore procedure, do a special full backup on the directories being tested.

2.5.1 Backup Logs

The System Administrator will maintain the following logs for a period of two years:

- Back-up activity
- Rotation of back-ups
- Usage/rotation of back-up media
- Off-site data storage

2.5.2 Backup Scheduling

The System Administrator is responsible for performing back-ups of data, application and system files. This must be as follows:

- Weekly full back up of each server. A full back-up is a back up of all files on the server.
- Daily differential, incremental or full back up of each server or server cluster. The type of back-up performed is dependent on time constraints and the amount of data to be backed up. Incremental back ups are back-ups of all files changed since the last back up. Differential back ups are back-ups of all files changed since the last full back-up.
- A Grandfather, Father, Son (GFS) scheme based on a 33 tape rotation should be used to ensure complete back-up and recovery.

2.6 Business Resumption Plan

The vendors, providing IT services to the PA, shall work with the Technology Department (TD) to develop a disaster recovery and contingency plan. The System Administrator will participate in the planning, design, implementation, testing, updating and documentation of the plan. [Appendix 1](#) shows a recommended outline for such a plan. The Business Resumption Plan will be reviewed quarterly and tested at least annually.

2.7 Telecommunications Standards for Enterprise Network Resources

To see the standards and guidelines for the following telecommunications components, please see the Appendix.

[Appendix 2](#) - Communication Rooms/Closets Standards

[Appendix 3](#) - Standard Cabling Schemes

- [Appendix 4](#) - Unified Wiring Specifications
- [Appendix 5](#) - Telephone Closet / IDF Termination Blocks
- [Appendix 6](#) - Workstation Jacks
- [Appendix 7](#) - Standard Switches
- [Appendix 8](#) - Workstation and Lateral Cable Identification Management
- [Appendix 9](#) - Fiber Optics Specifications for Network Services - PAWANET

2.7.1 [Closet and Telecommunications Room Access](#)

The following standards must be followed regarding access to closets and communication rooms:

- All telecommunications rooms must be physically secured. Remote locations, which are not secured, by a guard or within line of sight of personnel, must be secured by a card access system and/or video cameras.
- The Network Connections (NC) group is responsible for installing routers, switches (along with Cisco Staff when applied) and station drops. They also patch connections and troubleshoot LAN cabling.
- System Administrators requiring routine maintenance of data communications equipment should call the Customer Support Desk when new devices or reconfigurations are required.

2.7.2 [Telecommunications Installation Contractor's Responsibilities](#)

1. Adherence to all of the above specifications
2. Assurance of labor harmony by providing installation technicians whom currently maintains appropriate union membership
3. The contractor must supply all cable, blocks, brackets, connectors, jacks, housings, face plates, special tools, etc., as necessary to perform an installation which is satisfactory to the Port Authority.
4. The contractor must label every workstation (jack faceplate) and the corresponding cross connect point (punch down block or patch panel) in accordance with the cable identification management plan, as previously described.
5. Install all Category 5e cabling in the proper manner, with the appropriate number of twists, to maintain Category 5e integrity and capabilities, as outlined in the TIA/EIA 568-B.2 standard.
6. The contractor must ensure that cable connections are in accordance with

standard telecommunications practices and that all cabling maintains normal connectivity and continuity.

7. All materials must be agreed upon by PA Network Services prior to the start of installation.
8. All computer or network communication rooms and closets are to be isolated, locked, and secured. No other equipment, storage area, or smoking area are to be located in this room. This room must provide appropriate cooling and ventilation. Access to this room will be reserved to TD staff and an agreed upon Facility Manager or designee of the site where the PAWANET equipment is located. This procedure is to ensure the security and the integrity of the Port Authority's computer network and its users.

2.7.3 Electrical Requirements

The following power and receptacles should be installed to support different equipment requirements such as:

- Standard 110/120 volt power receptacles
- Standard and/or NEMA 5L630P 220/240 volt 30 amp power receptacles
- Dedicated circuit breaker per AC feed, with alternate power source.
- Server rack electrical requirements are specified in the appropriate design document.

Currently, services obtained through the PA's contract are required to have the APC (American Power Conversion) UPS included in the delivered service.

2.7.4 Telephone Company Interface

The following items are needed for the telephone company interface, if needed for a specific vendor solution:

- a) Install a dedicated wallboard for Telco demarcs (if none available for implementation)
- b) Standard Telco demarcs:
 - P66 Block
 - Network Termination Unit (Rj48 interface) Smartjacks
 - Network Termination Unit (DB15-pin female interface)
 - Network Termination Unit (V.35/V.36 female interface)
 - Digital Signal X-connect (DSX)
 - Basic T1 CSU/DSU
 - Basic DS3 handoff coax/HSSI unit
 - High-speed dialup modems for network trouble-shooting when needed

2.8 Documentation

It is the responsibility of the System Administrator to update and maintain a library of all documentation designated as standard by the Port Authority. These include archived system files and system backups. Vendors will be provided our "Guide to Systems Administration" during the implementation phase of a project. The "Guide to Systems Administration" covers the provisioning and setup of computing & networking resources to successfully implement a project within the Port Authority.

3.0 Virus Scanning & Management

3.1 Overview

This section describes the standards and guidelines for the prevention, detection and removal of
Version 7.5 (**RFP – PLACE TITLE OF RFP HERE**)

computer viruses, (malware). Its purpose is to minimize the risk and negative impact of computer virus infections in the work environment by establishing clearly defined roles, responsibilities and procedures for the effective management of computer viruses.

3.2 Standards

Standard virus protection software must be installed on all network servers and personal computers, and updated on a regular basis. The Port Authority currently uses McAfee ePolicy Orchestrator (ePO) v4.5 to monitor, manage and maintain the virus definition (DAT files) of the Agency desktop computing platform. The McAfee ePO Management Agent (v4.6), and VirusScan / AntiSpyware Enterprise (v4.8), are part of the standard desktop core image.

3.3 Acquisition and Installation

The Technology Department maintains current versions of standard virus protection software and virus detection files, (DATs), including configuration-specific instructions for downloading and installing the software on network servers and desktops

3.4 Virus Detection and Response

The Port Authority's IT support vendor is responsible for responding to all virus outbreaks, as well as eradicating them and, where possible, preventing them.

The speedy reporting of all computer viruses is essential for the protection of the information stored on Port Authority LANs. Much of that information is important to the safety of the public, as well as the day-to-day business of the PA.

If the anti-virus software has detected a virus and cleaned it, no further action is required on the end user's part. If the virus is not cleaned, or the end-user suspects that a virus still exists, the end-user should immediately contact the Customer Support Desk, and they will work to remove the virus.

The Port Authority IT support vendor will respond quickly to all such alerts by doing the following:

Assess the risk

- Confirm the existence of a virus.
- Take appropriate measures to quarantine the virus so that it does not infect other Port Authority devices.

Notify Appropriate Parties

- Contact the originating party who introduced the virus to the Port Authority.
- If it is a new virus, contact our antivirus vendor, McAfee, for further assistance.

Remove the virus

- Work with appropriate parties until the virus is removed.

In addition, the Port Authority's IT support vendor will report on all such outbreaks on a weekly basis. The report must include:

Support Ticket Number

User Name

Virus Name

Information which was lost, (if any)

Time to correct the problem, (lost staff time)

Virus Origin, (if this can be determined; Diskette, CD, Internet)

4.0 Electronic Mail

4.1 E-Mail Overview

The Port Authority's Electronic Mail System (E-Mail) is designed to facilitate business communication among employees, job shoppers, contractors, consultants, and outside business associates. This E-Mail system is comprised of Microsoft Outlook desktop software accessing e-mail stored on Microsoft Exchange servers. This solution also includes group calendaring and workgroup collaboration.

4.2 E-Mail System Architecture

The Port Authority's E-Mail system is hosted by AT&T Corp, who acquired USinternetworking, a managed application service provider; and consists of Microsoft Exchange servers connected to the Port Authority's enterprise network. Authorized Port Authority staff access their corporate e-mail through Microsoft Outlook desktop software on the network. The system has multiple Exchange servers containing mailboxes and Public Folders. Additional servers host Outlook Web Access, BlackBerry services, and perform Internet-based e-mail services including anti-spam and anti-virus e-mail checking.

The hosted Exchange site is on a Windows resource domain with a one-way trust to the Port Authority's corporate user account Windows domain located on the Port Authority network. This Port Authority Windows domain is used for Windows authentication services when the Outlook client is opened. In addition, the Port Authority hosts DNS servers to satisfy requests from the Outlook client as needed.

High-speed, secure, and redundant network connections connect the AT&T's data center and network to the Port Authority network.

4.3 E-Mail Environment: Design Considerations and Infrastructure

The E-mail environment is further described below:

- The E-Mail system is comprised of Microsoft Outlook 2007 desktop software accessing e-mail (via MAPI mail protocol) stored on several Microsoft Exchange 2007 servers
- E-mail is protected by TrendMicro's InterScan Messaging Security Suite and ScanMail for Microsoft Exchange virus protection software products on the Exchange servers.
- Incoming Internet-based e-mail is also scanned for Spam and for viruses through McAfee (MX Logic), a web-based service provider.
- The servers are currently configured for the following messaging protocols:
 - o MAPI (Microsoft's Messaging Mail protocol) and SMTP
- IMAP4 and POP3 mail protocols, NNTP news protocol, and LDAP directory protocol are disabled.
- Front-end Exchange servers running TrendMicro's InterScan Messaging Security System (IMSS) are being used to send and receive Internet SMTP mail. No other mail system connectors (such as Lotus Notes) are in place.
- RIM's BlackBerry Enterprise Server software for Exchange provides wireless e-mail and calendar access to BlackBerry wireless handheld device users.
- There are several forms of SMTP addresses used at the Authority. Exchange Active Sync is used to provide email and calendar access to Apple iPads/iPhones and Windows Mobile devices.
- Exceptions are governed by the Authority's directory services

- structure and user account requirements.
- Each individual e-mail message and its file attachments have a combined limit of 10MB.
- Each regular user mailbox has the following size limits:
 - 80 MB - user receives warning notice
 - 90 MB - user is prohibited from sending
 - 100 MB - user is prohibited from sending or receiving
 - Other mailbox sizes exist on an exception basis.
- This E-Mail system also includes group calendaring and workgroup collaboration.
- Public Folders are supported based on departmental and agency-wide requirements and, in general, are used for dynamic items for a form of workgroup collaboration. Static documents like corporate policy statements are placed on the corporate intranet (EmployeeNet) and not on the Public Folders. Documents requiring long-term storage are stored elsewhere such as on Windows file servers.

4.4 Integrating Applications Server with Port Authority Email System

4.4.1 Requesting SMTP Services

The vendor will request SMTP services from and coordinate its work with the Technology Department

Port 25 needs to be available to utilize it for SMTP services.

4.4.2 Email Restrictions

The following restrictions are in place to protect the SMTP system and the “reputation” of Agency mail servers on the Internet:

- Forged email headers are STRONGLY discouraged, but applications for circumvention will be entertained, and valid business justifications must be included. The “From” and “Reply-to” fields should be valid users on the system sending email.
- Settings: The maximum number of recipients per email is currently 90. This includes “To”, “cc”, and “bcc”; maximum size with attachments is 10MB. Emails that do not conform to these restrictions will be rejected by the SMTP servers.
- Mail will be relayed only if your server has an entry in the SMTP access database.

Note: SMTP logs are checked periodically for policy violations. Repeated violations and failure to correct them will result in SMTP services being disabled for the offending system.

5.0 Intranet

5.1 Intranet Overview

The Port Authority EmployeeNet (eNet) is intended to provide timely information and resources to employees via the web browser on their desktops. eNet is a decentralized collection of web pages, data lookup services and applications that are managed as if they were a centralized enterprise resource. It is accessible to all personal computer workstations on the Port Authority Wide-Area Network (PAWANET). eNet is housed on servers at the Teleport.

Examples of business information hosted on eNet include:

- Departmental Websites
- Directories
- Corporate Announcements
- Reference Materials
- Document Collections
- Library Services
- News Displays
- Enterprise and Departmental Applications

5.2 Direction of eNet Development

eNet is intended to provide a convenient, timely and accurate source of information for Port Authority employees as well as providing access to enterprise and departmental applications. The owner of content on eNet is responsible for authorizing its publication, its accuracy and timeliness. Technology Services provides a common infrastructure and technical support for those departments that electronically publish agency information or make available electronic resources. Infrastructure standards and guidelines are recommended to ensure compatibility and facilitate maintenance. Departments requesting specific applications should discuss their requirements with eNet staff to determine a solution that best meets the department's business needs.

5.3 eNet Software Infrastructure Standards & Guidelines

Category	Software Name	Minimum Version
Browser:	Microsoft Internet Explorer	7.0
Browser Plug-in	Windows Media Player	10.0
	Adobe Acrobat Reader	9.0
	Macromedia Shockwave Player	9.0
Web Server Software	Sun One Web Server	6.1
	Microsoft IIS	5.0
Media Server Software	Microsoft Media Server	9.0
Application Server Software	Adobe Cold Fusion 9	7.0
Development and Design Tool	Adobe CS5	11.0
Database	Oracle Database	9i
	MS SQL Server	2008
	MS Access	2007
Programming Language/Scripts	ColdFusion MX	7.0
	Java	6.0
	PERL for Windows	5.0
	JavaScript	1.0
Search Engine Software	UltraSeek	5.7
Web Performance Monitoring	WebTrends Marketing Lab 2	2.0
Content Management	Stellent	7.5
	Open Text Website Management	10.1

5.3.1 Design Guidelines

We have developed the following guidelines to ensure that all web pages on eNet have a consistent look, feel and navigation scheme, while providing creative flexibility.

Departmental Web Site Standards and Guidelines

Prescribed standards are assigned to only the following items:

Version 7.5 (RFP – PLACE TITLE OF RFP HERE)

Resolution: Pages are designed for optimal viewing at the 1024x768 setting.
Page Width: Each page has a fixed page width of 960 pixels.
Page Justification: The entire page is center-justified within the browser window.
Page Layout: Each web page will follow the same, basic layout:
A Global Navigation strip;
A Masthead;
A Local Navigation strip;
A Body area (with a 1-column, 2-column or 3-column layout);
A Footer.

5.3.2 Accessibility Guidelines

TD's eBusiness Unit is committed to making all eNet content accessible to persons with disabilities. In order to ensure that all eNet web content is in compliance with accessibility guidelines and applicable legal requirements, contact the Webmaster via email at webmaster@panynj.gov, or call 212-435-3294.

6.0 Workstation Hardware and Operating System Software

6.1 Overview

The Port Authority makes extensive use of computers (workstations) networked into an Enterprise Wide Area Network to accomplish its business objectives. For the purpose of this section, the term computer and/or workstation will be used to reference desktop, laptop and CAD computing devices. In order to ensure compatibility with the agency's enterprise network and to make optimal use of its resources, this section defines the standards governing workstations and their configuration and use.

6.2 Workstation Operating System Standard

The Port Authority's standard operating system for workstations is Microsoft's Windows XP Professional. The following are operating systems used within the Agency:

- Microsoft Windows XP SP3
- Microsoft Windows 7
- Apple OS X

6.3 Workstation Configuration

6.3.1 Workstation Naming Conventions

All departmental workstations must contain a unique computer name which is the machine's serial number.

Example: Workstation name: 23AAH86

System Administrators are responsible for naming workstations and maintaining an up-to-date inventory of equipment and names used.

6.3.2 Automated Software Distribution for Computers

The Port Authority currently uses Microsoft System Center Configuration Manager (SCCM) 2012 to, at a minimum, do the following:

- Install new, or upgrade existing, software on Agency desktop, laptop, and CAD computers
- Create packages to automate system tasks (e.g. data migrations of desktop computers, eDiscovery requests, etc.).
- Bare Metal Provisioning of Servers.

6.3.3 Remote Workstation Management

The Port Authority also distributes software applications and upgrades via Novell's ZENworks. Each workstation should have Novell's Workstation Management module installed as part of the NetWare workstation client. This will enable remote distribution and updates of software, hardware inventory and workstation troubleshooting.

6.3.4 Drive Mappings

Computer drive mappings are automatically accomplished using a Microsoft login script. The script is executed upon successful login to the Agency's Microsoft domain.

6.3.5 Standard Workstation Hardware Configurations

There are standard configurations established for workstations and laptops. The standards specify the product approved for the following devices: processor, memory, storage, CD/DVD-ROM/multimedia and monitor. The following is current workstation standard:

Lenovo ThinkStation D30 4223-CC9 - Custom PA configuration based on Lenovo Model 4223-69U; (1) Intel Xeon E5-2650 2.0Ghz 8core – (2) x 8GB RAM - (2) 500GB SATA HDD - NVIDIA Quadro 4000 2GB - Windows 7 Professional x64.

Lenovo ThinkPad T430 2347-EZ4 - Custom PA configuration based on Lenovo Model 2347-G6U; i5-3320M, (2) x 4GB RAM, 14.0" High Definition+ Wide Screen Display, 720p Camera, 500GB 7200rpm Hard Drive, Backlit Keyboard-None, Intel 6205 PCIe mini card, PCIe WWAN upg, Finger Print Reader, Blue Tooth, Battery Cells 9, Intel vPro, Windows 7 Professional x64.

Lenovo ThinkCentre M92p 3212-C14 - Tower - Custom PA configuration based on Lenovo Model 3212-C7U; 4x5 i5-3550, (2) x 4GB RAM 1600MHz, 250GB 7200 rpm hard drive, Bay DVD±RW, Media Reader-None, High Definition 2500 Graphics Card, Display Port Dongle-None, Chassis Intrusion Switch-None, Energy Star 5.2, Intel vPro, Global Program-None, Windows 7 Professional x64.

NEC AccuSync AS191WM-BK Flat Panel display- TFT-19 " widescreen1440 x 900 /250 cd/m2 1000:1 5ms 56 - 75 Hz Analog RGB 0.7 Vp-p/75 Ohms DVI-D and VGA 15-pin D-Sub

NEC MultiSync EA243WM-BK - LED monitor - 24" - 1920 x 1200 - TN - 250 cd/m2 - 1000:1 - 25000:1 (dynamic) - 5 ms - HDMI, DVI-D, VGA, DisplayPort - speakers - black

6.3.6 Standard Workstation Software

The following software is the standard Port Authority software for departmental workstations. New computer installations should conform to the existing standard.

6.3.6.1 Standard Workstation Software

The following list is a compilation of the core software components found on the computer Arc Build (commonly referred to as an image).

- Windows XP, Professional Edition
- Lumension Patchlink
- System Center Configuration Manager - SCCM
- McAfee Antivirus
- Internet Explorer
- Microsoft Office Professional

Because technology is rapidly changing, TD should be consulted to obtain the most recent versions of standard software.

6.3.7 Enterprise Software

The following is a list of standard enterprise application software used in the Agency. The applications supported by third party service providers are: PeopleSoft, SAP and Livelink Content Management.

6.3.8 Other Business Applications

Other Enterprise applications are deployed on occasion to user workstations. This includes systems like the Business Expenses system, (BEAM) and BudgetPro. System Administrators are responsible for deploying the workstation clients and network server software according to standards and guidelines provided by the Technology Department.

Current list of Enterprise applications, is shown below –

AutoCAD	Oracle
BudgetPRO	PeopleSoft
Cognos Client Software	Primavera
Livelink	SAP
Microsoft Server	Schedulesoft
MS SQL	TRIM

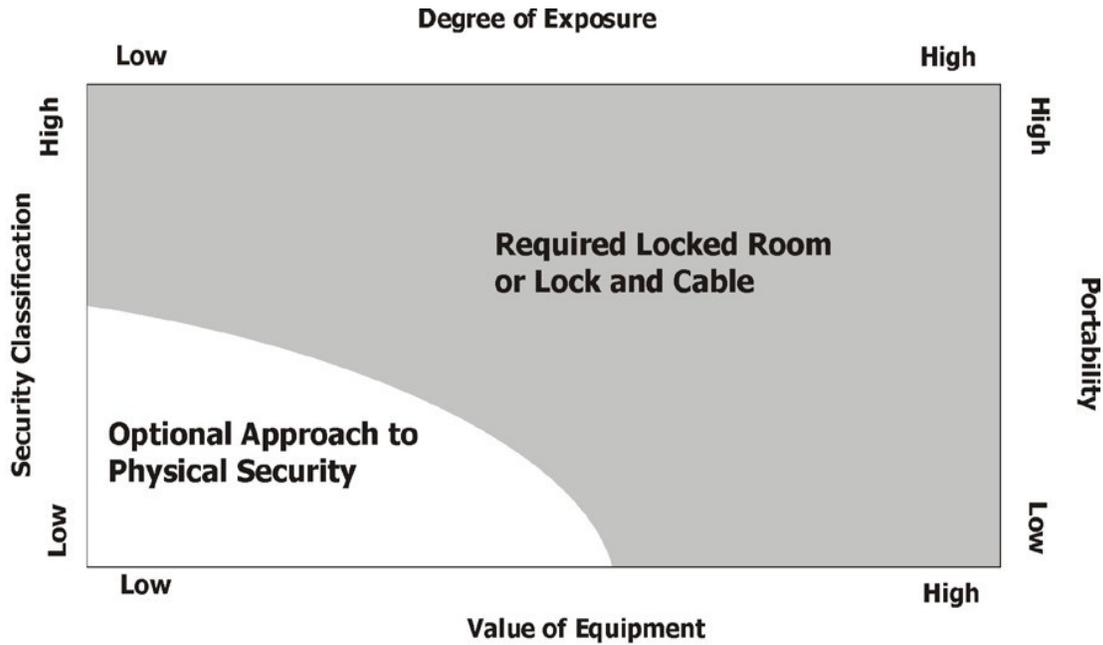
6.4 Workstation Security

Workstation users and their managers are responsible for the security of computer equipment and safeguarding critical corporate data and access to Port Authority network resources. This includes both the physical securing of equipment as well as logical safeguarding equipment and data.

6.4.1 Physical Security

The method of control should be based on the value of the equipment, the sensitivity of the data, its portability and the degree of exposure to theft. The department's Business Manager should make the appropriate determination of physical security required based on their best business judgment.

The graph below provides general guidance to Business Managers in determining the level of physical security required.



In all cases, laptops must be secured with a Lock/Cable product (e.g., Kensington).

6.4.2 Logical Security

The Technology Department (TD) is responsible for providing for the security of computer resources and devices:

- Workstations are protected with Novell and Microsoft directory security mechanisms.
- Screen saver passwords are implemented with a maximum of a fifteen (15) minute time-out.
- All critical data are backed up nightly onto either external media or a network drive.

7.0 Distributed Systems Environment

7.1 Overview

A number of enterprise servers provide critical application and system services. Different operating systems and configurations may be required for specific applications. This section provides information on the standards and guidelines for supported systems within the Port Authority.

7.2 Microsoft Windows Servers

The standard for general-purpose application servers and File and Print Computing is IBM servers. Microsoft Windows 2003 & 2008 Server (Enterprise) are supported Operating Systems for application servers.

7.2.1 Virtual Environment

The standard for Virtualization Computing is both IBM and NEC FT host servers. The Port Authority will provide a VMware ESX-based Guest Virtual Machine (VM) to operate all

Contractor- provided applications software on one of the above host computing platforms depending on the critical nature of the application.

All applications software shall be capable of operating in a virtual environment under VMware ESX server and shall operate in a VMware ESX-based Guest Virtual Machine (VM) on a 'shared' host- computing platform for Contractor application, unless performance or other requirements mandate a dedicated system.

7.2.2 Windows Data Encryption

For those applications that require additional data security measures, TD offers additional tools that provide encryption services to protect the data stored in the application's database, even from authorized individuals that have physical access to the applications and database servers but not the decryption key.

7.3 Unix

Sun/Oracle Solaris is the currently supported UNIX operating system for infrastructure (e.g., SMTP services) and corporate servers. RedHat Enterprise Linux Server is the supported operating system for infrastructure and corporate servers (e.g., SAP, Peoplesoft).

7.3.1 Unix Security

Unix and Linux servers must be physically and logically secured from unauthorized access. Operating system logical security is defined by the Technology Department (TD).

7.3.2 Backup

Critical system backup must be performed regularly (daily and/or weekly) utilizing our centralized backup strategy and associated tools. Extra copy of backup is kept offsite for disaster recovery purposes if required.

7.3.3 Download Scripts in the Unix/Linux Environment

- The script must be written in a generally supported language: Perl, Korn shell and Powershell. Powershell should be consistent with Microsoft standards and best practices.
- The script must be limited in access, as well as the script's owner's user account. The owner of the script should be able to read, edit, and execute the script, but no one else (with the exception of the root or administrator accounts).
- If the content being downloaded is public information or widely available on the Internet, File Transfer Protocol (FTP) may be used.
- For all other content, Secure FTP must be used, and a key exchange made with the entity who is providing the content. A username and password must be used when retrieving the content.
- If the entity cannot accommodate the use of SFTP, ftp may be used as long as the content is encrypted with a secure, widely used utility like PGP.
- Information and guidance on securing passwords should follow Recommendations of the National Institute of Standards and Technology.

7.4 z/OS

z/OS (currently release 1.5) is the IBM-supplied operating system on the IBM 2096-R07. This hardware/software supports multiple users and multiple applications. Provided on this platform for transaction-processing applications are TSO/E, ISPF, and CICS. The database is DB2, although other file structures are also supported.

7.4.1 Databases

Oracle 10.2.0.5 or higher and MS/SQL 2005 Server or higher are the supported database platforms for Port Authority systems. Auditing trail enabled for all database accounts with administrator privileges.

7.4.2 Geospatial Databases

This GIS environment is built on an ESRI platform using ArcSDE for the spatial database. ArcGIS Server 10 and ArcSDE Version 10 are the supported platforms for the current GIS environment.

7.5 Application Security

TD recognizes the critical importance of application security and maintains a Best Practices document containing rules and recommendations for purchased applications, and those developed in-house.

7.6 Server Physical Security

All servers and communication equipment must be located in locked rooms or secured with a cable and lock with the keyboard secured to prevent tampering and unauthorized usage. The Business System Manager is responsible for determining the appropriate access control method (receptionist, metal key lock, magnetic card door locks, etc.) This person must also maintain a list of persons authorized to enter secured areas. Technology Department staff is available to provide technical assistance in making this determination.

7.7 Load Balancing – Failover Architecture

Depending on the requirements of the application, load balancing and failover architectures are supported.

8.0 Vendor Provided Dedicated Systems

8.1 Overview

Vendor Provided Dedicated Systems refers to the application software and possibly the computer hardware that may be furnished and/or installed by an outside contractor. These systems are usually procured through either a Request for Proposal (RFP), or a “Low Bid” contract and are

specifically engineered to support a dedicated application.

These systems generally support Capital Projects, which are usually large scale, multi-year engagements, requiring specialized technical and management staff, as well as, Systems Integration support. These projects normally have significant construction components and require the coordination, design and support from many diverse Engineering and Technology disciplines.

On all technology related projects a representative from the Technology Department (TD) provides a single point of contact for technology oversight, accountability, adhering to standards and systems integration, which is required under the Roles and Responsibilities of the Director and is expected by our client departments.

To ensure a successful project implementation and honoring our responsibility to the Agency and

our customers, one of the steps undertaken by TD is to provide guidance and focus attention on, adherence to and compliance with the Port Authority Technology Standards and Guidelines.

By following the Standards and Guidelines, it enables the Port Authority to

- Leverage large discounts negotiated in the various requirements contracts.
- Ensure that the seamless integration of equipment with other existing systems.
- Ensure that long-term maintenance and systems administration contracts are focused on the same product lines.
- Ensure that the relevant sections of the Standards and Guidelines are included in either, the basic design of a low bid contract or as requirements in an RFP. Responses to RFP's shall be reviewed for their compliance with the Standards and Guidelines.
- Deployment, integration and testing shall be monitored by TD to ensure that equipment or infrastructure is not duplicated, that the integration and migration plan will not adversely affect existing systems, and to integrate new systems under existing maintenance contracts where applicable.

In cases where a specific vendor or system is so specialized that it normally does not adhere to the hardware, software, infrastructure and operations guidelines of the Standards and Guidelines, the vendor shall be directed to work with TD in exploring all options. If an exception is required, the vendor should work with TD to prepare the necessary business case scenarios to receive written concurrence from the Chief Technology Officer for this deviation from the Port Authority Technology Standards and Guidelines.

8.2 Physical Security Technology Standards

8.2.1 Agency Standard for Digital Video Recording, Access Control and Alarm Monitoring

Based upon the Agency's investment and positive experience with Lenel's Systems OnGuard access control and alarm monitoring application offering as well as Verint Nextiva, CCTV and Digital Video recording technologies, these product sets are the Agency's standard. Below is a description of when these standards apply.

The Port Authority has long recognized the need for a corporate architecture for its security systems that would allow us to integrate digital video and access control recording compatible technologies agency-wide. Using these standards will improve the Agency's security posture and will permit us

to leverage additional operations and business benefits while keeping our operations resources, maintenance and support costs at a minimum.

The standard will also improve:

- Access to and the sharing of information from a centralized location
- Centralized monitoring of all facilities from an Emergency Operations Center
- The operational and cost-effectiveness of adding a variety of modular features to the core systems, such as paging, e-mail, fire systems, facility management, etc.
- Alarm notification, response, and acknowledgement
- Operational flexibility for facility and Public Safety staff
- Single learning curve
- Reduce the cost for maintenance and system administration

Guidelines for using the Verint Nextiva standard include:

1. If the CCTV system needs to be recorded
2. When an existing system is in place, at a PA facility or at a tenant facility that is monitored/reviewed by PA personnel, and needs to be upgraded or expanded to accommodate a particular project.
3. When rule based intelligence is to be added like motion detection and other related algorithm processes, all efforts should be made to ensure compatibility, functionality, maintainability (version upgrade resiliency) with the existing Verint

system.

4. If WEB based video needs to be made available
 5. When monitoring at remote locations is needed to view on site operations and archived events via the corporate WAN
 6. When live video monitoring is required
 7. When distributed recording is required i.e. at multiple locations, concurrently
 8. When network transport (communication) medium has limited bandwidth and the video needs to be sent to designated workstations on the network. All network transport tasks and bandwidth planning is required to be discussed with Technology Department before proposing any solutions
 9. On all new projects where Verint Nextive is the current site base system
 10. When the Office of Emergency Management (OEM) department needs override capabilities in the event of an emergency
 11. If third party technology (non-Verint supplied) is required to be integrated with the current Verint system at a facility, that technology must be compatible with the existing Verint system at the particular facility. Any third party integrations need to be reviewed and approved by the Technology Department and be approved for use by the manufacturer (Verint) for the software version in production at the facility. When a (Verint) software upgrade is required in order to deploy a third party interface, that upgrade will have to be coordinated through TD, the facility, and the appropriate contractors(s).
 12. Any server or workstation supplied in conjunction with a particular system must comply with the hardware and software requirements of both the Port Authority and the manufacturer of the video management software.
- For more information regarding CCTV standards, reference the CCTV Standards and Guidelines documentation.

Guidelines for using the Lenel OnGuard standard include:

1. All new or upgrade projects that require electronic card access and / or alarm monitoring
2. All projects that will have security that needs to be monitored by PA personnel or contractors (airports are monitored by contractors)
3. All new projects where Lenel OnGuard is the site base system currently
4. Where access is required to work with ID cards that exist and are compatible with the agency standard
5. When the OEM department needs override capabilities in the event of an emergency
6. If third party technology (non-Lenel supplied) is required to be integrated with the current Verint system at a facility, that technology must be compatible with the existing Verint system. Any third party integrations need to be reviewed and approved by the Technology Department and be approved for use by the manufacturer (Lenel) for the software version in production at the facility. When Lenel software upgrade is required in order to deploy a third party interface, that upgrade shall have to be coordinated through TD, the facility and the appropriate contractor(s).
7. Any expansion of card access systems (added card readers, sensors, etc.) need to be reviewed and approved by the Technology Department to ensure that the new devices meet the agency standards for card access(including but not limited to: card formats, badge layouts, encryption algorithms, etc.)
8. Any server or workstation hardware required in conjunction with a specific system must be provided by the Technology Department.

Currently the Access Control Task Force is working on the Access Control Standards for the Agency. The work is tentatively scheduled to complete by year-end 2013. The Access Control Standards documentation will be available upon completion.

8.2.2 Situational Awareness Platform Software

The Situational Awareness Platform Software (SAPS), is a software application that allows multiple, independently manufactured and installed security, life safety, and building systems to all interoperate under a single, common operating picture, giving a user access to information

spreading across multiple systems as if they were all one single system. This “common view” is made even more valuable by the incorporation of powerful, rules-based tools within the SAPS system, which allows intelligent linking of seemingly unrelated events into “Situations” that represent patterns of activity that pose a threat to security or site-wide operations.

The SAPS objective is to monitor the identity and event data from the various systems, identify incidents and anomalies, and detect trends that could be a threat to our facilities. SAPS turns data into actionable intelligence when an incident is detected. SAPS have the capability to automatically alert the security operations staff and push the information to security control centers and first responders.

- Provide a software platform to enable integrating the various electronic systems across all agency sites
- Provide a single software perform solution for situational awareness.
- Provide a single system database for reports
- The SAPS will provide transparent notification of security related events for all agency security systems.

8.3 Communications Infrastructure Standards

The Port Authority Standard for Communications Infrastructure is Cisco. This applies to all future systems, as well as, upgrades to existing systems. This standard ensures the interoperability of all deployed systems and permits the full integration of systems into PAWANET. In addition, all Cisco equipment either designed in a low bid contract or specified in an RFP must be purchased through the Cisco Requirements contract, which is administered by TD and permits the Agency to purchase equipment, maintenance and support services under the high discounts negotiated in the Requirements Contract.

This standard applies but is not limited to; Layer 2 and 3 Ethernet switches, Routers, Wireless Access Points (WAP), Mobile Access Routers (MAR), GIG E (Gigabit Ethernet) switching and networking and SONET (Synchronous Optical NETWORK) equipment. Deviation from this standard requires the written consent of the Chief Technology Officer.

8.4 Server Infrastructure Standard

The Port Authority’s standard platform for File & Print and Application servers is IBM.

Technology Services has contracted discounted pricing with our service provider for its servers and hardware support. In order for the agency to take full advantage of these savings, any new Application servers or File & Print servers must be built using IBM hardware purchased by TD. This includes turnkey and distributed systems where File & Print or Application servers are specified in the design. Any replacement File & Print or Application servers must be IBM servers. Deviation from this policy will not be allowed without prior approval of the Chief Technology Officer or his designee.

9.0 Wireless Technologies

9.1 Wireless Guidelines

9.1.1 Purpose and Scope

This section references the standard policies and procedures for all wireless devices and technologies including voice and data capabilities that store, process, transmit or access data. This includes but is not limited to commercial and unlicensed wireless networks and laptops, cellular devices, scanning devices, messaging devices (email devices) and PDAs.

9.1.2 General Policy

Employees will only use PA owned wireless devices to store, process, transmit or access PA data.

The following must be considered:

- Wireless Technologies Vulnerabilities Protection
- Minimum Requirements
- Identification and authentication at both the device and network level.
- Confidentiality encryption of data transmitted is required.
- Data end-to-end over an assured channel (a communication link with security protocol such as Secured Sockets Layer).
- At the device level, implement file system encryption where applicable.
- Devices should not be connected to PA systems for data synchronization, data transfer, or any other purpose without virus protection, mobile code restrictions (executable information delivered to information system and directly executed on any architecture that has appropriate host execution environment) and other preventative measures.

9.1.3 Personal Area Networks - PAN

PAN technologies should not be used for transmitting information without encryption.

Bluetooth security alone is unacceptable because it is not encrypted and does not use Federal Information Processing Standardization (FIPS) 140-1/2.

Wireless devices should be procured without Bluetooth embedded transmitters, when not possible transmitter should be disabled.

9.1.4 Wireless Local Area Networks – WLANs

9.1.4.1 Overview

Business requirements have arisen throughout various Port Authority locations for the improved use of Wireless LAN technology to facilitate local user mobility. Research performed on the different technologies support the use of Cisco as opposed to various wireless vendors in an attempt to produce a standard that will provide the agency with a secure, robust and scalable solution as WLAN's continue to grow within the agency.

In summary, the current Port Authority Wireless LAN standards are based upon IEEE 802.11n draft 2.0 technologies. (802.11n is backwards-compatible with existing 802.11a/b/g network adapters.)

The physical infrastructure is now based upon a centralized WLAN architecture that relies upon Cisco wireless bridges, access points, mesh routers and newly implemented controllers. WLAN's should be standardizing on the 4404 and 4402 controllers at this time as described further in this document.

Wireless LAN technology is continually developing with rapidly evolving industry standards, government regulations, and vendor products. As a result, the WLAN Standard presented in this document will likely be superseded in the future as the technology and products change.

9.2 Scope

The scope of this document shall present some standards for the Agency Wireless LAN and the specification of all devices and configurations.

9.3 Principles

At the highest level, the principles for the Wireless Standard are based upon the following attributes:

- Security - use of strong encryption (e.g. WPA-TKIP / WPA2- AES) for use as authentication of all traffic on a port-to-port basis, with the use of credentials stored on a back-end RADIUS server utilizing key distribution.
- Scalability - with LWAPP access points & use of LWAPP tunnels

- Reliability - via authentication of users to the networking enterprise mode.
- Manageability - via secured ports and VPN / FW access.

9.4 Compliance Requirements

All specifications defined in this document may be effective upon approval of and complete concurrence with TD's Chief Technology Officer, to update wireless standards and policies as per IEEE and Wi-Fi Alliance Standards

9.5 Device Specifications

The following sections will provide the various hardware components, and related firmware versions, that are specified for use in the Port Authority's WLAN solution.

9.5.1 Access Point (AP) Standard

Standards Details:

- 3600 AP's are the agency standard for WLAN deployment. These AP's have 802.11n 2.0 radios. Backward compatible to 802.11 a/b/g.
- 1310 AP/ Bridge is certified for use in unique situations where both internal and external antennae are supported. The major distinction is that of a more rugged chassis designed for higher-stress outdoor-type conditions. 3250 mobile routers for mesh deployments.
- AP Deployments will be Lightweight Access Point (LWAP)
- AP Standard Summary:
 - a) Two cables per pull during wiring for wired to wireless.
 - b) AP's & controller placements via RF propagation results.
 - c) PA supported standard AP's need to be verified with TD
 - d) If wireless is primary connection-'load-balance' AP' cabling connection to two different network switches
- WLAN Controller Standard
This standard is in the process of being upgraded to Network Control System (NCS) & Identity Services Engine (ISE) Appliance to accommodate more advanced wireless deployments.

- **Best Practice**

The following information is industry best practices for wireless hardware implementation agency- wide deployments, not for wireless device configuration practices.

WLAN Best Practices Add-ons:

1. Ensure that the PA maintains an up-to-date wireless hardware inventory.
2. Identify rogue wireless devices via wireless intrusion prevention systems (IPS)
3. Enable automatic alerts on the wireless IPS
4. Perform stateful inspection of connections.
5. Augment the firewall with a wireless IPS
6. Mount AP in location that do not permit easy physical access
7. Secure handheld devices with strong passwords
8. Enable WPA and WPA2 under ENTERPRISE mode
9. Synchronize the AP's clocks to match networking equipment.
10. Manage remote physical locations of all access points which support an isolated network that needs access to PAWANET for server farms and internet access.
11. Maintain cryptographic strength range from 128-bits to 256-bits with matching symmetric algorithms AES-128 to AES-256

Wireless Control System (WCS):

1. Single license

2. Secure "WIRELESS LOCATION APPLIANCE" with real-time client tracking & RF fingerprinting
3. Secure Windows-Based deployment as minimum, for example, windows server 2003; intel dual-core; 3.2 GHz; 4-GB RAM; 80-GB hard drive; IPS devices; IOS firewall routing; HTTP port 80; HTTPS port 443.
4. Multi-homed server (i.e., two NIC cards)
5. Secure WCS and IIS (i.e ,internet information service), installation sequence
6. Create configuration group (configurate multiple controllers)
7. Secure auto provisioning with filtering
8. Secure WCS with RF modeling for heat map planning
9. Secure 15 second alarm summary refresh

9.1.5 Portable Electronic Devices (PEDs) – Cell Phones, PDAs, messaging devices, laptops and tablets

If a device receives information via a wireless technology, and that device allows that information to be placed directly into the corporate network at the workstation level, then all perimeters and host-based security devices have been bypassed. Therefore, the following procedures apply:

- PEDs connected directly to a PA wired network via a hot sync connection to a workstation shall not be permitted to operate wirelessly at the same time. Wireless solutions could create backgrounds into corporate networks.
- IR, Bluetooth and 802.11 peer to peer should be set to "off" as the default setting. Mobile code should be downloaded only from trusted sources over assured channels.
- Anti-virus software should be on devices and workstations that are used to synchronize/transmit data, if available. Where not available on a device, you need to disable the synchronization capability or provide server or workstation based handheld anti-virus protection.
- PEDs are easily lost or stolen therefore approved file system/data store encryption software should be installed.
- PEDs need to be capable of being erased or overwritten to protect data. If the device is no longer needed and cannot be erased or overwritten, it must be physically destroyed.

9.1.6 Cellular and Wireless Email

Cellular and wireless email devices are subject to several vulnerabilities (e.g. interception, scanning, remote command to transmit mode, etc). Therefore, the following procedures apply:

- These devices are not to be allowed into an area where classified information is being discussed unless it is rendered completely inoperable.
 - Must have end-to-end encryption.
- PC based redirectors are not allowed as it requires the PC to be active at all times only server based redirectors should be used.
- Electromagnetic sensing shall be periodically performed to detect unauthorized LANs, Bluetooth transmitters etc.

9.1.7 Synchronization

Some synchronism systems will operate even if the workstation is locked and the wireless or handheld device is not registered with the sync application on the workstation. As long as the workstation is on, the user is logged on, the data application client (e.g. MS Outlook) is active, and the "hot sync" cable is attached to the workstation; any person can place a compatible wireless or handheld device in the "hot sync" cradle and download data. Therefore, the following procedures apply:

- "Hot sync" cable or cradle has significant security risks, therefore perform "hot sync", and then remove immediately once "hot sync" operation is complete.
- Secure "hot sync" cables and cradles.
- Use only PA approved third party sync access control software installed on all workstations.
- PA owned devices may only be synchronized with PA owned computer systems

9.1.8 Responsibilities of Technology Department

- Monitor and provide oversight of all PA wireless activities, insure interoperability of wireless capabilities across the agency.
- Develop appropriate technical standards and guidelines for secure wireless and handheld solutions.
- Establish a formal coordination process to ensure protection of PA information with PA information systems employing wireless technologies.
- Review and evaluate wireless technologies, products, solutions that meet PA requirements.
- Identify approved monitoring mechanisms for wireless devices to ensure compliance with policy.
- Periodically review approved wireless technology standards and procedures to ensure products and solutions remain compliant.
- Support risk management activities associated with evaluating wireless services
- Act as central coordination point and final approval authority for any exceptions to this policy.
- Define or approve acceptable wireless devices, products, services and usage.
- Provide immediate consultation to PA units.

9.1.9 Responsibilities of Technology Services Voice Networks Group

- Adhere to wireless procedures and standards, establish procedure for reviewing and approving requests for using wireless devices to store, process, or transmit information.
- Establish procedures for periodically reviewing approved wireless devices and services to ensure that the business requirement for device/service/system is still valid and meet current PA guidance.
- Establish procedures for inventory and control of wireless devices and equipment.
- Establish procedures and implementation plans for auditing wireless connections to the network.
- Provide user training.

9.1.10 Responsibilities of Wireless and Handheld Device Users

- Coordinate all requests through Technology Department...
- Read and follow standards and guidelines.
- Access information systems using only approved wireless hardware, software, solutions and connections.
- Take appropriate measures to protect information, network access, passwords and equipment.
- Use approved password policy and bypass automatic password saving features.
- Use extreme caution when accessing PA information in open areas where non-authorized persons may see PA info (airport lounge, hotel lobby).
- Protect PA equipment and information from loss or theft at all times, especially when traveling.
- Keep current anti-virus software on devices.
- Use appropriate Internet behavior (e.g. approved downloads).
- Exercise good judgments in efficient cooperative uses of these resources and comply with current and future standards of acceptable use and conduct at all times.
- Report any misuse of wireless devices, services or systems to management.

9.2 Paging Device Policy

9.2.1 Policy

The Port Authority obtains its paging services under governmental contracts. All orders for paging

service or equipment must be placed under these contracts. If the contract service provider cannot meet the paging requirements, a memorandum requesting approval to obtain paging service outside of the contract's must be sent to the Chief Technology Officer.

9.3 Cellular Phone & Wireless Modem Policy and Procedures

9.3.1 Policy

The Port Authority obtains cellular service under governmental contracts. All orders for cellular service or equipment must be placed under these contracts. If the contract service provider cannot meet the requirements, a memorandum requesting approval to obtain cellular service outside of the contracts must be sent to the Chief Technology Officer.

9.4 Technology Services Mobile Device (Windows Mobile and Apple) Policy

9.4.1 Introduction

Mobile devices are a class of handheld computers that currently offer limited functionality with compact size and portability. Mobile devices are designed to replace the paper organizer; functionality typically includes maintaining a date book, address list, to-do lists, email, etc. Additional functionality such as Word and Excel are already included in many Mobile devices, with further enhancements predicted.

In order to better serve the PA, and to limit the expense of supporting a wide variety of Mobile device hardware and software, Technology Services will support the use of the Windows and Apple IOS based devices.

With a Mobile device, a user can maintain their calendar, address book, to-do list, and e-mail on a platform that is very portable and easy to use. Integration with Outlook makes it possible for users to keep identical, synchronized copies of data on both the desktop application and the Mobile devices.

9.4.2 Hardware – Hyper Link

Manufacturers using the current Windows Mobile or Apple IOS software are supported.

9.4.3 Software

The current version of Windows Mobile or Apple IOS software are supported. Microsoft ActiveSync is used for connecting to the corporate E-Mail system.

Any software found to interfere with normal operation must be uninstalled in order to receive support from Technology Services.

9.4.4 Support

Support for Mobile devices hardware and software is provided by Technology Services through the Customer Support Desk. TD will support the physical hardware connection (PDA cradle to PC) and software to support this connection. No software can be added to company owned mobile devices without TD's assistance and Chief Technology Officer approval.

9.4.5 Training

Training will be available covering basic mobile devices use and integration with Outlook at the time of installation of the equipment. Training classes for the mobile devices may be provided in the future depending on user demands.

9.4.6 Acquisition

The PA will purchase Mobile devices for employees with a business need for the mobile device. Employees are responsible for obtaining management approval. TD also recommends that a protective case (preferably a zippered case) be purchased to reduce damage to the

units.

Since the PA owns the device, if an employee leaves the PA, the device is returned to the director's office of their department.

9.4.7 Personal Acquisition

Employees, who purchase their own mobile devices, will not be allowed to connect to the PA corporate network or equipment, unless approved by Technology Services.

Customer Support Desk personnel will support all PA owned and authorized mobile devices.

9.4.8 Data Security Considerations

Since in most cases the data residing on a mobile device is not encrypted or password-protected, data can be easily browsed by anyone having possession of the device. Users should carefully consider what type of information they store on their mobile. Extreme caution should be taken when using company confidential data on the mobile units.

All mobile devices accessing corporate resources should be password protected.

At the present time, Technology Services is researching options for encrypting mobile data using a third-party application. Until a solution is found, great care should be taken to ensure that important or confidential information does not end up in the wrong hands.

9.4.9 Data Backup

Though it does not happen often, it is possible to lose, damage or duplicate the data that resides in the mobile devices and PC applications. Technology Services will provide assistance in attempting to recover files or data from data corruption.

9.5 BlackBerry Device Policy & Procedure

The Port Authority provides corporate wireless e-mail services using the BlackBerry device from RIM.

The BlackBerry is a palm-sized device designed to synchronize with Outlook and other e-mail systems. With a BlackBerry device, one can read, compose and respond to e-mail messages and meeting requests, which are transmitted through the Port Authority's E-Mail System. The BlackBerry contains the user's synchronized Outlook "Contacts" address book, Outlook Calendar, memo pad and task list as well as a calculator and an Internet browser.

9.6 BlackBerry Guidelines

9.6.1 Introduction

BlackBerry devices (data only or combined data (e-mail) & voice) are available from most wireless carriers in the Port District. Combined BlackBerry devices are designed to replace stand-alone cellular telephones and stand-alone BlackBerry data devices and they operate on the same wireless network as a stand-alone cellular telephone from the same carrier.

9.6.2 Support

Support for BlackBerry devices is provided by Technology Services through the Customer Support Desk. The Customer Services/PMO Group provides additional support as needed.

9.6.3 Breakage and Loss

Be aware that the screen used on a BlackBerry device is very fragile. Dropping a device from the height of a desktop can result in breakage. It is also sensitive to water damage. Once this happens, the device is likely to be unusable. Broken, lost or stolen devices should be reported to the Customer Support Desk at 212-435-7469, who will notify the appropriate staff for further action. As with all PA equipment, BlackBerry devices should be used for business purposes only.

9.6.4 Data Security Considerations

Data residing on a BlackBerry device can be easily browsed by anyone having possession of the device. Agency policy automatically activates the password security available on the device. Users should not disable this security feature. Users should carefully consider what type of information they store on their devices. Extreme caution should be taken when using company confidential data on the devices.

9.6.5 Data Backup

Though it does not happen often, it is possible to lose, damage or corrupt the data that resides on the BlackBerry device. There are data backup features on the PC utilizing the BlackBerry Desktop Manager software. We recommend setting the advanced automatic backup to 7 days with the backup of all device application data. In the event of a lost or broken device, this backup may be used to recover lost data.

Appendices

Appendix 1 -- Business Resumption Plan Document Format

I. PURPOSE

- Goals and objectives of plan
- Benefits obtained if plan properly implemented

II. SCOPE OF PLAN

- Planning assumptions
- Facilities and resources included in plan

III. NOMENCLATURE

- Recovery terms
- Definitions and acronyms

IV. DISASTER SEVERITY DEFINITION

Define level of potential disaster based on impact to critical functions. Explain what degree of operational disruption would constitute each level of disaster:

- catastrophic
- serious
- major
- limited

V. OPERATIONS RECOVERY PROCEDURES (Procedures for recovering services)

1. Indicate time frames in which essential operational/business functions must be resumed.
2. Specify sequence of operations recovery events and individuals responsible for activity. Note any specific activities required for particular levels of disaster severity. For example:
 - Notifications
 - Preliminary evaluation
 - Activate operations recovery personnel
 - Coordinate with emergency personnel
 - Evaluate recovery options and issue directive which details:
 - Assigned tasks
 - Project schedule/time frame
 - Coordination required
 - Identify relocation activities, if required
 - External/internal status updates
3. Identify items required for backup of critical functions. For example:
 - Alternate work site
 - Hardware/software
 - Personal computers

- Necessary software packages
- Documentation
- Peripherals (printers, modems, etc.)
- Databases
- Emergency equipment
- Communications
- Transportation
- Supplies
- Security
- Operations and procedures manuals

VI. OFFICE/FACILITY BUSINESS SITE RESTORATION PROCEDURES
(Procedures for restoring physical facilities)

- Identify restoration responsibilities
- Assess damage
- Develop restoration plan/time frames

VII. BRP UPDATE PROCEDURES

- Specify responsibility for updating and communicating BRP changes
- Indicate frequency of review/update

Appendix 2 -- Communication Rooms/Closets Standards

SPACE

All data communication rooms must be designed with required and estimated space to meet immediate requirements, as well as, future growth.

ENVIRONMENTAL

The following conditions must be met:

- a) Doorways/Entrances must be designed to support at least the minimum space requirements of 90"Hx72" Wx60" D.
- b) The room's cooling capabilities must be sufficient to support the heat dissipation requirements for the equipment. This requirement will be measured in minimum and maximum BTUs powered by AC-powered systems. Equipment specs will be supplied by TD upon request.
- c) Backup UPS systems are necessary to avoid equipment damage in case of site power failure.
- d) Telco demarcs must be located in a central location with sufficient space to house Telco termination equipment.
- e) The room should be designed with the appropriate fire safety regulations such as a sprinklers, pre-action of FM 2000 systems.
- f) Cables trays must also be installed in the communications room ceiling where appropriate, to support the routing of data communications and Telco cables.
- g) Basic 24"W/30"D/84"H cabinets with 19" racks must be installed to house communications equipment such as: routers, switches, hubs, DSUs/CSUs and monitors.
- h) To create more wall space the use of wall mount racks can be installed. Appropriate sized plywood must be installed prior to mounting racks.
- i) Category 5e/6 cable must be terminated in wall/rack mounted patch panel.
- j) Fiber patch panel must be installed in fiber IDF panel with SC female interface.
- k) The fiber must be neatly tie wrapped and enclosed in flexible inner-duct.
- l) Telephone access must be installed in the appropriate location to provide for basic troubleshooting and vendor support.
- m) All communications equipment and cabinets must have ample room for easy access and proper ventilation.

Appendix 3 – Standard Cabling Schemes

- a) Teflon-coated cables will be installed per fire code regulations.
- b) Overhead cable trays and drop post must be installed for cable routing.
- c) Cabling scheme must be used to label and identify all cables. All cables must be neatly tie-wrapped.

Appendix 4 -- Unified Wiring Plan

To satisfy existing and future voice and data communications requirements, while minimizing the need for wiring changes and additions, the Port Authority has adopted the following lateral wiring specifications for all workstations being constructed. This plan is applicable to all PA locations, except when specifically noted.

LATERAL CABLE:

Voice and data telecommunications requirements for each workstation will be provided by a combination of three individual cables, installed between the workstation and the serving telephone closet / intermediate distribution frame (IDF), in a "home run" configuration. All cabling installed will be of plenum type, fire retardant (FEP) rated.

Cable specifications:

(3) Cables capable of supporting Category 5e capabilities as outlined in the TIA/EIA-568-B.2 standard. Specifically:

Gauge: 24 AWG Pair

Size: 4

Insulation: Plenum, fire code rating (FEP)

Cable allocations will be as following:

Cable #1: Voice** Cable

#2: Data

Cable #3: Data

- *100.0MHz is the speed the PA wants to deliver to the desktop.
- **Cable #1 is to be split in the workstation to support 2 telephones.

Technical specs for the Cat 5e cable is as follows

TECHNICAL DATA - ELECTRICAL

Frequency MHz	Horizontal		Patch	
	Attenuation dB/100 m max.	Next dB min.	Attenuation dB/100 m max.	Next dB min.
1	2	62.3	2.4	62.3
4	4.1	53.2	4.9	53.2
10	6.5	47.3	7.8	47.3
16	8.2	44.2	9.8	44.2
20	9.3	42.7	11.1	42.7
31.25	11.7	39.8	14.1	39.8
62.5	17	34.3	20.4	34.3
100	22	32.3	26.4	32.3

TECHNICAL DATA--PHYSICAL

	CMR	CMP	CM (Patch)*
	0.02	20	24
Conductor diameter-in. (mm)	-0.52	-0.52	-0.61
Cable diameter-in. (mm)	0.195 -5	165 -4.2	215 -5.5
Nominal cable weight-lb./kft. (kg/km)	21 (31)	21 (31)	23 (34.2)
Max. installation tension-lb. (N)	25 -110	25 -110	25 -110
Min. bend radius-in. (mm)	1 -25.4	1 -25.4	1 -25.4

* Patch cables utilize stranded tinned copper conductors

PARAMETRIC MEASUREMENTS		
	Horizontal	Patch
Mutual Capacitance	4.6 nF/100 m nom.	5.6 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.	9.09 Ohms/100 m max.
Skew	45 ns/100 m max.	45 ns/100 m max.
Velocity of Propagation	72% nom. Non Plenum	72% nom.
Input Impedance	100 + 15% 0.7772-100 MHz	100 + 15% 0.772-100MHz
	ISO/IEC 11801	

COLOR CODE		TEMPERATURE RATING	
Pair 1	White/Blue	Blue	Installation 0 degrees C to +50
Pair 2	White/Orange	Orange	Operation -10 degrees C to +60
Pair 3	White/Green	Green	
Pair 4	White/Brown	Brown	

Appendix 5 -- Telephone Closet / IDF Termination Blocks

Lateral Data cabling serving each workstation will be terminated on a CAT5e/6 patch panel (RJ45 face, 110 punch rear) in the telephone closet. For analog phone service, termination is to be on 110 blocks in telephone closet, allowing access to the telephone riser. For data, a patch cord is installed between patch panel and IT device. The patch panel can be mounted on the wall with a wall mount kit or in a rack if one is needed and should be appropriately numbered with the workstation number. The patch panel must be capable of supporting Category 5e/6 the TIA/EIA-568-B.2 standard. The patch panel shall have a swing away faceplate or rack mountable.

NOTE: The Category 5e/6 patch panel should be equivalent to the AMP SL series 110Connect Category 5e/6 patch panel or approved Category 6 patch panel. The number of ports may vary.

Each workstation shall be assigned a unique station identification number.

Appendix 6 -- Workstation Jacks

Workstations will be equipped with various components of the AMP Communications Outlet system (AMP equivalent can be used with TD approval). Each workstation will be installed with (1) double-gang jack housing box and matching face plate, capable of securely mounting three Category 5e cables or Category 6 and four modular data connectors, maintaining the integrity of category 5e/ Category 6 capabilities as outlined in the TIA/EIA-568-B.2 standard. All workstation jacks will be wired in accordance with the TIA/EIA-568-B.2 standard. All modular jacks are to be labeled in accordance with TD number schema.

Appendix 7 -- Standard Switches Inside the Department

Any switches in the following Cisco series are acceptable (Vendors will consult with the Technology Department (TD) to determine the appropriate switch configuration at the time of proposal submission):

- Cisco 3000 series – low capacity
- Cisco 4000 series – medium capacity
- Cisco 6000 series – high capacity
- Cisco Nexus 7000 series – high capacity

Appendix 8 -- Workstation and Lateral Cable Identification Management

WORKSTATION AND LATERAL CABLE IDENTIFICATION/MANAGEMENT (Facility)

All lateral cabling installed to workstations at the Port Authority Facilities must be designated in accordance with the Port Authority's workstation and lateral cable identification code: This code consists of two elements, as follows:

- 1 - Room number or department name (acronyms are acceptable).
- 2 - Workstations (3 numeric digits)

The cable identification code for Workstation 10 in room 3801 at LGA CTB is 3801-010. The cable identification code for Workstation 15 in PA Automotive shop is Auto-015

Appendix 9 – Fiber Optic Specification for Network Services - PAWANET

General Scope of Work

1. Conduct a walk thru based on the specific Scope of Work for the job in question.
2. Note that all diagrams and or sketches that may be provided are approximates and not to scale.
3. All fiber optic cable is to be installed in rigid conduit or, where applicable, in plenum rated flexible inner duct.
4. Contractor shall furnish and install fiber optic cable as designated in the specific Scope of Work.
5. Fiber optic cable type for interoffice use shall be loose tube, with aramid yarn water block:
 - Singlemode Fiber – 8.3/125/250 micron diameter (core/cladding/coating) manufactured by General Cable or approved equal.
6. Fiber optic cable attenuation from the factory, before installation, shall not exceed:
 - Singlemode – 4db per km @ 1310nm/.3 db per km @ 1550nm
7. All fiber optic cable is to be labeled on each end and at any junction or patch panel with, 28 gauge, 2” wide embossed with ¼” high letters. The labels are to be fastened to the fiber optic cable using sealed wrap around labels or pliable Velcro ties.
8. Fiber optic cable shall be installed in accordance with the manufacturer’s specifications. Any portion of the cable damaged during installation will be repaired or replaced by the contractor without any additional cost to the Port Authority of New York New Jersey.

Fiber Optic Terminations

1. Fiber optic terminations will use **SC** connectors unless otherwise specified in the Scope of Work.
2. Fiber optic terminations shall not yield more than 1db per mated (at the bulkhead) connector.

Fiber Optic Testing

1. Fiber optic testing shall be performed by the contractor and certified fiber optic technicians.

Fiber optic technicians will be prepared to complete test procedures with the following equipment:

- Source and power meter testing to provide optical loss measurements.
 - Reference test cables and mating adapters that match the cables to be tested.
 - Cleaning materials – lint free cleaning wipes and pure alcohol.
 - OTDR test set with the proper launch cables and adapter types.
 - Power loss testing from both ends.
2. Fiber optic technicians will perform OTDR test on all terminated fibers unless otherwise noted in the Scope of Work.
 3. Fiber optic test results shall be recorded, and reports provided to the PA in hardcopy and via a readable txt file (PDF or RTF is acceptable).

Appendix 10 -- Public Telephone Ordering Guidelines

Technology Services (TD) staff is responsible for the management of the permit for public telephone service are available to answer any questions and provide direction for any matter relating to public telephones.

General Guidelines

All public telephone requests – that is both coin and non coin in any Port Authority space or any area of the tenant space – both “public” and “club” locations will be coordinated by the Port Authority to cover both New York and New Jersey.

Process

When the Facility, Property Manager, tenant or their representative (e.g. designer, architect, general contractor) has a public telephone requirement, they will contact the Technology Department (TD) whom will review the request and provide coordination with the appropriate service provider.

STANDARD CONTRACT TERMS AND CONDITIONS

PART I GENERAL DEFINITIONS3

PART II GENERAL PROVISIONS4

1. Facility Rules and Regulations of PATH 4

2. Contractor Not An Agent..... 4

3. Contractor's Warranties 4

4. Personal Non-Liability..... 5

5. Non-Discrimination Requirements 6

6. Rights and Remedies of PATH..... 6

7. Rights and Remedies of the Contractor 6

8. Submission To Jurisdiction..... 7

9. Harmony 7

10. Claims of Third Persons 8

11. No Third Party Rights..... 8

12. Provisions of Law Deemed Inserted..... 8

13. Costs Assumed By The Contractor..... 8

14. Default, Revocation or Suspension of Contract 8

15. Sales or Compensating Use Taxes..... 11

16. No Estoppel or Waiver 11

17. Records and Reports 11

18. General Obligations 12

19. Assignments and Subcontracting..... 14

20. Indemnification and Risks Assumed By The Contractor 14

21. Approval of Methods 15

22. Safety and Cleanliness 15

23. Accident Reports 16

24. Trash Removal..... 16

25. Lost and Found Property 16

26. Property of the Contractor 16

27. Modification of Contract 16

28. Invalid Clauses..... 16

29. Approval of Materials, Supplies and Equipment..... 16

30. Intellectual Property..... 17

31. Contract Records and Documents – Passwords and Codes..... 17

32. Designated Secure Areas 18

33. Notification of Security Requirements 18

34. Construction In Progress..... 20

35. Permit-Required Confined Space Work 20

36. Signs 21

37. Vending Machines, Food Preparation 21

38. Confidential Information/Non-Publication..... 21

39. Time is of the Essence 22

40. Holidays..... 22

41. Personnel Standards..... 22

42. General Uniform Requirements for Contractor’s Personnel 22

43. Labor, Equipment and Materials Supplied by the Contractor 23

44.	Contractor’s Vehicles – Parking - Licenses.....	23
45.	Superintendent/Manager’s Authority	23
46.	Price Preference	24
47.	MBE/WBE Good Faith Participation	24

PART III CONTRACTOR'S INTEGRITY PROVISIONS24

1.	Certification of No Investigation (criminal or civil anti-trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure of Other Information	24
2.	Non-Collusive Bidding, and Code of Ethics Certification, Certification of No Solicitation Based On Commission, Percentage, Brokerage, Contingent or Other Fees.....	25
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.....	27
4.	Contractor Responsibility, Suspension of Work and Termination.....	27
5.	No Gifts, Gratuities, Offers of Employment, Etc.	27
6.	Conflict of Interest.....	28
7.	Definitions	29

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.

PATH – shall mean the Port Authority Trans-Hudson Corporation.

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 o by an authorized member of the Procurement Department.

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/General Manager – shall mean the Director/General Manager of PATH which operates the PATH facility 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, or one of his/her authorized representatives for the purpose of this Contract.

Superintendent/Manager – shall mean the Superintendent/Manager of the PATH Division responsible for operating the said Facility for the time being, or his/her successor in duties for the purpose of this Contract, or his/her duly authorized representative for the purpose of this Contract.

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

Minority Business Enterprise (MBE) - means a business entity which is at least fifty-one percent (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 fifty-one percent (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.

Woman-owned Business Enterprise (WBE) - shall mean a business enterprise which is at least fifty-one percent (51%) owned by one or more women, or, in the case of a publicly held corporation, at least fifty-one percent (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 PATH

- 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 PATH 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 PATH for reasons of safety, health, preservation of property or maintenance of a good and orderly appearance and efficient operation of the Facility. PATH 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 PATH shall be available for review by the Contractor at the Office of the Director/General Manager of PATH.

2. Contractor Not An Agent

This Agreement does not constitute the Contractor the agent or representative of PATH or 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 PATH or 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 Director, officer, agent or employee of PATH is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder and 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, PATH, their Directors, 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 PATH 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 and PATH 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 PATH's consent to enter into this Contract and that without such provisions, PATH would not have entered into this Contract.

4. Personal Non-Liability

Neither the Directors of PATH, the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee of PATH or the Port Authority, 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. Non-Discrimination Requirements

The Contractor shall take all necessary and reasonable steps to ensure non-discrimination in the performance and administration of all aspects of this Contract.

- A. Contractor hereby agrees that no person on the ground of race, color, national origin, creed/religion, sex, age or handicap/disability shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the furnishing of goods or services or in the selection and retention of subcontractors and/or vendors under this Contract. Contractor shall also ascertain and comply with all applicable federal, state and local laws, ordinances, rules, regulations, and orders that pertain to equal employment opportunity, affirmative action, and non-discrimination in employment.
- B. Contractor agrees that these “Non-Discrimination Requirements” are a binding part of this Contract. Without limiting the generality of any other term or provision of this Contract, in the event the Authority, or a state or federal agency finds that the Contractor or any of its subcontractors or vendors has not complied with these “Non-Discrimination Requirements”, the Authority may cancel, terminate or suspend this Contract in accordance with Section 14 of these Standard Terms and Conditions entitled “Default, Revocation, or Suspension of Contract.”
- C. Contractor agrees to cooperate fully with the Authority’s investigation of allegations of discrimination. Cooperation includes, but is not limited to, allowing the Authority to question employees during the investigation of allegations of discrimination, and complying with directives that the Authority or the State or Federal government deem essential to ensure compliance with these “Non-Discrimination Requirements.”

6. Rights and Remedies of PATH

PATH 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 PATH 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 PATH shall not be deemed to limit any other rights or remedies which PATH would have in the absence of such enumeration; and no exercise by PATH 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 PATH, the Contractor expressly agrees that no default, act or omission of PATH 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 PATH, 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 PATH 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 PATH, 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 PATH, 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, PATH 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 PATH deems necessary and without cost to PATH. 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 PATH, it shall give the Contractor notice thereof, which notice may be oral. No exercise by PATH 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 PATH 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 PATH and the public as may be directed by PATH.

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 PATH, 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 PATH 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 PATH 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 PATH's interest herein;

then upon the occurrence of such event or at any time thereafter during the continuance thereof, PATH 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 PATH 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 PATH or the Port Authority on behalf of PATH (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, PATH 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 PATH 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 PATH 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 PATH shall be deemed to be a waiver of the right of PATH to terminate this Contract or of any other right or remedies to which PATH may be entitled because of any breach thereof. No waiver by PATH 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 PATH 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 PATH 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 PATH 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 PATH 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 PATH 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 PATH or the Port Authority and the Contractor (including its obligation to PATH or 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 PATH or 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 PATH or the Port Authority and the Contractor is made against the Port Authority or PATH or (3) any subcontractor under this Contract or any other agreement between PATH or 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 PATH or the Port Authority and the Contractor or if in the opinion of PATH or the Port Authority any of the aforesaid contingencies is likely to arise, then the Port Authority or PATH, as applicable, shall have the right, in its discretion, to withhold out of any payment (final or otherwise) such sums as PATH 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 PATH 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 PATH 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 PATH does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of PATH to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by PATH 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, PATH 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 PATH has paid any sum or has incurred any obligation or expense which the Contractor has agreed to pay or reimburse PATH, or if PATH 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 PATH the sum or sums so paid or expense so incurred, including all interests, costs and damages, promptly upon the receipt of PATH's statement therefore. PATH may, however, in its discretion, elect to deduct said sum or sums from any payment payable by it to the Contractor.
- j. If PATH 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 PATH any such amount promptly upon receipt of PATH's statement therefore.
- k. PATH 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 PATH 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, PATH'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 PATH 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 PATH will not separately reimburse the Contractor for any taxes unless specifically set forth in this Agreement.

16. No Estoppel or Waiver

PATH 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 PATH 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 PATH 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 PATH 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 PATH 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 PATH has notified the Contractor in writing of a pending claim by PATH 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 Superintendent/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 PATH of all such equipment or devices.

- a. The Contractor hereby further agrees to furnish to PATH from time to time such written reports in connection with its operations hereunder as PATH may deem necessary or desirable. The format of all forms, schedules and reports furnished by the Contractor to PATH shall be subject to the continuing approval of PATH.
- b. No provision in this Contract giving PATH 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 Superintendent/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 PATH or 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 Superintendent/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 Superintendent/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 PATH 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, 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 PATH 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 PATH that part of all fire insurance, extended coverage or rental insurance premiums paid or payable by PATH 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 PATH 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 PATH, and any such sale, transfer, mortgage, pledge, subcontract, assignment or contract without such prior written approval shall be void as to PATH.
- 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 PATH to such subcontractor or to give the subcontractor any rights against PATH.

20. Indemnification and Risks Assumed By The Contractor

To the extent permitted by law, the Contractor shall indemnify and hold harmless PATH, The Port Authority of New York and New Jersey (Port Authority), their Commissioners, Directors, agents, servants, officers, representatives and employees from and against all claims and demands, just or unjust, of third persons (including Contractor's agents, servants, officers, representatives and employees) arising out of or in any way connected to 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 performed under or in connection with, 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 out of or are in any way connected to the Contractor's operations or to its performance of work under this Contract, or arise out of the acts or omissions of the Contractor, PATH, the Port Authority, their Commissioners, Directors, agents, servants, officers, representatives or employees, third persons (including Contractor's agents, servants, officers, representatives and employees), or from the acts of God or the public enemy, or otherwise, including claims and demands of any local jurisdiction against PATH or the Port Authority in connection with this Contract.

The Contractor assumes the following risks, whether such risks arise out of or are in any way connected to the Contractor's operations or to its performance of work under this Contract, or arise out of acts or omissions (negligent or not) of the Contractor, PATH, the Port Authority or third persons (including agents, servants, officers, representatives, Commissioners, Directors and employees of PATH, the Port Authority and the Contractor) or from any other cause, excepting only risks occasioned solely by affirmative willful acts of PATH or the Port Authority done subsequent to the opening of proposals on this Contract, and shall to the extent permitted by law indemnify PATH and 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 PATH or 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 PATH or the Port Authority, repair, replace or rebuild to the satisfaction of PATH or 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 PATH or the Port Authority may, at its option, perform any of the foregoing work and the Contractor shall pay to PATH or 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 claims, whether made against the Contractor, the Port Authority, or PATH, 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 whether just or unjust made by or on behalf of third persons (including agents, servants, officers, representatives, Commissioners, Directors and employees of PATH, the Port Authority and the Contractor) arising or alleged to arise out of or in connection with the Contractor's operations or its performance of work hereunder, whether such claims are made against the Contractor, the Port Authority or PATH.

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 Counsel of PATH or 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 and PATH, the immunity of PATH and the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of PATH and the Port Authority or the provision of any statutes respecting suits against PATH or the Port Authority.

Neither the requirements of PATH under this Contract, nor PATH of the methods of performance hereunder nor the failure of PATH to call attention to improper or inadequate methods or to require a change in the method of performance hereunder nor the failure of PATH 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 PATH of the methods of furnishing services hereunder nor the failure of PATH to call attention to improper or inadequate methods or to require a change in the method of furnishing services hereunder, nor the failure of PATH 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 any 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 Superintendent/Manager.
- c. The Contractor shall at all times maintain in a clean and orderly condition and appearance any and all facilities provided by PATH for the Contractor's operations, and all fixtures, sink closets, equipment, and other personal property of PATH 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 PATH 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 PATH (or the Port Authority, as applicable).

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 Superintendent/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 PATH. No equipment or facilities of PATH 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 PATH 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 PATH 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 PATH; 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 PATH as a result of such failure of performance by the Contractor over the proceeds of sale shall be paid by the Contractor to PATH upon demand.

27. Modification of Contract

This Contract may not be changed except in writing signed by PATH and the Contractor. The Contractor agrees that no representation or warranties shall be binding upon PATH 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/PATH 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/ PATH 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/PATH and it shall be incumbent upon the Contractor to obtain the most current list from the Superintendent/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/PATH 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 PATH/the Port Authority or its employees or agents, PATH/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 PATH and 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 PATH or the 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, the Port Authority or PATH, 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 PATH, or the Port Authority as applicable, against infringement, then PATH, or the Port Authority as applicable, may, without limiting any other rights it may have, require the Contractor to supply temporary or permanent replacement facilities approved by the Superintendent/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 PATH or the Port Authority, as applicable, or take such steps as may be necessary to insure compliance by the Contractor, and PATH (or the Port Authority, as applicable) with said injunction, to the satisfaction of PATH or the Port Authority as applicable.

In addition, the Contractor shall promptly and fully inform the Director/General Manager 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 PATH (or the Port Authority as applicable), and PATH (or the Port Authority as applicable) 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 PATH (or the Port Authority as applicable), the Contractor shall make available to the designated PATH (or the Port Authority as applicable) 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 Superintendent/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 Superintendent/Manager. The Contractor shall conform to the procedures as may be established by the Superintendent/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 Superintendent/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 Superintendent/Manager during the term of the Contract.

33. Notification of Security Requirements

PATH 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, PATH 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 or PATH 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 and PATH reserve 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 and/or PATH.

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

- Execution of Port Authority Approved Non-Disclosure Confidentiality Agreements

At the direction of the Port Authority, the Contractor shall be required to have its principals, staff and/or subcontractor(s) and their staff, execute Port Authority approved non-disclosure and confidentiality agreements.

- Contractor/ Subcontractor identity checks and background screening

PATH and 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 and/or PATH. The Contractor and subcontractors may also be required to use an organization designated by the Authority and/or PATH 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 Security Identification Display Area (SIDA), the federal regulatory requirements for personnel performing Work at aviation facilities and 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 a Port Authority or PATH construction site or facility (including rental spaces) without a facility-specific photo identification credential approved by the Authority and/or PATH. If the authority requires facility-specific identification credential for the Contractor's and the subcontractor's staff, the Authority and/or PATH 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/or PATH and shall be returned to the Authority and/or PATH 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 and/or PATH 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 or PATH 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 and/or PATH construction site or facility (including rental spaces) access control, inspection and monitoring by Port Authority Police, Authority or PATH 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 or PATH 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 or PATH construction sites or facilities (including rental spaces), except when necessary to perform the Work under this Contract, without prior written permission from the Authority or PATH. 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 or PATH information considered Protected Information ("PI") as defined in the Port Authority Information Security Handbook ("Handbook"), dated October, 2008, corrected as of November 14, 2013, 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 PI if at any point during the lifecycle of the project or solicitation it becomes necessary for the Contractor to have access to PI. 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 and Confidentiality (NDAs), or an Acknowledgment of an existing NDA, provided by the Authority as a condition of being granted access to Protected Information categorized and protected as per the Handbook;
- (2) require that individuals needing access to PI 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 and PATH information;
- (4) specific guidelines and requirements for the handling of PI to ensure that the storage and protection of PI;
- (5) restrictions on the transfer, shipping, and mailing of PI;
- (6) prohibitions on the publication, posting, modifying, copying, reproducing, republishing, uploading, transmitting, or distributing PI 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 PI, from viewing such information;
- (7) require that PI 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 or PATH awarded contract.
- (9) prohibit the publication, exchange or dissemination of PI developed from the project or contained in reports, except between Contractors and subcontractors, on a need to know basis, without prior approval of the Port Authority;
- (10) require that PI only be reproduced or copied pursuant to the requirements set forth in the Handbook.

- Audits for Compliance with Security Requirements

The Port Authority and/or PATH 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, Protected 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 PATH 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 Superintendent/Manager to obtain a PATH 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 PATH 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 PATH, 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 PATH 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 PATH 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. Protected Information shall mean and include collectively, as per *The Port Authority of New York & New Jersey Information Security Handbook (October 15, 2008, corrected as of November 14, 2013)*, Confidential Information, 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 Protected 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/General Manager 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 PATH (or the Port Authority as applicable) 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 PATH (or the Port Authority as applicable). Such approval may be withheld if for any reason PATH 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 | Election Day |
| Memorial Day | Veterans Day |
| Independence Day | Thanksgiving Day |
| | 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 Superintendent/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 Superintendent/Manager, any employee so assigned is performing his/her functions unsatisfactorily, he/she shall be replaced by the Contractor for Work under this Contract within twenty-four (24) hours following the Contractor’s receipt of the Superintendent/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 Superintendent/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 Superintendent/Manager. The Contractor will also be responsible for ensuring that its employees are wearing shoes appropriate for the tasks performed. The Superintendent/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.

PATH 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 PATH 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 Superintendent/Manager, PATH 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 Superintendent/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 PATH 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 Superintendent/Manager. Any vehicle used by the Contractor hereunder shall be marked or placarded, identifying it as the Contractor's vehicle.

45. Superintendent/Manager's Authority

In the performance of the Work hereunder, the Contractor shall conform to all orders, directions and requirements of the Superintendent/Manager and shall perform the Work hereunder to the satisfaction of the Superintendent/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 Superintendent/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 Superintendent/Manager objects. Upon request, the Superintendent/Manager shall confirm in writing any oral order, direction, requirement or determination.

The Superintendent/Manager shall have the authority to decide all questions in connection with the Services to be performed hereunder. The exercise by the Superintendent/Manager of the powers and authorities vested in him/her by this section shall be binding and final upon PATH 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 (MBE/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. MBE/WBE Good Faith Participation

The Contractor shall use every good-faith effort to provide for participation by Port Authority certified Minority Business Enterprises (MBEs) and Port Authority certified Woman-owned Business Enterprises (WBEs) in all purchasing and subcontracting opportunities associated with this Contract, including purchase of equipment, supplies and labor services. If this Contract contains participation goals, the Contractor shall use good faith efforts to achieve the goals.

Good faith efforts to include participation by Port Authority certified MBE/WBEs shall include, but not be limited to 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 MBE/WBEs as may be appropriate.
- C. Soliciting services and materials from a Port Authority certified MBE/WBE or seeking MBE/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 MBE/WBEs on a timely basis.
- E. Observance of reasonable commercial standards of fair dealing in the respective trade or business.

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, including an inspector general of a governmental agency or public authority.

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 March 11, 2014, or as may be revised, (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 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 in this Part III, Sections 1 and 2, shall be deemed to have been 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 Chief Procurement Officer 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 March 11, 2014, or as may be revised (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 Chief Procurement Officer in writing of such situation giving the full details thereof. Unless the Contractor receives the specific written approval of the Chief Procurement Officer, the Contractor shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. The Chief Procurement Officer 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 Chief Procurement Officer and shall become a requirement, as though fully set forth in this Contract. In the event the Chief Procurement Officer 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 Chief Procurement Officer to be no longer appropriate because of such preclusion, then the Chief Procurement Officer 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.

ATTACHMENT E - PROPOSER GENERAL REFERENCE FORM

Name of Proposer: _____

Please provide a minimum of three (3) customer references on the firm's performance of similar work within the last four years, including current contracts.

Include the following information for each reference:

Customer Name: _____

Address: _____

Contact Name and Title: _____

Contact E-mail Address: _____

Phone and Fax Numbers of Contact: _____

Contract Start date(s): _____

Contract End date: _____

Contract Cost: _____

Description of work (including services provided, products and versions):

